



TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
CHAPTER A: GETTING STARTED	9
1. INTRODUCTION	9
1.1 General Description of the System.....	10
1.2 Hardware Overview	11
1.3 Software Overview	13
2. INSTALLATION INSTRUCTIONS	15
2.1 System Requirements	15
2.2 Decide where to Locate the Server	16
2.2.1 SQL Database installed on the Server	16
2.2.2 SQL Database installed on the Cabinet PC	18
2.3 Install SQL Express 2008 R2	19
2.4 Install MATRIX-TM Setup.....	24
2.5 Register Matrix.....	33
2.6 Install MATRIX Tools.....	34
3. WORKING WITH MATRIX-TM.....	38
3.1 Connect to the Database	38
3.2 MANAGE module	40
3.2.1 Login to MANAGE	40
3.2.2 Adding Users	42
3.2.3 Adding Suppliers.....	42
3.2.4 Adding Items.....	43
3.2.5 Adding Cabinets, Drawers and Bins.....	44
3.2.6 Set TOUCH Definitions.....	45
3.3 TOUCH module	48
3.3.1 Login to TOUCH	48
3.3.2 Checking the Connection to Cabinets	50
3.3.3 Issue	50
3.3.4 Receive	51
3.3.5 Return	51
3.3.6 Adjust.....	52
3.3.7 Count	52
3.3.8 Transfer.....	53
3.3.9 Change Issue.....	53
3.3.10 Receive without Order	54
3.3.11 Requests.....	54
3.3.12 Gauges	54
3.4 Important Tips.....	55
CHAPTER B: MATRIX-TM MANAGE MODULE	56
4. MANAGE INTERFACE AND INITIAL OPERATIONS.....	57
4.1 Login to the MANAGE System	57
4.2 The System's Desktop	58
Main Menu	59
Toolbar 63	
4.3 Operational Principles	65
Search for a record	66
Change search view	67
Add a record	68
Update record	69
Delete a record	71
Shortcut keys	71
4.4 Definition of Common Terms.....	72
5. BASE ENTITIES	74



5.1	Supplier.....	74
5.1.1	Tab: General.....	74
5.1.2	Tab: Order Parameters.....	76
5.2	Cabinet.....	77
5.2.1	Cabinet Types.....	77
5.2.2	Adding a Cabinet.....	79
5.2.3	Deleting an Entire Cabinet.....	89
5.2.4	Adding Drawer Types	90
5.3	Bin.....	93
5.3.1	Adding a Bin	94
5.3.2	Deleting a Bin	105
5.3.3	Bin Location	106
5.4	Item	108
5.4.1	Adding Items.....	108
5.4.2	Copying an Item.....	126
5.4.3	Kit Management.....	128
5.4.4	ITEM Life Cycle	129
5.4.5	Add Images to Items.....	133
5.4.6	Key Management.....	134
5.4.7	Serial Items Management.....	137
5.4.8	Gauge Management.....	145
5.4.9	Transactions with Serials.....	154
5.5	Additional Fields	158
5.6	Defaults List.....	159
6	STOCK MANAGEMENT LEVELS	160
6.1	Stock Levels	160
6.2	Stock ROLL-UP by System Options 904 & 905	163
7	ORDERS (STANDARD, REWORK AND INTERNAL)	164
7.1	Create Manual Orders	167
7.1.1	Tab: General.....	168
7.1.2	Tab: Details.....	171
7.1.3	Tab: Additional Fields	178
7.1.4	Tab: Links	180
7.1.5	Tab: Address	181
7.2	Create Automatic Orders	183
7.2.1	Manual User Definitions.....	183
7.2.2	Schedule the Automatic Orders.....	189
7.3	Sending an Order to Supplier	191
7.4	Order Invoice Entry.....	192
8	STOCK TRANSACTIONS.....	195
8.1	RECEIVE Items	195
8.1.1	Receive Rules.....	196
8.1.2	Receive with MATRIX-TM Order	197
8.1.3	Receive without Order	200
8.2	TRANSFER (Internal) Order.....	201
8.3	RETURN Order to Supplier	203
8.4	RETURN Items to Stock	205
8.4.1	Return Rules.....	205
8.4.2	Return Item to Cabinet.....	206
8.5	ISSUE Item	208
8.5.1	Issue Kit	211
8.5.1	Issue Confirmation.....	214
8.6	STOCK COUNT.....	215
8.7	STOCK TRANSFER	217
8.8	Recorded Stock Transactions	218
8.8.1	Tab: General.....	221
8.8.2	Tab: Costs	224
8.8.3	Tab: Cost Center	225
8.9	PRICES of Items and Transactions.....	226



8.10	Managing Consignment Stock.....	228
9	REPORTS	229
9.1	Advanced Reports	229
9.1.1	Creating a new report	230
9.1.2	Saving a Report.....	237
9.1.3	Finding a Saved Report.....	238
9.2	Transactions Reports.....	239
9.2.1	Basic Transactions Report.....	239
9.2.2	Advanced Transactions Report	239
9.2.3	Issue / Return Comparison.....	240
9.3	Stock Reports	241
9.3.1	Advanced Stock Report.....	241
9.3.2	Dead Stock by Item	242
9.3.3	Dead Stock by Cabinet Report	243
9.3.4	Dead Stock by Bin	244
9.3.5	Advanced Dead Stock Report	245
9.3.6	Stock by Bin	245
9.3.7	Stock by Cabinet.....	245
9.3.8	Stock by Item	246
9.3.9	Min Comparison.....	246
9.3.10	Max Comparison.....	246
9.3.11	Stock Surplus Report.....	247
9.4	Usage Reports.....	248
9.4.1	Basic Usage Report.....	248
9.4.2	Advanced Usage Report.....	248
9.5	Stock Shortage	250
9.5.1	Stock Shortage Report	250
9.5.2	Advanced Stock Shortage	251
9.5.3	Early Warning Report	251
9.5.4	Advanced Early Warning Report	252
9.6	Stock Valuation Reports	252
9.6.1	Valuation by Bin report	253
9.6.2	Valuation by Cabinet report	253
9.6.3	Valuation by Item report.....	253
9.7	Orders Report	254
9.7.1	Basic Orders Report	254
9.7.2	Advanced Orders Report.....	254
9.7.3	Orders Simulator.....	255
9.7.4	Overdue Orders Report	256
9.7.5	Invoice Control.....	257
9.7.6	Advanced Invoice Report.....	257
9.8	Additional Fields Report.....	257
9.8.1	Basic Additional Fields Report.....	257
9.8.2	Additional Fields - Advanced Items Report	258
9.8.3	Additional Fields - Advanced Bins Report	259
9.8.4	Additional Fields - Advanced Orders Lines Report	260
9.8.5	Additional Fields - Advanced Kits Report	260
9.9	Interface Reports	261
9.9.1	In/Out Requests Report.....	261
9.9.2	Interface Report	262
9.10	Items Reports	262
9.10.1	Item-Supplier Report.....	263
9.10.2	Kits Report	263
9.10.3	Item Catalog Pictures	264
9.10.4	Item Catalog Pictures by Cabinet	265
9.10.5	Items-Cost Centers.....	266
9.10.6	Alternative Items Report	266
9.10.7	Quantity Discount	267
9.11	Gauges Reports.....	268



9.11.1	Calibration History	268
9.11.2	Advanced Serial Items Report.....	268
9.11.3	Gauges Measurement Report	269
9.12	Administration Reports	269
9.12.1	User Groups	269
9.12.2	Bin Limitation	269
9.12.3	History Log.....	271
9.12.4	Advanced History Log Report.....	272
9.13	CPU – Tool Life Reports.....	272
9.13.1	Advanced CPU Report by Line.....	272
9.13.2	Advanced Tool Life Report by Line	273
9.13.3	Advanced CPU Report	273
9.14	Bin Units Report.....	273
9.15	Cost Center Links	274
9.16	Links Report.....	275
9.17	Saved Advanced Reports	275
9.18	Analyzer	276
10	HELP AND TECHNICAL SUPPORT	282
10.1	MANAGE Help Documentation	282
10.2	Sending Logs from MATRIX-TM	283
10.3	Create an Email Report	284
CHAPTER C: MATRIX-TM TOUCH MODULE.....		285
11	REQUIRED PRE-DEFINITIONS FOR TOUCH SYSTEM	286
11.1	Define the Touch definition for computer.....	286
11.2	Define the Touch - Cabinet definition for computer.....	286
12	TOUCH INTERFACE AND INITIAL OPERATIONS	288
12.1	Login to the TOUCH Module	288
12.2	Main TOUCH Menu	289
12.3	Operating Principles	290
12.3.1	Basic System Operating Buttons.....	290
12.3.2	Virtual Keyboard	292
12.3.3	Barcode Interface	293
12.3.4	Search Screens	294
12.3.5	Adjust Search Screens	300
12.3.6	Item Information.....	303
12.4	Change Password	305
12.5	Advanced	306
12.5.1	Cabinet.....	308
12.5.2	Site Mapping.....	309
12.5.3	Error	312
12.5.4	History Log.....	313
12.5.5	Local Information	313
12.5.6	System Options	314
12.5.7	Advanced	315
13	SYSTEM OPERATIONS	316
13.1	ISSUE Item	316
13.1.1	Issue a Kit	323
13.1.2	Issue an Item from Locker	328
13.1.3	Issue Items by Cost Centers.....	330
13.1.4	Issue a 'Serial Item'.....	330
13.1.5	Virtual Issue	332
13.2	RECEIVE Item	333
13.3	RETURN Item	340
13.4	ADJUST ITEM	344
13.5	COUNT BINS.....	347
13.6	TRANSFER ORDER	349
13.7	CHANGE ISSUE.....	353
13.8	RECEIVE without ORDER	357



13.9	Working with Key to Lockers	360
13.10	IN / OUT REQUESTS.....	362
13.11	GAUGES	362
13.11.1	Send to Calibration	363
13.11.2	Return from Calibration.....	364
14	COMMON PROBLEMS.....	367
14.1	Machine problems	367
14.2	Error Message Descriptions	368
CHAPTER D: SYSTEM ADMINISTRATION		369
15	SETTINGS	370
15.1	Settings configuration	370
15.2	Working with different languages	371
15.2.1	Defining Texts	372
15.2.2	Search Texts.....	372
15.3	Override Settings definitions.....	374
16	SYSTEM TABLES	375
16.1	Currency	375
16.2	Item Category	376
16.3	Item Group.....	376
16.3.1	Add Images to Item Groups.....	377
16.4	Item Authorizations Group	378
16.4.1	Defining Item Authorization Groups.....	378
16.4.2	Linking items to an Item Authorization Group.....	379
16.4.3	Link User Groups with the Item Authorization Group	380
16.4.4	Issue of Items subject to Authorization restrictions	381
16.5	Shipping Method.....	381
16.6	Site	381
16.6.1	Site Mapping.....	382
16.7	Budgets for Issue	383
16.7.1	Budget by Quantity of Items	384
16.7.2	Budget by Amount	387
16.8	Unit of Measure	388
16.9	Scrap Reasons	389
16.10	Application, Main Family and Sub-Family	390
16.10.1	Application	391
16.10.2	Main Family	392
16.10.3	Sub Family	392
17	SYSTEM OPTIONS	394
17.1	Table of All System Options	396
17.2	Special System Options.....	400
18	MANAGING USERS AND AUTHORIZATIONS	405
18.1	User Groups	405
18.2	Users.....	406
18.3	Authorization Manager.....	410
18.3.1	Menu Authorization.....	410
18.3.2	Controls Authorization	411
19	COST CENTERS	414
19.1	Add Cost Center Header	414
19.2	Add Cost Center Detail.....	416
19.3	Define Items per Cost Center	418
19.3.1	Link Cost Centers to ITEM.....	420
19.3.2	Link Items to COST CENTER	423
19.4	User Cost Centers	427
20	SAVINGS ACCOUNT	429
20.1	Adding "Savings Account"	429
20.2	Adding "Projects" to Savings Account	431
21	MANUAL PROCESSES	433
21.1	Monthly Process	433



21.2	Automatic PO Process.....	437
22	IMPORT DATA	439
22.1	Tables for Import.....	440
22.1.1	Import Users	440
22.1.2	Import Item Groups.....	442
22.1.3	Import Suppliers.....	443
22.1.4	Import Items and their Suppliers.....	445
22.1.5	Import Cost Centers.....	449
22.1.6	Import Bins.....	457
22.1.7	Import Stock Management Data.....	458
22.1.8	Import Requests	460
22.1.9	Import Texts.....	461
22.1.10	Import Item Links	462
22.1.11	Import Transactions	463
22.2	Tips for Preparing Input Data	466
22.3	Creating Import project.....	467
22.4	Adjusting data for import.....	468
22.5	Importing the data.....	470
22.6	Loading Import project.....	471
22.7	Tables	471
23	REPORT SCHEDULER	473
23.1	Define the reports	473
23.2	Activate the reports.....	475
24	INTERFACES	476
24.1	SAP Interface.....	476
24.1.1	Creating SAP Interface	477
24.1.2	Interface Report.....	480
24.2	IMPORT Interface.....	482
24.3	THINC Interface - IN / OUT Requests	482
24.3.1	Creating THINC Interface	485
24.3.2	Viewing THINC Requests	489
24.3.3	THINC Interface on Touch.....	490
24.3.4	THINC Requests Report.....	491
24.4	IMC GAL Interface	492
24.5	EXPORT Interface	493
24.6	General options for Interfaces	495
24.6.1	Using Reference fields for Receive	495
24.6.2	Using Outputs of Reports	498
24.7	Creating Interface Scheduler.....	498
25	ALERTS	500
25.1	Create Alerts	500
25.2	Alert types.....	502
26	ITEM/BIN LOCATION PLANNING	504
26.1	Prepare a list of pack types	504
26.2	Prepare a list of bin types	506
26.3	Prepare a list of items to be placed	510
26.4	The location process.....	512
27	CPU – TOOL LIFE	516
27.1	Production Cost List.....	516
27.2	CPU – Cost Per Unit.....	519
27.3	Tool Life	521
CHAPTER E: DATABASE ADMINISTRATION		524
28	DATABASE ADMINISTRATION	524
28.1	Backup of the Database	525
28.2	Restoring the Database	526
28.3	Activate Jobs	529
28.3.1	Jobs in MATRIX-TM	529
28.3.2	SQL Server Service Manager.....	530



28.3.3	Viewing and Activating Job.....	532
28.4	Reset SQL User Password.....	534
28.5	Network Settings.....	535
28.6	Replications	536
28.7	SQL Script Running	538
28.8	Stock Balance.....	539
28.9	Restore Defaults	540
28.10	Restore Item/Bin	541
28.11	Reset MATRIX Admin Password.....	542
28.12	History Data Options.....	542
28.13	Matrix Pictures	543
28.14	Interface.....	545
28.15	MATRIX-TM Agent	546
28.15.1	Foreword.....	546
28.15.2	Using MATRIX-TM Agent	548
28.16	Matrix-TM Settings.....	550
28.17	Send Logs by Email.....	551
28.18	Delete Logs.....	552
28.19	Process History.....	553
28.20	Local Information	553
CHAPTER F: SUMMARIES.....		554
29	COMMON PROCESSES.....	554
29.1	How to Create New Database	554
29.2	How to Create Initial Data in the Database	555
29.3	How to Operate the Database	556
29.4	How to Upgrade the Software and Database	557
29.5	How to Upgrade the Database to the currently installed software	558
29.6	How to Add a cabinet other than MATRIX.....	559
29.7	How to Add Images for Items and Item Groups	560
29.8	How to Set Authorizations for TOUCH Users.....	561
30	TROUBLESHOOTING	562
30.1	Troubleshoot - Jobs of Automatic Processes	562
30.2	Troubleshoot - Load of the Software	565
30.3	Troubleshoot - Access to the Cabinet Hardware.....	567
30.4	Troubleshoot - Import of Data.....	570
30.5	Troubleshoot - Access to Data in TOUCH.....	571
30.6	Troubleshoot - General Issues	573



CHAPTER A: GETTING STARTED

1. INTRODUCTION

In this chapter you will find a short description of the MATRIX Hardware and Software components.

MATRIX allows you to MANAGE your cutting tools and any other kind of inventory.

MATRIX hardware is an ATD (Automatic Tool Dispenser).

MATRIX-TM is a software package comprised of two main modules:

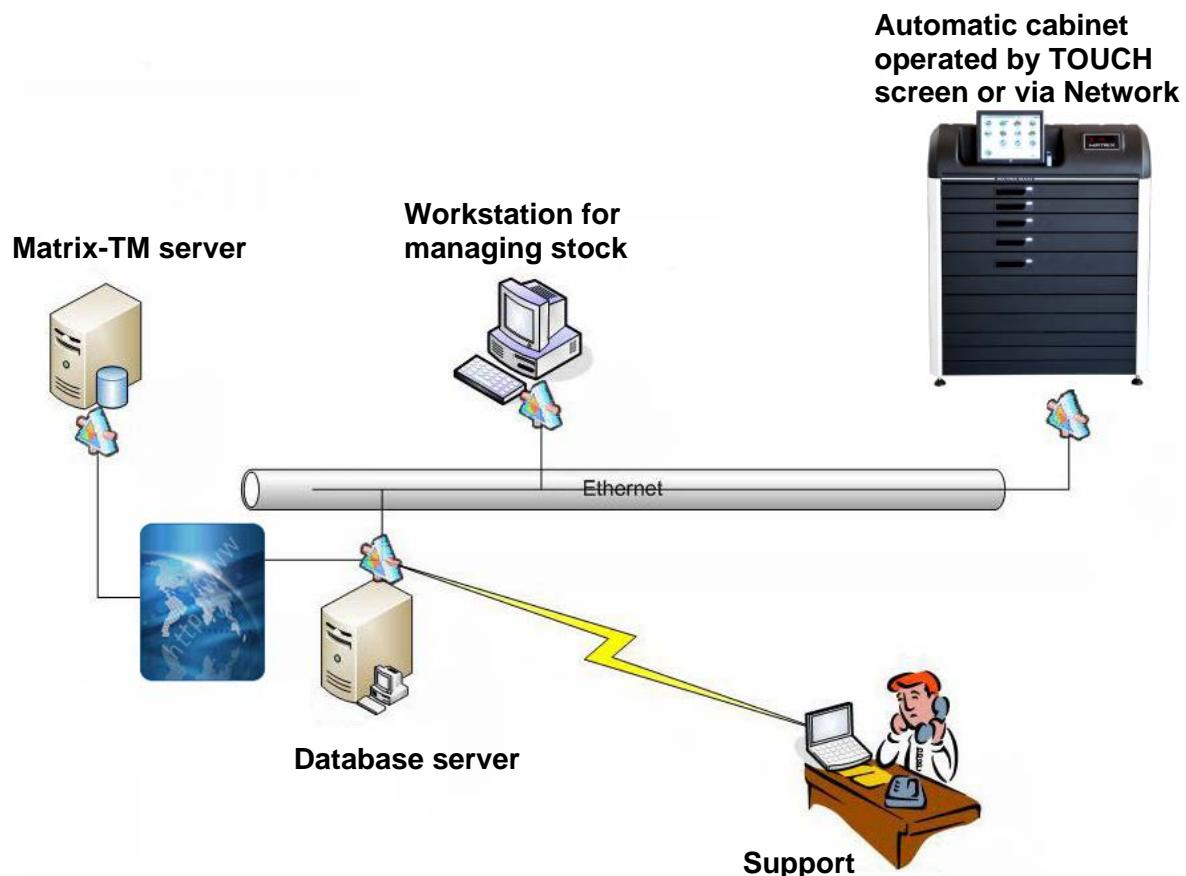
- MATRIX-TM MANAGE - the management module.
- MATRIX-TM TOUCH - the hardware interface system.

1.1 General Description of the System

The system combines an ATD with software that controls access to the ATD and management of the stock.

The software can manage an unlimited number of ATD units.

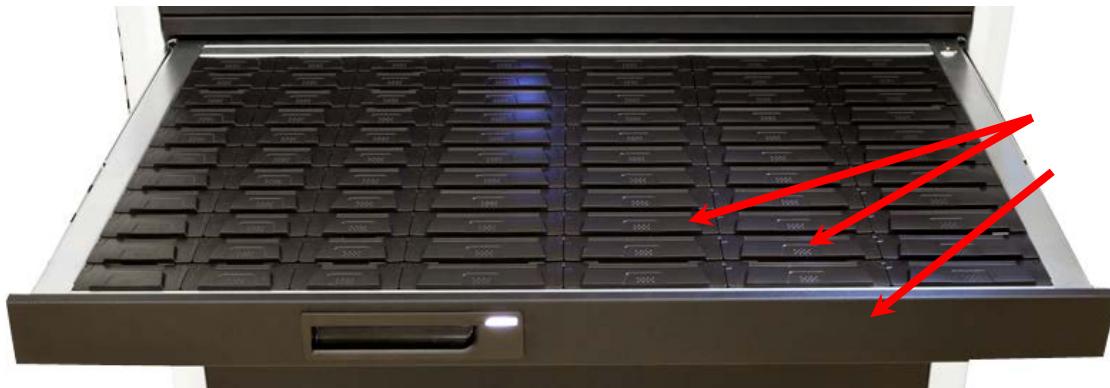
The user interface of the ATD is implemented by TOUCH screens, and the stock can also be managed from regular work stations.



For more detailed information regarding the system, please read this User Guide and the **MATRIX Hardware User Guide**.

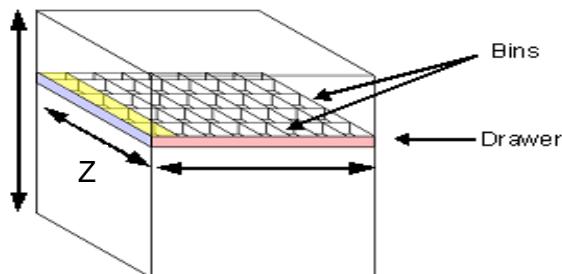
1.2 Hardware Overview

The MATRIX cabinet includes an integrated PC with its peripheral devices and a TOUCH screen on the front to operate the cabinet.



Cabinet

The cabinet houses multiple drawers that are locked, and released by a software command.



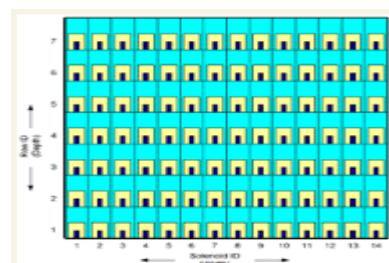
Drawer - MATRIX Series Up to 4

- Each storage drawer is divided into bins.
- In **width**, the maximum number of bin columns is **14**.

In **depth**, the maximum number of bin rows is **7**.

Drawers are supplied in pre-fixed bin configurations, ranging from 20 bins per drawer up to maximum density $7 \times 14 = 98$ bins (as seen in the diagram).

- Drawers are supplied in 3 heights: 50, 75 and 100mm.



Note: There is an exception - where a drawer is not divided into bins (open drawer), it functions as a single or multiple virtual bins.

Bin

- A bin is the basic stock management unit.
- Each bin has a cover that is locked.
- Each bin location is defined according to its X-Y-Z coordinates, known as Bin Units.

Drawer configurations – MATRIX Series Up to 4:



Note: The table below displays all the available configurations for drawers in MATRIX cabinet drawer configurations. For more details, please refer to the documentation of hardware innovations.

Type D-1	Type D-2	Type D-3
 Row 0 → Depth → u u u u u u u	 Row 0 → Depth → u u u u u u u	 Row 0 → Depth → u u u u u u u
Type D-4	Type D-5	Type D-6
 Row 0 → Depth → u u u u u u u	 Row 0 → Depth → u u u u u u u	 Row 0 → Depth → u u u u u u u
Type D-0	Type D-11	Type D-12
 Row 0 → Depth → u u u u u u u u u u u u u u u	 Row 0 → Depth → u u u u u u u u	 Row 0 → Depth → u u u u u u u u u u u u u u
(Drawer with no division to bins)	(For MATRIX Series 4)	(For MATRIX Series 4)



1.3 Software Overview

The MATRIX-TM software package comprises the MANAGE and TOUCH modules, and server services.

The software enables a user to manage an unlimited number of defined MATRIX cabinets, control the access to the cabinets and to manage the stock.

MATRIX-TM MANAGE

It is a Graphic User Interface program:

- Installed on the MATRIX Cabinet PC and other PC workstation connected to the local network.
- The module enables the user to manage the item data in the MATRIX dispenser and execute stock operations according to user authorization.
- It can also be used as a stand-alone stock management system for a manual warehouse like shelves and cabinets.
- The module supports multiple languages.

MATRIX-TM TOUCH

It is a Graphic User Interface program:

- Installed on the MATRIX Cabinet PC and operated by a touch screen attached to the cabinet. For testing or demonstration purposes, the module can also be installed on any PC and operated with no connection to an automatic cabinet.
- The module enables the user to open the drawers and bins of the MATRIX dispenser and execute a variety of stock operations, such as issuing, returning, receiving and counting according to defined user authorizations.
- The module supports multiple languages.
- Once the TOUCH module is installed, it starts automatically after the cabinet PC restarts.

Database Administration

It is a program with collection of database maintenance utilities:

- Backup, restore database and configure data replication.
- Control and monitor database jobs.
- Reset passwords.



Microsoft SQL Server Database

- Installed separately and prior to the Matrix-TM software installation.
- Installed on the Cabinet PC, other workstation or server connected to the network.
- The database manages all the data of the system and is accessed via the TOUCH and MANAGE modules; it can be maintained through the Database Administration.
- The database should never be accessed directly by the user or administrator.

Server Services

There are several background programs:

- Installed on the PC/Server running the database.
- Generate scheduled reports.
- Create automatic orders.
- Run the month end process.

VMDemo

A MATRIX Hardware control software program that has 3 operational modes.

It is used for hardware maintenance and testing purposes, and will not be needed during normal operation of MATRIX-TM.

- **Demo mode**

This mode simulates a MATRIX cabinet and allows you to work with MATRIX-TM system virtually without using the cabinet itself.

- **Machine mode**

This mode allows you to: Send; Open, or; Reset commands to drawers and bins to check their operation.

- **Gateway to TMS**

Allow other programs to work with the MATRIX cabinet.



2. INSTALLATION INSTRUCTIONS

This chapter contains basic instructions about how to install the MATRIX-TM software and how to START working with MATRIX-TM by operating **Hardware** and **Software** Tools.

Please read these instructions carefully to ensure fast and easy installation and operation of MATRIX.

2.1 System Requirements

Hardware

- Standard Intel Pentium 4 or compatible system. 1 GHZ minimum processor speed.
- Minimum memory 1GB. Windows 7 32-Bit requires a minimum of 1 GHZ or faster processor, 1GB RAM for 32-Bit and 2 GB RAM for a 64-Bit system.
- Recommended: Hard disks of minimum 40 GB divided to 2 partitions 20GB each.



Note: If you want to have full functionality of the MATRIX-TM system you will also need a MATRIX cabinet.

Software

- Operating Systems
 - Windows 2000 Service Pack 4 (SP4)
 - Windows Server 2003
 - Windows XP SP2
 - Windows Vista / 7, with the following exception:
The installation file **setup.exe** and the **Matrix-TM Settings** program must be run with "**Run as Administrator**" option (this option appears on the popup menu when making right mouse click on the file). Or if the user has administrator privileges.
 - Windows Installer 4.5 or higher.
 - Microsoft .Net Framework 4.0.
- **SQL Express 2008 R2** (Microsoft SQL Server) must be installed if the computer running MATRIX-TM is also running the SQL server.
- **MSDE SP4** (Microsoft SQL Server Desktop Engine) can be installed if the computer running MATRIX-TM is also running XP.



- **Regional Settings** and formats have to be configured according to your local language through **Windows Control Panel**.
- It is highly recommended to fully update your windows from Windows Update before installation.



Note: You must have administrative rights on the computer to install MATRIX-TM and Database.

2.2 Decide where to Locate the Server

Before making installation of all the required software, determine where the database will be located. This section includes a review of all the software components and later on, describes two options for database location and the software to be installed on each of the destined stations.

Software components:

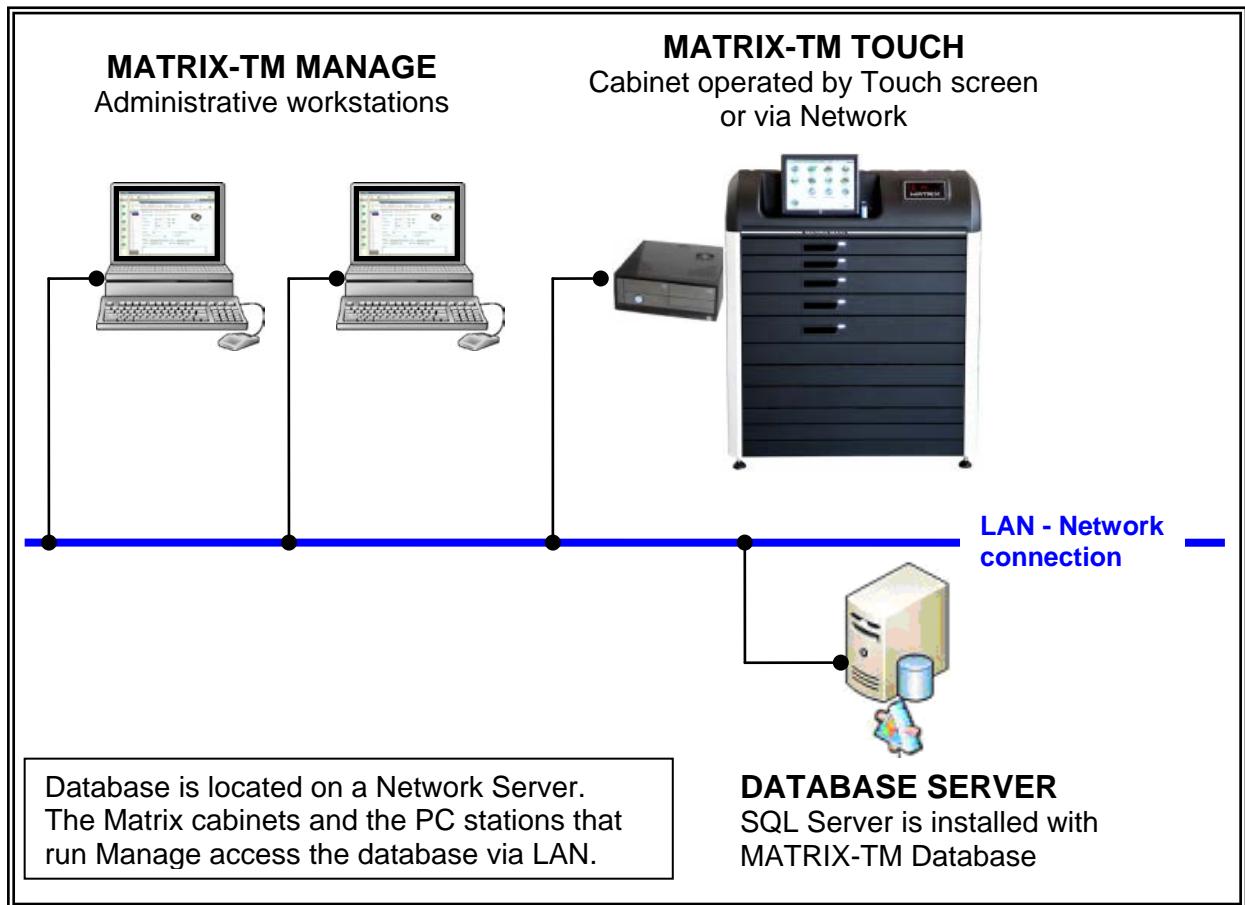
Microsoft .Net Framework 4.0: The free software that is required in order to run the Matrix Setup and using the Matrix software (run **dotNetFx40_Full_x86_x64.exe** file).

SQL Express 2008 R2: The free software (Microsoft SQL Server) that is required in order to work with databases (follow instructions described in Chapter A: [Install SQL Express 2008 R2](#) (section 2.3)).

Matrix-TM: Matrix Setup includes three modules (Server, Manage and Touch modules) that are selected in the installation process depending on the destined stations purpose (run the file ...\\SetupAll.msi as described in Chapter A: [Install MATRIX-TM Setup](#) (section 2.4)).

2.2.1 SQL Database installed on the Server

The Database is located on the external server and is accessed through the network connection from the cabinet and workstations.

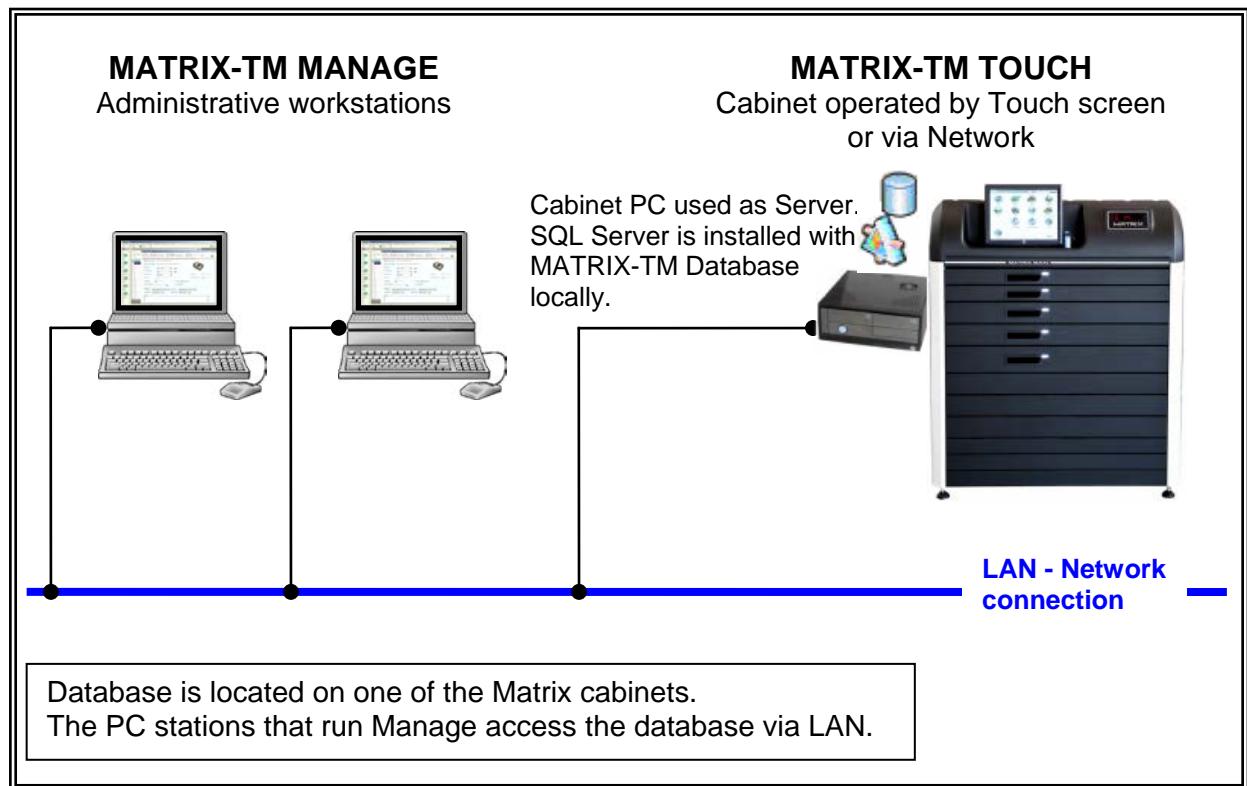


- Server:**
- 1) If not installed, install the Microsoft .Net Framework 4.0
 - 2) If Microsoft SQL Server is not installed, install SQL Express 2008 R2
 - 3) During Matrix setup install **Server** and **Manage** modules. No need to install Touch module.
- Cabinet:**
- 1) The Microsoft .Net Framework 4.0 is usually installed. If not, install the program.
 - 2) Install Matrix setup with **Manage** and **Touch** modules. No need to install Server module.
- Workstation:**
- 1) Install Microsoft .Net Framework 4.0
 - 2) Install Matrix setup with **Manage** module **only**. No need to install Server and Touch modules.



2.2.2 SQL Database installed on the Cabinet PC

The Database is located on the cabinet PC which is used as a server and is accessed through the network connection from the workstations.



Cabinet:

- 1) The Microsoft .Net Framework 4.0 is usually installed. If not, install the program.
- 2) The **SQL Express 2008 R2** is usually installed. If not, install the program.
- 3) Install Matrix setup with **Server**, **Manage** and **Touch** modules.

Workstation:

- 1) Install Microsoft .Net Framework 4.0
- 2) Install Matrix setup with **Manage** module **only**. No need to install Server and Touch modules.



Note: If you decide to install SQL on a local PC, we recommend installing SQL on the cabinet PC.

2.3 Install SQL Express 2008 R2

In order to work on a local database, you need to Install SQL Express 2008 R2.

There are two files:

SQLEXPRWT_x86_ENU – For install on Windows **32bit**

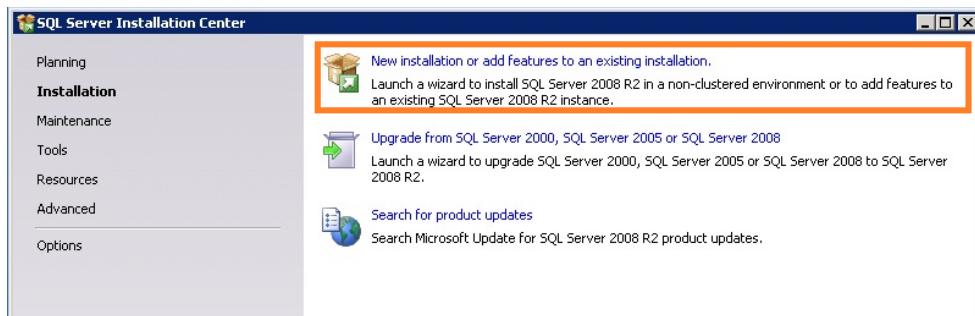
SQLEXPRWT_x64_ENU – For install on Windows **64bit**

The full installation process is described in document:

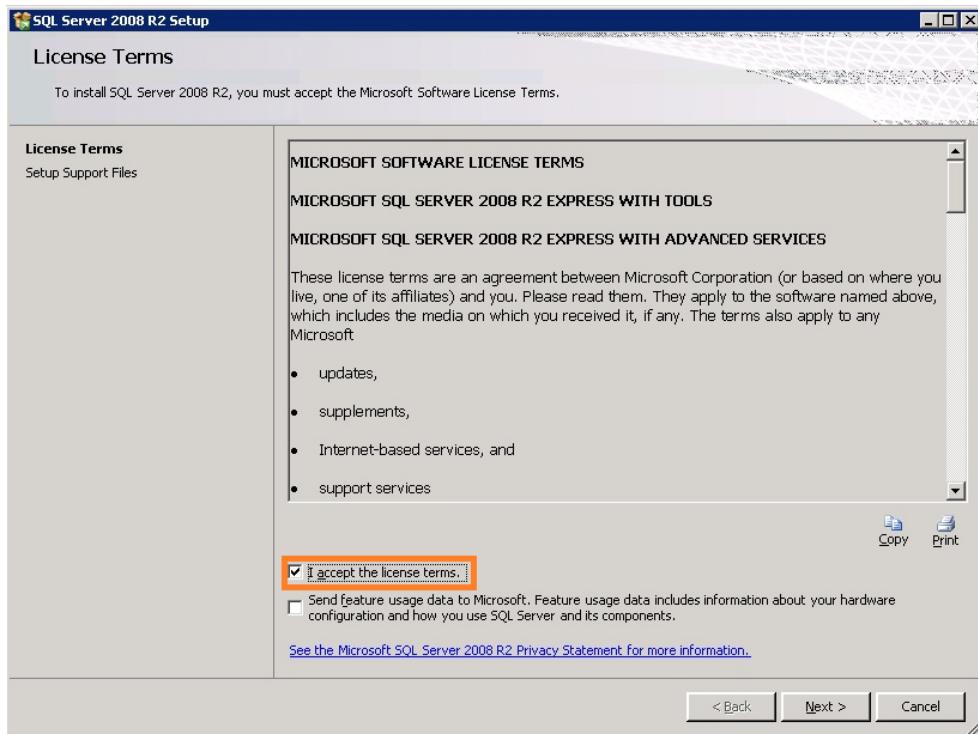
CTMS MATRIX PC Installation Manual.docx

If you don't have this file, please apply to Matrix Support.

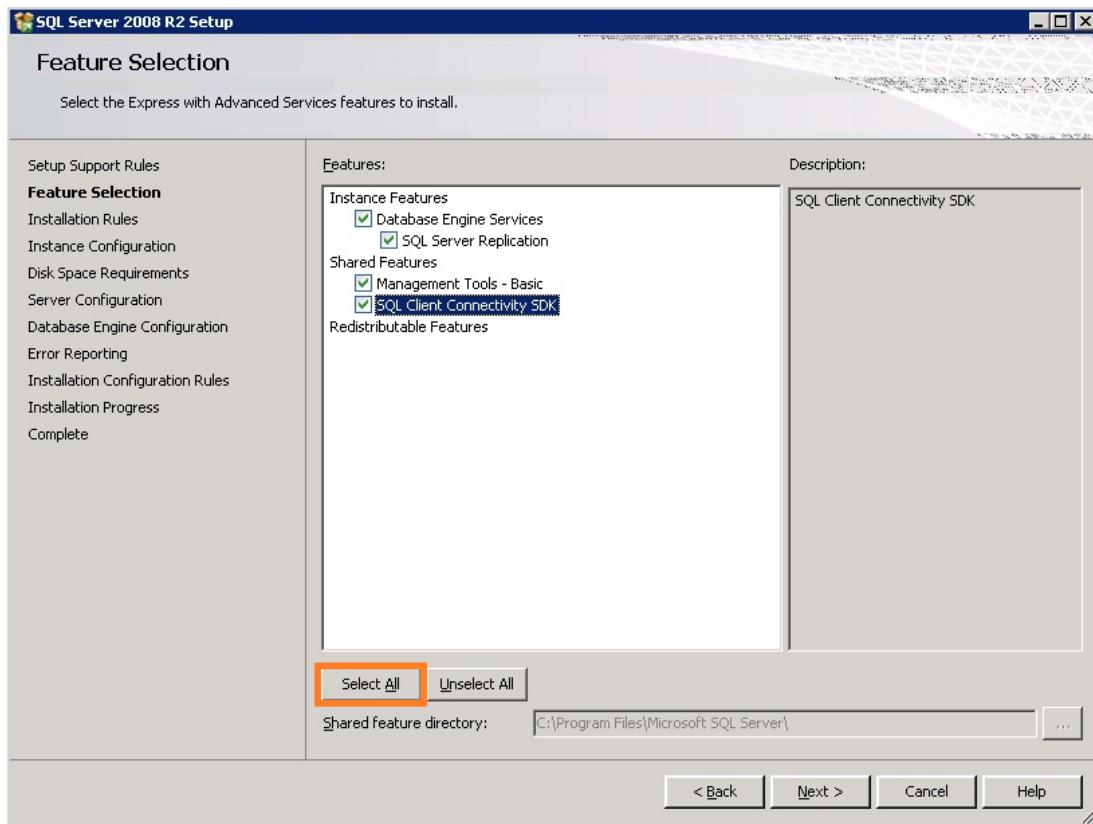
1. Run appropriate file
2. On the next screen select “New installation...” option.



3. Accept the License terms and press next.



4. Click the <Select All> button and then click the <Next> button.

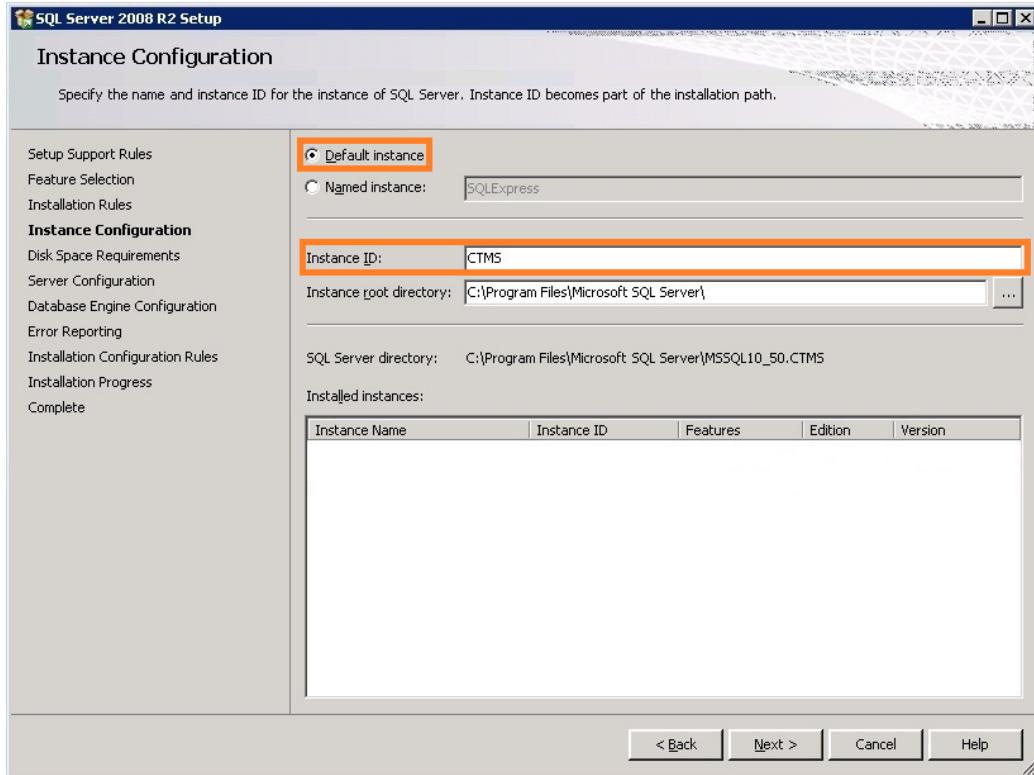


5. Select “Default Instance” option, Instance ID = CTMS.

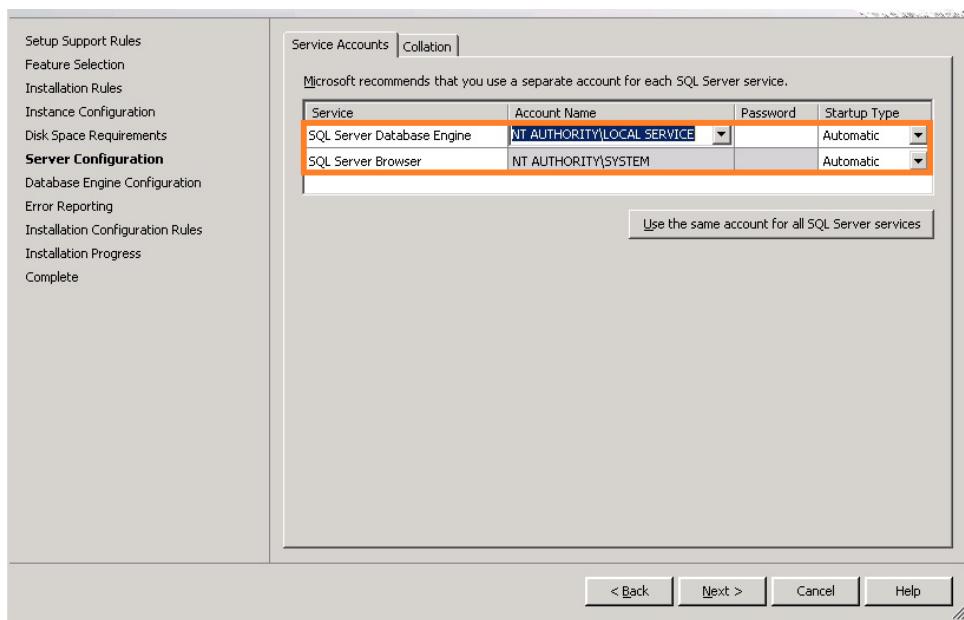


If you select “Named Instance” option, you will need to mention this name on the installation of Matrix program on the stage of Server setup. This will be also required for license.

For example: Named Instance = SQLExpress, then Server Name should be PCname\SQLExpress.



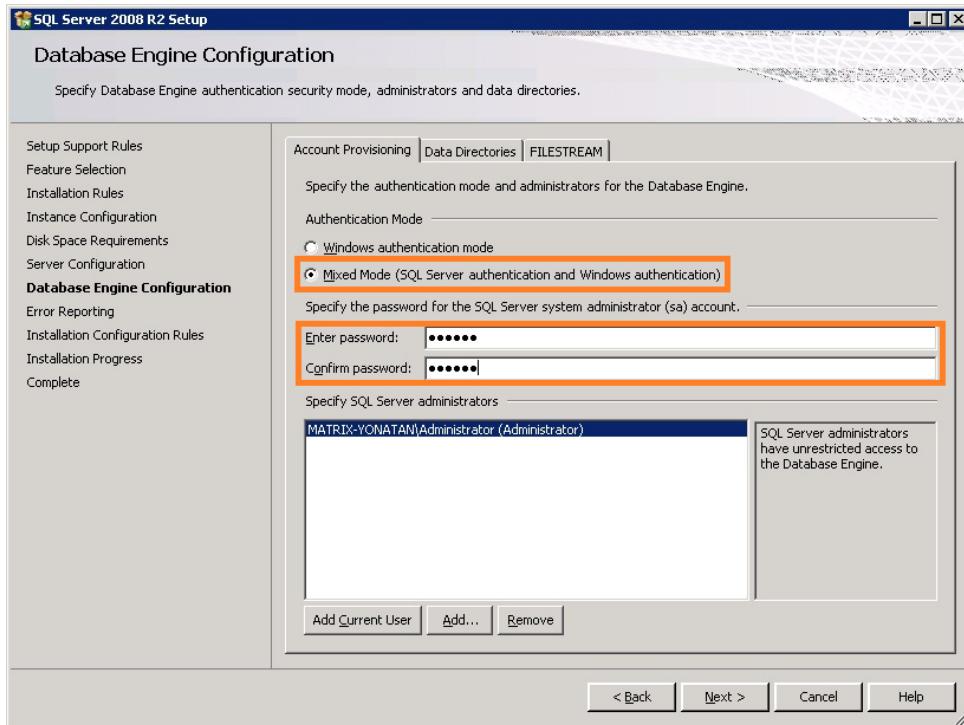
6. For both services set in the “Startup Type” to “Automatic” and click <Next>.



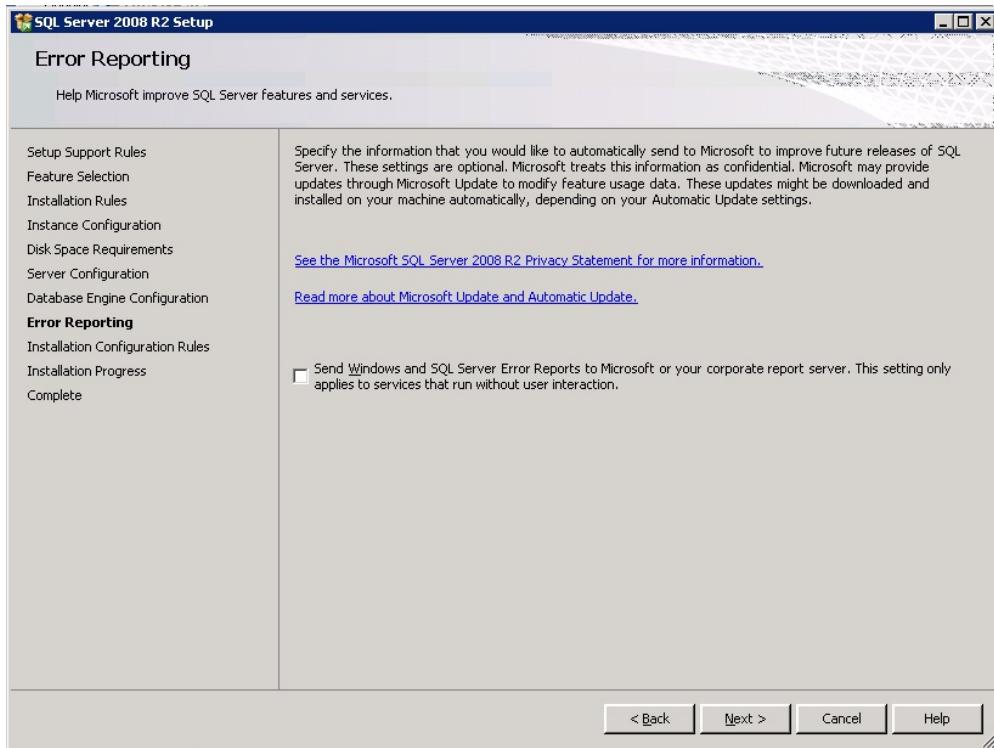
7. For “Authentication Mode” select ‘Mixed Mode’,

Enter a password for the **SA** account: **matrix**

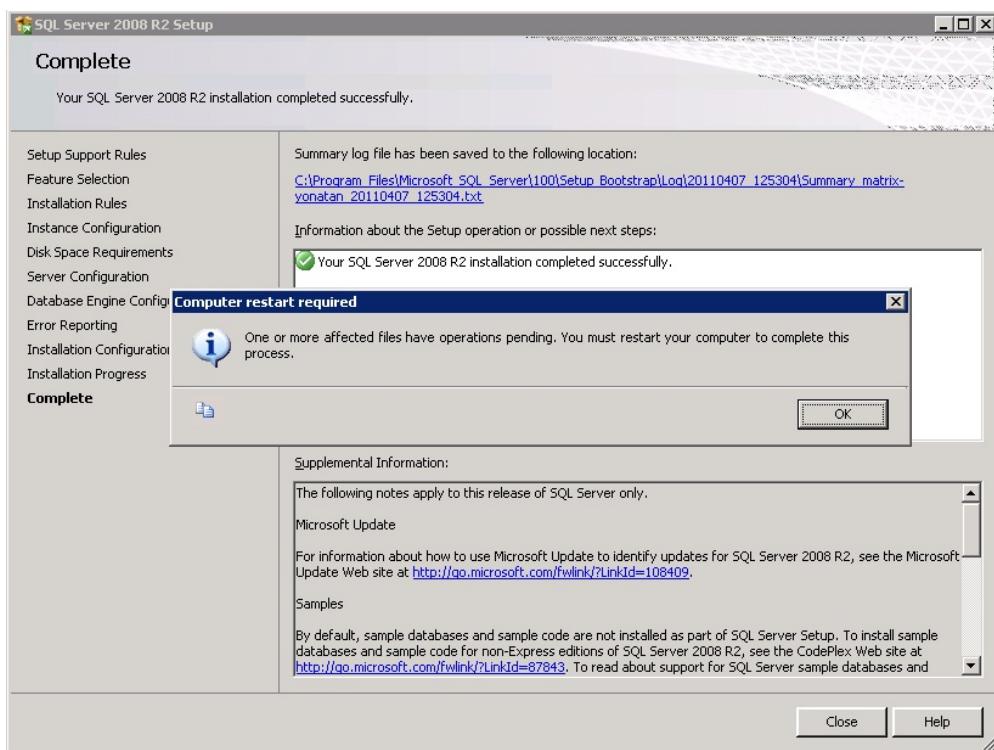
Remember and use this user/password for the installation of Matrix program on the stage of Server setup.



8. Leave the check box unmarked and click <Next> button,



9. After the installation is complete, you will may need to restart the computer,





2.4 Install MATRIX-TM Setup

This section describes the steps for installing MATRIX-TM server and clients.

The installation includes Manage, Touch and Server modules. For proper selection of modules to install, please carefully read Chapter A: [Decide where to Locate the Server](#) (section 2.2).



Important! If the PC that you are using for installation already has installed a previous version of Matrix, it is necessary to remove the existing installation before running the new setup. To remove the old software, go to **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Uninstall** and select the option '**Remove**' during uninstall.

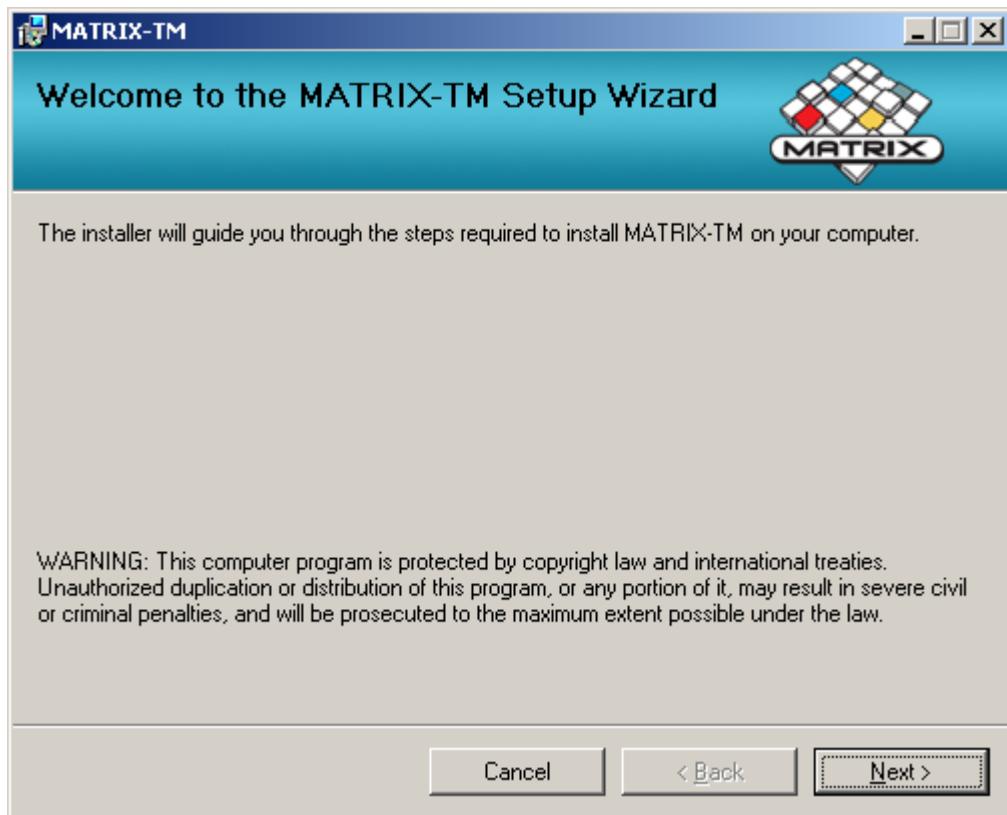
Start installation:



Note: Please notice that installation of MATRIX-TM software requires pre-installation of **Microsoft .Net Framework 4.0**. It might be that the PC's operating system already contains this software. If not, run the **dotNetFx40_Full_x86_x64.exe** file.

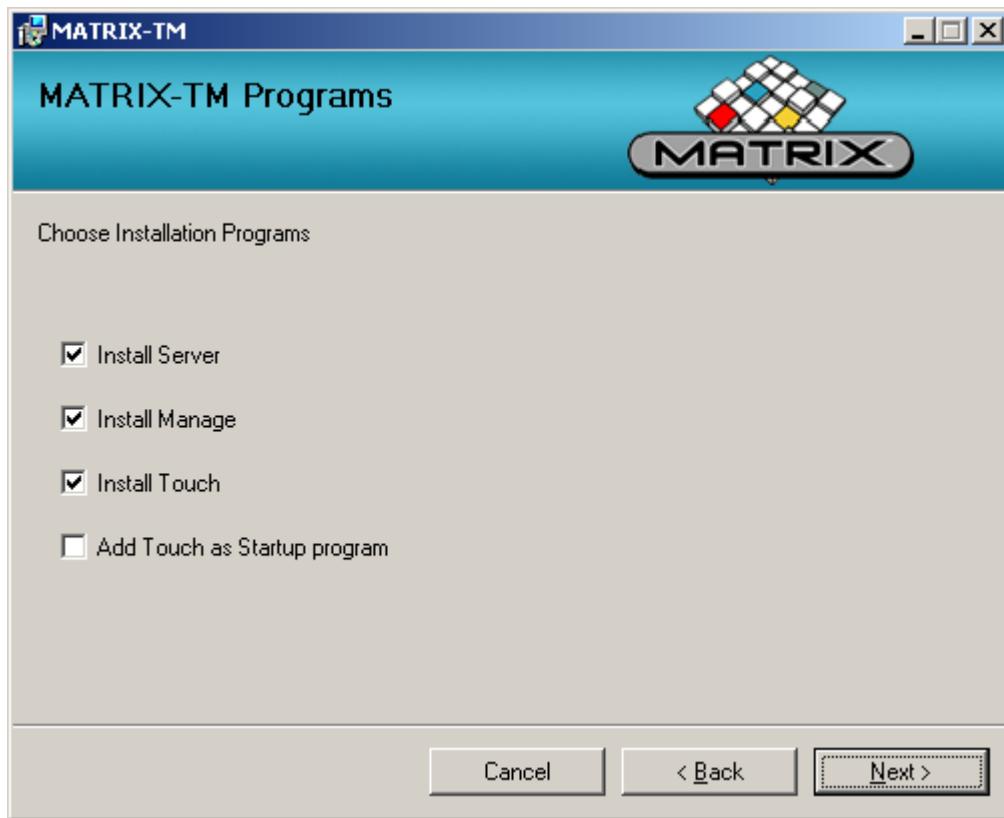
To install the MATRIX-TM software, follow these steps:

1. Run the **SetupAll.msi** file.
2. Click the **<Next>** button on the following screen:





3. Select the program modules you wish to install and click <Next> to continue:



Install Server:

A **Server module** for Database.

Choose this option if the current computer contains the Database.



Important! In order to work on a local database, you need to install **SQL Express 2008 R2** as described in Chapter A: [Install SQL Express 2008 R2](#) (section 2.3).



Note: This setup will install a new DB on your server or update an existing DB, overwriting the ITM database.

Install Manage:

A **Client module** for Administrative work.

It is recommended to choose this option whether or not the current computer is connected to MATRIX Cabinet.

Install Touch:

A **Client module** for work with the cabinet.



Choose this option if the current computer is connected to the MATRIX Cabinet.

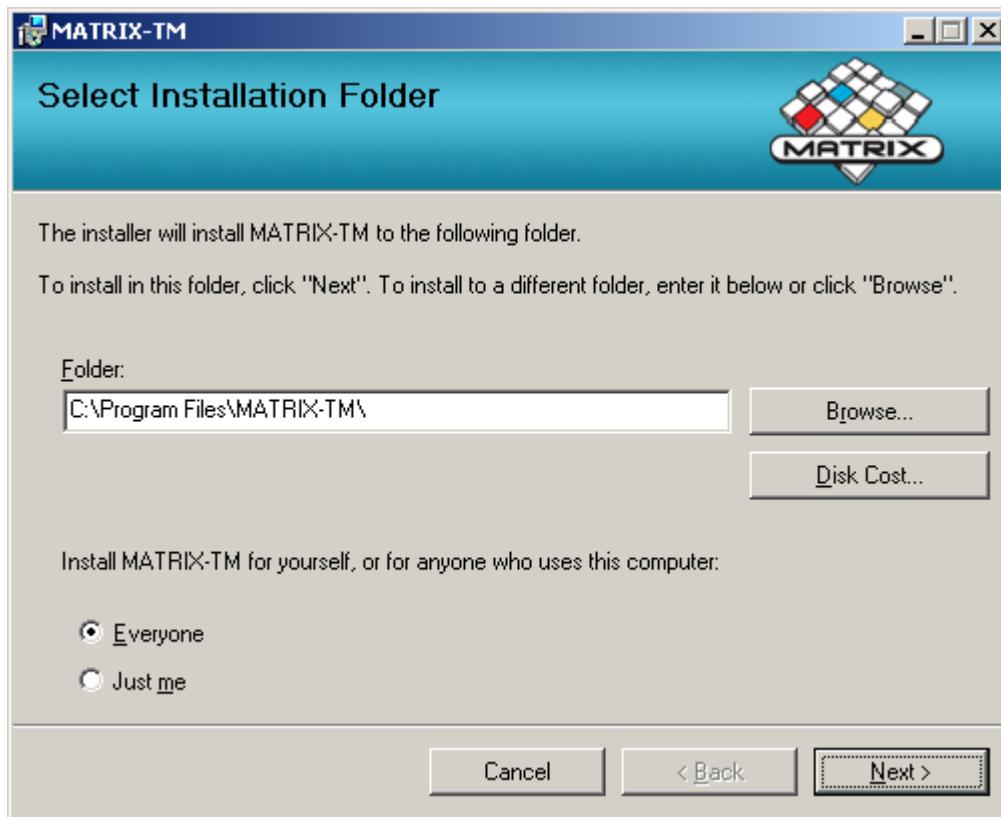


Note: This module can be installed on a computer that is not connected to a MATRIX cabinet, in order to simulate cabinet functionality.

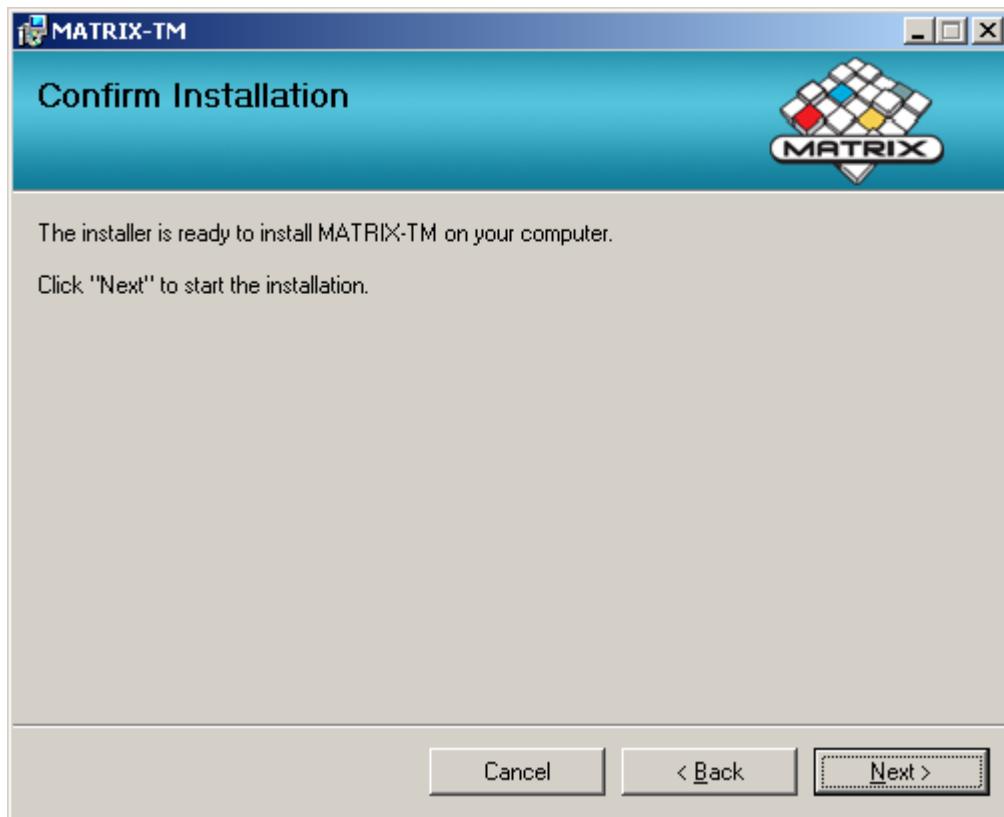
Add Touch as Startup program:

Mark this option in order to start Touch automatically after the computer is restarted.

4. Fill in the path to install the program files, choose "Everyone" to make the software accessible to all users of this computer and click [<Next>](#) to continue.



5. Click [<Next>](#) to begin installation.



If you did not check the option 'Install Server' at the beginning of this section, skip to step 9. Otherwise, continue to the following step.

6. By this step you will install a Server with a **New Database** or **Update of an existing Database**. SQL Database can be installed locally on the cabinet PC or on a server connected to the network.



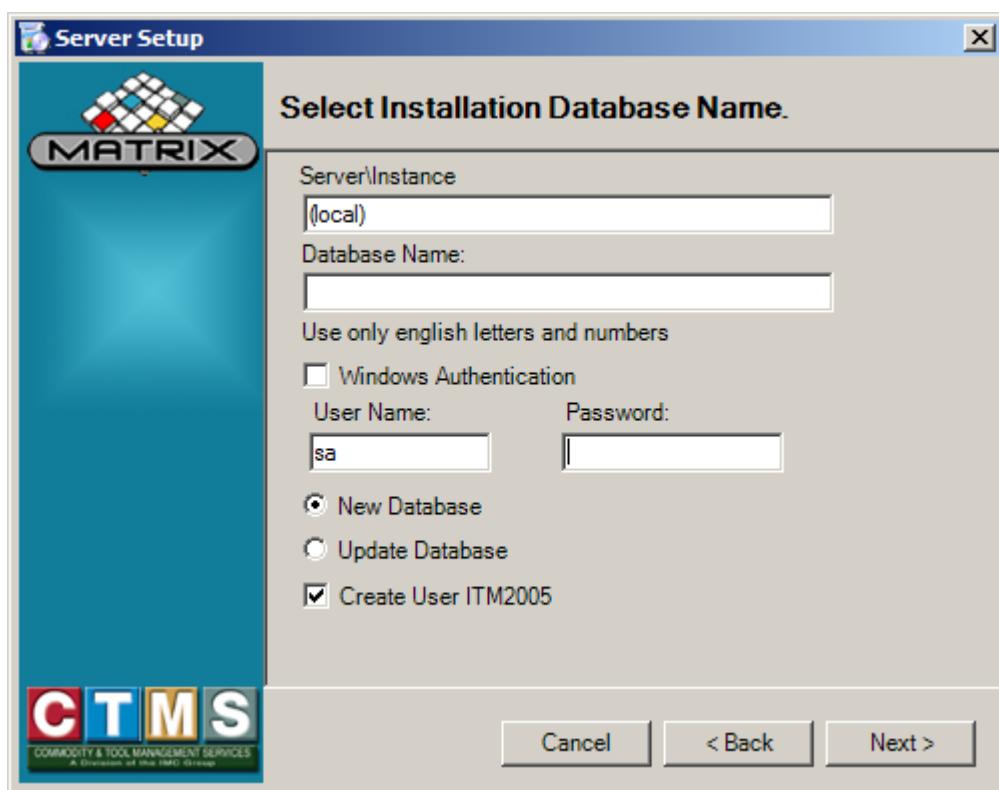
Note: The installation of Server requires pre-installation of **SQL Express 2008 R2**.

If this software is missing, follow instructions described in Chapter A: [Install SQL Express 2008 R2](#) (section 2.3).

To install server, click [<Next>](#) on the following screen to continue:



7. Fill-in the data on the following screen and click [Next >](#) to continue:





Server\Instance: Type the server-instance where the database located.

Database Name: To create a new database, type a new name (recommended to change the default 'ITM' to different name). To update an existing database, type the name of the database to be updated.

Windows Authentication: Select this option if you wish Matrix-TM to connect to database using Windows Authentication.

User Name: Type user name for the database (default is 'sa').

Password: Type password (default is empty).

New Database: Choose this option if it is the first installation or if you want to replace the current database with an empty database bearing the same name.

Update Database: Choose this option if it is not the first installation and you want to update the existing database.

The database will be updated with the new features, but your data will be saved.

Create User ITM2005: Choose this option to create default SQL User.



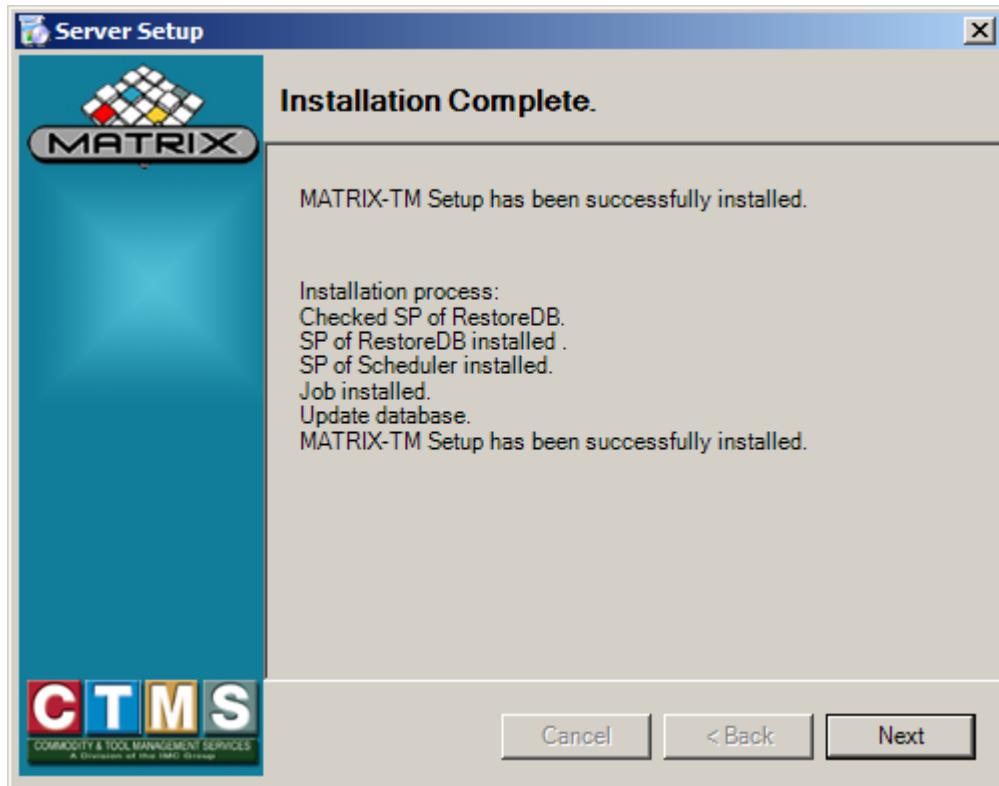
Important! The ITM database is always replaced.

8. If you chose to install "New Database" in the previous step, and a database with the same name already exists, you will get the following message:

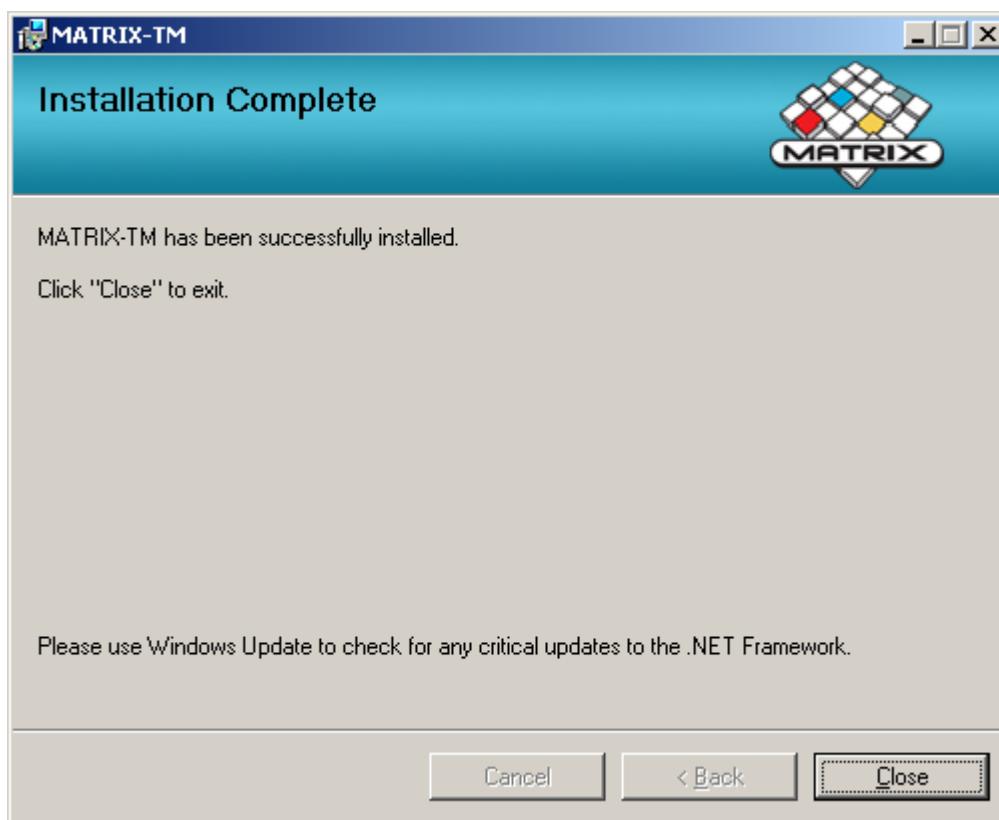


- Click **<Yes>** to **overwrite** the existing database with the database from the new installation.
- Click **<No>** to return to the previous window.

9. Click the **<Next>** button.



10. Click the [Close](#) button to finish the installation.





Note: If you marked the **Add Touch as Startup program** in the installation, then after the installation is complete, the TOUCH module will be inserted into the **Startup** programs and will run **automatically** when the PC starts.

In order to cancel the automatic run, go to "Start → Programs → Startup" and delete the **TOUCH** shortcut.



2.5 Register Matrix

After installing Matrix, the Demo version will expire after 30 days*.

To use Matrix permanently, you need to register the software.

1. Apply to CTMS Support for getting a license code and supply the following data:

Server Name: The exact server name. The next step has a snapshot with the Server name.

Database Name: The exact database name.

Number of Instances: Number of workstations that will need to run Matrix software simultaneously including the MATRIX machine's pc.

2. Run registration program:

Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Registration program.





3. Enter the license code received from CTMS Support and click [<Next>](#).

You will be notified with failure or success message.

2.6 Install MATRIX Tools

MATRIX Tools will install a simulator which allows MATRIX TOUCH to simulate a MATRIX cabinet. This simulator is used for demonstration purposes where you want to show how the TOUCH works without the need for a cabinet.



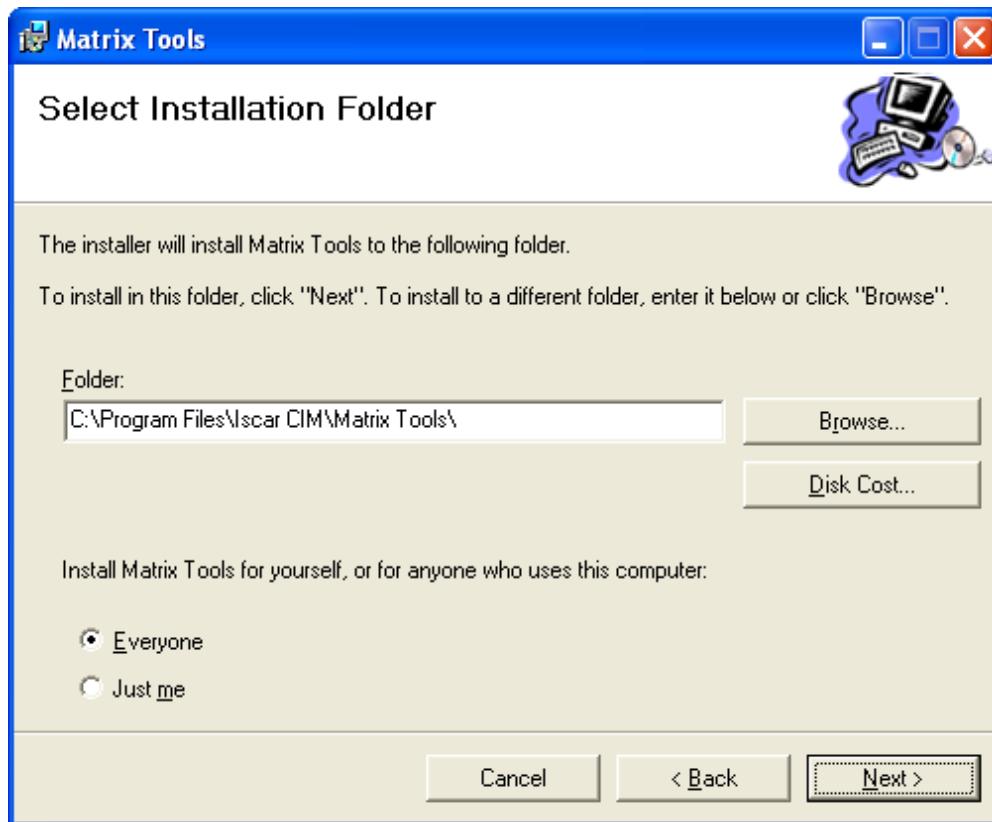
Note: If you plan to work with physical cabinet, then you do not need to install this tool and you can skip to the next instruction.

1. Click on the **VmDemoSetup.msi** file in order to check the Hardware.

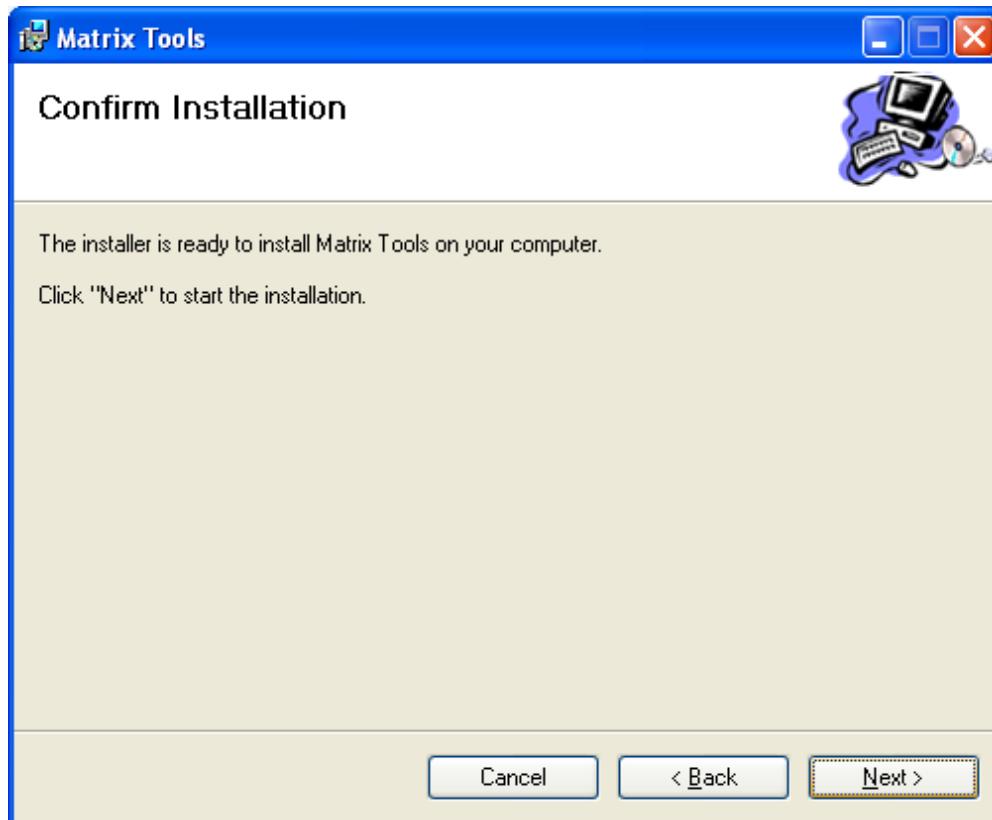




2. Choose Location.



3. Finally, click <Next> to start the MATRIX Tools Installation.



**TECHNICAL NOTES for MATRIX Tools:**

- Before you run the application, verify that a serial RS232 cable is connected between your computer and the machine controller. It can also work if your computer has 2 free serial ports. In this case you can connect a serial cable between those ports. You also need to check that you have a .Net framework 4.0 installed on your PC
- From the Start menu run the "[VmDemo](#)" application.
- On the Setup menu set the Port and Baud rate to work.
- On the Setup menu set the application to simulate (TMS/CTRL).
- If you want to send telegrams between the two applications, run the "[VmDemo](#)" again to open another application.
- Set the second application to work with (TMS/CTRL).
- Select Telegram, click the [<Send Telegram>](#) button and wait for message response.
- If you get "Timeout" message, check if the correct Port was given and the cable is connected correctly.
- If Error message appears, check the parameters given and the machine situation.



3. Working with MATRIX-TM

The section describes how to connect to the desired database and to start working with the Manage and Touch modules.

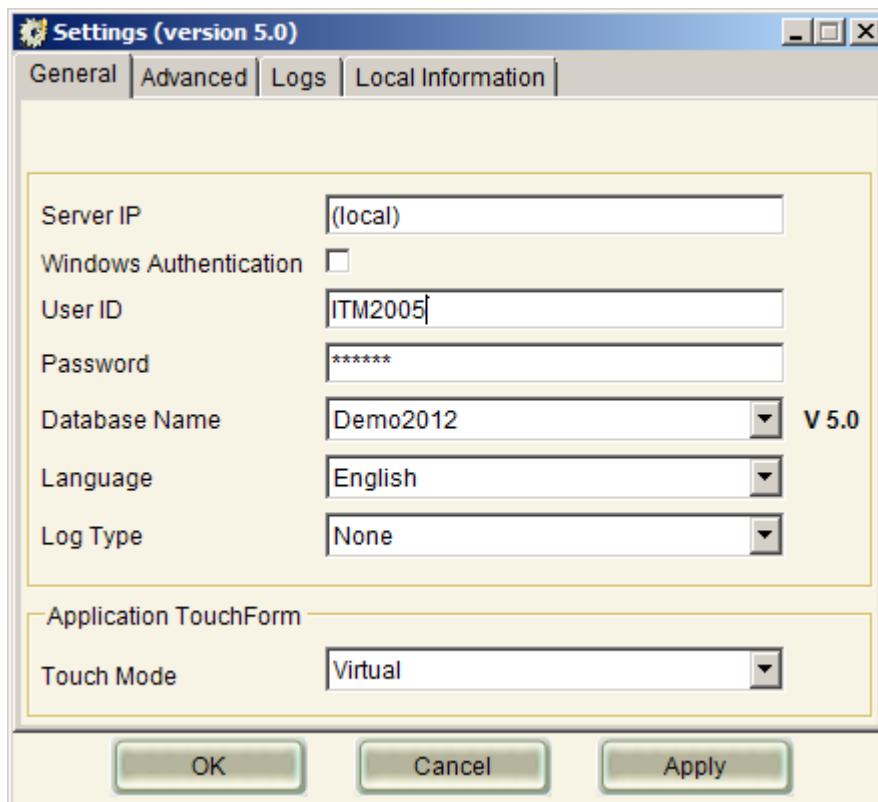
3.1 Connect to the Database

In order to start working with MATRIX-TM, you need to set the starting definitions such as database selection, basic language, etc. on the "[Settings](#)" screen.

1. In order to get to the settings screen, go to:

Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Settings.

The following screen will be displayed:



Please notice that if UAC (User Account Control) on the PC is ON, this application must be run with "**Run as Administrator**" option (this option appears on the popup menu when making right mouse click on the file).



2. Fill-in the data on the "Settings" screen.

Server IP: Server name or IP Address where the database of MATRIX is located. If the database is running on the same computer where MATRIX-TM is installed, then put in this field the name (**local**) or use period symbol (.).

Windows Authentication: Select this option if you wish Matrix-TM to connect to database using Windows Authentication.

User ID: User ID which is used to access the database (**initially will be ITM**)

Password: Password which is used to access the database (**initially will be ITM**)

Database Name: List of available databases for selection according to the chosen Server IP, User ID and Password. If there was any incompatibility with the above fields, then the list will be empty.



Note: It is not recommended to edit changes in the **ITMDemo** database since this database is used for updating databases of previous versions and is replaced when reinstalling Server.

Language: List of all the available languages for the currently selected database. Choose one.

Log File: The system is able to create logs on the selected level. Select a log level.

No: No error logs will be written.

Minimum: Logs will be written only on selected events.

Maximum: Extensive logs will be written.

TOUCH Mode: Select the mode to run TOUCH module.

Machine: Working with MATRIX cabinet.

Virtual: Working virtually with no MATRIX cabinet and no simulator.

Simulator: Working with VMDemo cabinet simulator.

Machine Log: Communication log between PC and Matrix cabinet.

Line Monitor: Opens communication window.



Note: You must check Settings definitions after installation of version upgrades.



Note: If this screen was opened while MANAGE or TOUCH module is open, then you must restart the software modules for the changes to take effect.

3.2 MANAGE module

The Manage module is an administrative tool for initializing the Matrix database with the data.

3.2.1 Login to MANAGE

Steps to login to MANAGE module:

1. Go to the **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Manage**. The "Login" screen will be displayed.
If there is any problem in running the module, please refer to Chapter A: [Connect to the Database](#) (section 3.1).



2. Fill-in the "User Name" and "Password" fields and click the <Login> button.

Initial User Name = **admin**

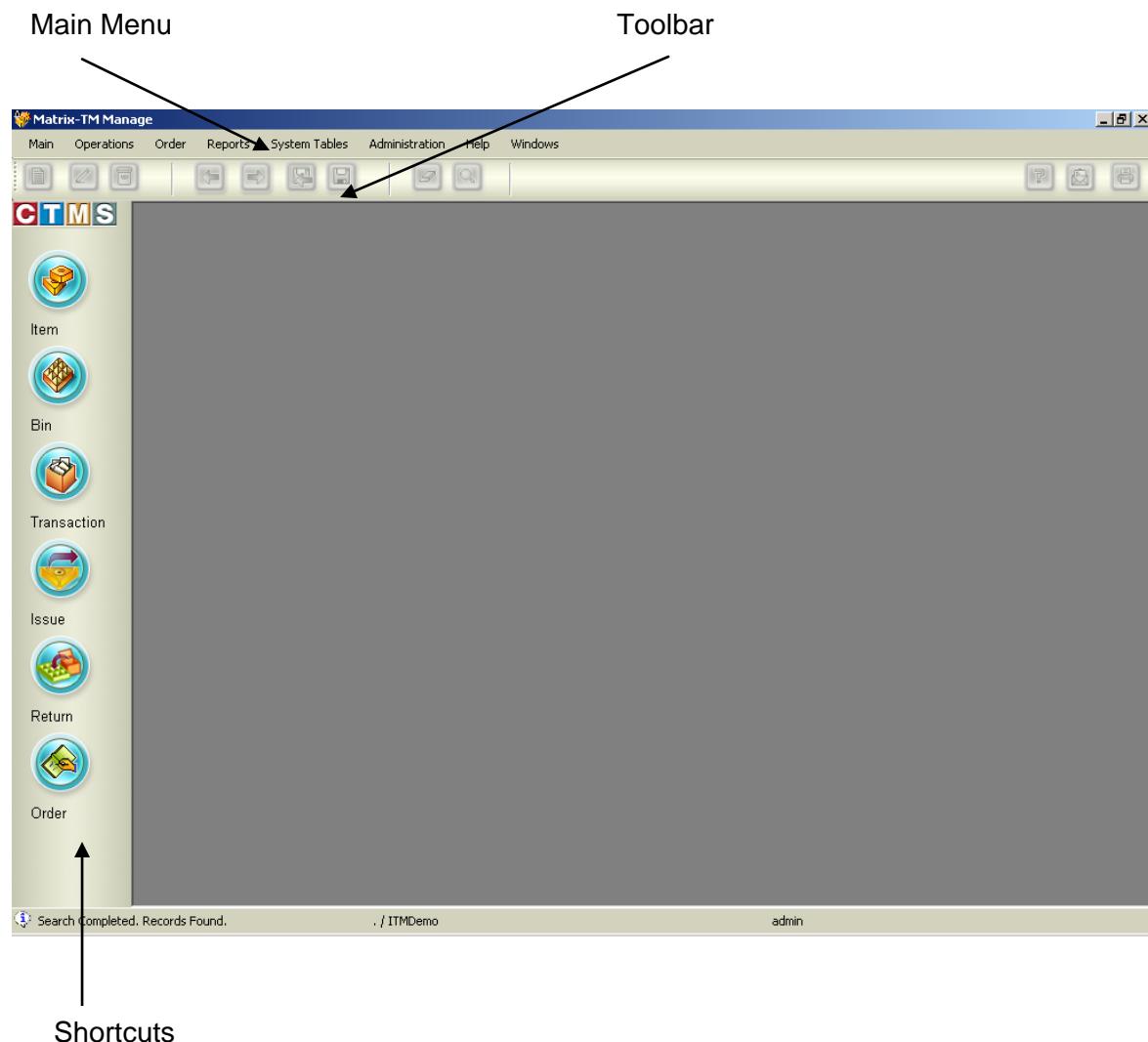
Initial Password = **admin**

If there is any problem to login, check the user name and password.



Note: After the first login, the password should be changed to ensure data security.

3. "MATRIX-TM Manage" screen will then be displayed.



Note: If a user has limited authorizations, the system will only display the authorized options after login.

After successful login to the Manage module you are ready to start working with the software by adding your data to the database. The recommended steps are described in the following sections.

3.2.2 Adding Users

After installing the software, the database will include one user called 'admin' with administrator authorities. We recommend that you create your own administrator user and login with a new user name.

1. Run **MATRIX-TM MANAGE** and login with 'admin' user.
2. Open "[Menu: Administration → Users and Authorizations → Users](#)".
3. Click the  [**<Add>**](#) button on the toolbar.
4. Fill-in User Name, Password and all the required fields for a new user.

Save the data by clicking the  [**<Save>**](#) button on the toolbar.
For this user, define the User Group with administrative authorities.
Save the data and logout by closing the application.
For more details refer to Chapter D: [Managing Users and Authorizations](#) (section 18).
5. Run **MATRIX-TM MANAGE** again and login with the **new added user**.
6. Define **new users** and **new groups of users** according to your needs - see Chapter D: [Managing Users and Authorizations](#) (section 18). Carefully plan the required user groups. It is a good idea to limit the number of user groups, for easy maintenance.



Note: For advanced use of the software, a user with administrative authorities can add users with the Import module. For more instructions, follow Chapter D: [Import Data](#) (section 22).

3.2.3 Adding Suppliers

Run MATRIX-TM MANAGE and follow these steps:

1. Select "[Menu: Main → Supplier](#)".
2. Click the  [**<Add>**](#) button on the toolbar.
3. Fill in Supplier Code, Supplier Name and all the required fields for a new supplier.

Save the data by clicking the  [**<Save>**](#) button on the toolbar.
For more details refer to Chapter B: [Base Entities -> Suppliers](#) (section 5.1).



Important! Please note that the list of suppliers already includes a supplier called 'Internal Supplier'. This supplier is automatically added when creating a new database or updating the database to version 4. The system uses this supplier for Internal Orders and prohibits deleting his record. It is also not recommended to edit its data.



Note: For advanced use of the software, a user with administrative authorities can add suppliers with the Import module. For more instructions, follow Chapter D: [Import Data](#) (section 22).

3.2.4 Adding Items

Run MATRIX-TM MANAGE and follow these steps:

1. Select "Menu: Main → Item".
2. Click the  <Add> button on the toolbar.
3. Fill Item Code, Item Description, Item Type (Durable / Expendable / Gauge / Key / Kit / Reworkable) and all the required fields for a new item.

Save the data by clicking the  <Save> button on the Toolbar.

For more details refer to Chapter B: [Base Entities -> Item](#) (section 5.4).



Note: For advanced use of the software, a user with administrative authorities can add items with the Import module. For more instructions, follow Chapter D: [Import Data](#) (section 22).



3.2.5 Adding Cabinets, Drawers and Bins

Run MATRIX-TM MANAGE and follow these steps:

Cabinet and Drawers:

1. Select "Menu: Main → Cabinet".
2. Click the <Add> button on the toolbar.
3. Fill Cabinet Code, Cabinet Name, Type, Sequence and all the required fields for a new cabinet.

Save the data by clicking the <Save> button on the toolbar.

4. Go to tab "Cabinet Units" and click the <Build Drawer> button.
Select from the list the "Drawer Position from Top" (**visual** position of the drawer), "Controller Position" (**physical** controller position of the drawer that can be seen when removing the cabinet side panel) and "Drawer Type" that are compatible to the drawer and its bins configuration, and click the <Build Drawer> button.

This will add drawers with **bins** and **bin units** to the system. Those bins will be available for editing.

Save the data by clicking the <Save> button on the toolbar.

If you wish to define virtual bins (for open drawers), bins and bin units will have to be added manually.

For more details refer to Chapter B: [Base Entities -> Cabinet](#) (section 5.2) and [Base Entities -> Bin](#) (section 5.3).

Bins:

Bins are added **automatically** when adding **Cabinet** and **Drawers**.

Bins can also be edited or added **manually** as described in the next steps:

1. Select "Menu: Main → Bin".
2. To edit an existing bin: Click the <Search> button on the toolbar to locate the bin, and click the <Update> button to open the bin maintenance screen.
3. To add a new bin manually:
 - a. Click the <Add> button on the toolbar.

- b. Fill-in the **Bin Code*** and **Cabinet Code** of the cabinet where the bin is

located and save the data by clicking the  **<Save>** button on the toolbar. The "Bin Maintenance" screen will display the bin' fields to enable the editing.



Note: Chapter B: Bin Location (section 5.3.3) describes the principles used by the software to name bins (in the Bin Code field) which are automatically created. You can use the same principle for bins defined manually.

4. Each bin should be linked to an item stored in it. A bin without an item is defined as an inactive bin.

Define "**Item Code**" of the item that will be linked to the bin, fill-in the "**Capacity**" and save the data.



Important! If you need to add bins **manually** and to access them through TOUCH, you also have to manually create the **bin units**. Without bin units you cannot access those bins in the Touch module. See more details in Chapter B: Base Entities -> Bin (section 5.3)



Note: In order to work in a more advanced mode and be able to plan your purchasing, you need to fill in the different parameters of the bin. For more instructions, follow Chapter B: Base Entities -> Bin (section 5.3).

3.2.6 Set TOUCH Definitions

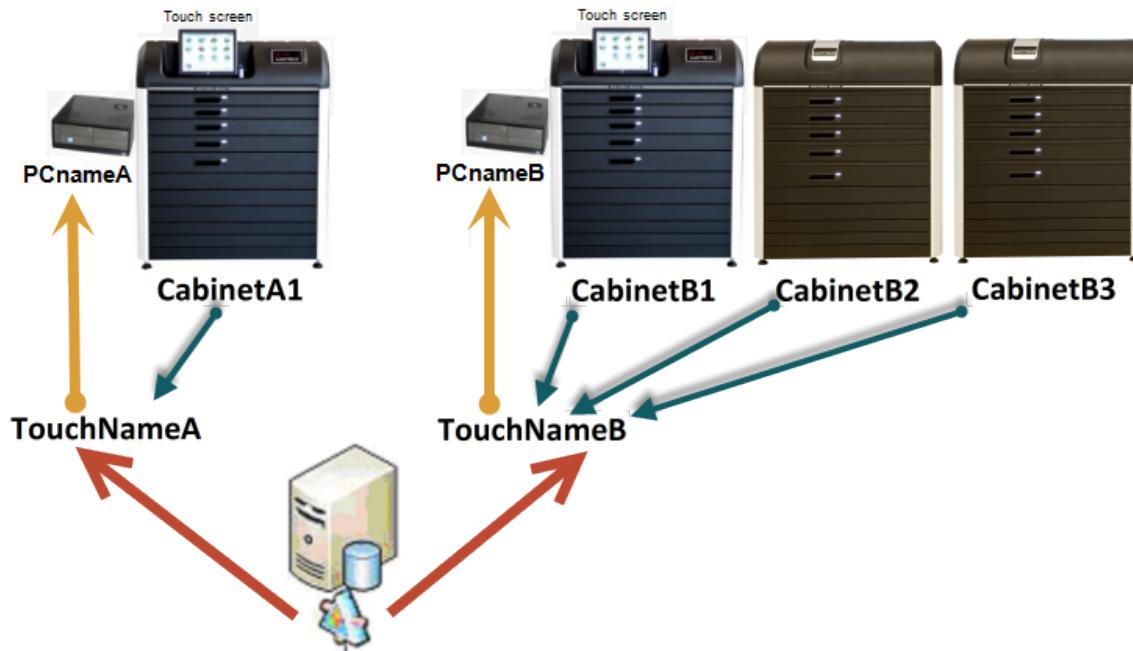
In order to work on the TOUCH module with the cabinets defined in the database, the user **must** first create TOUCH definitions in MATRIX-TM MANAGE.

A PC work station can control one Master cabinet and a number of Add-on cabinets. The Master cabinet houses the PC and touch screen. The User must create **TOUCH station definition** in the database by assigning it a **TOUCH Name** and **Computer Name** of the PC located in the Master cabinet.

Once a TOUCH station is defined, the Add-on cabinets must be defined.

For example:

In the diagram below two TOUCH Stations (the first with 1 cabinet, the second with 3 cabinets) are defined in the Server Database.



In order to create the definitions, login to the MANAGE system and follow these instructions:

Set Touch definition for computer:

1. Open "Menu: Administration → Touch Machine → Touch Machine Administration".
2. Click the  <Add> button.

The screen "Touch Maintenance" will be displayed.



3. Fill the "Touch Description" field with a significant value that describes the name of the touch station.



Fill the "Computer Name" field with the exact name of the **PC that will run TOUCH**. The value can be taken from:

Go to **that computer** Properties → follow tab "Computer Name":

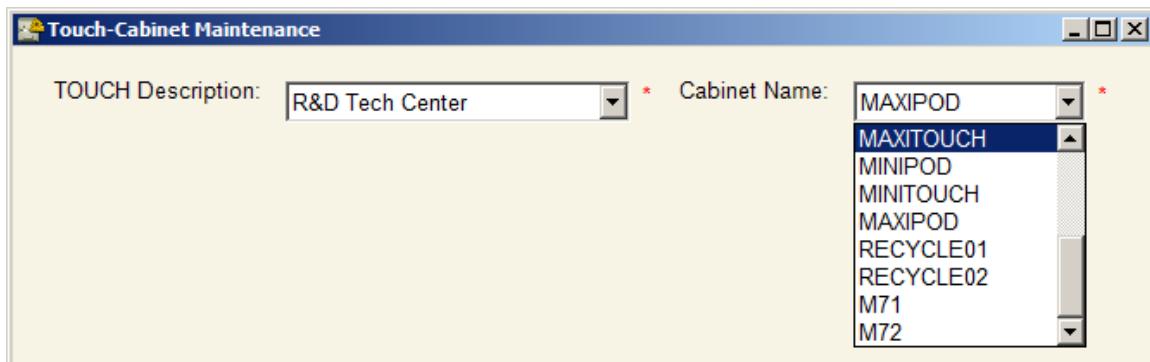
- Take the value from field "Full Computer Name" but do not include the period at the end of the name.
- Click the <Change...> button → use the value of "Computer Name" field.

Insert the value in MANAGE and click the <Save> button.

Connect the cabinet/s to previously defined TOUCH Name:

4. Open "Menu: Administration → Touch Machine → Touch-Cabinet".
5. Click the <Add> button.

The screen "Touch-Cabinet Maintenance" will be displayed.



6. For field "Touch Description" select the previously created Touch description.
For field "Cabinet Name" select the cabinet you want to attach to the Touch.

Click the <Save> button and close the screen.

In order to attach more cabinets to the current Touch, repeat steps 4-6.



3.3 TOUCH module

3.3.1 Login to TOUCH

Follow these steps to login to TOUCH module.

1. Go to the **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Touch**.

If there is a problem in running the module, please refer to Chapter A: [Connect to the Database](#) (section 3.1).

The "Welcome to MATRIX-TM Login" will be displayed.

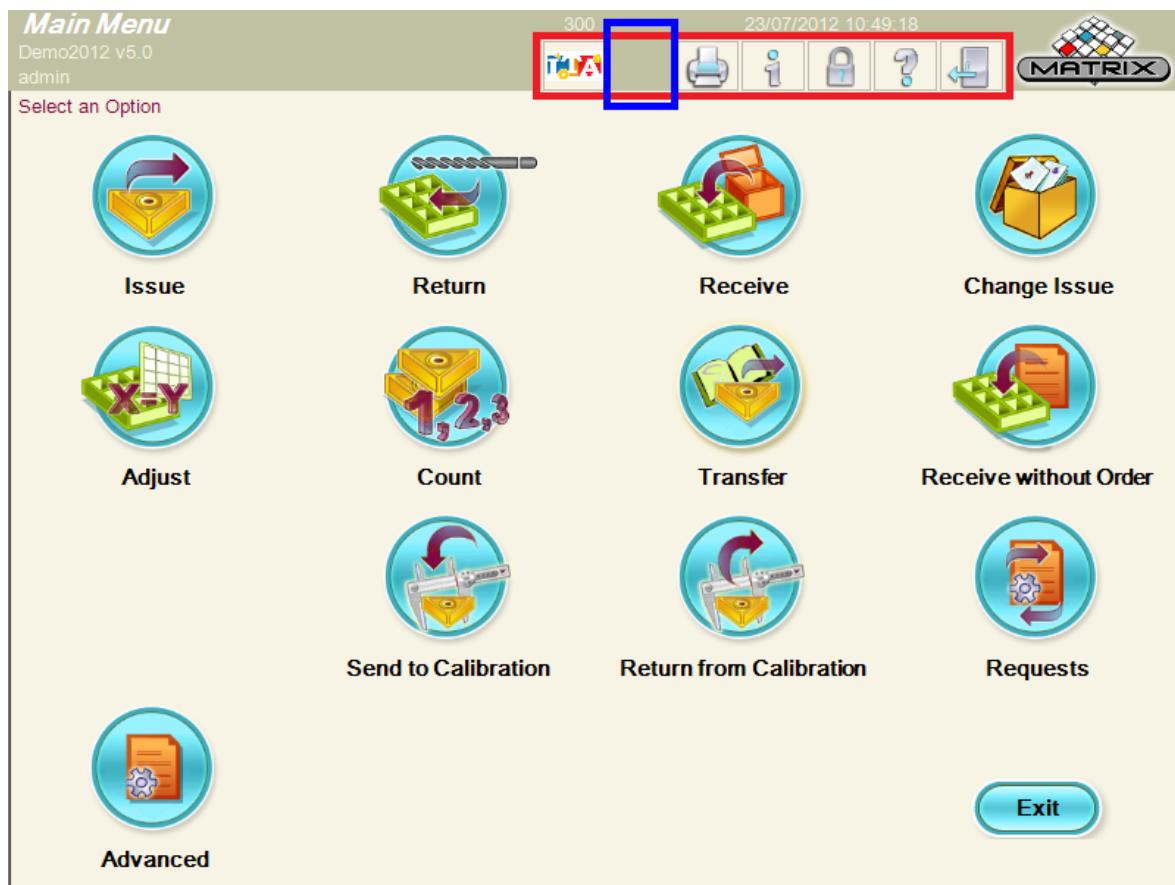


2. Fill-in the "User Name" and "Password" fields and press on the <OK> button.

Initial User Name = **admin**

Initial Password = **admin**

If there is a problem to login, check the user name and password.



TOUCH Operations:

If the login was successful, the "Main Menu" will then be displayed with the following options:

- | | |
|---------------------|--|
| Issue | – Issue items. |
| Receive | – Enter orders from supplier into the cabinet (re-stocking). |
| Return | – Return items to the cabinet. |
| Change Issue | – Allows an authorized User to track and correct issue transactions. |
| Adjust | – Adjust stock quantities of items. |
| Count | – Stock counting of the cabinet. |
| Transfer | – Transfer of items to another cabinet against an Internal Order. |



- Receive without Order** – Receive an item without having to create a purchase order.
- Send to Calibration** – Send gauges to calibration.
- Return from Calibration** – Return gauges from calibration to stock.
- Requests** – Issue and Receive items according to requests received via interface or from Manage.
- Advanced** – An administrative option for maintaining the cabinet and its items.



Note: Touch will only display authorized options. If there is authority for one option only, then this option will be automatically selected without displaying the main menu first.

3.3.2 Checking the Connection to Cabinets

After linking **at least one** bin with an item, you can check that your definitions are correct.

1. Run **TOUCH** module and login with the same user name that you have created in the MATRIX-TM MANAGE module.

You will be presented with main screen and the module options such as Issue, Receive, Return, etc.

2. Press on the **<Count>** option. You will be presented with a search screen.
3. Press on the **<Search>** button to get a list of all the bins.

If you see bins in the list with the linked item, then it means that you have successfully defined all the data.

If there are no bins in the list, it means that some of the definitions are missing or wrong. In this case please verify that you have properly completed the Touch definitions as described in Chapter A: [Set TOUCH definitions](#) (section 3.2.6).

3.3.3 Issue

A user, who has authority to issue an item, can remove it from stock. Once the user opens the drawer and the bin latch pops-up, the item will be considered as issued.

1. Press on the **<Issue>** icon.
2. Search for an item by barcode or from the list and select an item.



3. Open the bin following the instructions written at the top of the screen (in RED) and issue the item.

At this point an 'Issue' transaction with the logged-in user will be created.

Check this transaction in the MANAGE Module: [Operations → Transaction](#).

4. Close the drawer.

3.3.4 Receive

A user, who has authority to receive an ordered item, can re-stock the item by placing it into the linked bin.

In the MANAGE Module an order must first have been created. It will be in 'Open' status.

The order will contain the line items which can be received.

1. Press on the [**<Receive>**](#) icon.
2. Search for an item by barcode or from the list and select the item.
3. Open the bin following the instructions and put the item into the bin.
4. Close the drawer.

At this point a 'Receive' transaction with the logged-in user name will be created.

3.3.5 Return

A user, who has authority to return an item, can place a used item into a bin. This item can be issued again if it is a **Durable / Kit** item or can be sent to regrind if it is a **Reworkable** item (the items of type Durable / Kit can be also sent to regrind if necessary).

In order to be able to return an item, it must be linked to a bin that was defined as 'Used Item' in the MANAGE module. The item to be returned must be of Durable, Kit or Reworkable type.

1. Press on the [**<Return>**](#) icon.
2. Search for an item by barcode or from the list and select the item.
3. Open the bin following the instructions and put the item into the bin.
4. Close the drawer.

At this point a 'Return' transaction with the logged-in user name will be created.

3.3.6 Adjust

A user, who has authority to adjust items, can adjust the stock quantity of a bin as shown in the system to the actual quantity in the bin.

1. Press on the [**<Adjust>**](#) icon.
2. Search for an item by barcode or from the list and select the bin to which the item is linked.
3. Open the bin following the instructions and adjust the quantities on the screen according to the actual quantity in the bin.
4. Close the drawer.

At this point an 'Adjust' transaction will be created with the logged-in user name.

3.3.7 Count

A user, who has authority to count bins, can reconcile between bin quantities shown in the system and between the actual quantities counted. The count can be done for one bin or for all the bins in one drawer.

1. Press on the [**<Count>**](#) icon.
2. Select from the list a **particular bin** for counting or select **any bin from a particular drawer**, and then answer if you wish to count all the bins from the drawer, or just the selected bin.
3. Open the drawer following the instructions and adjust the quantities on the screen according to actual quantities counted in the bin/s.
4. Press on the [**<Update>**](#) button to save the new quantities.
5. Close the drawer.

At this point a 'Count' transaction/s will be created with the logged-in user name.



Note: The difference between 'Adjust Item' and 'Count Bin':

Adjust Item – the search and selection is done for **particular item** in any drawer.

Count Bins – the search and selection is done for **particular bin** or all bins in **particular drawer**.



3.3.8 Transfer

A user, who has authority to execute a transfer order, can transfer the ordered items from one cabinet (Transaction -) and then receive them into the cabinet which made the Internal Order. In the MANAGE module an Internal Order with the items for transfer must first have been created in 'Open' status. To execute the transfer order:

1. Press on the [**<Transfer>**](#) icon.
2. Search for an item by barcode or from the list and select it.
3. Open the bin following the instructions written at the top of the screen (in RED) and issue the item.

Once the user opens the drawer and the bin latch pops-up, the item is considered as issued for transfer. At this point a '**Transfer -**' transaction (with a negative Transaction quantity) with the logged-in user will be created. Check this transaction in the MANAGE Module: [Operations → Transaction](#).

4. Close the drawer.
5. Continue with the "Receive" process at the cabinet which created the Internal Order.

3.3.9 Change Issue

A user, who has authority to use this option, can correct the quantity of an issue transaction. The option displays all the **Issue** transactions and allows filtering the list by the user who issued the items. To correct an Issue transaction:

1. Press on the [**<Change Issue>**](#) icon.
2. Search for a transaction by item barcode or/and by user and select it.
3. Select the bin and set the quantity for return, up to the issued quantity or the bin capacity.
4. Open the bin following the instructions written at the top of the screen (in RED) and return the item.
5. Close the drawer.

At this point a **reversal 'Issue'** transaction (with negative Transaction quantity) will be created with the date/time and user of the original transaction.

Check this transaction in the MANAGE Module: [Operations → Transaction](#).

3.3.10 Receive without Order

A user, who has authority to use this option, can receive items to stock according to the orders created in an ERP system. The option displays all the items of the current Touch station that have free storage space. To receive without order to stock:

1. Press on the <Receive without Order> icon.
2. Search for an item and select it.
3. If "References" screen is displayed, insert references to the ERP order and confirm.
4. Select the bin and set the quantity for receive, up to the free storage space and press <Receive> button.
5. Open the bin following the instructions written at the top of the screen (in RED) and receive the item into the bin.
6. Close the drawer.

At this point a '**Receive**' transaction will be created with the date/time and user.

You can view this transaction in the MANAGE Module: [Operations → Transaction](#).

3.3.11 Requests

A user, who has authority to use this option, can issue and receive items according to the requests received from MANAGE or machines that are connected via the THINC interface. This process facilitates the issue of items required to assemble toolsets for manufacturing machines and to store them in Matrix pending use. Prior to using this option, the interface must be defined to handle transmission of such requests.

For a full description see Chapter D: [THINC Interface – IN / OUT Requests](#) (section 24.2).

3.3.12 Gauges

A user with authority to use this option can send to and return Gauges from Calibration.

The <**Send to Calibration**> process allows you to view all the serial items that are pending calibration. You are able to choose an item, remove it from the bin and send it to calibration.

The <**Return from Calibration**> process allows you to view all the gauges that were sent to calibration, choose a gauge and return it to stock.



3.4 Important Tips

1. **System Options:** Notice that the user can change MATRIX-TM configuration and customize the system for more convenient use.
In order to learn about the options, read Chapter D: [System Options](#) (section 17) and see options table.
2. **System Tables:** Notice that MATRIX-TM has system tables that enable the user to add general data records such as different currencies, cabinet types, etc. It is recommended to learn about these tables for more convenient use of the system.
In order to learn more about these options, read Chapter D: [System Tables](#) (section 16).
3. **Help and Technical Support:** Notice that MATRIX-TM MANAGE module has an option to get help and support on line, directly from its screen, such as:
 - a. Open help on a particular topic.
 - b. Send email for support (with logs included).
 - c. To send the data which is connected to a support issue, you can create an email with a report attached.

In order to learn more about these options, read Chapter B: [Help and Technical Support](#) (section 10).





CHAPTER B: MATRIX-TM MANAGE MODULE

MANAGE Module Preview

MANAGE is installed on a PC work station. Manage lets you define and maintain all the important entities in MATRIX-TM e.g. Item, Bin, Cabinet.

Manage is a fully featured stock management application, which can be used to manage stock in an ATD or manual warehouse ("Cabinet").

MATRIX-TM customers are located worldwide, so the system supports multiple languages by using language and header tables, which contain the system's text translated to different languages.

The system enables the user to move between different languages by just choosing the language from a menu.

4. MANAGE Interface and Initial Operations

4.1 Login to the MANAGE System

1. Operate the Login Screen.



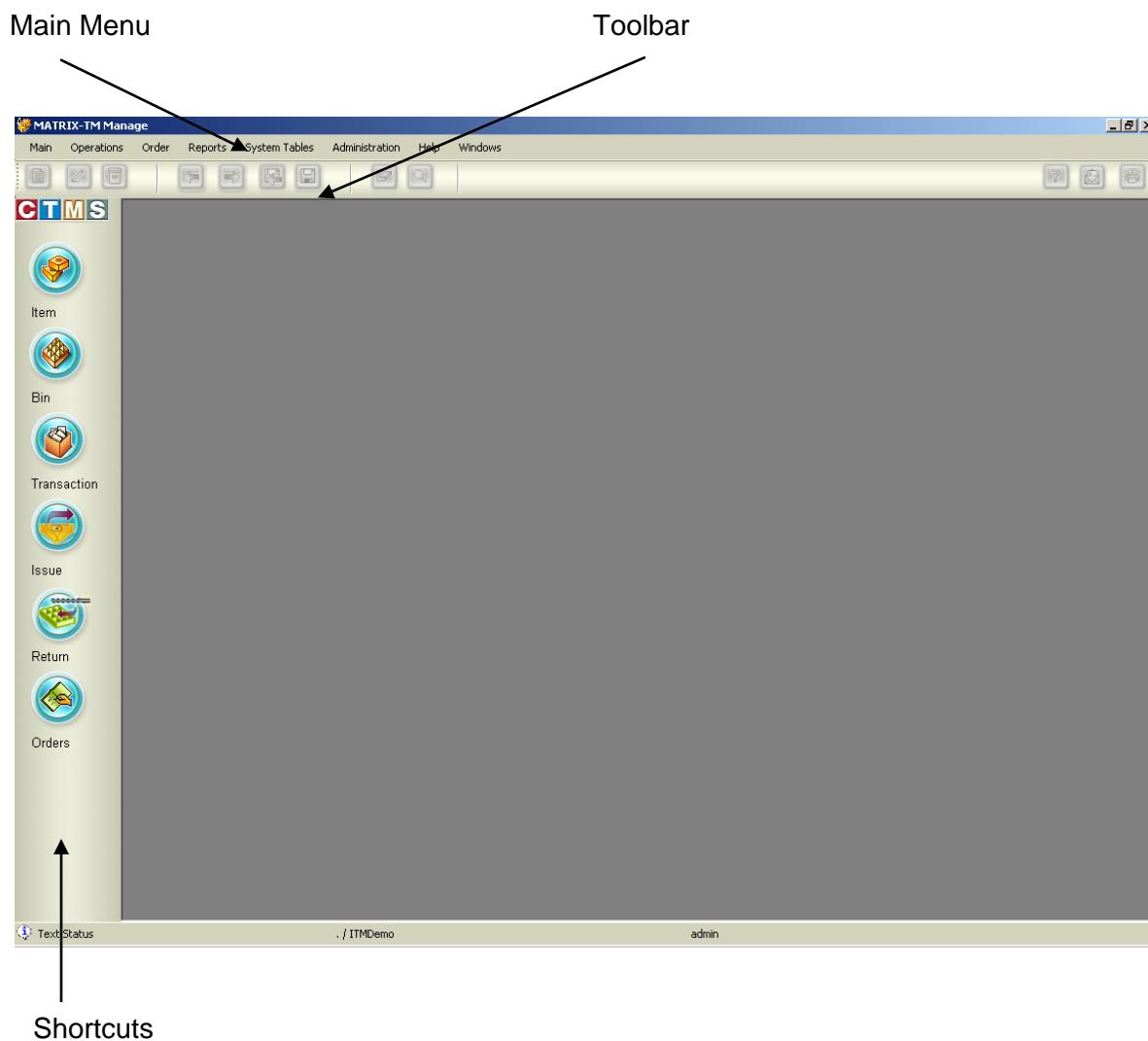
2. Enter the "User Name" and "Password".
3. Click the [<Login>](#) button (or hit the [<Enter>](#) key).
4. If the entered User Name and Password are valid, the system's opening screen (its "Desktop") will appear.

4.2 The System's Desktop

The system's desktop is its main screen, and is first displayed after login is completed. It functions as the frame for all the system's screens.

The desktop includes the system's menu, toolbar and shortcuts.

Following is the Desktop Description:



Main Menu

The system's menu includes the following options:

1. Main

- Bin
- Item
- Serial Items
- Cabinet
- Supplier
- Site Mapping

2. Operations - contains stock management related modules:

- Issue
- Issue Confirmation
- Return
- Stock Count
- Stock Transfer
- Transaction
- Gauges
 - Send Gauge to Calibration
 - Return Gauge From Calibration

3. Order

- Order
 - Orders – standard order maintenance
 - Rework Orders
 - Internal Orders
 - Show All Orders
- Transfer Orders
- Receive Order
- Receive without Order
- Invoices
- Return to Supplier

4. Reports

- Transactions
 - Advanced Transactions Report
 - Issue / Return Comparison
- Stock Reports
 - Advanced Stock Report
 - Dead Stock by Item
 - Dead Stock by Cabinet
 - Dead Stock by Bin
 - Advanced Dead Stock Report



- Stock by Bin
- Stock by Cabinet
- Stock by Item
- Min Comparison
- Max Comparison
- Stock Surplus Report
- Usage Report
 - Basic Usage Report
 - Advanced Usage Report
- Stock Shortage
 - Stock Shortage
 - Advanced Stock Shortage
 - Advanced Early Warning Report
 - Early Warning Report
- Stock Valuation Report
 - Valuation By Bin Report
 - Valuation By Cabinet Report
 - Valuation By Item Report
- Orders Report
 - Basic Orders Report
 - Advanced Orders Report
 - Orders Simulator
 - Overdue Orders Report
 - Advanced Invoice Report
 - Invoice Control
- Additional Fields Report
 - Additional Fields Report
 - Additional Fields – Advanced Items Report
 - Additional Fields – Advanced Bins Report
 - Additional Fields – Advanced Orders Lines Report
 - Additional Fields – Advanced Kits Report
- Interface
 - In/Out Requests Report
 - Interface Report
- Items
 - Item-Supplier Report
 - Kits Report
 - Item Catalog Pictures
 - Item Catalog Pictures by Cabinet
 - Items-Cost Centers
 - Alternative Items Report
 - Quantity Discount
- Gauge
 - Calibration History
 - Advanced Serial Items Report
 - Gauges Measurement Report
- Administration
 - User Groups
 - Bin Limitation



- Advanced History Log Report
 - CPU - Tool Life
 - Advanced CPU Report by Line
 - Advanced Tool Life Report by Line
 - Advanced CPU Report
 - Bin Units Report
 - Cost Center Links
 - Links Report
 - Saved Advanced Reports
5. **System Tables** – contain the system's support tables
- Currency
 - Item Category
 - Item Group
 - Item Authorizations Group
 - Shipping Method
 - Site
 - Budget Group
 - Unit of Measure
 - Scrap Reasons
 - Application
 - Application
 - Main Family
 - Sub Family
6. **Tools**
- Savings Account
 - Search Savings Account
 - Search Projects
 - Import
 - Import Data
 - Import Scheduler
 - Import Transaction Log
 - Alerts
 - Alerts scheduler
 - Alerts Log
 - Item/Bin Location Planning
 - Pack Type
 - Bin Type
 - Item Selector
 - Bin Selector
 - CPU - Tool Life
 - Production Cost List
 - CPU
 - Tool Life
 - Manual Process
 - Scheduling Reports
7. **Administration** – contain system definitions:



- Users and Authorizations
 - Users
 - User Groups
 - Authorization Manager
 - User Cost Centers
- Interfaces
 - Interfaces
 - Interface Scheduler
 - Requests
- Touch Machine
 - Touch Machine Administration
 - Touch-Cabinet
 - Cabinet Log
 - Drawer Type
- Cost Center Header
- Cost Center Details
- Defaults List
- Texts
- Additional Fields
- System Options
- Settings
- History Log

8. Help

- About
- Send Email to Support
- Help

9. Windows

- Close all Windows
- Cascading Windows



Toolbar

1.  Add

When a search or details screen is displayed, by clicking the [**<Add>**](#) button, an update page will be displayed in an insert mode, enabling the user to insert a new record by filling the necessary fields and saving them.

2.  Update

When a search or details page is displayed and a certain record is selected, by clicking the [**<Update>**](#) button, an update page will be displayed enabling the user to update the selected record.

3.  Delete

When a search or details screen is displayed and a certain record is selected, by clicking the [**<Delete>**](#) button, the selected record will be deleted.

4.  Refresh

By clicking the [**<Refresh>**](#) button the current record's data will be refreshed (updated).

5.  Back

By clicking the [**<Back>**](#) button, the previous record from a search list will be opened for maintenance.

6.  Next

By clicking the [**<Next>**](#) button, the next record from a search list will be opened for maintenance.

7.  Save and open New

On the maintenance screen, click the [**<Save and open New>**](#) button; any modification made to the selected record will be updated in the database and a new record window will be opened.

8.  Save & Close

On the maintenance screen: By clicking the [**<Save & Close>**](#) button; any modification made to the selected record will be updated in the database and the current window will be closed.

On the search screen: By clicking the [**<Save & Close>**](#) button; the definitions of search screen will be saved and the window will be closed. Next time you open the same search screen it will load according to the saved definitions. The following definitions can be saved: Sort of screen, Column position, Column size, Window size and Search parameters.

9.  [Save](#)

This button has the same functionality as the [**<Save & Close>**](#) button, but the current window will not be closed.

10.  [Clear](#)

By clicking the [**<Clear>**](#) button, the content of the displayed fields (in a search, details or queries screen) will be cleared.

11.  [Search](#)

By clicking the [**<Search>**](#) button, a list of records that meet the criteria defined in the top section of the page will be displayed on screen.

12.  [Analyzer](#)

Displays key performance metrics on one screen.

13.  [Help](#)

Displays a help screen regarding the current option in use.

14.  [E-Mail](#)

Creates an email for the technical support by attaching a report as a file.

15.  [Print](#)

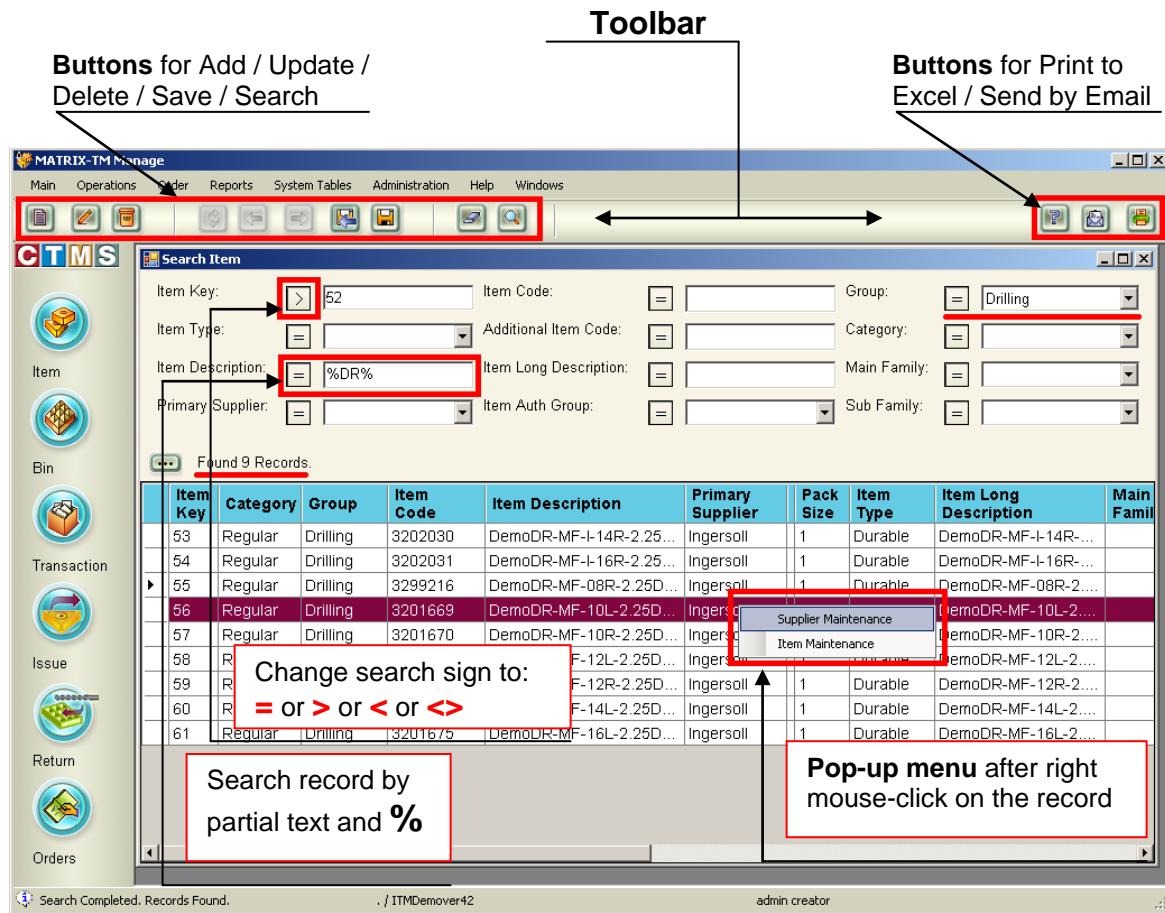
Exports query results or basic reports to an Excel file.

4.3 Operational Principles

The MANAGE module uses a generic search screen as a **starting point** for working with the records. In order to update any record in the database, first you need to open its generic search screen from the menu and then select it for update.

The top section of the search screen contains search parameters in order to filter the records which are shown in the bottom section in list format. The functions available related to data in the search screens include View / Add / Update / Delete / Search / etc...

Some generic screens have differences in their available options, but most of the modules in the system work by the same principles; therefore they are described here fully only once.





Search for a record

To follow the example above, open "Menu: Main → Item" to get the 'Search Item' screen. This search screen was set to filter all the items from the 'Drilling' group which have the 'DR' string in their description and with item key above **52**.

Search parameter types:

The screenshot shows the 'Search Item' dialog box with various search parameters. The 'Item Key' field contains '52' with a red box around the greater than sign (>) button. The 'Item Description' field contains '%DR%' with a red box around the equals sign (=) button. The 'Group' dropdown menu is set to 'Drilling' with a red box around it.

The search parameter types are:

- **Numerical** – Use numerical value only (in the example - 'Item Key' field).
- **Textual** – Use any alphanumeric value which fits exactly to the value in the record. If you wish to search by partial string, you have to use **%** sign (in the example – 'Item Description' field). See also important note below!
- **List** – Select the value from list displayed when clicking on the arrow next to the field (in the example – 'Group' field).
- **Date** – Select the date from the calendar displayed when clicking on the field.

To search for a record:

1. Open the relevant search screen and set the search parameter values.
2. If needed, change the sign on the buttons located on the left side of each search parameter by clicking on the button. Each click will change its sign to either **>** or **<** or **=** or **<>** in order to enable searching records by "more", "less", "equal" or "not equal" to the search parameter value (in the example – 'Item Key' is more than 52).
3. Click the **<Search>** button on the toolbar.

The grid in the lower part of the screen will display the records that match the defined criteria. The number of found records will be displayed above the grid (in the example – Found 9 Records).

4. If the desired record was found, mark it in the list and select the desired operation on the toolbar. Otherwise, make another search.



Important! In all search fields where the user manually types the value to be searched, you can type a partial value and then use the '%' sign. It will display all the records that include the partial value. For example, if you are searching for all the Bins that their Bin Code starts with "Demo1-01", type "Demo1-01%" and search.



Note: For performance reasons the number of records which are displayed in the search screen is limited. This limitation can be changed by the administrator in **System Option 205 - Number of Rows to Display**. To change the value, open "Menu: Administration → System Options" → parameter 205 (normally set to 2000).

Change search view

A User can now change the view of generic search screens. These changes can be saved.

Available operations:

- **Sort the list:** Click the column header in order to sort the list in ascending or descending order.
- **Resize window:** Click the search screen corner and drag the mouse to reduce / enlarge the window size.
- **Resize columns:** Click the divider between columns and drag mouse left or right in order to resize the width of columns.
- **Re-order columns:** Click a column header and drag it to a different position.
- **Search parameters:** Set search parameters as described in the previous section.

All the above operations can be saved.

To save the changed view:

1. Open relevant search screen and make the required changes to the view.
2. Click the  [**<Save>**](#) button on the toolbar to save the changes or; Click the  [**<Save & Close>**](#) button on the toolbar to save the changes and close the screen.

Add a record

Users can add a record to the generic search screens, like the list of Items, Cabinets etc...

To add a record:

1. Open the relevant search screen.

2. Click the  [**<Add>**](#) button on the toolbar.

The maintenance screen will be displayed in an Insert mode.

3. Input values for the fields and click  [**<Save>**](#) button to save the record.

Once the record is saved, it will be added to the search screen and may then be updated or deleted.



Note: The fields that appear with a red asterisk (*) are mandatory and must be filled in before saving the record.



Update record

User can update an existing record in the generic search screen, like the list of Items, Cabinets, Suppliers, etc...

Options to open record:

There are a few ways to open a record from the search screen:

- Double click the record or;
- Click the [<Update>](#) button or;
- Click the right mouse-button in order to get **Pop-up menu** (not available for all search screens). The Pop-up menu will usually display an option to open the maintenance screen of the selected record or of the records which are related to the selected record.

In the example above, the Pop-up menu on the 'Search Item' screen enables the user to open the selected item maintenance screen or the maintenance screen of the item supplier.

A screenshot of a computer screen displaying a search results grid. The grid has columns for 'Item Name', 'Category', 'Type', and 'Status'. The first row shows 'jersoll' in the first column. A context menu is displayed over the second row, with the 'Supplier Maintenance' option highlighted. A red box surrounds the entire grid area.

jersoll		1	Durable	DemoDR-MF-
jersoll				Supplier Maintenance
jersoll				Item Maintenance
jersoll				DemoDR-MF-
jersoll		1	Durable	DemoDR-MF-

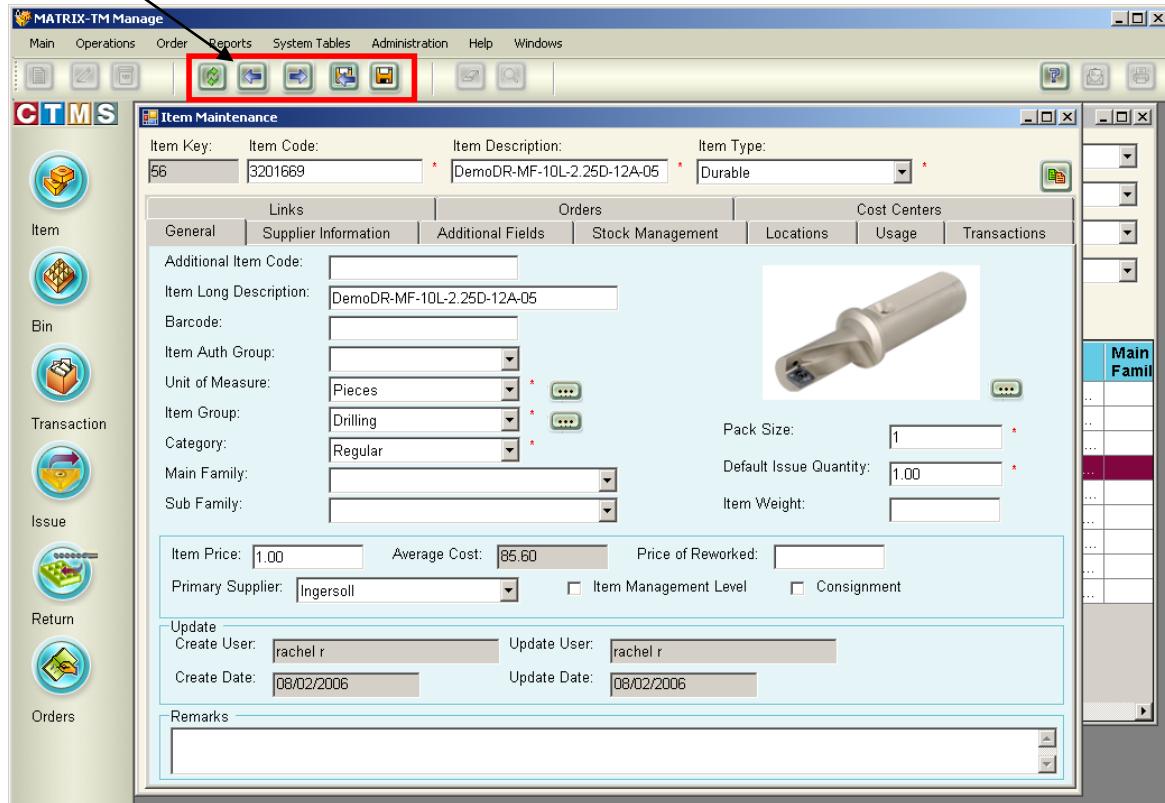
To update a record:

1. Open the relevant search screen.
2. Search for the relevant record, mark it and then open the record using one of the options described above.

Following the example above and opening the 'Item Maintenance' screen of the selected record, the following screen will be displayed:



Buttons for Refresh, Back / Next and for Save



4. Make the required changes on the maintenance screen of the record and click <Save> button to save them.
5. Whilst your update screen is open, you can switch to the next or previous record from the list by clicking the <Back> or <Next> button on the toolbar.

Delete a record

User can delete records in a generic search screen, like from the list of Items, Suppliers etc...

To delete a record:

1. Open the relevant search screen.
2. Search for the relevant record, mark it in the grid and click the  <Delete> button on the toolbar.

The selected record will be deleted from the database. If for any reason a record cannot be deleted, a system message explaining the reason will appear.

Shortcut keys

MANAGE module enables working with keyboard shortcut keys on the next screens:

Generic search screens:

CTRL + N	→ Create a new record
CTRL + O	→ Open the selected record for update
CTRL + Delete	→ Delete the selected record
CTRL + F5	→ Clear the current search parameters
F5	→ Refresh the search list
CTRL + P	→ Export the list to excel for print

Maintenance screens:

Alt + Up arrow	→ Open the maintenance of previous record
Alt + Down arrow	→ Open the maintenance of next record
CTRL + S	→ Save the current record
CTRL + Enter	→ Save and close current record

4.4 Definition of Common Terms

- **Desktop**

The system's main screen frame, which contains the fixed features in the system: menus, tools, command buttons and shortcuts to commonly used applications.

- **Parameter**

Field's in the search screen, which can be used to sort or filter records.

- **Command Buttons / Buttons**

Buttons such as <Search>, <Save> and <Clear> as well as operation buttons (Update/Add/Delete) and shortcut buttons, which appear in the system's menus and cause certain actions.

- **Record**

Collection of fields, usually a line in the database, which describes a specific entity (for example, a cabinet, a bin, a supplier, a transaction etc...). The records appear as rows in the grid in the lower section of the search screen, or as a collection of fields in the Update screen.

- **Search Results**

Collection of records, which appear in the lower part of the search screen after a search is completed.

- **Calendar**

Date:

Clicking on the button will display the following calendar screen, which enables selecting the date:





- **Mandatory fields:**

Code: *

Mandatory fields are marked with a red asterisk (*):

and must be filled in for the record to be saved to the database.

5. Base Entities

The base entities are:

- 1 Supplier
- 2 Cabinet
- 3 Bin
- 4 Item

5.1 Supplier

Adding a supplier

1. Select "Menu: Main → Supplier".
2. Click the  <Add> button on the toolbar.
3. Enter the mandatory and regular fields according to description below.
4. Click the  <Save> button on the toolbar.



Important! Please note that the view of suppliers already includes a supplier called 'Internal Supplier'. This supplier is automatically added when creating a new database or updating the database to version 4. The system uses this supplier for Internal Orders and prohibits deleting his record. It is also not recommended to edit its data.

5.1.1 Tab: General

Following is the "Supplier Maintenance" screen, in which the company's suppliers can be managed.



Supplier Maintenance

Supplier Key:	7000001	Supplier Code:	S *
Additional Supplier Code:		Supplier Name:	STS *
General Order Parameters			
Address			
STS Tool Supply			
300 Westway Place			
Arlington			
Contact			
Fax No.:		Phone No.:	+1 812 45 445 55
Contact Person:	Scott Marlatt	Home Page:	www.sts.com
E-Mail:	toolsupply@sts.com		
Remarks			
<input type="text"/>			
Update			
Create User:	Dubi Maoz	Update User:	admin creator
Create Date:	22/04/2009	Update Date:	22/07/2012

Fields Description:

The following details should be entered for each supplier:

- Supplier Code *: Unique supplier code.
- Additional Supplier Code: Additional supplier code.
- Supplier Name: Unique supplier name.
- Address: Supplier address.
- Fax No, Phone No: Supplier contact details.
- Contact Person: Supplier contact person that will be copied automatically to purchase orders.
- Home Page: Supplier home page.
- E-Mail: Single supplier email or multiple emails separated by comma (,) which are used for receiving automatic and non-automatic purchase orders from the system.
- Remarks: General remarks.
- Create User, Create Date, Update User, Update Date:
Filled automatically by the system and cannot be changed manually.



Note: The details which are maintained on the supplier level will be used in the **Items** and **Purchase orders**, therefore it is recommended to maintain as much detail as possible in this screen. Further explanations regarding those issues can be found in Chapter B: [Items](#) (section 5.4) and Chapter B: [Orders](#) (section 7).

5.1.2 Tab: Order Parameters

The screenshot shows the 'Supplier Maintenance' window with the 'Order Parameters' tab selected. The window has tabs for 'General' and 'Order Parameters'. The 'Order Parameters' tab is active, displaying various configuration options:

- Schedule**:
 - Schedule Type: Specified
 - Schedule Day: Every Monday
 - Schedule Time: 05:00
 - Date Last Run: 16/07/2012 at 00:00:00
- Order Parameters**:
 - Currency: USD (3.90)
 - Shipping Method: EXPRESS
 - Order Method: E-Mail
 - Order Mode: Create purchase Draft (recommended)
 - Send To ERP:
 - Freight: [empty input field]
 - Minimum Order Value: [empty input field]

Fields Description:

- Schedule Type:** The scheduler for creating automatic orders per supplier.
Specified – Personal schedule.
Default Schedule – General schedule that is defined in the System options 807 & 808.
Do not run – The system will not create orders for this supplier.
- Schedule Day:** Day for running automatic orders.



<u>Schedule Time:</u>	Time for running automatic orders.
<u>Date Last Run:</u>	Updated by the system with the date when the last check for automatic orders was done. The orders will not run at the same day defined here, therefore keep this field initially empty or with a past date.
<u>Currency:</u>	The currency that supplier uses.
<u>Shipping Method:</u>	The shipping method that supplier uses.
<u>Order Method:</u>	Select 'Email' to send the automatic purchase orders to the current supplier by email or select 'Print' to print the orders.
<u>Order Mode:</u>	Mode per supplier for creating automatic orders (No run / Draft / Open / Send to supplier).
<u>Send to ERP:</u>	Sign the box if the purchase orders of the current suppliers should be sent, by default, to ERP.
<u>Freight:</u>	Freight charge to be loaded to the 'Freight' field for orders of this supplier.
<u>Minimum Order Value:</u>	An option to set a minimum monetary value for order from this supplier. While automatic orders process is running, it will check if the potential order for this supplier is above this value. If not, the order will not be created.

5.2 Cabinet

The main component in the system is the MATRIX cabinet, which is divided into drawers, which are, themselves, divided into bins of different sizes. In case there are no bins in the drawer, the entire drawer functions as 1 bin.

There are several MATRIX types and also another types supported to be activated by TOUCH module and all are listed below.

5.2.1 Cabinet Types

The "[Cabinet Maintenance](#)" screen is used to enter new cabinets to the system or update existing ones.



Cabinet Maintenance

Key:	Code:	Name:
19000001	MAXITOUCH	*
General Cabinet Units		
Cabinet Type:	Matrix MAXI	*
Stock Management Level:	Kardex 3000 Shuttle Kardex Carousel Kardex Shuttle Matrix	*
Cabinet sequence:	Matrix MAXI Matrix MINI Matrix Recycle Matrix Series 4 Non Automatic	*
IP Address:	<input type="checkbox"/> Receive assigned orders only	
Site:	R&D Tech Center	*
Show Ctrl Error:	Always	*
<input checked="" type="checkbox"/> Issue Any Quantity		
<input checked="" type="checkbox"/> Is Actual Issue		
<input type="checkbox"/> Auto-print Label		
<input type="checkbox"/> Multi connections		
Alert E-Mail:	liorar@iscar.com	
Remarks:	MOP Demo (1-DX50-03, 2-DX50-04, 3-DX75-07, 4-DX75-07, 5-DX100-01)	
Update		
Create User:	admin creator	Update User: admin creator
Create Date:	16/05/2012	Update Date: 05/06/2012

Matrix:

Used to create cabinet for **MATRIX Series 1-3**.

These series have drawers with predefined bin configurations.

User is able to build bins and bin units automatically by selecting the matching drawer type from a list of nine available configurations.

Matrix Series 4:

Used to create cabinet for **MATRIX Series 4**.

Same as previous Matrix type except for the control system.

Matrix MAXI:

Used to create cabinet for **MATRIX Series 5**, for MAXI TOUCH and for MAXI POD.

Matrix MINI:

Used to create cabinet for **MATRIX Series 5**, for MINI TOUCH and for MINI POD.

Matrix Recycle:

Used to create Matrix Recycle cabinet, for storing inserts and tools to be recycled.



Kardex Shuttle: A warehouse that contains open trays for storing large tools. This cabinet type can be connected by data cable to the MATRIX machine and activated through the touch screen. You will have to create new drawer types compatible to the trays configuration (For more information see Chapter B: [Adding Drawer Types](#) (section 5.2.3)).

Kardex 3000 Shuttle: Same as KARDEX Shuttle except for the control system. The instructions for KARDEX in this user guide are also relevant for KARDEX 3000. Wherever different definitions are required, it will be specifically mentioned.

Kardex Carousel: Vertical Carousel consists of a series of shelves that rotate when receiving a command from TOUCH to deliver the selected items. When finished, the user clicks to end the transaction and immediately continues to the next transaction with no waiting time.

Non Automatic: Any warehouse such as tool cabinet or open shelves. The stock of such a warehouse can be managed as well by the MATRIX-TM software by attaching it to the TOUCH definitions. In the TOUCH module, when the user requests to open a bin, he will be redirected to the warehouse. You will have to create new drawer types compatible to this manual warehouse (For more information see Chapter B: [Adding Drawer Types](#) (section 5.2.3)).

You can also create the matching drawer types manually (for more information see Chapter B: [Adding Drawer Types](#) (section 5.2.3)).

5.2.2 Adding a Cabinet

1. Open "Menu: Main → Cabinet".
2. Click the <Add> button on the toolbar.



3. Enter the mandatory and regular fields on the “General” tab according to the following description.
4. Click the **<Save>** button on the toolbar.
5. Enter the rest of the information regarding the cabinet and save again.

5.2.1.1 Tab: General

This tab contains general details regarding the cabinet.

The screenshot shows the 'Cabinet Maintenance' window with the 'General' tab selected. The key field is set to 19000001, the code to MAXITOUCH, and the name to MAXITOUCH. The cabinet type is Matrix MAXI, stock management level is Item Management Level, and the cabinet sequence is 1. The site is R&D Tech Center, and the IP address is 10.10.3.74. There are several checkboxes: 'Show Ctrl Error' (selected), 'Issue Any Quantity' (selected), 'Is Actual Issue' (selected), 'Is Internal Order' (unchecked), 'Auto-print Label' (unchecked), 'Receive assigned orders only' (unchecked), 'Multi connections' (unchecked), and 'Alert E-Mail' (toolmanager@machining.com). Remarks indicate MOP Demo (1-DX50-03, 2-DX50-04, 3-DX75-07, 4-DX75-07, 5-DX100-01). The update section shows create user as admin creator, create date as 16/05/2012, update user as admin creator, and update date as 05/06/2012.

Fields Description:

Code *: A code for the cabinet which is used for generating bins for the drawers.

Name *: A name for the cabinet

Cabinet Type *: All the cabinet types supported on TOUCH are described in previous section.

Stock Management Level: For creating automatic orders, set the appropriate stock management level for the cabinet:

Bin level – Uses the minimum and maximum quantities defined for each bin of the same cabinet.



Items/Cabinet level – Uses the minimum and maximum quantities defined for each item in the same cabinet.

Item level – Does not use the minimum and maximum quantities defined for Bin and Items/Cabinet levels.

Please note that the creation of automatic orders will depend also on the value of the System Option 903.

Sys Opt 903 Cabinet	Bin	Item/Cabinet	Item	All levels
Bin	√			√
Item/Cabinet		√		√
Item			√	√

Cabinet Sequence:

Cabinet sequence number in the chain of the cabinets attached to one master cabinet with the Touch screen.

The master cabinet sequence must be 1 and the other chained cabinets must be numerated by sequence.

COM Port:

This field is displayed and relevant only for cabinet types Matrix, Matrix Series 4 and Kardex Shuttle. It is used by the TOUCH application to communicate with the cabinet.

IP Address *:

This field is displayed and relevant only for cabinet types Matrix MAXI, Matrix MINI, Matrix Recycle, Kardex 3000 Shuttle, Kardex Carousel. It is used by the TOUCH application to communicate with the cabinet, instead of 'COM Port'.

Open all bins:

This field is displayed and relevant only for cabinet type 'Matrix'. If not selected, the bins in drawers of type 1 (98 bins) will be opened in two stages, half at a time.

Is Internal Order:

If selected, when the auto-purchase process is executed it will create internal orders instead of purchase orders.



Internal orders facilitate transferring stock to this cabinet from other cabinets.

Receive assigned orders only: If selected, the 'Receive' module on TOUCH will only display orders for the relevant cabinet, thus filtering out orders on the item level.

Max Weight: This field is displayed and relevant only for cabinet types Matrix Recycle.

Site *: Location site of the cabinet. This can be the factory where the cabinet is located.

Show CTRL Error: Mode for displaying error messages on the TOUCH module, if there is a problem opening bins:

Never – Errors will not be displayed and transactions will be recorded. Used mostly for old series cabinets where the control system might send irrelevant error messages.

Always – Errors will be displayed and in case of error, transactions will not be recorded. Exception: In 'Adjust' and 'Count Bins' modules errors will not be displayed and transactions will be recorded.

Issue Any Quantity: If selected, user will have no limit to issue any desired quantity. Otherwise the user will be able to issue only all of the quantity that is in the bin.

Is Actual Issue: If not selected, all the issues made from this cabinet will appear on the "Operations → Issue Confirmation" screen until confirmed as Issued. This option is normally used for manual warehouses and non-automatic cabinets controlled by a TOUCH station, such as a kiosk. For more details see Chapter C: [Virtual Issue](#) (section 13.1.5)

Auto-print Label: If checked, a label will be automatically printed for every Issue from this cabinet. The template label is defined in System Option **407** (Path for template used to print Item Label).

Multi connections: Allows working with a cabinet from more than one Touch station.

Alert E-Mail: E-Mail address of person who is responsible for the stock in order to alert him about a Zero-Issue transaction (stock-out).

Remarks: Free text for remarks.



<Copy> button: To make a copy of a currently displayed cabinet, giving it a new 'Cabinet Code' and 'Cabinet Name'.

Create User, Create Date, Update User, Update Date:

Filled automatically by the system and cannot be changed manually.

5.2.1.2 Tab: Cabinet Units

This tab displays the coordinates for each unit in the cabinet, from which the bins are compiled. Some bins are compiled from one unit, for example bins in Drawer Type '1' (or known as D100-1, D50-1 etc.) in the MATRIX cabinet. And some bins are compiled of two or more units, such as bins in Drawer Type D-2 (known also as D100-2, D50-2 etc.).

The coordinates are part of the instruction which is sent to open a certain bin.

In MATRIX Cabinet, the X / Y / Z coordinates of the unit which also has 'YES' value for "Sent" field usually represent the location of the latch which opens the bin.

In other cabinets, usually the drawers will look like open trays or shelves, therefore the field "Sent" will have 'NO' as its value.

In order to add these Cabinet Units to the list, usually you will need to use [**<Build Drawer>**](#) button for automatic generation of the Bin Units according to the cabinet type and drawer type. Please follow the next instructions for automatic and manual adding.



Figure 1: Cabinet type – MATRIX Up to Series 4

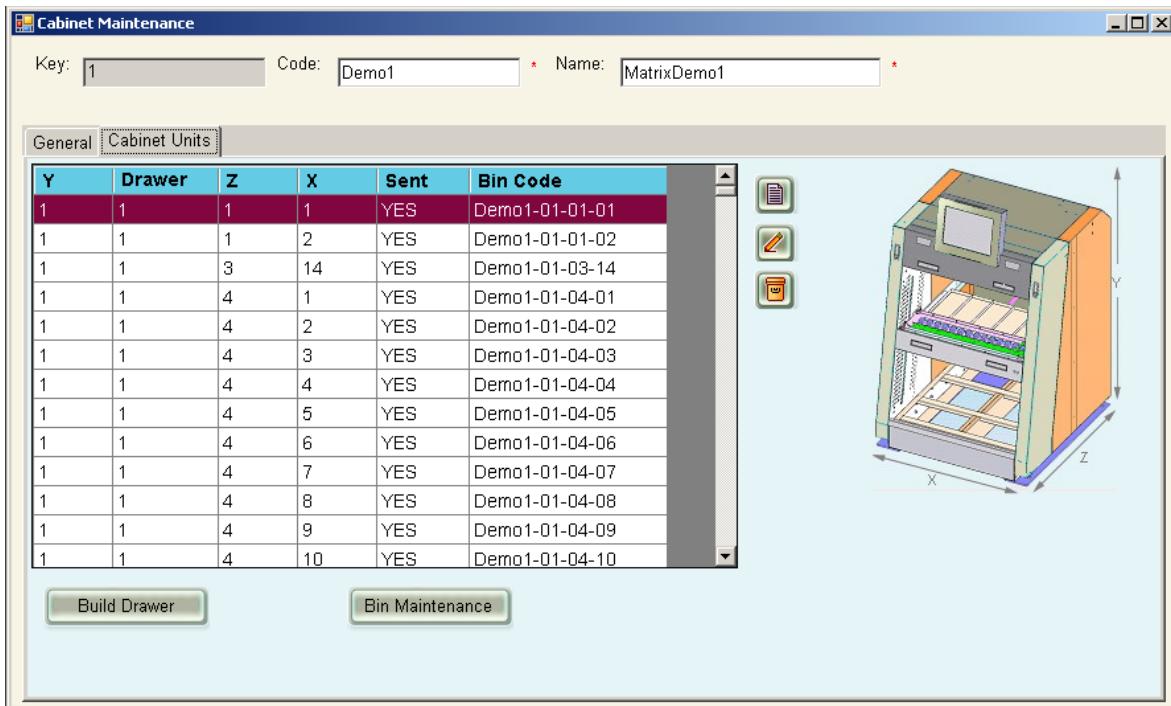


Figure 2: Cabinet type - Kardex

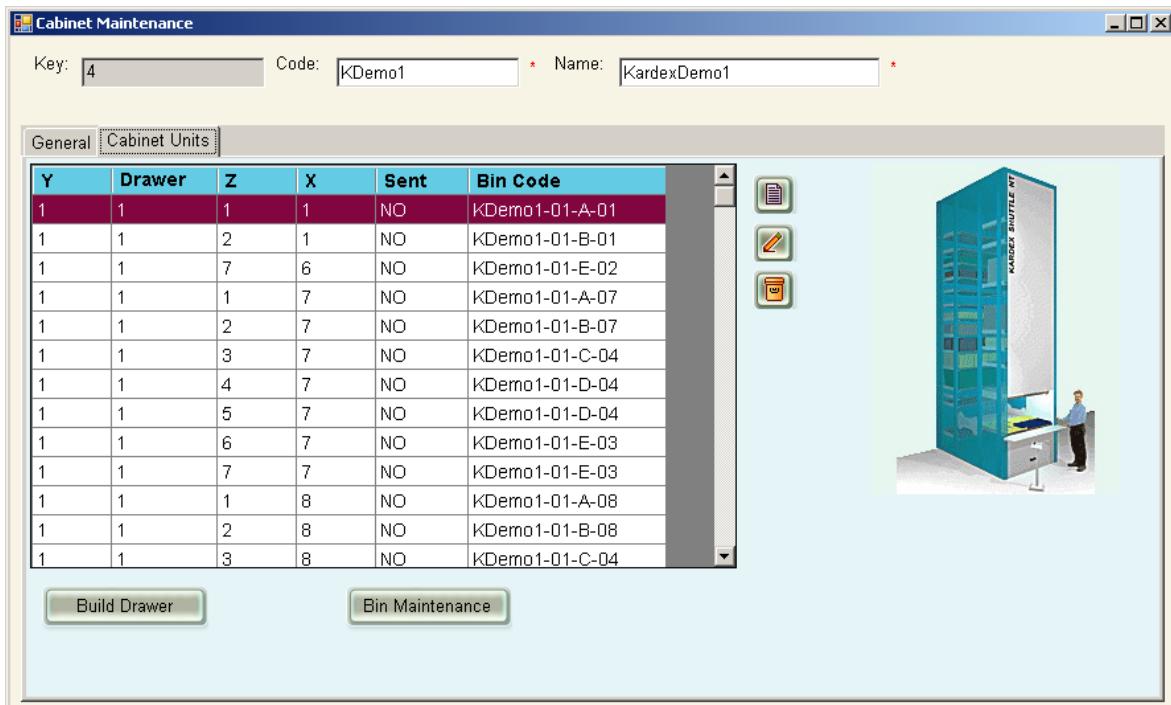
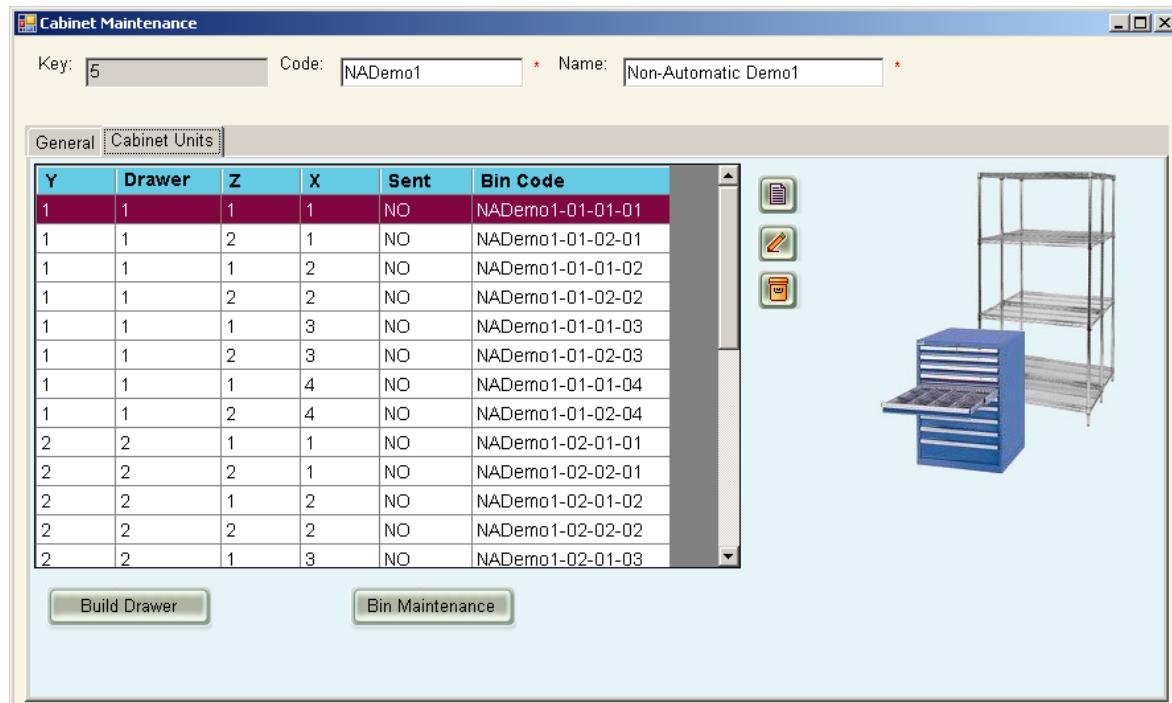


Figure 3: Cabinet type - Non-Automatic

Cabinet Units – Automatic Generation

The  button is an automatic function which automatically builds all bins for a certain drawer configuration. This is a sensitive option which has a strong impact on the database, and therefore should be used only by the administrator.

1. Click the [Build Drawer](#) button on the "Cabinet Maintenance" screen on the "Cabinet Units" tab. The following screen will appear:



Figure 4: Cabinet type - MATRIX

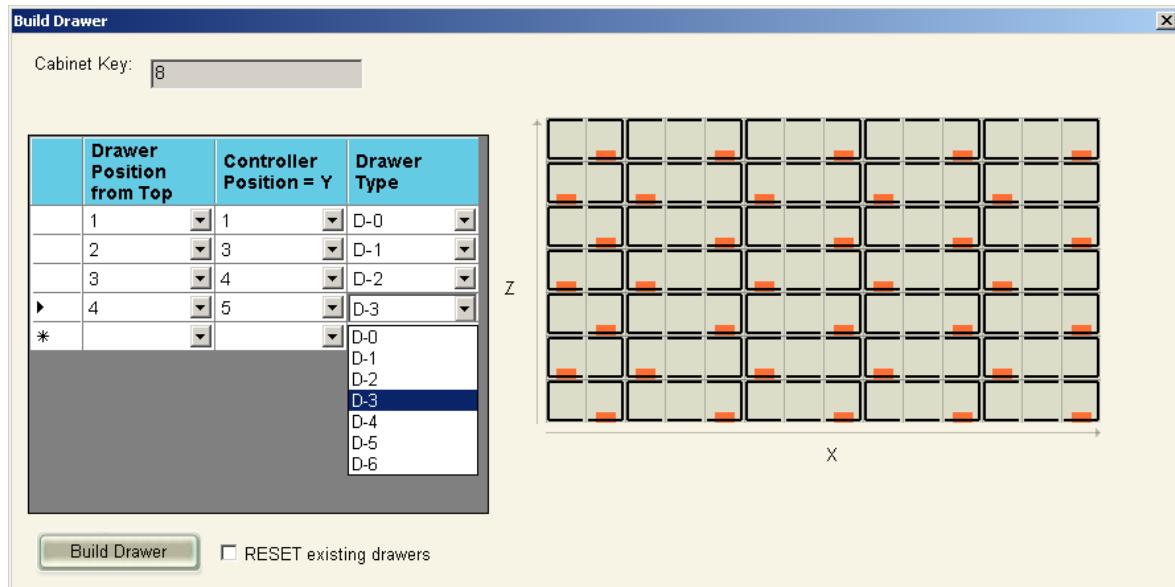
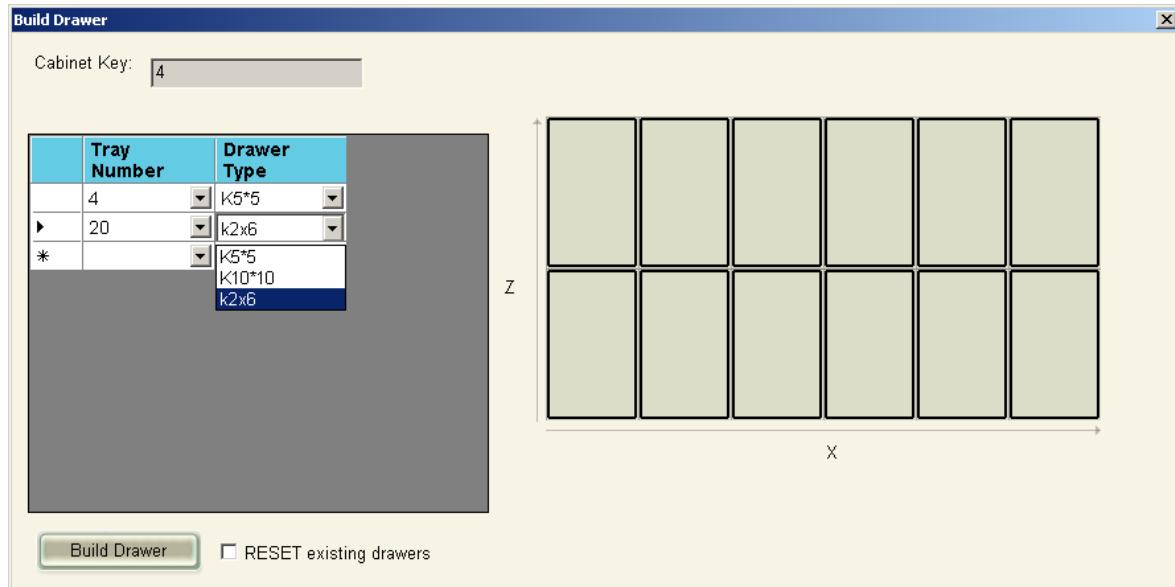


Figure 2: Cabinet type – KARDEX or NON-AUTOMATIC



- For each drawer fill in the required parameters:

MATRIX cabinet type:
Drawer Position from Top:
Visual position of the drawer

Controller Position:
Physical position of the drawer controller plug-in that can be seen when removing the cabinet side panel.



Drawer Type: Pre-defined nine drawer configurations. Select the configuration suitable to your cabinet drawer.

KARDEX or NON-AUTOMATIC cabinet type:

Tray Number: Physical position of the tray / drawer / shelf etc...

Drawer Type: Pre-defined Drawer Types. For more information see Chapter B: [Adding Drawer Types](#) (section 5.2.3)

3. Sign the "RESET existing drawers" box if you wish to replace the existing drawers with the new definitions.
4. Click the [**<Build Drawer>**](#) button on this screen.

This will add drawers with **bins** and **bin units** to the "Cabinet Units" tab, which will be also available for editing.



Recommendation: To save time on setting values for the fields, you can set default values that will be loaded when creating new bins. For more information see Chapter B: [Defaults List](#) (section 5.6).

5. Save the data by clicking the [**<Save>**](#) button on the toolbar.

For more information, it is important to read Chapter A: [Bin Location](#) (section 5.3.3).

Cabinet Units – Manual Creation

Usually the cabinet units need to be generated automatically as previously described. If you still wish to add or edit manually the cabinet units, you first need to create the bins in order to be able to associate cabinet units with bins.

1. Click the [**<Add>**](#) button or ... Mark a certain row and click the [**<Update>**](#) button. The buttons are located on the "Cabinet Maintenance" screen on the "Cabinet Units" tab at the right side of the grid. The "Cabinet Unit" screen will appear.



Cabinet Unit

X:	<input type="text" value="5"/>	*
Y:	<input type="text" value="7"/>	*
Z:	<input type="text" value="3"/>	*
Is Send:	<input type="button" value="No"/>	
Bin Code:	<input type="button" value="cab1-01-01-03"/>	
Drawer Position from Top:	<input type="text" value="8"/>	*

In MATRIX Cabinet, the X / Y / Z coordinates of the unit which also has 'YES' value for "Sent" field usually represent the location of the latch which opens the bin.

In other cabinets, usually the drawers will look like open trays or shelves, therefore the field "Sent" will have a 'NO' as value.

2. Define the required parameters:

XYZ coordinates – These fields indicate the location of the cabinet unit (also called bin unit), which is the smallest component in the bin definition.

X: Location of bin unit from left to right.

Y: In MATRIX cabinet type, number of the drawer controller plug in * from top to bottom. Otherwise, tray number.

Z: Location of bin unit from front to back.

Sent: In MATRIX cabinet type, if this bin unit has a latch that opens the bin, this value should be set to 'YES' in order to indicate that this bin unit should be sent to the machine to enable opening of the bin. Otherwise it should be set to 'NO'.



Bin Code: The Bin Code from the bins list. Each Bin Code comprises a number of bin units.

Drawer Position from Top: In MATRIX cabinet type, number of the drawer * from top to bottom. Otherwise, tray number.



Note: The exact same base unit (with specific XYZ values) can only be defined once. But the same Bin Code can be defined for two or more bin units, because bins can be comprised of more than one bin unit.

For more information, it is important to read Chapter A: [Bin Location](#) (section 5.3.3).

3. To save the bin Unit, click the [**<Save>**](#) button.

Cabinet Units – Deleting Bin unit

In order to delete a cabinet's base unit:

1. Mark the required unit on the "Cabinet Maintenance" screen on the "Cabinet Units" tab and click the [**<Update>**](#) button that is on the right side of the grid.
2. If the unit has a Bin Code value, remove the bin code value and save the change.
3. Click the [**<Delete>**](#) button that is on the right side of the grid.

5.2.3 Deleting an Entire Cabinet

In order to delete a cabinet:

1. If the cabinet has Bins and / or Bin Units, you must first delete them following the deletion instructions described in this guide.
2. Mark the required cabinet record and click the [**<Delete>**](#) button on the toolbar.



5.2.4 Adding Drawer Types

This module allows adding any drawer type by any configuration of bins in order to support managing stock in the KARDEX cabinet and NON-AUTOMATIC warehouses.

You can also build a manual configuration for a MATRIX drawer in addition to the predefined drawer types.

1. Open "Menu: Administration → Touch Machine → Drawer Type".
2. Click the <Add> button on the toolbar. The screen as following will be displayed:

The 'Create Drawer Type' dialog box contains the following fields:
- Cabinet Type: Kardex (top) or Kardex Shuttle (bottom)
- Max X: [6] (top) or [6] (bottom)
- Max Z: [2] (top) or [2] (bottom)
- Create Drawer Type button

Cabinet Type *: Select the type of the cabinet for which you wish to add a drawer type.

Max X *: The number of bins in the row.

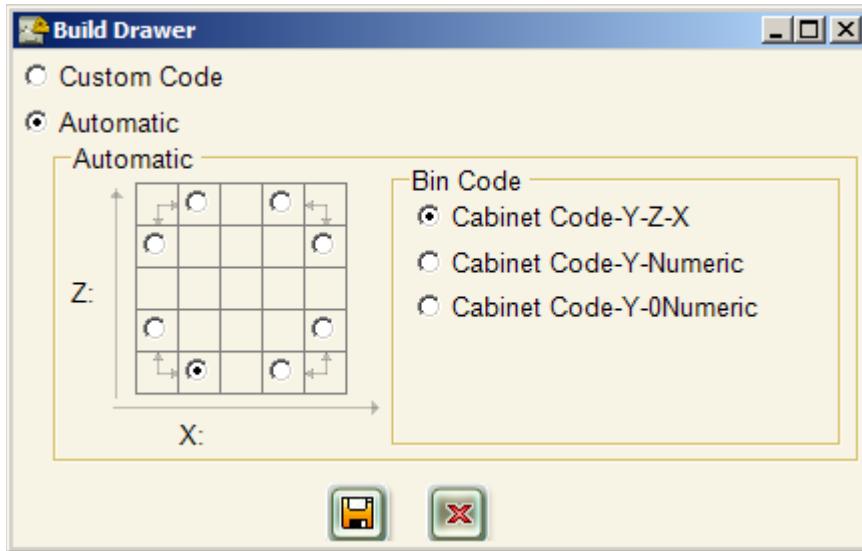
Max Z *: The number of bins in the depth (number of rows).

Drawer Type Code *: Insert any drawer code. For example, K2x6, for drawer of Kardex type with configuration of 2 rows and 6 columns.

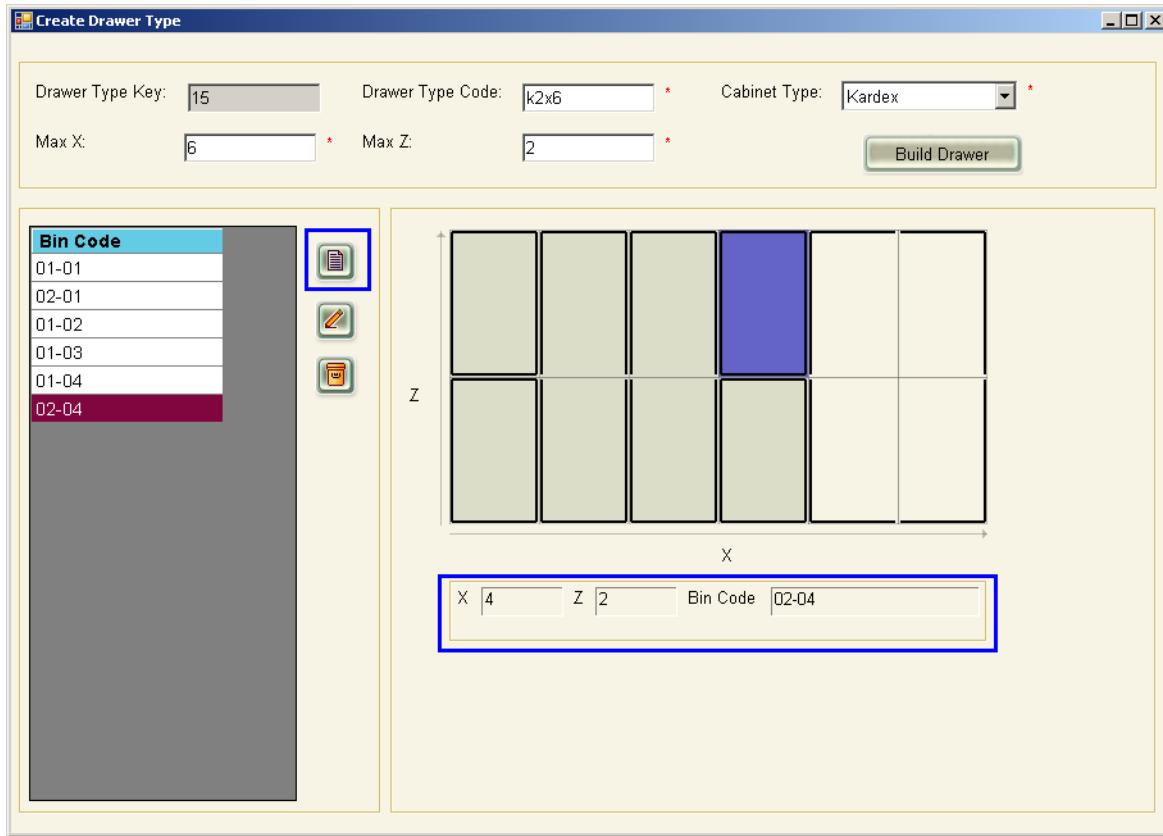
3. Fill in the values and click the <Save> button on the toolbar.

4. Click the <Build Drawer> button.

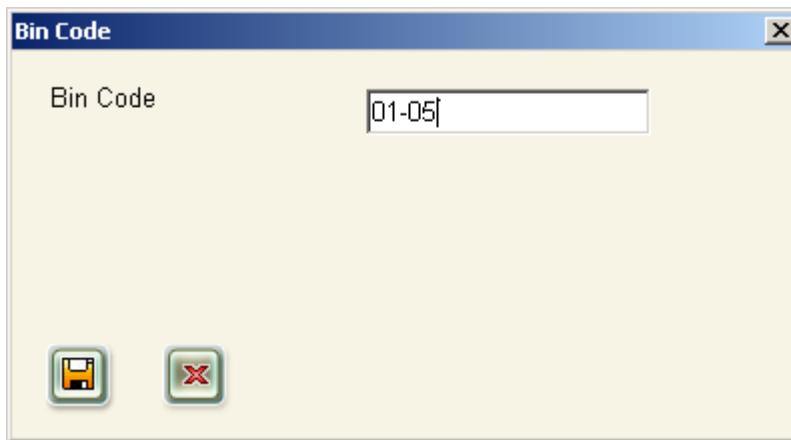
The following screen will appear:



5. For automatically bin creation for each unit, select 'Automatic' option to and click the <Save> button on the screen. At this point, the drawers type is complete and you can add this drawer type to cabinet.
6. For manual bin creation select the 'Custom Code' option and click the <Save> button on the screen.
This will create an empty grid by the defined size, which we will use as a base for defining Bin Units. Moving a mouse over the grid will display its coordinates.



7. In order to build a bin for each grid division, click the <Build Drawer> button and it will automatically create all the bin codes. Otherwise, if you want to create bin codes based on a few divisions, continue to the next step for manual definitions.
8. Click the <Add> button on this screen in order to add a Bin Code. The following screen will be displayed.





9. Insert value for Bin Code, for example, 01-05, for a bin in the first row and fifth column and click the **<Save>** button.
10. Select on the grid the divisions that you want to use for this Bin Code. You can select more than one division from those which are closely linked. By default, it will select the first available division which was not yet related to any other bin code.
11. Repeat the same steps for creating more Bin Codes filling the whole or part of the grid.
12. Save the Drawer Configuration by clicking the **<Save>** button on the toolbar. Now this drawer type will be available for use in the "Cabinet Maintenance" screen on the "Cabinet Units" tab.

5.3 Bin

The bin is the basic stock management unit. Each bin is associated with the item it stores. A bin that is not associated with an item is regarded as an inactive bin.

The bin screen displays the bins details and allows updating existing bins or adding new ones. Located at the top of the page are the general constant bin details:

Bin Key: The bin's unique identifier, an automatic number that uniquely identifies the bin and cannot be updated. Each bin receives this ID from the database.

Bin Code: Describes the bin's location in the cabinet. For example, the code **B-01-02-03** describes a bin, which is located in cabinet B, first drawer, and the second row and third column of bins in that drawer . Notice that this is our recommendation for managing MATRIX type cabinets. You can choose any other scheme of bin codes, but be sure to make it consistent with the structure of your cabinet or warehouse.

Cabinet Code: The bin's cabinet code

Item Code & Description: The stored item's code. This code can be selected from the available codes list (which is displayed when clicking the button). A bin can be created without an associated item.

The main part of the page is the tab index, which includes the following entries: **General, Stock Management, Additional Fields, Usage, Transactions, Orders, Bin Units and Authorizations.**

5.3.1 Adding a Bin

Bins are usually added automatically when adding **Cabinet** and **Drawers**.

In some cases we would like to add them manually, for example, when using MATRIX drawer type D-0 with no physical bins. In this case we need to divide the drawer into **virtual bins – the pre-allocated position of the item within the drawer or shelf.**

For manual bin creation, follow the instructions below:

1. Select "Menu: Main → Bin" in the system's main menu.
2. Click the  **<Add>** button on the toolbar.
3. Enter values for the mandatory:
Bin Code *: Enter a name for the bin.
Cabinet Code: Select the cabinet that the bin belongs to.



Note: The Chapter B: Bin Location (section 5.3.3) describes the principles used by the software to name bins (in the Bin Code field) which are automatically created. You can use the same principle for bins defined manually.

4. Save the bin by clicking the  **<Save>** button.

At this point the other tabs will become available for update.



Recommendation: To save time on setting values for the fields, you can set default values that will be loaded when creating new bins. For more information see Chapter B: Defaults List (section 5.6).

5. If you need to access the bins on the TOCH module, you have to manually create the bin units. Without bin units the access to this bin **will be impossible** in Touch module. For instructions on how to add bin units, see Chapter B: Tab: Cabinet Units (section 5.2.1.2, subsection '**Cabinet Units – Manual Creation**')



5.3.1.1 Tab: General

This tab contains general information regarding the bin:

The screenshot shows the 'Bin Maintenance' window with the 'General' tab selected. The top header includes fields for Bin Key (42000655), Bin Code (MAXITOUC-01-04-07), Cabinet Code (MAXITOUC), Item Code (5504369), and Item Description (WBMT 060102L IC3028). Below the header are several sections: 'Status' (Active, Consignment checked), 'Item Type' (Expendable, Reworked, Used Item), 'Replenishment' (Bin Stock Management checked, Do not Order), 'Capacity' (Capacity: 5, Allow Over Capacity), 'Issue' (Default Issue Quantity: 1, Issue Any Quantity checked, Only Default Quantity, Do not Issue), 'Current Quantities' (Items in Bin: 2.00, Ordered Quantity: 0.00, Draft: 0.00, Issued Quantity: 0, Quantity of Reworked: 0.00, Internal Order: 0.00, Last Count Date: 05/06/2012, Last Issue: 05/06/2012, Last Receive date: 05/06/2012), and a 'Remarks' section with a large text area.

Fields description:

Status *: Indicates the bin's status – Active / Not active. This field is mandatory.

Consignment: If the bin is marked "Consignment": 1) The issue transactions made from this bin will also be marked as consignment. This will allow Issue transactions to be invoiced. 2) No Return will be available to this bin. 3) Orders created for this bin will be marked as consignment. 4) Receive process will allow to receive only order lines marked as Consignment. If not marked, it will allow receiving only non-consignment order lines.

[For more information see Chapter B: Managing Consignment Stock \(section 8.10\).](#)

- Item Type: Non-editable field which displays the type of item associated with this bin.
This item type determines the available functionalities for the bin. More information is described in the Chapter B: [ITEM Life Cycle](#) (section 5.4.4).
- Reworked: If the bin is marked "Reworked", the items in this bin have been received from a rework (regrinding). Sometimes it is important to differentiate between new items and between items which have been reworked.
- Used Item: Indicates whether the bin contains a new or used item. See the following table for an explanation of this code.
- Bin Stock Management: States whether the stock is managed at the bin level. This means that the automatic PO process will replenish according to the Min and Max of the specific bin. Default value = not checked.
- Do not Order: If checked, no order can be processed for this bin (either automatically or manually). Default value = not checked.
- Capacity *: The maximum number of items that can be stored in this bin.
- Allow Over Capacity: If checked, the system will allow inserting a number of items in the bin which exceeds the specified capacity. Default value = checked.
- Default Issue Quantity *: The default number of items that will be issued per one issue. This value can be modified.
- Issue Price: The item's price used for the Issue transactions. If no price exists the price will be taken from the Item Price. For more information about prices see Chapter B: [PRICES of Items and Transactions](#) (section 8.9).
- Issue Any Quantity: If selected, the user may issue any quantity up to the maximum stock in the bin. If not, the user must issue the entire quantity of stock in the bin.
- Only Default Quantity: If selected, when using TOUCH only the exact quantity defined in 'Default Issue Quantity' field can be issued with no option to change it.



- Do not Issue: If checked, the system will not allow issuing items from this bin.
Default value = not checked.
- Items in Bin: The current stock quantity of items in the bin. When this number is modified, a stock adjustment will take place (see additional details below).
- Issued Quantity: The issued quantity from this bin, if the associated item type is 'Durable'. Supplies information about the number of items issued that should be returned to stock.
- Ordered Quantity: The quantity of ordered items for this bin
- Quantity of Reworked: The quantity of items sent to regrind process from this bin.
- Draft: The quantity of items in Draft status for this bin.
- Internal Order: The quantity of items in an Internal Order.
- Last Count Date: The date of the most recent stocktaking.
- Last Issue: The date of the most recent issue.
- Last Receive Date: The date of the most recent receive.
- Remarks: Free text.

Return item options:

In the table below, you will find an explanation as to how the item types connect to the different bin flags. This is our recommendation; it is possible also to work differently.

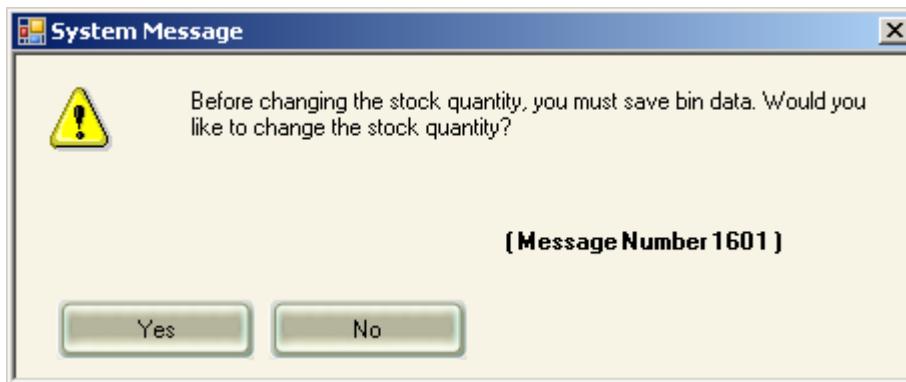
		Bin Flags			
Item Type + Status		Reworked	Used Item	Do not Issue	Do not Order
Durable	New				
	Used		✓		✓
Expendable	New				
Reworkable	New				
	Used, needs a Rework / Regrind		✓	✓	✓
	After rework	✓			✓

5.3.1.2 Stock Adjustment

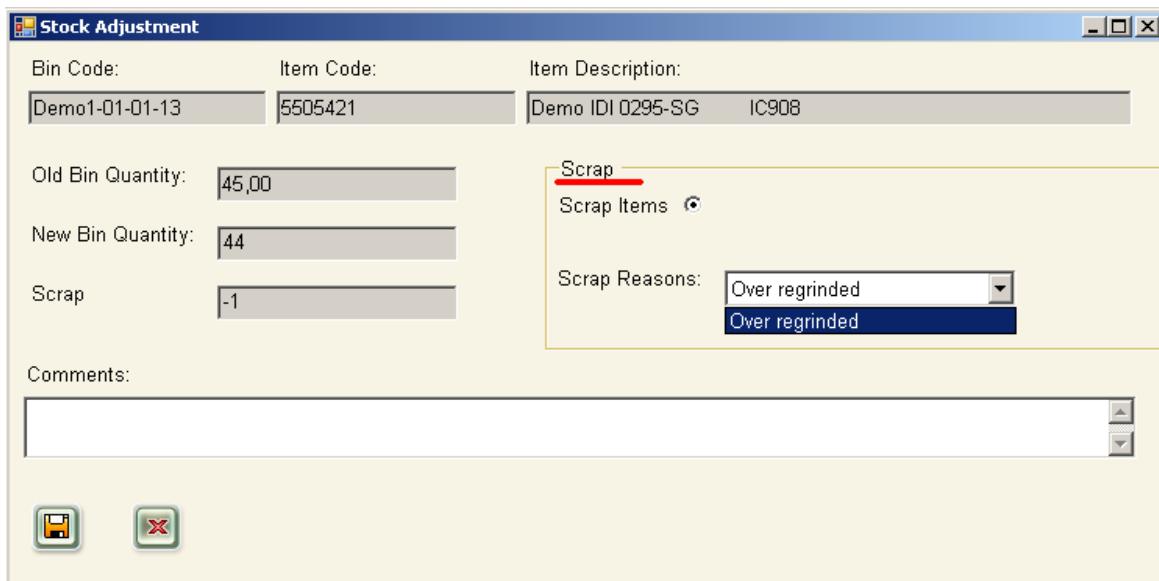
A stock adjustment transaction is initiated by the user when there is an inconsistency between the stock quantity and the number of items in the bin ("Items in Bin" field).

To change the stock:

1. Change the quantity in field "Items in Bin" and click the  <Save> button (or set focus to other field). The user will be asked if he wishes to modify the stock quantity.



2. To continue, click <Yes>. The "Stock Adjustment" screen will be displayed:



The image shows the 'Stock Adjustment' screen. It includes fields for Bin Code (Demo1-01-01-13), Item Code (5505421), and Item Description (Demo IDI 0295-SG IC908). Below these are fields for Old Bin Quantity (45,00), New Bin Quantity (44), and Scrap (-1). A dropdown menu for Scrap Reasons shows 'Over regrinded' selected. There is also a 'Comments' text area and standard window controls at the bottom.

If at the first step you **increased** the stock in bin, then you will only be able to adjust the stock with the difference. If you **reduced** the stock, then you will be able to adjust it or; to scrap the difference by selecting 'Scrap Items' option and select the scrap reason.



To read more about Scrap option, follow Chapter D: Scrap Reasons (section 16.9)

3. Select to adjust or to scrap the difference and save the changes.

We also recommend inserting a remark to explain the reason for the change.

4. Follow the stock change in the relevant bin and the resulting transaction record.

5.3.1.3 Tab: Stock Management

This tab displays information of stock management on the Bin level in order to replenish the stock by automatic purchase orders.

The screenshot shows the 'Bin Maintenance' window with the 'Stock Management' tab selected. The window has tabs at the top: General, Stock Management, Additional Fields, Usage, Transactions, Orders, Bin Units, and Authorizations. The 'Stock Management' tab is active. The main area contains fields for calculating usage and setting minimum and maximum quantities. It includes dropdowns for Frequency Class and Average Frequency, and a checkbox for Is Internal Order. There is also a field for Critical Minimum.

Calculated:	Override:	Effective Until:
Av. Monthly Usage: 3.000		
Minimum Quantity: 6.75		
Maximum Quantity: 9.75		
Frequency Class: E		
Average Frequency: 1.000	<input type="checkbox"/> Is Internal Order	
Critical Minimum: 0.00		

Av. Monthly Usage: The average issue transaction quantity per month for this item.

Minimum Quantity: Indicates the item's minimum quantity. If the stock level in this bin is less than this quantity, a new order will be initiated to renew the stock to its maximum level.

Maximum Quantity: Indicates the item's maximum quantity. If the stock level in this bin is less than the minimum quantity, a new order will be initiated to replenish the stock to its maximum level.

Frequency Class (Issue transactions per month): The average frequencies are classified by groups: Group A – a most active bin (measured in number of issue transactions per month); and Group B – a less active bin.

Average Frequency: The average number of orders per month for this bin.



- Critical Minimum: Indicates the bin's critical minimum quantity. If the stock in this bin is less than this quantity, this bin can be added to a 'Critical Quantity Alert', if scheduled. It will not influence the automatic ordering process.
- Is Internal Order: An option for automatic ordering of item for particular bin. If set, in case of stock shortage, the system will create internal order instead of purchase order for the particular bin.

The column "Calculated" displays automatically calculated values as a result of running "Monthly Usage Process".

The column "Override" enables overriding the automatically calculated values.

If the "Override" column has input and the "Effective Until" date has not expired, the Automatic Purchase order process will create orders according to the input. Otherwise, it will create the orders according to the data in the "Calculated" column.

For more information see Chapter D: [Monthly Process](#) (section 21.1) and Chapter D: [Automatic PO Process](#) (section 21.2).

5.3.1.4 Tab: Additional Fields

This tab displays the additional fields (of types: Numeric, Text, Boolean and Date) that were defined for the Bin entity in the "Additional Fields" screen.

This screen only allows you to edit the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: [Additional Fields](#) (section 5.5).



Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
42000655	MAXITOUCH-01-04-07 *	MAXITOUCH *	5504369	WBMT 060102L IC3028

General | Stock Management | Additional Fields | Usage | Transactions | Orders | Bin Units | Authorizations |

Field	Value
Date Exchanged	
Volume	1000mm
Full	

Additional Fields

Field:	Full
Value:	Yes



5.3.1.5 Tab: Usage

This tab displays the average usage data and issues frequency related to the Bin for previous months. The usage screen gives a good indication for the activity of the Bin. User can track in this tab the Usage, Average Usage and Frequency or issues for the Bin per month.

A screenshot of a Windows application window titled "Bin Maintenance". The window has several tabs at the top: General, Stock Management, Additional Fields, Usage (which is selected and highlighted in blue), Transactions, Orders, Bin Units, and Authorizations. Below the tabs is a large data grid table. The columns of the table are: Month, Usage (No. of Items), Frequency (No. of Issues), Av. Monthly Usage, Frequency Class, Average Frequency, Minimum Value, and Maximum Value. The data grid contains 10 rows of historical usage data from 2011-09 to 2012-06.

Month	Usage (No. of Items)	Frequency (No. of Issues)	Av. Monthly Usage	Frequency Class	Average Frequency	Minimum Value	Maximum Value
2012-06	0.00	0	0.000	A	56.857	99.82	199.65
2012-04	112.00	72	106.580	A	66.500	99.82	199.65
2012-03	121.00	79	101.160	A	63.750	99.82	199.65
2012-02	75.00	43	81.319	A	58.750	99.82	199.65
2012-01	56.00	32	87.637	A	65.000	99.82	199.65
2011-12	94.00	57	119.274	A	73.000	59.64	119.27
2011-11	183.00	115	144.548	A	72.875	99.82	199.65
2011-10	123.00	78	106.095	A	59.250	99.82	199.65
2011-09	100.00	56	89.190	A	49.500	44.60	89.19



5.3.1.6 Tab: Transactions

This tab displays all the transactions for the Bin.

Bin Maintenance								
Bin Key	Bin Code	Cabinet Code	Item Code	Item Description				
12000293	11-06-02-02	*	11	*	5504005		VNMG 12T304-NF IC3028	
General Stock Management Additional Fields Usage Transactions Orders Bin Units Authorizations								
Transaction Key	Transaction Type	Date	Quantity before Transaction	Transaction quantity	PO Number	Item Key	Item Code	
46265099	Issue	14/05/2012 12:43	60.00	2.00		1098	5504005	
46265094	Issue	14/05/2012 11:29	62.00	2.00		1098	5504005	
46265045	Issue	14/05/2012 09:45	63.00	1.00		1098	5504005	
46264970	Issue	14/05/2012 07:43	64.00	1.00		1098	5504005	
46264934	Issue	14/05/2012 07:12	66.00	2.00		1098	5504005	
46264929	Issue	14/05/2012 07:11	68.00	2.00		1098	5504005	
46264925	Issue	14/05/2012 07:08	69.00	1.00		1098	5504005	
46264913	Issue	14/05/2012 06:55	70.00	1.00		1098	5504005	
46264911	Issue	14/05/2012 06:54	71.00	1.00		1098	5504005	

5.3.1.7 Tab: Orders

This tab displays all the orders created for the particular Bin.

By selecting order line and clicking [<Update>](#), the Order Maintenance for the selected order line will be displayed.

Bin Maintenance									
Bin Key	Bin Code	Cabinet Code	Item Code	Item Description					
20000303	01-U5591373	*	01	*	5591373		SCD 062-RCN-X SKIN DRILL		
General Stock Management Additional Fields Usage Transactions Orders Bin Units Authorizations									
Quantity	Received Quantity	Order Date	Supplier Name	Request Date	Status	Order Type	PO Number	Total	
56.00	0.00	19/04/2012	STS		Sent to sup...	Rework	2001530	3405.36	
5.00	0.00	10/04/2012	STS		Sent to sup...	Rework	2001518	304.05	
4.00	0.00	09/04/2012	STS		Sent to sup...	Rework	2001517	243.24	
8.00	8.00	22/01/2012	STS		Close	Rework	2001472	486.48	
71.00	71.00	09/01/2012	STS		Close	Rework	2001462	4317.51	
13.00	13.00	21/12/2011	STS		Close	Rework	2001451	790.53	

5.3.1.8 Tab: Bin Units

This tab displays the Current bin location and all its Bins units on the grid of the whole drawer. Changes here should be done with **extreme** care, because it will change the bin coordinate definitions and might prevent the bin from opening.



Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
42000655	MAXITOUCH-01-04-07 *	MAXITOUCH *	5504369	WBMT 060102L IC3028

General | Stock Management | Additional Fields | Usage | Transactions | Orders | Bin Units | **Authorizations** |

IMPORTANT! Changes here should be done with extreme care.

Y	Z	X	Sent
1	4	16	YES
1	4	17	NO
1	4	18	YES

Y Z X Sent

Bin type: 50C

X [17] Z [4] Bin Code MAXITOUCH-01-04-07

Bin type is filled automatically when adding drawer to cabinet. It can also be set manually.

5.3.1.9 Tab: Authorizations

This tab enables you to define/view which user group will be authorized to access this bin.



Note: This authorization is not effective until marking user group with 'Bin Limitation'.

Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
43000099	71-01-07-12 *	71 *	9802643	B212A03400

General | Stock Management | Additional Fields | Usage | Transactions | Orders | Bin Units | **Authorizations** |

Group Key	User Group	Bin Limitation	Remarks
1	Admin	NO	Modules: All items, Auth: All

See also Chapter D: [User Groups](#) (section 18.1).

5.3.2 Deleting a Bin

To delete a bin, select the required bin's record from the bin list and click the  [<Delete>](#) button on the toolbar.



Note: A bin that has been associated with an item cannot be deleted until the item definition and its stock is removed. In this case, first adjust the stock in the bin to zero, remove the value from the "Item Code" field by selecting the first empty value from the list and then delete the bin.

5.3.3 Bin Location

Each bin has its physical location known as **Bin Units** and visual location known as the **Bin Code**:

Physical location:

The physical location of the bin is defined by the location of the **BIN LATCH** relative to the left front corner. The physical location of the bin is used for defining the X-Y-Z coordinates for creating the bin unit in order to communicate with the cabinet.

For example, the physical location of the **blue bin** from the diagram below will be:

Y = 3 = Number of the **drawer controller socket*** on the side board from top to bottom

Z = 9 = Location of **bin latch** from front to back

X = 4 = Location of **bin latch** from left to right

This location is stored in the "Cabinet Units" in the cabinet.

For this, follow: [Main → Cabinet](#), select a Cabinet and then tab "[Cabinet Units](#)".

For more information, follow Chapter B: [Tab: Cabinet units](#) (section 5.2.1.2).

* As seen when removing side panel

Visual location:

The visual location of a bin is defined by the location of the **BIN** relative to the left front corner. The visual location of the bin is used for the name of the bin, called a **Bin Code** in the MATRIX-TM software modules.

For example, the visual location of the **blue bin** from the diagram below will be:

Drawer = 3 = Number of the **drawer** from top to bottom

Z = 4 = Location of **bin row** from front to back

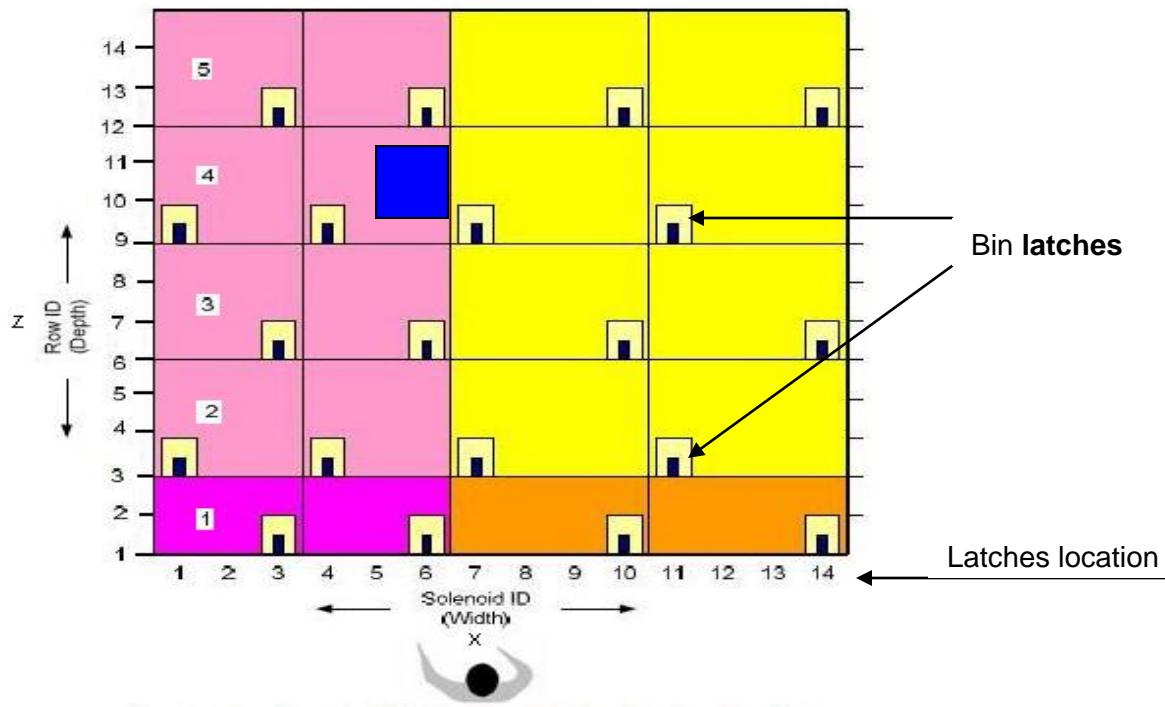
X = 2 = Location of **bin column** from left to right



Note: Physical location is **only** used when defining special drawer configurations. Visual location is used by the system to identify bins.

BIN Code = Cabinet Name – Drawer – Z – X

DEMO–03–04–02



For example,
Bin **DEMO-03-04-02** is in cabinet **DEMO**,
in **3rd Drawer** from top to bottom,
in **4th Row** from front to back,
in **2nd Column** from left to right.

5.4 Item

The "Item" module displays the different items stored in the cabinet's bins and enables handling them: adding / updating / copying / deleting.

The "Item Maintenance" screen contains the item's general details (ID, code, description and type) and the following tabs:

General, Technical, Supplier Information, Additional Fields, Stock Management, Locations, Usage, Transactions, Links, Orders, Alternative and Cost Centers.

5.4.1 Adding Items

1. To enter the module, select "Menu: Main → Item" in the system's main menu or click



<Item> button from the left shortcut menu.

2. Click the  <Add> button on the toolbar.
3. Enter values for the mandatory and regular fields: Item Code, Item Description, Item Type, etc. in the screen's header and the fields on the "General" tab.
4. Click the  <Save> button.

At this point, you are able to enter the rest of the item's details in the screen's tabs:



Recommendation: To save time setting values for fields, you can set default values that will be automatically loaded each time you create a new item. For more information see Chapter B: [Defaults List](#) (section 5.6).

5.4.1.1 Tab: General

This tab contains general details regarding the item.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:			
1095	5503660	XOMT 060204-GF IC328	Expendable			
Transactions		Links	Orders	Alternative	Cost Centers	
General	Technical	Supplier Information	Additional Fields	Stock Management	Locations	Usage
Additional Item Code: 0301577 Item Long Description: MAXITOUSH Barcode: 05503660 Item Auth Group: Unit of Measure: General Units Item Group: Inserts Category: Drilling				 Pack Size: 10 Pack Type: Type A Default Issue Quantity: 1.00		
Item Price: 21.52 Average Cost: 21.52 Price of Reworked: Primary Supplier: STS Remarks:				<input checked="" type="checkbox"/> Item Management Level <input type="checkbox"/> Consignment <input type="checkbox"/> Serial <input type="checkbox"/> Special		
Update Create User: admin creator Create Date: 18/07/2012						

Fields description:

- Item Code *: The main catalogue number used to search for an item in the system.
- Item Description *: The main description used to search for an item in the system.
- Item Type *: Item type (Durable, Expendable, Gauge, Key, Kit and Reworkable) that determines the functionality of the item. For more information see Chapter B: [ITEM Life Cycle](#) (section 5.4.4).
- Additional item code: An additional catalogue number, which can be used in case two different codes are necessary (for example supplier's and customer's code).
- Item Long Description: An additional item description.
- Barcode: Item bar-code that makes it easier to find the items on the TOUCH module by scanning with the barcode reader.

If this field has no value and the user will use a barcode reader, the system will compare the read value to the Item Code and Item Description.

Notice that the barcode reader is usually configured to scan with a prefix that is also defined in System Option **1012**. The value here should be the same as it scanned, but without the prefix.

For more information, read Chapter C: [Barcode Interface](#) (section 12.3.3).

Item Authorization Group: The authorization group which is used to restrict the usage of the item. For more details see Chapter D: [Item Authorizations Group](#) (section 16.4).

Unit of Measure *: The unit in which the item is measured e.g. PCS=Pieces

Item Group *: The group to which the item belongs. This information is helpful for tracking an item in the system.

Category *: An additional classification of the item. You can edit its options in the list, as described in Chapter D: Item Category (section 16.2).

Item Image: The item image, as it is also displayed on the TOUCH module. To change the image, click the  browse button and select an image file. This will copy the selected file into the folder as defined in system option **400** (Item Pictures path) and will rename the file using Item Code as a file name with extension as defined in system option **204** (Picture File Type).

Pack Size *: Indicates the number of items in this type of package.

Pack Type: Item's Pack type with its HxWxD dimensions. Recommended to fill when using the 'Item Location Planning' module for easy setting of items to bins.

Default Issue Quantity *: The default quantity for an issue of this item. When defining this item for bin, this value will be copied to the bin's "Default Issue Quantity" field.

Item Price: Indicates the default item price which is the price used for calculating the value of transactions. For more information about prices see Chapter B: [PRICES of Items and Transactions](#) (section 8.9).



- Average Cost: This field is calculated automatically by the received orders and cannot be edited manually. The value is influenced only by Receive transactions of Standard Orders. Every time an item is received into the system, it takes the received quantity and the value from "Unit Price" field from the order and calculates the average between the price in the order and the previous average cost.
- The purpose of this field is to calculate the average cost of an item from all the purchases done for the item during the whole period of working with the system. The average cost later will be used for stock transaction values such as 'Return', 'Adjust Item', 'Transfer' and 'Count Bin' and for stock valuation reports.
- Price of Reworked: The price of an item after rework/regrind process. If the bin is flagged with 'Reworked', then the value of an Issue transaction from that bin will be calculated with this price.
- Primary Supplier: States the item's default supplier, who will be selected as the supplier in automatic orders.
- Item Management Level: If checked, the automatic order process will be managed at the item level, i.e. there will be a Min and Max for the Item, taking into account the total quantity of this item in all bins.
- Consignment: If the item is marked: 1) The 'Consignment' field for bins associated with this item will also be checked and this will influence on the Return and Receive operations. 2) Orders created for this item on Item and Item/Cabinet levels will be marked as consignment.
- [For more information see Chapter B: Managing Consignment Stock \(section 8.10\).](#)
- Serial: If checked, this will allow managing each individual piece of the item by its serial number. Serial number is a unique identifier for each item piece.
- Checking this field depends on item type:
- Items of type **Durable** can be serialized; therefore the field is enabled and changeable. Tab 'Serial' will be added to manage the serials.



Items of type **Gauge** can be only serial; therefore the field is automatically marked and not changeable. Tabs 'Serial' will be added to manage the serials and tab 'Gauge' to manage gauge measurements.

Items of type **Expendable / Reworkable / Kit / Key** cannot be serialized, therefore the field is disabled.

Special: Check the field if the item is special. Used for information only.

Remarks: Free text.

Create User, Create Date, Update User, Update Date:

Filled automatically by the system and cannot be changed manually.

5.4.1.2 Tab: Technical

This tab is used to define technical information regarding the item.

The screenshot shows the 'Item Maintenance' window with the 'Technical' tab selected. The window has fields for Item Key (1095), Item Code (5503660), Item Description (XOMT 060204-GF IC328), and Item Type (Expendable). Below these are tabs for Transactions, Links, Orders, Alternative, and Cost Centers. Under the Transactions tab, there are fields for Application (Drilling), Main Family (Drilling Inserts), Sub Family (Drilling Regular Inserts), Item Weight, and # of Corners.

Fields description:

Application: Disabled field automatically set according to the selected 'Main Family'.

Main Family: An additional classification of the item, used for searching the item and reports.

To edit the options in the list follow Chapter D: [Application, Main Family and Sub Family](#) (section 16.10).

Sub Family: An additional classification of the item, used for searching the item and reports. The list is filtered according to the selected Main Family.



To edit the options in the list follow Chapter D: [Application, Main Family and Sub Family](#) (section 16.10).

Item Weight:

The item weight, for information only.

of Corners:

Number of corners, usually for inserts. Displayed for info and used for calculations in the “CPU & Tool Life” module.

5.4.1.3 Tab: Supplier Information

This tab is used to define the supplier of the selected item along with some additional data like pricing.

The screenshot shows the 'Item Maintenance' window with the 'Supplier Information' tab selected. The top section displays general item details: Item Key (1095), Item Code (5503660), Item Description (XOMT 060204-GF IC328), and Item Type (Expendable). Below this is a grid listing suppliers, with two entries shown:

Supplier Key	Supplier Name	Supplier Code	Currency	Quantity Discount
5	Iscar	1	USD (3.90)	<input type="checkbox"/>
7000001	STS	S	USD (3.90)	<input type="checkbox"/>

The bottom section contains detailed supplier information for the selected supplier (Supplier Item Code 5503660):

Supplier Item Code:	5503660
Supplier Item Description:	XOMT 060204-GF IC
Expiry Date:	
Minimum Order Quantity:	10
% Discount:	
Supplier Price:	21.52
Pack Size:	10
Remarks:	

Associated with this supplier are the Unit of Measure (General Units), Update User (admin creator), Update Date (18/07/2012), Create User (empty), and Create Date (empty).

The screen's top section contains the item's general details. Its middle section contains a list of suppliers who are associated with this item and their details.

Adding a supplier for an item:



1. Click the <Add> button.
2. Search the required supplier in the supplier's search screen, mark his record and click the <Select> button.

Search Supplier

Supplier Key:	<input type="text" value="3"/>	Supplier Code:	<input type="text"/>	Supplier Name:	<input type="text"/>		
<input type="button" value="Search"/> <input type="button" value="Select"/>							
Found 2 Records.							
Supplier Key	Supplier Code	Supplier Name	Address 1	Address 2	Address 3	Address 4	Contact Person
1	supp1	supp1	Golomb 16 st.	Tel-Aviv	Israel		Dani N
2	supp2	supp2					

Once the supplier is selected, the following tabs will appear at the lower part of the screen:

Sub-Tab: General

This tab contains information for orders regarding the supplier of the item:

General	Quantity Discount	Lead Time
Supplier Item Code: <input type="text" value="5503660"/>	Unit of Measure: <input type="text" value="General Units"/>	*
Supplier Item Description: <input type="text" value="XOMT 060204-GF IC"/>	Update User: <input type="text" value="admin creator"/>	
Expiry Date: <input type="text"/>	Update Date: <input type="text" value="18/07/2012"/>	
Minimum Order Quantity: <input type="text" value="10"/>	Create User: <input type="text"/>	
% Discount: <input type="text"/>	Create Date: <input type="text"/>	
Supplier Price: <input type="text" value="21.52"/>		
Pack Size: <input type="text" value="10"/>		
Remarks: <input type="text"/>		

Supplier Item Code: The supplier's reference to the item.

Supplier Item Description: The item's description used by the supplier.

Expiry date: The item's price expiration date (for this specific supplier).

Minimum Order Quantity: Minimum order quantity from this supplier.

<u>% Discount:</u>	The supplier's discount for this item.
<u>Supplier Price *:</u>	The supplier's price for this item. When creating an order, by default this price will be copied into the "Unit Price" field in the order.
<u>Pack Size *:</u>	The size of the package used by the supplier for this item. In an automatic order the ordered quantity will be rounded up to this value.
<u>Remarks:</u>	Free text.
<u>Unit of Measure *:</u>	Indicates the supplier's base order unit. The system does not deal with unit of measure conversions.

Update User, Update Date, Create User, Create Date:

Filled automatically by the system and are not changeable manually.

Sub-Tab: Quantity Discount

Quantity Discount				
Quantity	Price	% Discount	Expiry Date	Remarks
100	45			
150	35			

This tab contains a grid where we can define special prices and discounts of the supplier for different order sizes.

To define a new record: click the  [**<Add>**](#) button; fill-in the fields in the open window; and click the  [**<Save>**](#) button. In order to update (or to delete) a record, mark the required record in the grid and click the  [**<Update>**](#) button (or the  [**<Delete>**](#) button).

Fields description:



Quantity *: If the ordered quantity is greater or equal to this quantity, the special price or discount will apply.

Price: Indicates the price for the specified quantity.

% Discount: Indicates the discount for the specified quantity.

Expire date *: The date the pricing for this quantity expires.

Remarks: General remarks for this quantity pricing.

Sub-Tab: Lead Time

General	Quantity Discount	Lead Time
Min. Lead Time:	2	
Max. Lead Time:	9	
Average Lead Time:	6	
Lead Time Override:	<input type="text"/>	* Used only if Effective Date is Valid
Lead Average Effective Date:	<input type="text"/>	

This tab contains statistical information of the item's supplier record. This information is calculated at each month end process and is used in the ordering process.

Fields description:

Min. Lead Time: The supplier's minimum lead time, calculated at the end of each month.

Max. Lead Time: The supplier's maximum lead time, calculated at the end of each month.

Average Lead Time: The supplier's average lead time, calculated at the end of each month.

Lead Time Override: The lead time can be modified to the value specified in this field.

Lead Average Effective Date: The date until which the lead time override mentioned above is effective.



Note: To see specific supplier information, mark the required supplier and click the <Update> button or double-click the record. As a result, the above mentioned tabs (General, Cost Break and Usage Information) will appear.

5.4.1.4 Tab: Additional Fields

This tab displays the additional fields (Numeric, Text, Boolean and Date), set for the Item entity in the "Additional Fields" screen.

This screen only allows you to edit the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: [Additional Fields](#) (section 5.5).

To update values for each of these fields, click the <Update> button, set the required value and click the <Save> button.

The screenshot shows the 'Item Maintenance' window. At the top, there are fields for 'Item Key' (1095), 'Item Code' (5503660), 'Item Description' (XOMT 060204-GF IC328), and 'Item Type' (Expendable). Below these are several tabs: 'Transactions' (with 'General' and 'Technical' sub-tabs), 'Links', 'Orders', 'Additional Fields' (which is currently selected), 'Alternative', 'Stock Management', 'Cost Centers', 'Locations', and 'Usage'. In the 'Additional Fields' tab, a table lists fields and their values. The 'Corner Radius' field is selected, showing a value of '80'. A small 'Edit' button is located next to the table. A modal dialog box titled 'Additional Fields' is open, showing the 'Field' (Corner Radius) and 'Value' (80) for the selected row.

5.4.1.5 Tab: Stock Management

This tab displays information regarding the current stock situation required for the ordering process.

The top grid contains two Stock Management Levels:

Item level – total quantity of this item in all cabinets and;

Item/Cabinet level – total quantity of this item per cabinet. There will be one row for each cabinet where the item is located.

Select stock level on top (mark the row) to display its details below...

The 'Calculated' column: The details displayed are automatically calculated by the system during the 'Monthly Usage Process' based on the usage statistics. These values will be used for the automatic orders unless valid values will be entered into the 'Override' column.

The 'Override' column: Manual values that override the calculated values. For the override value to take effect the "Expiry Date" must be selected and must be a future date. Upon expiration of the override value, the system will revert to using the 'Calculated' values to create new orders.

For more information see Chapter D: [Monthly Process](#) (section 21.1) and Chapter D: [Automatic PO Process](#) (section 21.2).



Note: The expiration date is obligatory if you change one of the override fields.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
1095	5503660	XOMT 060204-GF IC328	Expendable

Transactions		Links		Orders		Alternative		Cost Centers	
General	Technical	Supplier Information		Additional Fields		Stock Management	Locations	Usage	

Stock Management Level	Cabinet Code	Cabinet Name	Stock Management
Item			
Item/Cabinet	01	Kardex 01	
Item/Cabinet	31	M31	Yes
Item/Cabinet	MAXITOUCH	MAXITOUCH	

Recalculate

Quantity					
In Stock:	185.00	Standard Orders:	0.00	Rework Orders:	
Issued Quantity:	0	Internal Orders:	0.00	Draft Orders:	0
		On Route:	0		

Calculated:	Override:	Expiry Date:
Av. Monthly Usage:	0.000	01/01/2013
Minimum Quantity:	87.50	120
Maximum Quantity:	137.50	140
Frequency Class:	A(20-100000)	
Average Frequency:	24.286	
Critical Minimum:	70	
<input checked="" type="checkbox"/> Is Internal Order <input type="checkbox"/> Do not Order		

Field Descriptions:



Note: All of the display values for the following fields depend on the selected Stock Management Level – **Item** level or **Item/Cabinet** level.

Select stock level on top to display its details below...

In Stock: The current quantity in stock.

Issued Quantity: The issued quantity for the selected stock management level. If the item type is 'Durable' it supplies information about the number of items issued that should be returned to stock.

Standard Orders: The Quantity in **Open orders** for the selected stock management level (quantity in the cabinet or the entire stock).

Internal Orders: The quantity of items in an Internal Order.



- On Route: The quantity of items from an Internal Order that was taken from source location and is now on route to be received at its destination location.
- Rework Orders: The Quantity in **Rework orders** for the selected management level (quantity in the cabinet or the entire stock).
- Draft Orders: The Quantity in **Pending orders** (orders which haven't been approved yet) for the selected management level.
- Av. Monthly Usage: The average issue transaction quantity per month for the selected stock management level.
- Minimum Quantity: Indicates the item's minimum quantity. For the selected management level: If the quantity in stock is less than this quantity, a new order will be initiated to renew the stock to its maximal level.
- Maximum Quantity: Indicates the item's maximum quantity. For the selected management level: If the quantity in stock is less than the minimum quantity, a new order will be initiated to replenish the stock to its maximal level.
- Expiry Date: The expiry date for override values (if set) for Average Usage, Minimum and Maximum. This field can get a default value by setting 'Defaults List'.
For more details see Chapter B: [Defaults List](#) (section 5.6).
- Critical Minimum: Indicates the item's critical minimum quantity. For the selected management level, if the quantity in stock is less than this quantity, the item will be added to the 'Critical Quantity Alert', if scheduled. This does not influence the automatic ordering process.
- Frequency Class (Issue transactions per month): The average frequencies are classified to groups: Group A – a most active item (measured in number of issue transactions per month); and Group B – a less active item.
- Average Frequency: The average number of transactions per month.
- Is Internal Order: An option for automatic ordering of item for particular cabinet. If set, in case of stock shortage, the system will create an internal order instead of purchase order for the particular cabinet.



Do not Order: An option for automating ordering of item for particular cabinet. If set, the system will not create an automatic order even if there was a stock shortage.

The [<Recalculate>](#) button:

Pressing this button will immediately recalculate and update the calculated Minimum and Maximum quantities based on new override values, instead of waiting for the schedule of the 'Monthly Usage Process'. A change in the following fields can influence the results: *Lead times*, *Average Monthly Usage* or *Frequency Class* together with its *Expiry Date*.

After updating the required fields, click the [<Save>](#) button.

5.4.1.6 Tab: Locations

The screenshot shows the 'Item Maintenance' window with the 'Locations' tab selected. The top section contains fields for Item Key (22), Item Code (5505421), Item Description (Demo IDI 0295-SG), and Item Type (Expendable). Below this is a grid table with columns: Cabinet Code, Bin Code, Quantity, Last Issue, Capacity, Reworked, and Used. The grid contains five rows of data. To the right of the grid, there are two buttons with icons: a document icon and a pencil icon, both enclosed in a red box.

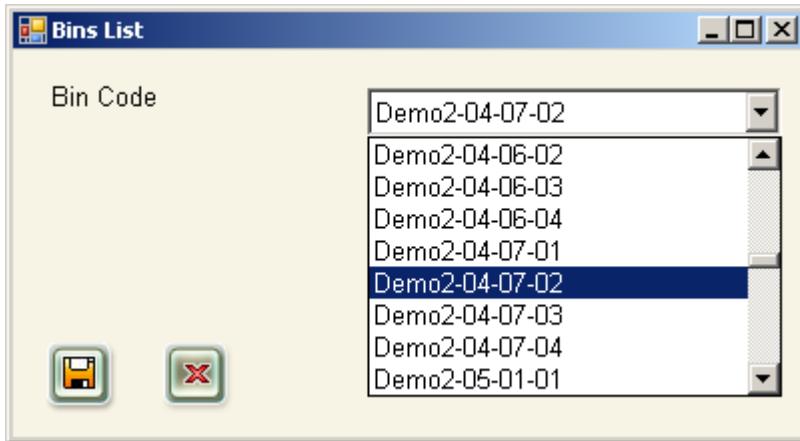
Cabinet Code	Bin Code	Quantity	Last Issue	Capacity	Reworked	Used
Demo1	Demo1-01-01-13	45.00	08/02/2006	50	<input type="checkbox"/>	<input type="checkbox"/>
Demo2	Demo2-01-04-01	5.00		5	<input type="checkbox"/>	<input type="checkbox"/>
Demo2	Demo2-01-04-02	5.00		5	<input type="checkbox"/>	<input type="checkbox"/>
Demo4	Demo4-01-05-13	6.00		10	<input type="checkbox"/>	<input type="checkbox"/>
Demo4	Demo4-01-06-01	5.00		10	<input type="checkbox"/>	<input type="checkbox"/>

This tab displays a list of bins in all cabinets where the current item is stored.

You can update bin data and link the item to additional bins.

To link an item to additional bin:

1. Click the [<Add>](#) button on the right side of the grid. This will display the list of bins that are not linked to an item.



2. Select a bin from the list and click the  <Save> button. This bin will be added to the list in the grid. Continue to update data of the bin like Capacity, Items in Bin etc.

To update data of the bin:

By marking a certain record in the grid and clicking the  <Update> button, the "Bin Maintenance" screen will appear, displaying the details of the selected bin and allowing the updating of the bin.

For further details regarding updating a bin, see Chapter B: [Bin](#) (section 5.3).

5.4.1.7 Tab: Usage

This tab displays the usage data by month related to the Item. The usage screen gives a good indication for the activity of the Item. User can track in this tab the Usage, Average Usage and Frequency or issues for the Item per month.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:			
1095	5503660	XOMT 060204-GF IC328	Expendable			
Transactions		Links	Orders	Alternative	Cost Centers	
General	Technical	Supplier Information	Additional Fields	Stock Management	Locations	Usage

Month	Usage (No. of Items)	Frequency (No. of)	Av. Monthly Usage	Frequency Class	Average Frequency	Minimum Value
2012-06	0.00	0	0.000	A	24.286	87.50
2012-04	26.00	22	47.172	A	23.250	41.28
2012-03	94.00	56	68.344	A	20.500	59.80
2012-02	64.00	34	42.688	B	13.500	48.02
2012-01	13.00	13	21.375	C	9.250	18.70
2011-12	33.00	23	29.750	C	7.625	26.03
2011-11	38.00	22	26.500	D	4.750	33.13
2011-10	20.00	14	15.000	E	2.000	33.75

5.4.1.8 Tab: Transactions

This tab displays all the transactions for the item.

Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:				
1095	5503660	XOMT 060204-GF IC328	Expendable				
General		Technical	Supplier Information	Additional Fields	Stock Management	Locations	Usage
Transactions		Links	Orders	Alternative	Cost Centers		

Trans Key	Transaction Type	Date	Bin Key	Bin Code	Quantity before Transaction	Transaction quantity	PO Number
462...	Issue	13/05/2012 23:09	400...	5503660	27.00	2.00	
462...	Issue	13/05/2012 17:37	400...	5503660	28.00	1.00	
462...	Issue	10/05/2012 17:00	400...	5503660	29.00	1.00	
462...	Issue	09/05/2012 17:40	400...	5503660	30.00	1.00	
462...	Issue	08/05/2012 15:27	400...	5503660	32.00	2.00	
462...	Issue	07/05/2012 16:29	400...	5503660	33.00	1.00	
462...	Issue	06/05/2012 17:05	400...	5503660	34.00	1.00	
462...	Issue	06/05/2012 16:38	400...	5503660	36.00	2.00	

5.4.1.9 Tab: Links

This tab displays a list of links associated with the item.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
22	5505421	Demo IDI 0295-SG IC908	Expendable

General Supplier Information Additional Fields Stock Management Locations Usage Transactions

Links Orders Cost Centers

Document Name	Path	Description
CTMS_Help.chm	C:\Program Files\MATRIX-TM 4.2\helpFiles\en-US\	

Links

Document Name:	CTMS_Help.chm
Path:	C:\Program Files\MATRIX-TM 4.2\helpFiles\en-US\
Description:	

Adding / Updating Links:

Each record is built of a file name and its full path and description.

1. Click the [<Add>](#) or [<Update>](#) button (to update an existing record first mark it in the grid).
2. Enter the required values in the "Links" window (below) manually or click the [<Insert/Update file>](#) button to select the file from the system.
3. Save the record by clicking the [<Save>](#) button.

Links

Document Name:	CTMS_Help.chm
Path:	C:\Program Files\MATRIX-TM 4.0\helpFiles\en-US\
Description:	



5.4.1.10 Tab: Orders

This tab displays all the order lines that were created for this item.

In order to see the order that contains a specific order line, select the order line record and click the <Update> button.

The screenshot shows the 'Item Maintenance' window with the 'Orders' tab selected. The main area displays a grid of order lines:

Quantity	Received	Order Date	Supplier	Status	PO Number	Total	Cabinet	Bin
20.00	0.00	24/07/2008	Iscar	Open	3	50.00		
15.00	5.00	24/07/2008	Iscar	Close	6	37.50	Demo4	

5.4.1.11 Tab: Alternatives

This tab displays a list of items that have been defined as alternatives to the main item.

After defining the alternatives in Manage, the Touch module will display an <Alternatives> button during the 'Issue' process when the requested item is out of stock.

The screenshot shows the 'Item Maintenance' window with the 'Alternative' tab selected. The main area displays a grid of alternative items:

Item Key	Item Code	Item Description	Sequence
20	3220370	Demo HSD 020-024-020 AM6 PRV...	1
38	4550299	Demo IHAXF 6- 8/16	2
35	3201144	Demo CHAMRING 110-WN32-09	3

5.4.1.12 Tab: Cost Centers

This tab enables to edit list of cost centers to which this item will be linked.

For more details see Chapter D: [Link Cost Centers to ITEM](#) (section 19.3.1).



5.4.2 Copying an Item

By copying an item, the user can add a new item to the system, identical to the copied item.

The copied information is the values of the fields in the "General" tab, with the exception of the item code, description (which will be set in the "Copy Item" window) and supplier, which will not be copied.

To copy an item:

1. Click the <Copy Item> button.

The screenshot shows the 'Item Maintenance' application window. The main window has tabs for General, Supplier Information, Additional Fields, Stock Management, Location, Usage, Transaction, and Links. The General tab is selected. In the General tab, there are fields for Item Key (22), Item Code (5505421), Item Description (Demo IDI 0295-SG IC908), and Item Type (Expendable). Below these are dropdowns for Additional Item Code, Item Long Description (Demo IDI 0295-SG IC908), Item Group (Drilling), Item Auth Group, Unit of Measure (Pieces), Category (Regular), Barcode, Main Family, and Sub Family. There are also fields for Item Price (1,00), Average Cost, Primary Supplier (Iscar), and Remarks. At the bottom, there are fields for Update Create User (admin creator), Create Date (07.02.2006), Update User, Update Date (07.02.2006), and Remarks. A 'Copy Item' dialog box is overlaid on the main window. It contains fields for Item Code (copydemo55) and Item Description (This item is copied for demo). It also has OK and Cancel buttons.

2. Enter item code and description.



Save the new item by clicking the  [**<Save>**](#) button. Once the new item is created and its details copied, the user is notified that the copying operation has successfully ended.



5.4.3 Kit Management

MATRIX-TM lets you manage Kits. A kit is created from a list of items, along with the quantity of each such item.

In order to define a kit, you need to open an item of type "Kit". Once a Kit item is opened, a new tab "Kit Items" is displayed. In this tab it is possible to define all the items which make up the kit. These items are defined along with their respective quantities.

When a Kit item is being issued, there are two possibilities:

- If the kit item is stored in a bin as one assembly, it is issued like any other item from a bin.
- If the kit item is comprised of items stored in different bins, the system will issue all the defined items continuously one after the other.

5.4.3.1 Defining a Kit Item

1. Open "[Menu: Main → Item](#)"
2. Open an item and choose Item Type Kit. This will open a new tab called "Kit Items". In this TAB you can add the individual items which make up the kit. For each individual item in the Kit you can add the following data:

Quantity: How many of each individual item per kit unit.

Sequence : In what order to show the lines.

Remarks: Any text which is related to this item.

For reading more information about kits, see Chapter B: [Issue Kit](#) (section 8.5.1) and Chapter C: [Issue a Kit](#) (section 13.1.1).



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
62	KIT1	KIT1 DEMO	Kit

General | Supplier Information | Custom Fields | Stock Management | Location | Remarks and links | Kit Items |

Item Key	Item Code	Item Description	Sequence	Quantity
17	5502222	Demo TPMR 221 IC70	1	5
4	3102566	Demo HM90 E90A-D.62-2-C.62...	2	2
25	5900329	Demo 16EL A 55	3	2

Buttons:

Item Code:	5900329	Item Description:	Demo 16EL A 55
Quantity:	2	Remarks:	<input type="text"/>
Sequence:	3		

5.4.4 ITEM Life Cycle

The stock operations available for an item depend on the **Item Type**, **Bin Type** and on **System Options 904 and 905**.

The system uses:

Six types of Items: Durable, Expendable, Gauge, Key, Kit and Reworkable.

Three types of Bins (definitions on the "Bin Maintenance" screen): **Used** (signed with 'Used Item'), **Reworked** (signed with 'Reworked') and **New** (no sign).

Each of system options 904 and 905 has 2 available values – YES or NO.

Expendable item: Can be issued only once, must be located in a new bin and without option to return. This item type is not influenced by system options 904 and 905.

Durable / Kit: It is a multiple use item that can be located in any type of bin and can be returned to the cabinet; therefore it can be issued many times. This item type is influenced by the system option 905.

**Option 905 - Used Durable/Kit Bin good as New**

If 905 = NO, Receive Durable/Kit new item to New bins.

If 905 = YES, Receive and Return Durable/Kit new item to New or Used bins.

E.g. If you wish to Receive and Return New & Used Durable/Kit items into one bin, select YES. If you wish to separate New & Used Durable/Kit items into different bins, select NO and sign 'Used Item' for bins.

Reworkable:

It is a multiple use item that can be located in any type of bin, and can be returned to the cabinet. It can be issued many times, but only after rework process. This item type is influenced by the system option 904.

Option 904 - Reworked Bin good as New

If 904 = NO, Receive Reworkable new item only to New bins and Reworkable reworked item only to Reworked bins.

If 904 = YES, Receive Reworkable item (new or reworked item) to New or Reworked bins.

E.g. If you wish to receive New & Reworked items into one bin, select YES. If you wish to separate New & Reworked items into different bins, select NO and sign 'Reworked' for bins.

Key:

It is a physical key which is stored in Matrix in order to open external lockers. This item type is managed as Durable type.

Gauge:

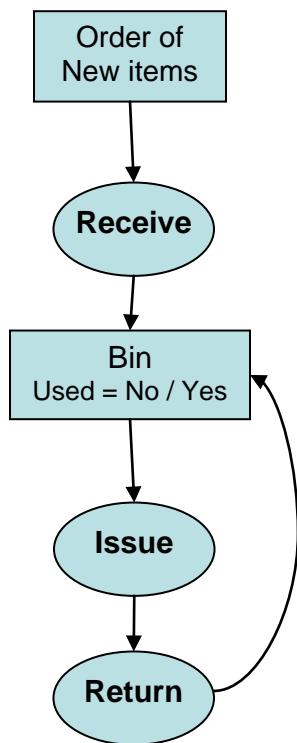
It is a serial item which requires periodical calibrations. This item type is managed as Durable type.

The following charts show the life of cycle of the different item types and settings for system options 904 and 905.

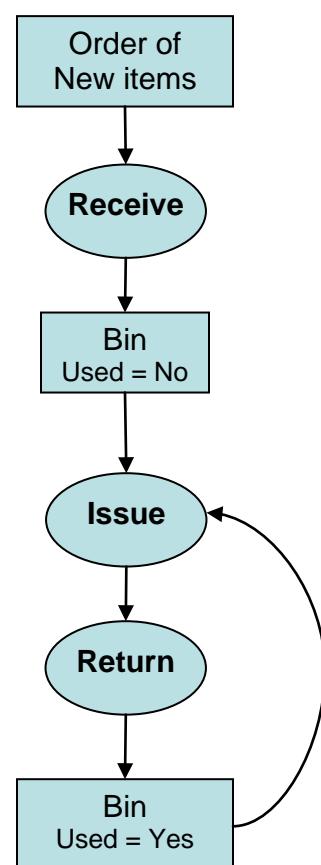
Please read more information about the influence of system options 904 and 905 in Chapter B: [Stock Management Levels](#) (section 6)

Life cycle of DURABLE / KIT Items

905 = Yes



905 = No

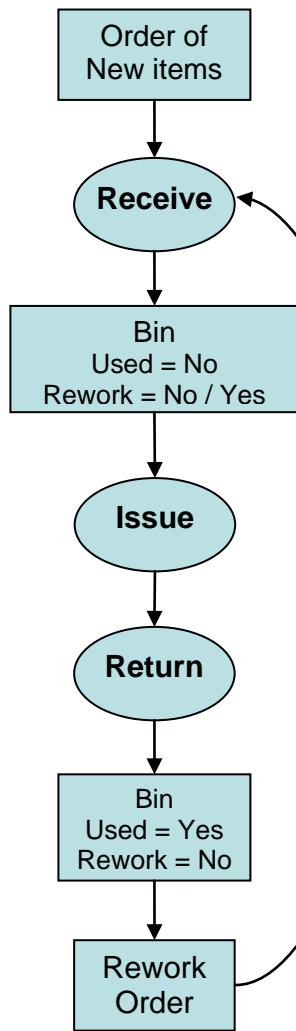


Note:

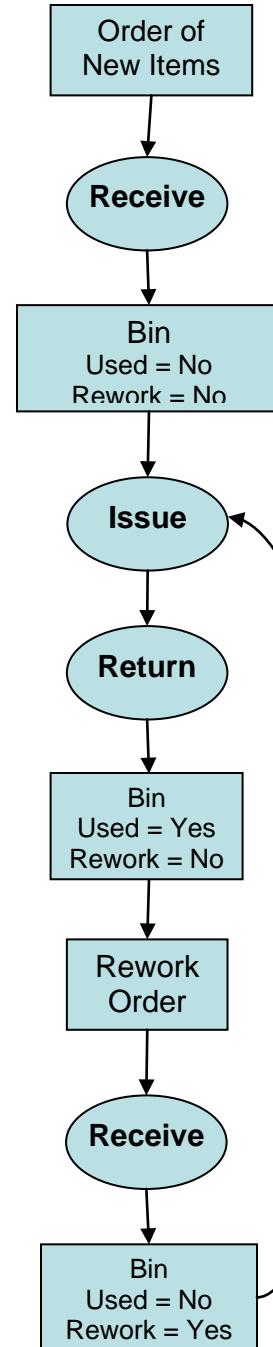
When 905=Yes and there is a used bin, it may still be possible to return to it.

Life cycle of REWORKABLE Item

904 = Yes



904 = No



Notes:

- When Reworkable items are sent to regrind supplier, but cannot be fixed, close manually their order after receiving all that was fixed.
- When 904=Yes and there is a rework bin, it may still be possible to receive the rework order to it.



5.4.5 Add Images to Items

The system supports displaying the item's image in the Manage and Touch modules.

To use this feature, the folder defined in System Option **400** (Item Pictures path) must contain all the files with the extension as defined in System Option **204** (Picture File Type). When opening an item in Manage or Touch, the system will try to find the compatible item picture and to display it. If no matching file will be found, the Group Image of that item or 'No Image' will be displayed.

There are three ways to add images to the items:

Manual file renames and copies:

1. Rename the image file using Item Code value and extension such as defined in the System Option **204** (jpg / gif / bmp).
For example, the image file name of item with Item code = 1030606 can be:
1030606.gif
2. Put the image file in the folder defined in the System Option **400**.

Files selections by Manage interface:

1. Open the 'Item Maintenance' screen of the item that you wish to set the image.
2. Click the browse button and select image file.

This will automatically copy the selected file into the folder as defined in System Option **400** and will rename the file using Item Code as a file name with extension as defined in System Option **204**.

Massive transfer of picture files:

If you have a folder with a lot of item image files that are named by Item Code or by Additional Item Code or by Supplier Code, you can transfer them together into the folder defined in System Option **400**.

For more details read Chapter E: [Matrix Pictures](#) (section 25.18).



Recommendation: Locate the image files in one folder shared to all the Matrix users and set respectively the system option **400** (for example, \\pcname\Matrix\Images). This will prevent unnecessary copies of files and maintenance for each folder separately.

5.4.6 Key Management

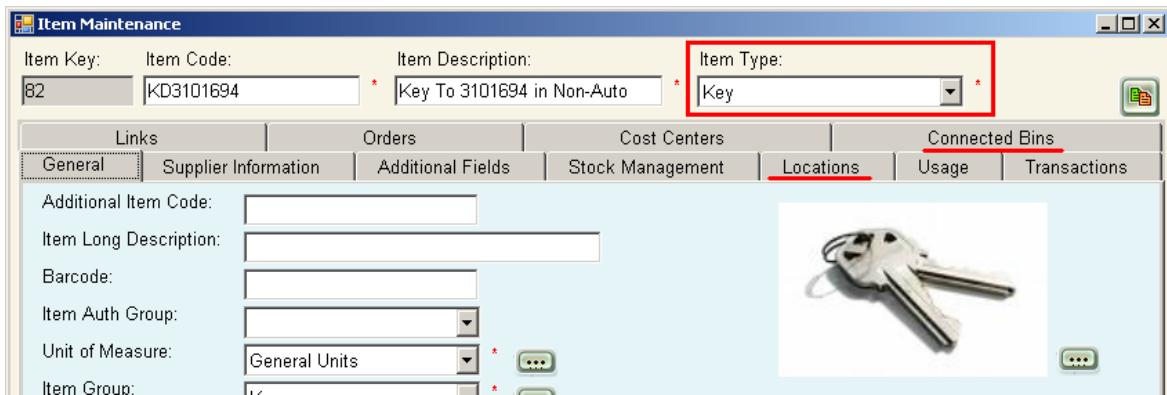
MATRIX-TM lets you manage Keys. Keys are stored in MATRIX cabinet and external lockers (defined as bins of a Non-Automatic cabinet) connected to the key.

'Key Connected' – when issuing an item located in an external cabinet or locker, the MATRIX cabinet will actually issue the key for the locker, and create separate transactions: one for the key and one for the item.

This is a very efficient and economical solution for large items management.

5.4.6.1 Defining a Key Item

1. Open "Menu: Main → Item".
2. Create a new item, choose 'Key' for 'Item Type' field and save. This will create all standard tabs and an additional tab called "Connected Bins".



3. Locate the key in **MATRIX** cabinet' bin/s by the "Locations" tab or by opening the "Search Bins" screen.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
82	KD3101694	Key To 3101694 in Non-Auto	Key

Links		Orders		Cost Centers		Connected Bins	
General	Supplier Information	Additional Fields	Stock Management	Locations	Usage	Transactions	

Cabinet Code	Bin Code	Quantity	Last Issue	Capacity	Reworked	Used
Demo4	Demo4-01-01-01	3.00		10	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Open the "Bin Maintenance" screen of the bin in which you have just located the key and mark the "Used Item" field. This is required in order to enable return of the keys to the cabinet.

Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
794	Demo4-01-01-01	Demo4	KD3101694	Key To 3101694 in Non-Auto

Status:	Active	<input type="checkbox"/> Consignment	Item Type:	Key	<input type="checkbox"/> Reworked	<input checked="" type="checkbox"/> Used Item
---------	--------	--------------------------------------	------------	-----	-----------------------------------	---

- Open the "Item Maintenance" screen of the key and switch to the tab "Connected Bins". In this TAB you can add the bins which will be opened by this key.

Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
82	KD3101694	Key To 3101694 in Non-Auto	Key

General		Supplier Information		Additional Fields		Stock Management		Locations		Usage		Transactions	
Links	Orders	Cost Centers	Connected Bins										

Cabinet Code	Bin Code	Item Code	Item Description
NADemo1	NADemo1-01-02-01	3101694	Demo HM90 E90A-D32-4-W32-C ...
NADemo1	NADemo1-01-02-02	3101694	Demo HM90 E90A-D32-4-W32-C ...

- Click the <Add> button that is on the right side of the grid to connect bin to key. The opened screen "Search Bin" will display all the bins in **Non-Automatic cabinets** that were not connected to any key yet.



7. Select bin to connect and click the <Select> button. You can also select multiple bins by holding CTRL key and marking the records. These bins will be added to the "Connected Bins" tab.
8. Open the "Bin Maintenance" screen of the bin which you have just connected to the key and see on the bottom part of the "General" tab that this bin has now the definition of key that will open this bin in the locker.
Also instead of following steps 5-7, you can open directly this screen and define the key to which this bin will be connected.



Manage does not support working with keys when making transactions. Transactions with keys are supported only in the Touch module:

For issuing the item from locker using key, please follow Chapter C: [Issue an Item from Locker](#) (section 13.1.2).

For using key management in other modules in Touch, please follow Chapter C: [Working with Key to Lockers](#) (section 13.9).



5.4.7 Serial Items Management

MATRIX-TM lets you manage items by serial numbers. Thus you will be able to control each item individually by its serial number. Serial number is a unique identifier for each item piece.

Serialization by item type:

Defining item as serial is made by marking the item as '[Serial](#)' on the "Item Maintenance" screen, depending on item type.

The screenshot shows the 'Item Maintenance' dialog box. At the top, the 'Item Type:' dropdown is set to 'Gauge'. In the 'General' tab, under 'Category:', the 'Gauge' option is selected. In the 'Price' section, the 'Serial' checkbox is checked. The 'Serial' tab is highlighted at the top of the window.

- Items of type **Durable / Key** can be serialized; therefore the field is enabled and changeable. Tab 'Serial' will be added to manage the serials.
- Items of type **Gauge** can be only serial; therefore the field is automatically marked and not changeable. Tab 'Serial' will be added to manage the serials and tab 'Gauge' to manage gauge set of measurements and calibration parameters.



- Items of type **Expendable / Reworkable / Kit** cannot be serialized, therefore the field is disabled.

5.4.7.1 Adding Serial Items to an item

You can add serial items for item in one of the following ways:

By list of serial items:

1. Open "Menu: Main → Serial Items". This screen lists all the serial numbers for all the items.
2. Click the <Add> button on the toolbar.

The screen "Serial Item Maintenance" will be displayed.

The screenshot shows the "Serial Item Maintenance" window. It has four main input fields: "Serial Key" (disabled), "Serial Number" (containing "SN4604211_01"), "Item Code" (containing "4604211" with a dropdown arrow), and "Item Description" (containing "PIN GO BA235213"). Below these is a "Issue for:" dropdown menu with the following options: 3201671, 4604211 (selected), 4604434, and 8047906.

Fields Description:

Serial Key: Automatically generated key for the record.

Serial Number*: Insert the serial number of the specific item. The number should be unique per item code, but can be duplicated for different item codes.

Item Code *: A list of all the items that are marked as 'Serial'. Select an item.

Item Description: Description of the selected item.

Issue for: The last user who made Issue transaction on this serial number.

3. Insert the required data and click the <Save> button.

At this point, you will receive new tabs and the 'Bin Code' list.



Serial Item Maintenance

Serial Key:	Serial Number:	Item Code:	Item Description:
62	SN4604211_01 *	4604211	PIN GO BA235213
Issue for:		Bin Code:	
<input type="text"/>		Demo4-01-06-13	
<input checked="" type="radio"/> General <input type="radio"/> Calibration History <input type="radio"/> Links		Demo4-01-06-13 Demo4-07-06-04	
Status:	Unallocated Demo4-01-06-13		
Status Modified On:	17.03.2009 *		
Expiry Date:	17.03.2009		
Remarks:	<input type="text"/>		
Updated Create User: admin creator Update User: admin creator Create Date: 17.03.2009 Update Date: 17.03.2009			

The 'Bin Code' lists all the bins that are used for this item code and that have space to store new serial numbers, according to bin's 'Capacity'.

Even if some of the serial items are not currently in stock, as long as they are linked to this bin they reduce the bin's available space.

- Select bin in which you would like to store the serial item and save the record.

Confirming this operation will change the status of the serial item from 'Unallocated' to 'In Stock' and will create 'Adjust Bin Quantity' transaction increasing the stock.

Please remember to complete the physical stock as well.

By item screen:

- Open "Item Maintenance" screen of the item to which you would like to add serial number and select the tab "Serial". This tab lists all the serial numbers for this item.

Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:			
85	4604211 *	PIN GO BA235213 *	Gauge			
<input type="radio"/> General <input type="radio"/> Supplier Information <input type="radio"/> Additional Fields <input type="radio"/> Stock Management <input type="radio"/> Locations <input type="radio"/> Usage <input type="radio"/> Transactions		<input type="radio"/> Gauge <input type="radio"/> Serial				
<input type="radio"/> Links <input type="radio"/> Orders <input type="radio"/> Cost Centers		<input type="radio"/> Gauge <input type="radio"/> Serial				
Bin Code	Serial Number	Serial status	Expiry Date	Issued By	Status Modified On	Status Modified By
Demo4-01-06-13	SN4604211...	In Stock	17.03.2009		17.03.2009	
	85_SN25	Unallocated	11.03.2009		16.03.2009	admin creator
	R5_SN24	Unallocated	11.03.2009		16.03.2009	admin creator



2. Click the <Add> button from the right side of the grid.

The screen "Serial Item Maintenance" will be displayed as in the previous way, but already with the selected item code.

By bin screen:

1. Open "Bin Maintenance" screen of the bin to which you would like to add serial number and select the tab "Serial". This tab lists all the serial numbers for this bin.

The screenshot shows the "Bin Main" window with the following details:

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
875	Demo4-01-06-12	* Demo4	* 4604211	PIN GO BA235213

Below the header, there is a tabs bar with "General", "Stock Management", "Additional Fields", "Usage", "Transactions", "Orders", "Bin Units", and "Serial". The "Serial" tab is selected.

The main area contains a grid of serial numbers:

Bin Code	Serial Number	Serial status	Expiry Date	Issued By	Status Modified On	Status Modified By
Demo4-01-06-12	85_SN01	In Stock	20.01.2009	admin creator	17.03.2009	admin creator
Demo4-01-06-12	85_SN03	In Stock	20.01.2009	admin creator	16.03.2009	admin creator
Demo4-01-06-12	85_SN04	In Stock	20.01.2009	admin creator	16.03.2009	admin creator

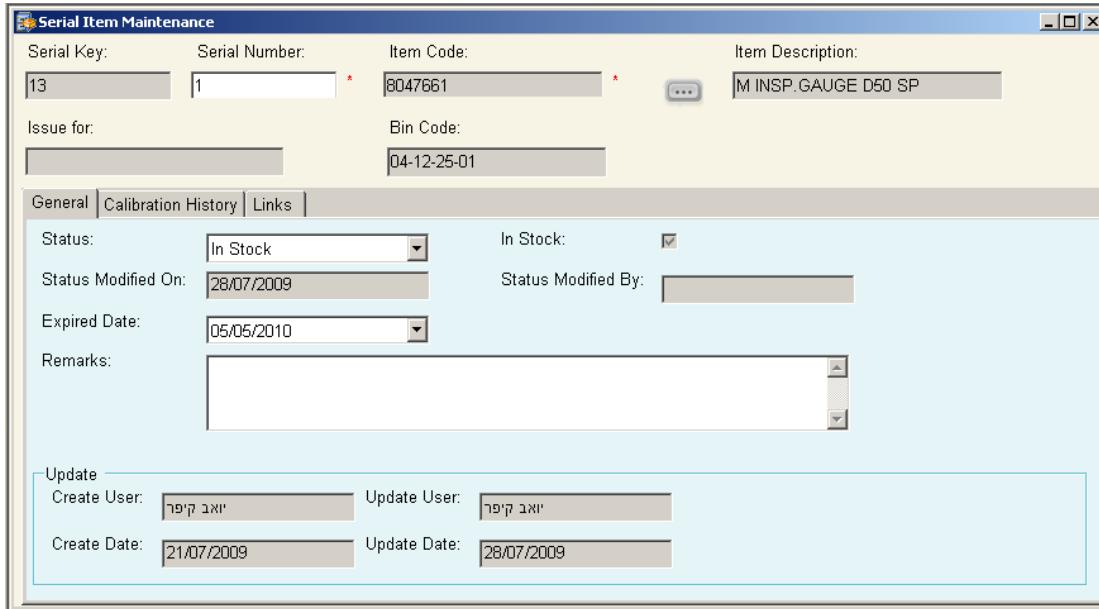
On the far right of the grid, there are two buttons: a red-bordered "Add" button and a "Edit" button.

2. Click the <Add> button from the right side of the grid.

The screen "Serial Item Maintenance" will be displayed as in the previous way, but already with selected item code.

5.4.7.2 Tab: General

This tab contains general details regarding the serial item.



The screenshot shows the 'Serial Item Maintenance' application window. At the top, there are fields for 'Serial Key' (13), 'Serial Number' (1), 'Item Code' (8047861), and 'Item Description' (M INSP.GAUGE D50 SP). Below these are 'Issue for:' and 'Bin Code:' fields. A navigation bar at the bottom has tabs for 'General', 'Calibration History', and 'Links'. Under the 'General' tab, there are sections for 'Status' (In Stock), 'Status Modified On' (28/07/2009), 'Expired Date' (05/05/2010), and 'Remarks' (a large text area). At the bottom, there are 'Update' buttons and fields for 'Create User' (Yair Kipor), 'Update User' (Yair Kipor), 'Create Date' (21/07/2009), and 'Update Date' (28/07/2009).

Fields Description:

- Status: The status of the serial item (see **Statuses for Serial Items**)
- In Stock: Availability of the serial number in stock according to status. This field will be marked while the status will be one of the followings:
In Stock / Inactive / Out of Spec.
- Status Modified On: The date of the last status change.
- Status Modified By: The first name and last name of user of the last status change.
- Expired Date: The date in which the item will be expired.
- Remarks: Free text.



Statuses for serial items

The following table describes all the available statuses for serial items and all the changes can be done on the Manage on the "Serial Item Maintenance" screen → "General" tab.

Status	Description	In Stock	Can be changed to status:	Can be issued?	Can be deleted?	Bin Code enabled
Unallocated	Does not belong to any bin. Need to be allocated to bin.	No	None	No	Yes	Yes
In Stock	Can be issued, being sent to calibration (only for gauge), etc.'	Yes	Any status	Yes	No	No
Issued	Needs to be returned to stock after use.	No	In Stock	No	No	No
In Calibration	Should be returned to stock or to be changed by status. (Only for gauges)	No	In Stock / Scrap / Out of spec / Lost	No	No	No
Inactive	In stock, but not to be used. Can be disconnected from the bin or allocated to a different bin.	Yes	In Stock / Unallocated	No	No	No
Scrap	Scrapped item.	No	In Stock	No	Yes	Yes
Out of Spec	In stock, but out of spec and not to be used.	Yes	In Stock	No	No	No
Lost	The serial item was lost.	No	In Stock	No	Yes	Yes



5.4.7.3 Tab: Calibration History

This tab appears only for serial items for which the Item Type is Gauge.

The screenshot shows the 'Serial Item Maintenance' window with the 'Calibration History' tab selected. The window has several input fields at the top: 'Serial Key' (309), 'Serial Number' (1), 'Item Code' (TestD), and 'Item Description' (TestD). Below these are 'Issue for' (adminif creator) and 'Bin Code' (8L-01-02-09). The 'Calibration History' tab contains configuration for calibration intervals and a list of calibration records. The configuration section includes 'Issues Interval' (empty), 'Last Calibration Date' (22/07/2010), 'Schedule Interval' (2), 'Next Calibration Date' (24/07/2010), 'Interval Type' (Days), and 'Number of Issues' (4). The list table has columns: Serial Order No., Bin Code, Status, Calibration Reason, Calibration Date, Status Modified On, and Status Modified By. One record is listed: 120, 8L-01-02-09, In Stock, Schedule, 20/06/2010, 20/06/2010 ..., admin. There are also edit and delete icons on the right side of the list.

Serial Order No.	Bin Code	Status	Calibration Reason	Calibration Date	Status Modified On	Status Modified By
120	8L-01-02-09	In Stock	Schedule	20/06/2010	20/06/2010 ...	admin

Fields Description:

- Issues Interval: The number of issues allowed until the item is due for calibration.
Relevant only if the interval type includes issues.
- Schedule Interval: After this interval is reached, a calibration is needed.
Relevant only if the interval type includes time period definition.
- Interval Type: Available interval types:
- Days / Months / Years / Issues
 - Days / Months / Years & Issues – Only when the time period is up **and** the amount of issues had exceeded the limit – the item will have to be calibrated.
 - Days / Months / Years **or** Issues - When the time period is up **or** the amount of issues had exceeded the limit – the item will have to be calibrated.



- Manual

Last Calibration Date: The last date on which a calibration was completed.

Next Calibration Date: After this date the item will require a calibration.

Number of Issues: Amount of issues of this serial item. Automatically calculated field according to the following:

When issuing, adds +1 to this field.

When returning, adds the quantity user defines.

When sending to calibration, does not make any change.

When returning from calibration, set the value to zero.

Gauge Calibration Orders Grid:

Serial Order Number: The number of the gauge calibration order.

Bin Code: The Serial Item's bin code

Status: The status of the calibration order.

Calibration Reason: The reason for sending the serial item for calibration. Available Values are – Schedule / New / (Empty).

Calibration Date: The calibration date of the order.

5.4.7.4 Tab: Links

This tab displays a list of links associated with the item.



5.4.8 Gauge Management

Gauge is a serial item which requires periodic calibration.

This chapter describes how:

- To define gauge and its measurement parameters
- To send the gauge to calibration
- To record gauge measurements after calibration
- To schedule the next calibration

5.4.8.1 Define gauge and calibration parameters

1. To manage gauges create an item of the type 'Gauge'.

The "Item Maintenance" screen will have two additional tabs:

Gauge: to manage calibration schedule and gauge measurements that are tested during calibration.

Serial: to manage the serial parts of the gauge.

The screenshot shows the 'Item Maintenance' dialog box. At the top, the 'Item Type:' dropdown is set to 'Gauge', highlighted with a red box. Below the header are several tabs: General, Supplier Information, Additional Fields, Stock Management, Locations, Usage, and Transactions. Under 'Usage', the 'Gauge' tab is selected and highlighted with a red box. The main area contains fields for 'Gauge:', 'Issues Interval:', 'Schedule Interval:', 'Interval Type:', 'Remarks:', and various reference and price fields. A 'Gauge Measurement' section at the bottom contains a table with two rows of data. The table has columns for Description, Tolerance, Optimum Value, Minimum Value, Maximum Value, Unit of Measure, and Sequence. The first row has 'H' in Description, '1' in Tolerance, '10' in Optimum Value, '9' in Minimum Value, '11' in Maximum Value, 'General Units' in Unit of Measure, and '1' in Sequence. The second row has 'W' in Description, '2' in Tolerance, '20' in Optimum Value, '18' in Minimum Value, '22' in Maximum Value, 'General Units' in Unit of Measure, and '2' in Sequence. At the bottom of the 'Gauge Measurement' section, there are input fields for Sequence, Description, Unit of Measure, and Remarks, along with tolerance, optimum, minimum, and maximum value fields.

Description	Tolerance	Optimum Value	Minimum Value	Maximum Value	Unit of Measure	Sequence
H	1	10	9	11	General Units	1
W	2	20	18	22	General Units	2

Fields Description:

- Gauge: Automatically generated Key of the Gauge
- Issues Interval: The number of issues allowed until the item is due for calibration. (Relevant only if the interval type includes issues). This value will be copied into the serial items of the gauge.
- Schedule Interval: After this interval is reached, a calibration is needed. (Relevant only if the interval type includes time period). This value will be copied into the serial items of the gauge.
- Interval Type: Available interval types: (This value will be copied into the serial items of the gauge)
- Days / Months / Years / Issues
 - Days / Months / Years & Issues – Only when the time period is up **and** the amount of issues had exceeded the limit – the item will have to be calibrated.
 - Days / Months / Years **or** Issues - When the time period is up **or** the amount of issues had exceeded the limit – the item will have to be calibrated.
 - Manual
- Reference 1-2: Any references for gauge.
- Price: The price of the calibration that will be calculated into the "Return from Calibration" transaction.
- Tolerance for number of days: Tolerance for calibration.
- Remarks: Free text.

2. Define the calibration interval and the relevant fields and continue to gauge measurements.
3. Click the  **<Add>** button on the right side of the “Gauge Measurement” grid to add new measurement. New line will be added to insert measurement data. Insert the data and save.



Gauge Measurement:

Sequence *: Sequence order of the measurement.

Description *: Describe the measurement.

Unit of Measure *: Select the unit of measure.

Tolerance: The range (plus or minus) that defines a valid measurement. It will affect the minimum and maximum.

Optimum Value *: The target value.

Minimum Value: The minimal value accepted.

Maximum Value: The maximum value accepted.

Remarks: Free text.

- Switch to 'Serials' tab and add serial numbers for this gauge item.

To create serial items for the gauge item, please follow Chapter B: [Adding serial numbers for item](#) (section 5.4.7.1). These serial numbers will appear on the 'Serial' tab on the 'Item Maintenance' screen and also in the "Menu: Main → Serial Items" screen.

5.4.8.2 Schedule calibration of serial item

- Open serial number of gauge and switch to 'Calibration History' tab.

Serial Order No.	Bin Code	Status	Calibration Reason	Calibration Date	Status Modified On	Status Modified By
8	Demo4-01-06-14	In Calibration	Schedule		27/12/2010 12:10	admin
6	Demo4-01-06-14	Inactive		27/01/2009	27/01/2009 14:14	admin
5	Demo4-01-06-14	Inactive	Schedule	27/01/2009	27/01/2009 14:12	admin
4	Demo4-01-06-14	Inactive		27/01/2009	27/01/2009 14:10	admin
3	Demo4-01-06-14	In Stock	Schedule	27/01/2009	27/01/2009 14:09	admin
2	Demo4-01-06-14	Inactive	New	27/01/2009	27/01/2009 13:58	admin
1	Demo4-01-06-14	In Stock	Schedule	27/01/2009	27/01/2009 13:55	admin



The top part of the tab defines the schedule for this serial number calibration.

When the serial number is created, these values are copied by default from interval values of the gauge (on the 'Gauge' tab on the 'Item Maintenance' screen).

2. To calibrate the item after X times that the item was issued, set the fields "Interval Type" to 'Issues' and "Schedule Interval" to the number of issues.
- Otherwise, set the fields to the interval of time.

5.4.8.3 Send gauge to calibration

This chapter describes how to send a gauge serial item to calibration.

1. Open "[Menu: Operations → Gauges → Send Gauge to Calibration](#)" to view all the gauges that due for calibration.

Send Gauge to Calibration

Serial Key:	<input type="text"/>	Item Code:	<input type="text"/>	Item Description:	<input type="text"/>
Last Calibration Date:	<input type="text"/>	Bin Code:	<input type="text"/>	Serial Number:	<input type="text"/>
Status Modified On:	<input type="text"/>	Status:	<input type="text"/>	Expiry Date:	<input type="text"/>
Next Calibration Date:	<input type="text"/>	Issue for:	<input type="text"/>		

Found 13 Records. Row: 7

Serial Key	Serial Number	Item Code	Item Description	Bin Code	Status	Last Calibration	Next Calibration	Number of Issues	Schedule Interval	Interval Type
2	85_SN02	4604211	PIN GO BA2...	Demo4-01-06-12	Issued			2	2	Issues
4	85_SN04	4604211	PIN GO BA2...	Demo4-01-06-13	Issued			3	2	Issues
5	85_SN05	4604211	PIN GO BA2...	Demo4-01-06-13	Issued			3	2	Issues
26	86_SN04	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	25.01.2009	27.01.2009	1	2	Days
27	86_SN05	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	25.01.2009	27.01.2009	1	2	Days
28	86_SN06	4604434	PIN NOGO ...	Demo4-01-06-14	Issued		22.01.2009	1	0	Days
29	86_SN07	4604434	PIN NOGO ...	Demo4-01-06-14	In Calibration	27.01.2009	29.01.2009	1	2	Days
30	86_SN08	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days
31	86_SN09	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days
32	86_SN10	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days
33	86_SN11	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days
34	86_SN12	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days
35	86_SN13	4604434	PIN NOGO ...	Demo4-01-06-14	Issued	27.01.2009	29.01.2009	1	2	Days

This screen lists all the gauge serial numbers that have already reached the defined interval in statuses **In Stock / Inactive / Out of Spec / Issued** and need to be sent to calibration.



- Double-click the serial item which you want to send to calibration.

The "Calibration Order Maintenance" screen will be displayed.

The screenshot shows the 'Calibration Order Maintenance' window. At the top, there are input fields for Serial Order No., Item Code, Status (set to 'In Calibration'), and Calibration Reason. To the right are fields for Serial Number, Item Description, Bin Code, and Calibration Date (06/05/2010). Below these is a table with columns: Sequence, Description, Result, Optimum Value, Minimum Value, Maximum Value, and Unit of Measure. The table contains three rows with data: H (Result 12), W (Result 23), and L (Result 12). At the bottom, there are update fields for Create User, Create Date, Update User, and Update Date, along with a save button icon.

Sequence	Description	Result	Optimum Value	Minimum Value	Maximum Value	Unit of Measure
1	H		12	11	13	Mili Meter
2	W		23	18	28	Mili Meter
3	L		12	10	14	Mili Meter

- Select a 'Calibration Reason' (Available options: New / Schedule).
- Click the [**<Save>**](#) button in the bottom of the screen to complete the calibration sending process.



Note: The 'Send to Calibration' action is also available via the TOUCH module.

- Take out the gauge from the bin via Touch application's 'Adjust Item' module, but do not change the stock because the stock was already updated by changing status to 'In Calibration' and creating the transaction.
Send the gauge to calibration and when the item is returned from calibration continue to the next chapter to insert results of calibration.

**Alternative option:**

It is also possible to change the serial status to "In Calibration" status.

The following instructions describe how to set the status of gauge item.

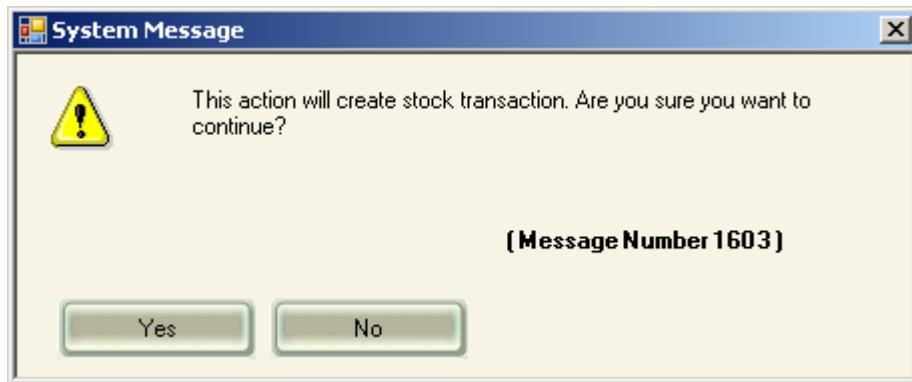
1. Open "[Menu: Operations → Gauges → Send Gauge to Calibration](#)" to view all the gauges that have reached the calibration time.
2. Select serial number in status 'In Stock' (the statuses Inactive / Out of Spec are not available for this status change), right click the record and select the "Serial Item Maintenance" option from the popup menu.

The screen as following will be displayed.

The screenshot shows the 'Serial Item Maintenance' window. At the top, there are fields for Serial Key (4), Serial Number (85_SN04), Item Code (4604211), and Item Description (PIN GO BA235213). Below these are fields for Issue for (admin creator) and Bin Code (Demo4-01-06-12). A navigation bar at the bottom includes tabs for General, Calibration History, and Links. The General tab is active. Under the General tab, there are fields for Status (dropdown menu), Status Modified On (dropdown menu), Expiry Date (dropdown menu), Remarks (text area), and a timestamp section. The timestamp section contains fields for Create User (admin creator), Update User (admin creator), Create Date (20.01.2009), and Update Date (17.03.2009). The 'Status' dropdown menu is open, showing options: In Calibration, In Stock, Issued, In Calibration (selected), and Inactive.

3. Change the status to 'In Calibration'.

The following message will be displayed:



Important! Before confirming the status change, it is recommended to read Chapter B: Statuses for Serial Items (section 5.4.7.2).

4. Click <Yes> to confirm.

5.4.8.4 Return gauge from calibration

This chapter describes how to return gauge from calibration and record measurements after calibration, based on the calibration parameters that were defined for the gauge (as described in Chapter B: [Define gauge and calibration parameters](#) (section 5.4.8.1)).

1. Open "Menu: Operations → Gauges → Return Gauge from Calibration".
This screen lists all the serials in status '*In Calibration*'.
2. Double-click the serial item which you want to return from calibration.
The "Calibration Order Maintenance" screen will be displayed.

Calibration Order Maintenance

Serial Order No.:	10000039	Serial Number:	8047906_02		
Item Code:	8047906	Item Description:	M GAUGE DRIV.CAT30/40 G/N		
Status:	In Calibration	Bin Code:	MAXIPOD-05-01-02		
Calibration Reason:	In Stock Scrap Out of Spec Lost In Calibration	Calibration Date:	10/09/2012		
Sequence	Description	Optimum Value	Minimum Value	Maximum Value	Unit of Measure
1	1	9	6	5	7

Description: 1 **Unit of Measure:** General Units

Minimum Value: 5 **Optimum Value:** 6 **Maximum Value:** 7

Result: 9

Remarks:

Update

Create User: admin creator **Update User:** []

Create Date: 10/09/2012 **Update Date:** []

It is also possible to open this screen from “Serial Item Maintenance” screen of serial in status ‘In Calibration’ and following “Calibration History” tab.

3. Insert a 'Calibration Date' (the default value is the current date).
4. Go through the measurements lines; Mark a line and press the <Update> button, insert the results of the calibration for each measurement and save the changes.



Note: If the 'Result' field is colored red, this points to abnormal calibration results.

If the results are normal:

- Change the status of the serial item to 'In Stock' and save the changes.

If the results are abnormal, change the serial to relevant status:

- Status ‘Scrap’ for scrapping the serial from system. Save the changes.
- Status ‘Out of Spec’ for making serial not available for use. Save the changes.



5. If you changed the serial to status '**In Stock**' or '**Out of Spec**', you need to physically return the item back to bin in order to keep balance between recorded stock and actual stock. For this, it is recommended to use the Touch application and 'Adjust Item' module without changing the stock (the stock was updated by status change)

It is recommended to read Chapter B: [Transactions with Serials](#) (section 5.4.9) to follow after transactions and changes done in the system by these operations.

6. To view the history of all the calibration orders you can open "[Menu: Reports → Gauge → Calibration History](#)".

The screenshot shows a software window titled "Calibration History". At the top, there are four search fields: "Item Code" (with value 85), "Item Description" (with value PIN GO BA235213), "Serial Key" (with value 12), and "Serial Number" (with value 86_SN07). Below these are two dropdown menus: "Serial status" (set to "Issued") and "Bin Code" (with value Demo4-01-06-13). Further down are two more dropdown menus: "Status Modified On" (set to "2023-06-14") and "Calibration Reason" (set to "admin"). A message below the search fields says "Found 9 Records. Row: 1". The main area is a grid table with 9 rows of data:

Serial History	Item Key	Item Code	Item Description	Serial Key	Serial Number	Serial status	Bin Code	Status Modified By	Calibration Reason
7	85	4604211	PIN GO BA235213	12	86_SN07	Issued	Demo4-01-06-13	admin	Schedule
1	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued			Item Maintenance
2	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued			Bin Maintenance
3	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued			New
4	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued			Serial Item Maintenance
5	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued	Demo4-01-06-14	admin	Schedule
6	86	4604434	PIN NOGO BA232119	28	86_SN06	Issued	Demo4-01-06-14	admin	
8	86	4604434	PIN NOGO BA232119	29	86_SN07	In Calibration	Demo4-01-06-14	admin	



5.4.9 Transactions with Serials

This table describes for serials for each module on Touch and each operation in Manage what transactions type will be created, what will be the serial status changes and what change will be recorded into the History Log.

Application	Module	Serial status FROM and TO, the transaction created, the Quantity in transaction, the IN_STOCK mark, the record into History Log. Consider Gauge and Durable serial.
Touch	Issue	Change from status 'In Stock' to status 'Issued'. <u>Transaction</u> : 'Issue' (+1) and IN_STOCK=0. <u>History Log</u> : Records serial status change.
Touch	Return	Change from status 'Issued' to one of the statuses: To 'In Stock' – 'Return To Cabinet' transaction (+1). To 'Lost' - 'Adjust Bin Quantity' transaction (0). To 'Out of Spec' – 'Return To Cabinet' transaction (+1). To 'Scrap' – 'Scrap' transaction (0). All status changes recorded into History Log.
Touch	Receive	Able to receive only serial on status 'Unallocated' or new serial. Does not show 'Inactive' serials for receive. Change to status 'In Stock'. <u>Transaction</u> : 'Receive' (+1) and IN_STOCK=1. <u>History Log</u> : Records status change only for 'Unallocated' serial and not for new one.
Touch	Receive without Order	Exactly as 'Receive' process.
Touch	Change Issue	Change from status 'Issued' to status 'In Stock'. <u>Transaction</u> : 'Issue' (-1) and IN_STOCK=1. <u>History Log</u> : Records serial status change.
Touch	Adjust Item	Will not show 'Unallocated' serials. Will NOT allow changing to 'In Calibration' status (not gauge)

		<p>and not durable serial).</p> <p><u>Transaction</u>: Creates 'Adjust Bin Quantity' transaction for every serial that changed status, even for those that did not change its IN_STOCK. If no status change for serial, no transaction.</p> <p>No summary transaction.</p> <p><u>History Log</u>: Records serial status changes, even for those that did not change its IN_STOCK. If no status change, no record.</p>
Touch	Count Bin	<p>Will not show 'Unallocated' serials.</p> <p>Will DO allow changing gauge to 'In Calibration' status (not durable serial).</p> <p><u>Transaction</u>: Creates 'Stock Count' transaction for every serial that changed status, even for those that did not change its IN_STOCK. If no status change for serial, no transaction.</p> <p>No summary transaction.</p> <p><u>History Log</u>: Records serial status changes, even for those that did not change its IN_STOCK. If no status change, no record.</p>
Touch	Transfer Order	N/A – It is not supported to add gauges or durable serial items to Internal orders, therefore this module is not applicable for serials.
Touch	Requests	<p>For OUT Requests – the same as in Issue process.</p> <p>For IN Requests – the same as in Receive process.</p>
Touch	Send to Calibration	<p>Will show gauges (not durable serials) in statuses IN STOCK / INACTIVE / OUT OF SPEC. Creates 'Send to Calibration' (+1) transaction for every serial and changes the status of the serial item to 'In Calibration'. A new calibration order is added to the 'Calibration History' tab of the serial item and to report.</p> <p>Records serial statuses changes into HISTORY LOG.</p>
Touch	Return from Calibration	<p>Change gauge (not durable serial) from status 'In Calibration' to one the statuses:</p> <p>To 'In Stock' – 'Return from Calibration' transaction (+1).</p> <p>To 'Lost'- 'Adjust Bin Quantity' transaction (0). The bin will not be opened.</p> <p>To 'Out of Spec'– 'Return from Calibration' transaction (+1).</p>

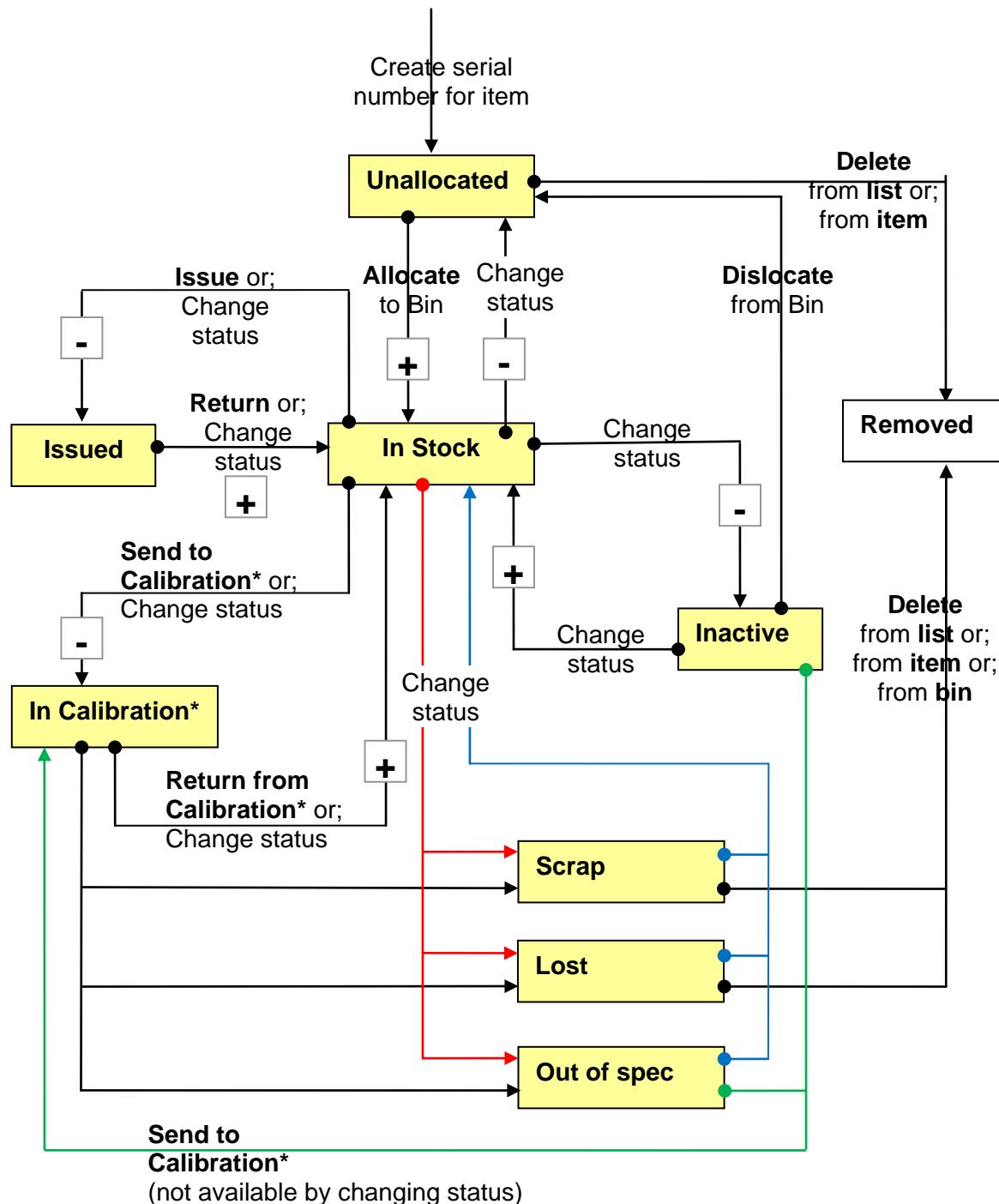


		To 'Scrap' – 'Scrap' transaction (0). The bin will not be opened. All status changes recorded into History Log.
Manage	Issue	Like in TOUCH
Manage	Return	Like in TOUCH
Manage	Receive	Like in TOUCH
Manage	Receive without Order	Like in TOUCH
Manage	Change Issue	Like in TOUCH
Manage	Adjust Item	N/A
Manage	Count Bin	
Manage	Transfer Order	
Manage	In/Out Requests	
Manage	Send to Calibration	Like in TOUCH, except: Shows also serials in status ISSUED. When trying to send this serial to calibration, the system will alert that this serial needs to be returned to stock before sending it to calibration. This serial is shown in order to control expired serials that are not in the stock.
Manage	Return from Calibration	Like in TOUCH
Manage	Serial Update	See the table in section 5.4.7.2.

Possible changes for serial items in the system

The following chart describes all the available statuses for serial items and the changes can be done in the system, both in Touch and Manage.

* The “In Calibration” status is available for gauges only.



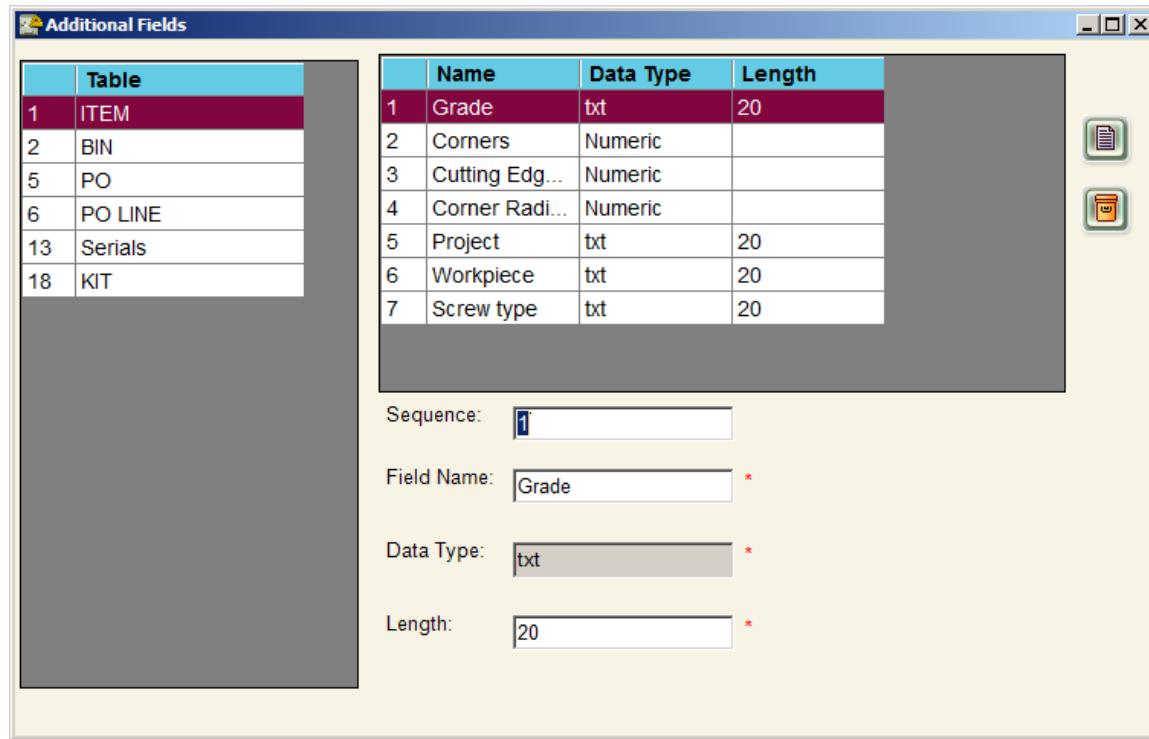
5.5 Additional Fields

Additional Fields are fields that are specifically defined by the user for each of the following entities: **ITEM**, **BIN**, **Purchase Order**, **Purchase Order LINE**, **Serials** and **KIT**.

This means that you can add new customized fields for the entities of the system, such as color of item, etc.... You will be able to maintain and view those fields later.

To operate this screen, open "[Menu: Administration → Additional Fields](#)".

The following screen will then be displayed:



The screenshot shows a Windows application window titled "Additional Fields". On the left, there is a vertical grid labeled "Table" containing items: 1 ITEM, 2 BIN, 5 PO, 6 PO LINE, 13 Serials, and 18 KIT. The main area displays a list of fields for the selected entity (ITEM). The table has columns: Name, Data Type, and Length. The visible rows are:

Name	Data Type	Length
Grade	txt	20
Corners	Numeric	
Cutting Edg...	Numeric	
Corner Radi...	Numeric	
Project	txt	20
Workpiece	txt	20
Screw type	txt	20

Below the table, there are input fields for defining a new field:

- Sequence:
- Field Name: *
- Data Type: *
- Length: *

On the right side of the window, there are two icons: a document icon and a folder icon.

To define an additional field:

1. In the left "Table" grid, mark the entity for which you need to add the new field and click the  [**<New>**](#) button.
2. Enter the field's name
3. Set the new field's type: Numeric, Text, Boolean (yes/no) or Date.
4. Set the field's length (this value should not be set for Boolean or Date fields)

The Additional Fields defined in this screen will appear in the "[Additional Fields](#)" tab in the Update screens of each of the abovementioned entities (The purchase order's details'



additional fields are displayed in its Update screen [in the "Additional Fields" tab, located within the "Details" tab]).

5.6 Defaults List

This feature enables to define default value for some of the fields on the maintenance screen of Bin and Item. When creating new item/bin these defaults would be used. This helps initially to create records with appropriate parameters instead of setting them manually one by one, saving user a lot of time.

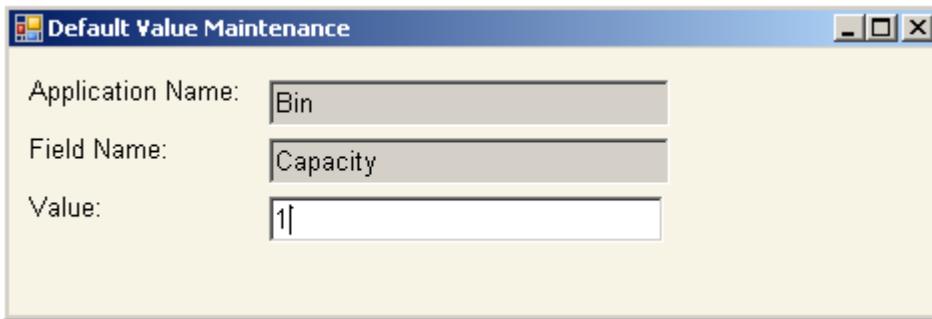
To change default:

1. Open "[Menu: Administration → Defaults List](#)".

The following screen will then be displayed (this screen presents the recommended default values):

Default Key	Application Name	Field	Field Name	Value	Type
1	Bin	CAPACITY	Capacity	1	Numeric
2	Bin	IS_CONSIGNMENT	Consignment	No	Boolean
7	Bin	IS_OVER_CAPACITY_ALLOWED	Allow Over Capacity	Yes	Boolean
8	Bin	DEFAULT_ISSUE_QTY	Default Issue Quantity	1	Numeric
10	Bin	AV_USAGE_EF_DATE	Expired Date		Date
11	Item	AV_USAGE_EF_DATE	Expired Date	2013/12/31	Date
9	Item	IS_CONSIGNMENT	Consignment	No	Boolean
4	Item	ItemType	Item Type	1	List
5	Item	IS_CALC_LEVEL	Calc Level	No	Boolean

2. Select field and open for update to change its default, for example 'Capacity' field for Bin application.



3. Change, for example, the default value to 10 and save.
4. Create new bin manually or build drawer for some cabinet. The created bin/bins will now use the new value for the field.

List of defaults:

For Bin: Capacity, Consignment, Allow Over Capacity, Default Issue Quantity – when adding new bins, these fields are copied to “Bin Maintenance” screen → “General” tab.

Expired Date – when connecting item to bin, this field is copied to “Bin Maintenance” screen → “Stock Management” tab → into “Effective Until” field.

For item: Consignment, Item Type, Calc Level - when adding new items, these fields are copied to “Item Maintenance” screen → “General” tab.

Expired Date – when connecting item to bin, this field is copied to “Item Maintenance” screen → “Stock Management” tab → into “Expiry Date” field on the **Item** and **Item/Cabinet** levels.

6 Stock Management Levels

6.1 Stock Levels

The stock in the system is managed using Stock Levels.

There are 3 levels of management and the management is done for each item on each level – **BIN** level, **ITEM / CABINET** level and **ITEM** level.



For example, in the chart on the next pages we can see stock management levels of an item called **ITEM** (5530123):

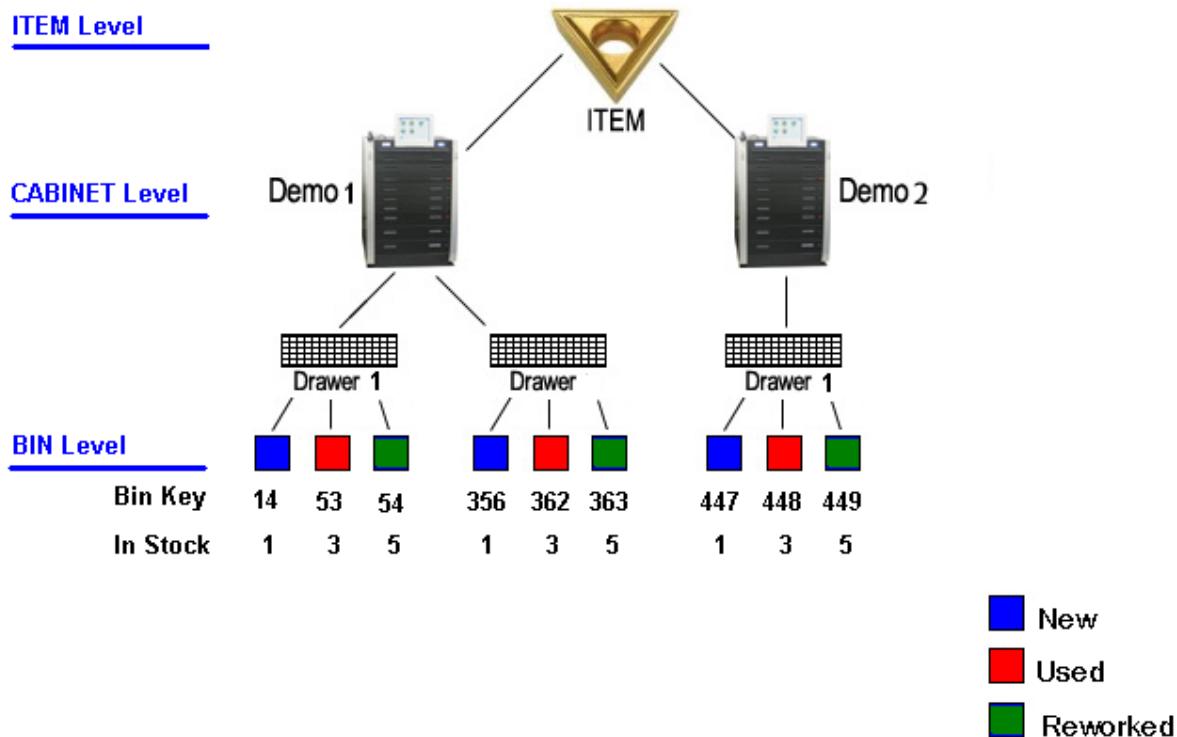
ITEM (5530123) is defined in the system. It is located in 2 cabinets: Demo1 and Demo2. In Demo1 it is associated with 6 bins (in different drawers) and in Demo2 the item is associated with 3 bins. Some of the bins contain used items (indicated in red), some bins contain reworked items (indicated in green) and some bins contain new items (indicated in blue).

1. **BIN level** – manages the quantity of **ITEM** (5530123) in **each bin**.
2. **ITEM / CABINET level** – manages the quantity of **ITEM** (5530123) in **each cabinet**.
3. **ITEM level** – manages the quantity of **ITEM** (5530123) in **all cabinets**.

According to periods of use and usage statistics, the system calculates (automatically or manually, depending on the set parameters of the user) the usage data for each Stock Management Level. For example, the system calculates the required minimum and maximum quantities of items on each level in order to avoid stock shortage. It is the user's decision whether to use this calculation and allow the system to create automatic orders based on it. Alternatively, the user can define minimum and maximum quantities for each Stock Management Level manually.

For more information see Chapter D: [Manual Processes](#) (section 21).

The Chart of Stock Management Levels



Bin Key	Bin Code	Cabinet Name	Item Code	Item Type	Used Item	Reworked	In Stock
14	Demo1-01-01-14	MatrixDemo1	5530123	Reworkable	No	No	1.00
53	Demo1-01-04-11	MatrixDemo1	5530123	Reworkable	Yes	No	3.00
54	Demo1-01-04-12	MatrixDemo1	5530123	Reworkable	No	Yes	5.00
356	Demo1-09-07-07	MatrixDemo1	5530123	Reworkable	No	No	1.00
362	Demo1-09-07-13	MatrixDemo1	5530123	Reworkable	Yes	No	3.00
363	Demo1-09-07-14	MatrixDemo1	5530123	Reworkable	No	Yes	5.00
447	Demo2-01-06-14	MatrixDemo2	5530123	Reworkable	No	No	1.00
448	Demo2-01-07-01	MatrixDemo2	5530123	Reworkable	Yes	No	3.00
449	Demo2-01-07-02	MatrixDemo2	5530123	Reworkable	No	Yes	5.00



Important! System Options 904 and 905 allow you to choose whether to include Reworked and Used items when the system calculates stock quantities for **Item**, **Cabinet** or **Item** levels. For more details see the table in the following section.



6.2 Stock ROLL-UP by System Options 904 & 905

The following table describes the cases when the stock in the bin is rolled-up up to the Item/Cabinet and Item levels:

If **System Option 904** is set to 'YES', then a **reworked** bin (of Durable / Kit / Key / Gauge and Reworkable item types) will be treated like a new bin, meaning that the stock from this bin will be rolled-up up to the Item/Cabinet and Item levels.

If **System Option 905** is set to 'YES', then a **used** bin of Durable / Kit / Key / Gauge item types) will be treated like a new bin, meaning that the stock from this bin will be rolled-up up to the Item/Cabinet and Item levels.

For V5.0 (the same as for V4.7):

Parameter 904: Roll up reworked (not used) item	Parameter 905: Roll up used durable/kit item	Reworked	Used	Roll up Stock Quantities by Item type			
				Expendable	Reworkable	Durable Gauge Kit Key?	Note
√	√			√	√	√	
			√	N/A		√	
		√		N/A	√	√	
				√	√	√	
			√	N/A			
		√		N/A			
√				√	√	√	
			√	N/A			
		√		N/A	√	√	
	√			√	√	√	
			√	N/A			
		√		N/A			

Please read more information about the influence of system options 904 and 905 in Chapter B: [ITEM Life Cycle](#) (section 5.4.4).



7 Orders (standard, Rework and Internal)

This module describes 3 different types of orders (standard orders, Rework Orders and Internal Orders) that are managed in 2 different ways - manually and automatically.

All order types are created in a similar way, therefore their screen and fields are described here once and differences between them will be noted.

The system displays a list of orders (each type in a different list), where we can add a new order, can sort and/or filter existing orders and can open them for maintenance.

The "[Order Maintenance](#)" screens contain the orders' general information (PO number, PO code, supplier, supplier's name and shipping method) and the following tabs (each contains information relevant to the order): **General**, **Details**, **Additional Fields**, **Links** and **Address**. Using the tabs, a user can view the content and status of each line item in the order and can update its details.

Three types of orders:

Order (standard):

An order for purchasing new items from a supplier.

1. Operated by "[Menu: Order → Orders](#)".
2. The order can be created both manually and automatically.
3. When creating the order, we select **items** that we want to order from the supplier.
Select **item** of any type (Durable / Expendable / Reworkable / Kit).
4. In order to receive the items into the system, it is **not necessary** to make <**Send Order**> operation.
5. When the items are supplied by the supplier, we will usually receive them to the new bins (depends also on the system options 904 and 905).

Rework Order:

An order for sending used items from stock to rework/regrind process.

1. Operated by "[Menu: Order → Rework Orders](#)".
2. The order can be created manually only.
3. When creating the order, we select **bins** that store used items. Select **bin** that is defined as 'Used Item' (see for Bin Maintenance screen) and that contains any type of



item except Expendable. In order to take out the items physically from the cabinet, use "Adjust Item" option (or "Count Bins") in the TOUCH module to open the bins and to take the items out without adjusting quantities.

4. In order to Receive the items into the system, it is **necessary** to make <Send Order> operation.
5. When the items are returned from regrind process, we will receive them as usual to the bins defined as 'Reworked' (depends also on the system options 904 and 905).

Internal Order:

An order for transferring stock from cabinet to cabinet. The tools for transfer can be taken from a main warehouse or from any other cabinet. The ordered item can be transferred from any location to any location such as: bin to bin, from cabinet to cabinet and also from site to site.

1. Operated by "[Menu: Order → Internal Orders](#)".
2. The Internal order can be created both manually and automatically.
3. When creating the Internal order, we select **items** that the receiving cabinet needs (normally items that have fallen below their minimum stock level). Select **item** of any type (Durable / Expendable / Reworkable / Kit).

Note: In order to take out the items from the transferring cabinet, it is **necessary** to make <Transfer Order> operation. See more information in Chapter B: [TRANSFER Internal Order](#) (section 8.2) and Chapter C: [TRANSFER ORDER](#) (section 13.6).

4. In order to Receive the items into the system, it is **not necessary** to make <Send Order> operation.
5. When the items are ready to be received into the ordering cabinet, we will receive them as usual to the bins that are associated with the item.

Two ways to manage orders:

A purchase order can be added to the system in two ways:

Manual order – a user enters this kind of order manually.

Automatic order – once in a pre-defined interval of time (day or week, subject to the administrator's definition), an automatic batch process will occur, that will create a purchase order. This automatic process produces a list of items and their quantities, needed to complete the required stock replenishment. It does this by checking the existing



stock levels and the system's parameters, specifically the stock management level (bin, cabinet or item). The system will set the order by comparing the current stock with the minimum and maximum levels in each stock management level. Purchase orders initiated by the automatic process can be saved as either "[Draft](#)" for review and approval before sending to the supplier, or a normal order is created and automatically sent to the supplier.

7.1 Create Manual Orders

1. To create a standard Order, open "Menu: Order → Order → Orders".
To create a Rework Order, open "Menu: Order → Order → Rework Orders ".
To create an Internal Order, open "Menu: Order → Order → Internal Orders ".
2. Click the  **<Add>** button on the toolbar.
3. Enter values for the mandatory fields:
 - PO Number:** Composed of two values: a code prefix and an automatic number, received automatically when the order is saved.
 - PO Code:** Purchase order code used as an order name
 - Supplier Name ***: The supplier for that order. The field "Shipping Method" will be filled automatically with shipping method of the selected supplier if user has not made any selection yet.



Important! Please note that for an **Internal Order**, 'Internal Supplier' will automatically be defined as the supplier. Internal Supplier is automatically added when creating a new database or updating the database to version 4. The system uses Internal supplier for all Internal Orders and prohibits deleting his record and changing the supplier of Internal Orders.

Shipping Method *: The shipping method for that order. This field will be filled by default with shipping method of the selected supplier if user has not made any selection yet. This is a mandatory field (*) and must be filled-in.

4. Click the  **<Save>** button on the toolbar to create the order in the system. Once the order is created, PO number is automatically received and the order tabs are created.



Note: Once the order is created, it cannot be deleted from the system, but only can be closed.

5. Continue to enter values for the fields in the following tabs.



7.1.1 Tab: General



Note: When adding a new order, only the general fields at the top of the page and the "General" tab appear. The other tabs will only appear after entering the mandatory values and saving the order.

The General tab contains additional general details regarding the order:

The screenshot shows the 'Order Maintenance' window with the 'General' tab selected. At the top, there are fields for PO Number (2001585), PO Code (standard), Supplier (S), Supplier Name (STS), and Shipping Method (EXPRESS). Below the header, there's a 'Send Order' button. The 'General' tab contains the following fields:

Status:	Open	Revision:	1	Sent	
Supplier PO:		Order Date:	22/07/2012	Site:	H1
Requested By:	admin	Request Date:	22/07/2012	Send To ERP	<input type="checkbox"/>
Currency:	USD (3.90)				
Freight:		Total Price:	0		

Below these fields is a 'Remarks' section with a large text area. At the bottom, there's an 'Update' section with fields for Create User (admin creator), Create Date (22/07/2012), Update User (admin creator), and Update Date (22/07/2012).

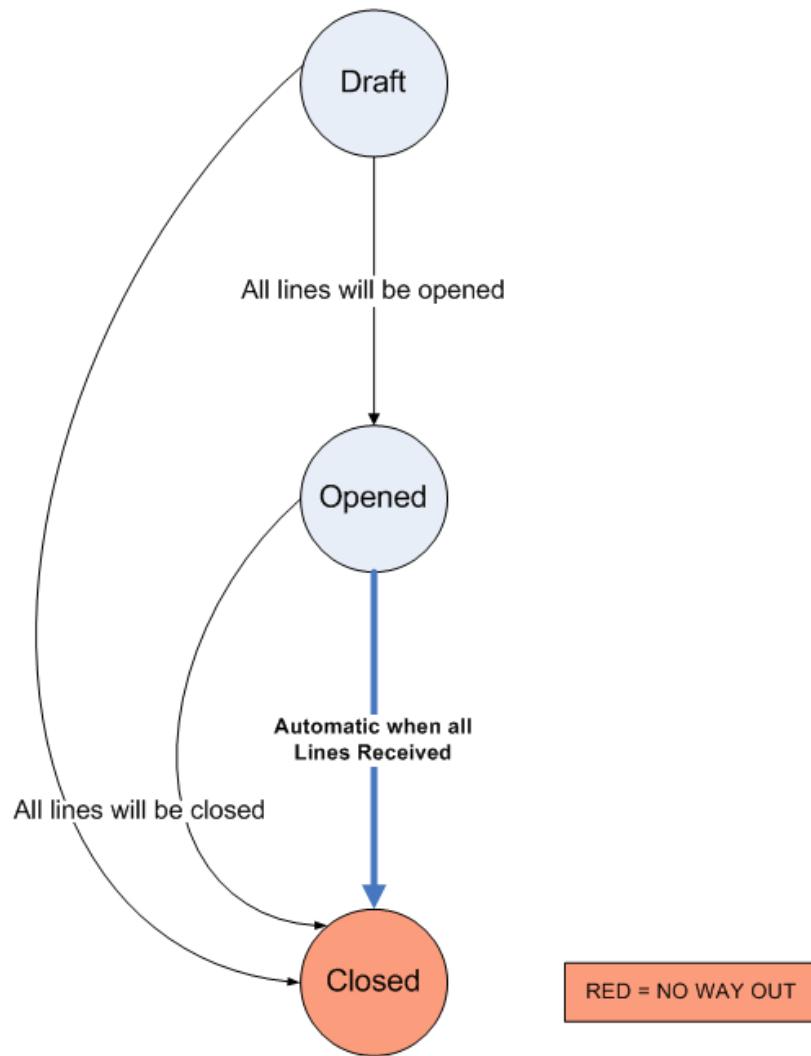
Statuses:

- Draft:** Automatically initiated orders which still need to be approved.
- Opened:** Automatically or Manually initiated orders, which are already sent or yet to be sent to the supplier (this is the default status for new orders).
- Closed:** Status that can be updated automatically or manually:
 - The order status is updated **automatically** when all of the ordered items are received fully, or;



- The order status is updated **automatically** when some of the ordered items are received partially, but the user confirms closing all of the lines, or;
- The order status can be updated **manually**, even if some of the order lines are still open or only partially received. This will require user confirmation to close the order lines.

The following chart shows the order header statuses including the valid transitions between statuses.



When the order header status is changed from Draft to Open all the line statuses change from Draft to Open
When the Header Status changes to closed all the lines that are not Canceled change to Close

Other details regarding the order:

Revision *: The number of times the order has been revised.

Supplier PO: The supplier's order reference number, used for follow up.

Order Date *: Indicates the date the order was initiated.

Requested By: Indicates the name of the user who made the request.

Request Date: Indicates the date by which the order is needed.

Currency *: Received from the supplier's definition and used for the order's cost calculation.

Freight: The amount to be paid for shipping the order.

Total Price: The value of all lines in the order automatically calculated.

Sent: Indicates whether the order was sent to supplier.

Site: The site that the order is created for.

Send to ERP: Indicates whether this order and its order lines will be sent to an ERP system. This value is automatically received from Supplier definition.

Remarks: General remarks.

Create User, Create Date, Update User, Update Date:

Filled automatically by the system and cannot be changed manually.

7.1.2 Tab: Details

This tab enables adding, updating and deleting order lines. It is divided into two parts:

The top part contains a grid, which displays PO records.

The lower part contains an index tab with the following sub-tabs: **Line Details, Remarks, Additional Fields and Invoices**.

When creating a **standard "Order"** or **"Internal Order"**, the user will have to select the ITEMS to be ordered.

When creating a **"Rework Order"**, the user will have to select BINS which contain the used items that need to be reworked.



Order Maintenance

PO Number:	PO Code:	Supplier:	Supplier Name:	Shipping Method:
XXXX 13	demo order	03	TaeguTec	EXPRESS

Send Order

General Details Additional Fields Links Address

Line No.	Item	Description	Quantity	Cabinet	Bin	Status	Order Date	Total	Add
1	5502222	Demo TPMR 221	50	Demo1	Demo1-01-04-10	Open	2009-10-06	1227,5	
2	3102566	Demo HM90...	3	Demo1	Demo1-09-01-05	Open	2009-10-06	258,9	

Line Details Remark Additional Fields Invoices

Item: 5502222 * Demo TPMR 221 IC70 Consignment

Cabinet: Demo1 Bin: Demo1-01-04-10

Quantity: 50 * Received Quantity: 0

Unit Price: 24,55

Order Date: 2009-10-06 Total Price: 1227,5

Promised Date: Request Date:

Status: Open * Receive Date:

Adding ITEMS to a standard Order or INTERNAL ORDER:

- Click the <Add> button, located at the right of the order line grid.

The following screen will appear.

Search Item

Item Key:	=	Item Code:	=	Item Type:	=
Item Description:	=	Primary Supplier:	=	Group:	=

Found 2 Records.

Item Key	Item Code	Item Type	Item Description	Primary Supplier	Group	Item Price	Additional Item C
1	durable	Durable	durable	supp1	Iiora group ...		
4	kit	Kit	kit	supp1	other group ...	2,00	

It will display all the items of any types.

- Search for the required ITEM, mark the line and click the <Select> button or double-click the line. The items screen will be closed and the selected item will be added to the order. As a result, an additional index tab will appear below.



Note: If an item, which is not attributed to any supplier, is selected, a notification message will appear for the line.

3. Fill the values for the fields "Cabinet", "Bin", "Quantity" etc.

Adding BINS to a REWORK order:

1. Click the **<Add>** button, located at the right of the order line grid.

The following screen will appear.

Bin Key	Bin Code	Item Key	Item Code	Default Issue	Capacity	Group Key	Group Code	Group Description	Item Description
367	Demo2-01-01-04	3	3101694	1	20	4	4	Milling	Demo HM90
400	Demo2-01-03-09	5	3101745	1	20	4	4	Milling	Demo HM90
435	Demo2-01-06-02	4	3102566	1	6	4	4	Milling	Demo HM90
437	Demo2-01-06-04	34	3201154	1	6	1	1	Drilling	Demo CHA..

It will display all the bins that contain used items of Durable / Kit / Reworkable types.

2. Search for the required BINS, mark the line and click the **<Select>** button or double-click the line.



Note: You can select multiple bins by holding the CTRL key and selecting the records.

The Bins screen will be closed and the selected bins will be added, transferring all the bin stock to the order. As a result, an additional index tab will appear below.

3. Change the values for the fields "Quantity" etc, if required.

Sub-tabs:



The sub-tabs created below appear after adding an item/bin to an order.

If you cannot see the tabs and you need to edit/view a line's details, select the required

line in the order screen grid and click the **<Update>** button that is on the right side of the grid or double-click the line. As a result, an additional index tab will appear below.

Sub-Tab: Line Details

Line Details			Remark	Additional Fields	Invoices
Item:	5502222	*	Demo TPMR 221	IC70	<input checked="" type="checkbox"/> Consignment
Cabinet:	Demo1		Bin:	Demo1-01-04-10	
Quantity:	50	*	Received Quantity:	0	
Unit Price:	24,55		Total Price:	1227,5	
Order Date:	2009-10-06		Promised Date:		Request Date:
Status:	Open	*	Receive Date:		

Fields description:

Item: The ordered item and its description.

Consignment: The order line is automatically marked as consignment/non-

consignment depending on the order level and on consignment marks of item / bin. User can manually change this mark.

This mark will influence on the Receive process i.e. consignment order lines can be received only into consignment bins and the non-consignment order lines can be received only into non-consignment bins, It is important to read more information in Chapter B:

[Managing Consignment Stock](#) (section 8.10).

Cabinet: Select the cabinet for which the order is intended or leave it empty.

Bin: Select the bin for which the order is intended or leave it empty. When the item is received, this will be the default bin. However, the user is allowed to select a different bin when receiving.

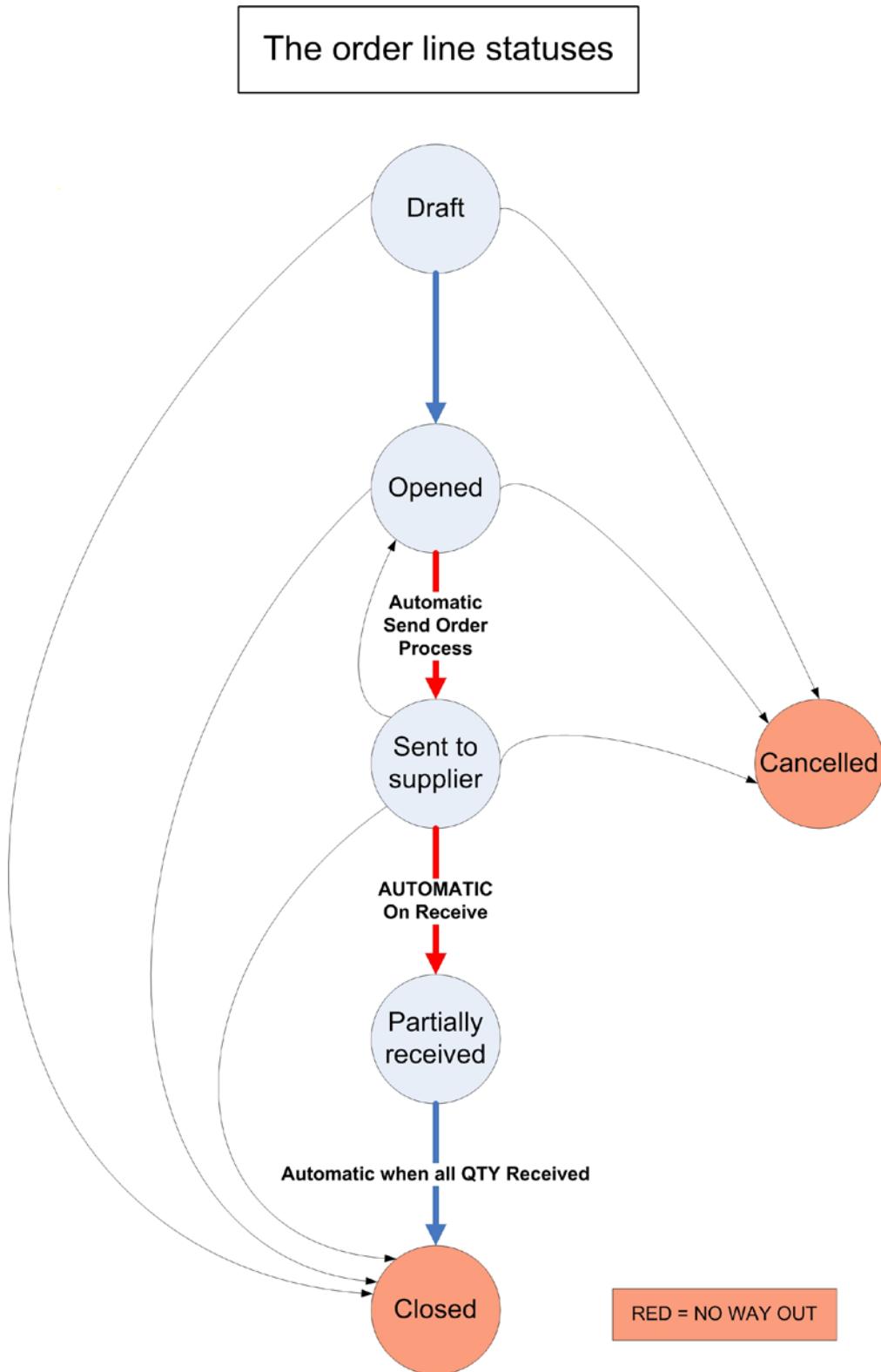


Note: In case of a "Rework Order", once the bin is selected, the fields 'Cabinet' and 'Bin' are set and disabled. Also in case the focus on the order line was lost, these fields become disabled.



- Quantity: The order line quantity.
- Received Quantity: The quantity that has already been received.
- Unit Price: The item's unit price, as defined in the "Item" module.
- Total price: The item's price, multiplied by its ordered quantity.
- Order Date: The date the item was ordered.
- Request Date: The requested delivery date for the order.
- Promised Date: The date delivery promised by the supplier.
- Receive Date: The last date any quantity was received.
- Status: The order line status:
- Draft – indicates that the order was automatically initiated by the system and needs to be approved.
 - Opened – a manually initiated order line, which is yet to be sent to the supplier. This is the default status for new order lines.
 - Sent to supplier – the item from the line was sent to supplier
 - Partial Receive – part of the ordered quantity had already been received
 - Closed – the line's status is automatically changed to this option once the entire quantity is received. It can also be updated manually, when no additional items are expected.
 - Cancel – a line can be set as cancelled if none of its items were received yet.
 - On Route – (relevant only for Internal Orders) Items that were already transferred by "Transfer Order" option but have not yet been received into the ordering cabinet.

The following chart shows the line statuses including the valid transitions between statuses.





Sub-Tab: Remark

This tab enables entering remarks related to the lines. To edit an existing remark, select the required line and click the <Update> button, update the remark and save.

Line Details	Remark	Additional Fields
<p>Remark:</p> <p>This is an order line in the demo order</p> <p>Update</p> <p>Create User: admin creator Update User: admin creator</p> <p>Create Date: 08/02/2006 Update Date: 29/10/2006</p>		

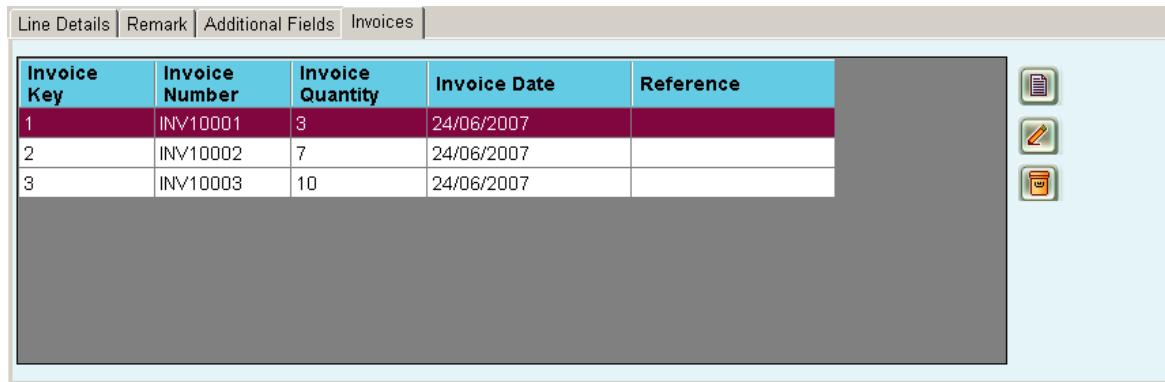
Sub-Tab: Additional Fields

This tab displays the additional fields defined for the purchase order line, and enables updating their values for the order.

Line Details	Remark	Additional Fields						
<table border="1"><thead><tr><th>Field</th><th>Value</th></tr></thead><tbody><tr><td>Invoice Number</td><td></td></tr><tr><td>Remark</td><td></td></tr></tbody></table>			Field	Value	Invoice Number		Remark	
Field	Value							
Invoice Number								
Remark								

Sub-Tab: Invoices

This tab displays all the invoices for the current order line, and enables adding, updating and deleting their values.



The screenshot shows a software interface with a header containing tabs: Line Details, Remark, Additional Fields, and Invoices. The Invoices tab is active, displaying a grid of invoice data. The grid has columns for Invoice Key, Invoice Number, Invoice Quantity, Invoice Date, and Reference. Three rows are present in the grid:

Invoice Key	Invoice Number	Invoice Quantity	Invoice Date	Reference
1	INV10001	3	24/06/2007	
2	INV10002	7	24/06/2007	
3	INV10003	10	24/06/2007	

To the right of the grid are three small icons: a document with a pencil, a document with a checkmark, and a document with a trash can.

Deleting items from the order

In order to delete an item line from the order:

1. Select the line in the grid and click the  [<Update>](#) button that is on the right side of the grid or double-click the line.
2. On the tab "Line Details" that is below the grid, change the status of the line to status 'Cancel'.
3. While the line is selected in grid, click the  [<Delete>](#) button that is on the right side of the grid and confirm the deletion message.



Note: If an item line was already partially received (status 'Partial'), you cannot set the line status to 'Cancel' and therefore the line cannot be deleted from the order.

7.1.3 Tab: Additional Fields

This tab displays additional fields associated to the order's header.

This screen only allows editing the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: [Additional Fields](#) (section 5.5).



Standard Order Maintenance

PO Number:	PO Code:	Supplier:	Supplier Name:	Shipping Method:			
XXXX	1	demo order	03	TaeguTec	*	EXPRESS	*

Send Order

General | Details | Additional Fields | Remarks and Links | Address

Field	Value
Package type	
Is special sale	

Additional Fields

Field:	Package type
Value:	<input type="text"/>

Buttons:

In order to update an Additional Field record:

1. Select the record and click the **<Update>** button from the right side of the grid.

The screen as following will appear:

Additional Fields

Field:	Is special sale
Value:	<input type="text"/>

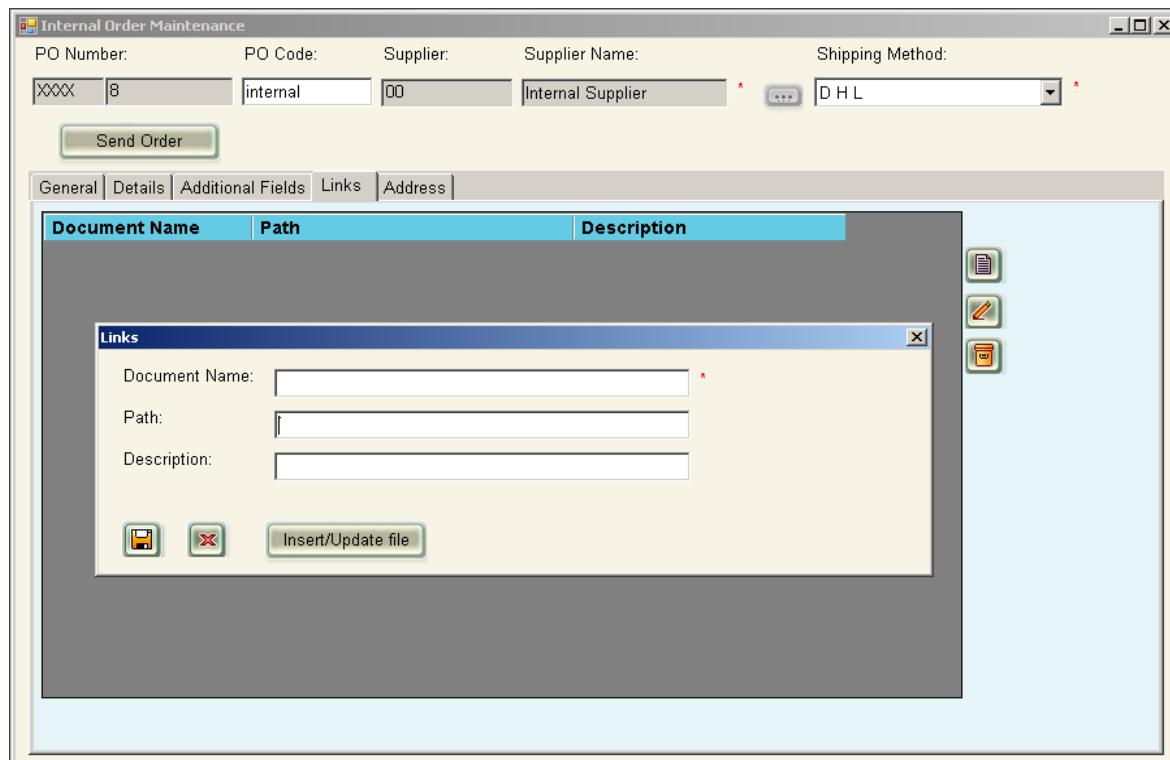
Buttons:

Value dropdown menu options: No, Yes

2. Set the value and click the **<Save>** button. The value will be updated for the current order.

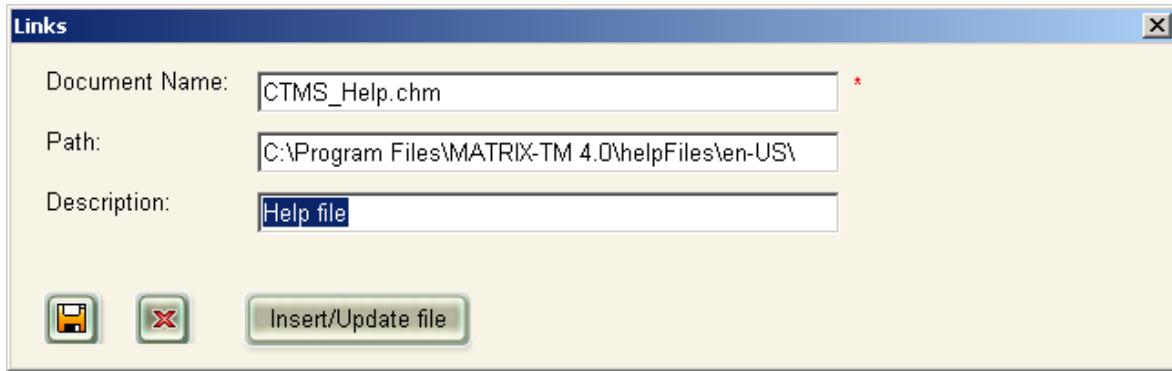
7.1.4 Tab: Links

Similar to other modules in the system, this tab contains remarks and files that can be associated with the order. Each link contains the following details: the file's name, its full path, type and description.



Adding / Updating Links:

1. Click the  <Add> or  <Update> button (before updating select the required row in the grid). The following screen will appear:



2. If you need to attach a file to the order, click the [<Insert/Update file>](#) button, select file, and the Name / Path fields will be filled automatically. Otherwise type the fields manually.
3. Click the [<Save>](#) button to save the record.

7.1.5 Tab: Address

This tab displays addresses and contact information of the ordering site and the supplier.



Standard Order Maintenance

PO Number:	PO Code:	Supplier:	Supplier Name:	Shipping Method:
XXXX	3	demo	01	Iscar
<input type="button" value="Send Order"/>				
<input type="button" value="General"/> <input type="button" value="Details"/> <input type="button" value="Additional Fields"/> <input type="button" value="Links"/> <input type="button" value="Address"/>				
Delivery Addresses				
Contact Person: Tim McDavid				
Ship To:	Bill To:			
50 State Street	200 state Street			
Chicago	Suit No 14			
IL DF4456	Chicago			
	IL FF3434			
Supplier Information				
Contact Person: Paul Royde				
Addresses:				
Neapolisky 7a	Canada			
Toronto				

Delivery Address fields: Automatically filled-in with the address and the contact person data of the **Site** for which this order was created (see 'General' tab). This data can be modified temporarily for the specific order or permanently on the Site definition (see Chapter D: [Site](#) (section 16.6)).

Ship To: The address to where the ordered items should be delivered.

Bill To: The address to where the order invoice should be sent.

Contact Person: The name of the contact person at the ordering site.

Supplier Information fields: Automatically filled-in with the address and the contact person data of the applicable **Supplier**. This data is non-editable on the order and can be modified only on the Supplier definition (see Chapter B: [Suppliers](#) (section 5.1))

Fill-in the details and click the [**<Save>**](#) button on the toolbar.

7.2 Create Automatic Orders

The system allows you to create automatic orders for replenishing stock. The ordered items and their quantities are determined by the system calculation according to the replenishment parameters. The calculation process compares between the current stock and the required stock and creates the automatic orders if any stock shortage was found.

There are two ways to run the process that creates automatic orders:

1. By manual run and/or;
2. By setting a time in the system for scheduling the run.

For both ways, first you need to set manual definitions described in the following section (Chapter B: [Manual User Definitions](#) (section 7.2.1)).



Note: Once an automatic order is generated by the system, it includes "AUTO PURCHASE" as a remark and can be updated exactly like a manual order. See additional instructions below.

7.2.1 Manual User Definitions

1. Open "Menu: Administration → System Options". Use information described in Chapter D: [System Options](#) (section 17) for parameters search.

The system options relevant for automatic orders:

2. Search for **Parameter 802** (Auto-purchase) and select the desired value.



System Option Maintenance

Option Key:	802
Option Name:	Auto-purchase
Option Description:	How to run auto purchase
Option Value:	<p>Create purchase Orders and Send to supplier</p> <p>No run</p> <p>Create purchase Draft (recommended)</p> <p>Create purchase Orders</p> <p>Create purchase Orders and Send to supplier</p>

No run – The system will not create orders automatically.

Create purchase Draft – The system will create orders in 'Draft' status. In order to send those orders, user will have to set the status to 'Open' and send the orders manually. This option is recommended for having control on the orders before sending them to supplier.

Create purchase Orders - The system will create orders in 'Open' status. The user will have to send the orders manually.

Create purchase Orders and Send to supplier - The system will create orders in 'Open' status and will send them automatically to suppliers according to the supplier's details (using E-Mail).



Important! In order to create an automatic order for item, the item must have a defined supplier.

3. Search for **Parameter 806** (Default file format for order) and select the file format for the automatic order.
4. Search for **Parameter 903** (Stock Management level) and select the desired value. Use information described in Chapter B: [Stock Management Levels](#) (section 6) for understanding the significance of each level.



System Option Maintenance

Option Key:	903
Option Name:	Stock Management level
Option Description:	Stock manage level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.
Option Value:	All levels Bin Item/Cabinet Item All levels

Bin – the system will create automatic orders by checking the stock and min/max parameters only on the Bin level. This is the lowest stock level.

Item/Cabinet – the system will create automatic orders by checking the stock and min/max parameters only on the Item/Cabinet level.

Item - the system will create automatic orders by checking the stock and min/max parameters only on the Item level. This is the highest stock level.

All levels - the system will create automatic orders by checking the shortage on All the Levels. Starting from the bin, then going to Item/cabinet and finally creating orders for what is left to order on the item level.

5. If you decided to include the **Bin level** for automatic orders:

Open "[Bin Maintenance](#)" screen of the bins that you wish to include for automatic orders:

- Select "[General](#)" tab and fix the following settings:



Bin Maintenance

Bin Key 13	Bin Code Demo1-01-01-13	Cabinet Code Demo1	Item Code 5505421	Item Description Demo IDI 0295-SG IC908
General Stock Management Additional Fields Usage Transactions Orders Bin Units				
Status: Active	* <input type="checkbox"/> Consignment	Item Type: Expendable	<input type="checkbox"/> Reworked	<input type="checkbox"/> Used Item
Replenishment				
<input checked="" type="checkbox"/> Bin Stock Management		<input type="checkbox"/> Do not Order		
Capacity				
Capacity:	50	* <input type="checkbox"/> Allow Over Capacity		
Issue				
Default Issue Quantity:	5	* <input checked="" type="checkbox"/> Issue Any Quantity		
Issue Price:	<input type="text"/>			
Current Quantities				
Items in Bin:	45,00	Ordered Quantity:	0,00	Draft: 0
Issued Quantity:	0	Quantity of Reworked:	0	Internal Order:
Last Count Date:	2006-02-08			
Remarks				
<input type="text"/>				

- Check the box of "Bin Stock Management" field.
- Make sure that the field "Do not Order" is not checked.
- Select "Stock Management" tab and fix the following settings:



Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
6	cab1-01-01-06	* cab1	* kit	kit

General Stock Management Custom Fields Usage information

	Calculated:	Override:	Effective Until:
Av. Monthly Usage:	0,000		B1/12/2006 *
Minimum Quantity:	0,00	20	
Maximum Quantity:	0,00	50	
Frequency Class (Issues per month):	E		
Average Frequency:	0		

Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:

- Fill in the value for "Minimum Quantity" field
- Fill in the value for "Maximum Quantity" field
- Fill in the date for "Effective Until" field. This date will be effective for creating automatic orders according to minimum and maximum quantities that were inserted manually ("Override" column). When this date expires, the automatic orders will be created according to the minimum and maximum quantities that were calculated automatically ("Calculated" column).

6. If you decided to include the **Item/Cabinet level** for automatic orders:

Open "Cabinet Maintenance" screen of the cabinets that you wish to include for automatic orders:

- Select "General" tab and choose the following settings:



- Select 'Stock Management in Item / Cabinet Level' for "Stock Management Level" field.

Go to the "[Item Maintenance](#)" screen of the items that you wish to include for automatic orders:

- Select "[General](#)" tab and choose the following settings:
- Check the box of "Item Management Level" field.
- Select "[Stock Management](#)" tab and choose the following settings:
Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:
 - Select "[Item/Cabinet](#)" row from the grid of the relevant cabinet
 - Fill in the value for "[Minimum Quantity](#)" field
 - Fill in the value for "[Maximum Quantity](#)" field
 - Fill in the date for "[Expire Date](#)" field. This date will be effective for creating automatic orders according to the minimum and maximum quantities that were inserted manually ("[Override](#)" column). When this date expires, the automatic orders will be created according to minimum and maximum quantities that are calculated automatically ("[Calculated](#)" column).

7. If you decided to include the **Item level** for automatic orders:

Open "[Item Maintenance](#)" screen of the items that you wish to include for automatic orders:

- Select "[General](#)" tab and choose the following settings:
- Check the box of "Item Management Level" field.
- Select "[Stock Management](#)" tab and choose the following settings:
Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:
 - Select "[Item](#)" row from the grid.



- Fill in the value for "Minimum Quantity" field.
 - Fill in the value for "Maximum Quantity" field.
 - Fill in the date for "Expire Date" field. This date will be effective for creating automatic orders according to minimum and maximum quantities that were inserted manually ("Override" column). When this date expires, the automatic orders will be created according to the minimum and the maximum quantities that are calculated automatically ("Calculated" column).
8. To create the automatic orders based on the manual definitions **without scheduling**, you need to run the manual process. The manual process will compare between the current stock and the required stock and will create the automatic orders if any stock shortage will be found. For more information read Chapter D: [Automatic PO Process](#) (section 21.2).
Otherwise, to create the automatic orders **by scheduled time**, please continue to Chapter B: [Schedule the Automatic Orders](#) (section 7.2.2).

7.2.2 Schedule the Automatic Orders

This paragraph describes the steps for creating automatic orders by scheduled time. The primary condition is to set manual definitions as previously described in Chapter B: [Manual User Definitions](#) (section 7.2.1).

1. Open "[Menu: Administration → System Options](#)". Use information described in Chapter D: [System Options](#) (section 17) for parameters search.
2. Define in the system options when to run the automatic orders process.
Search for **Parameter 807** (Auto PO Day) and select the date to generate the Automatic Purchase Orders.
Search for **Parameter 808** (Auto PO Time) and select the time to generate the Automatic Purchase Orders.

Setting these parameters will automatically create a job for the database under the name [DBname]**AutoPOService**. At the scheduled time, this job will automatically be executed

and will run the "Automatic Orders" process. When changing the parameters, the job will be recreated.

In order to view the status and the history of the job, you can login to the "Database Administration" program on the computer where the database is located and view the "Activate Jobs" option. For more information see Chapter E: [Activate Jobs](#) (section 28.3).



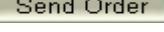
Note: If you have chosen in the manual definitions to create automatically **Draft** order, you will need to edit the draft in order to convert it to an active order and then send the order manually. If you have chosen to create automatically **Orders with Send to Supplier**, the orders will be created and automatically sent to the supplier using the supplier's email.

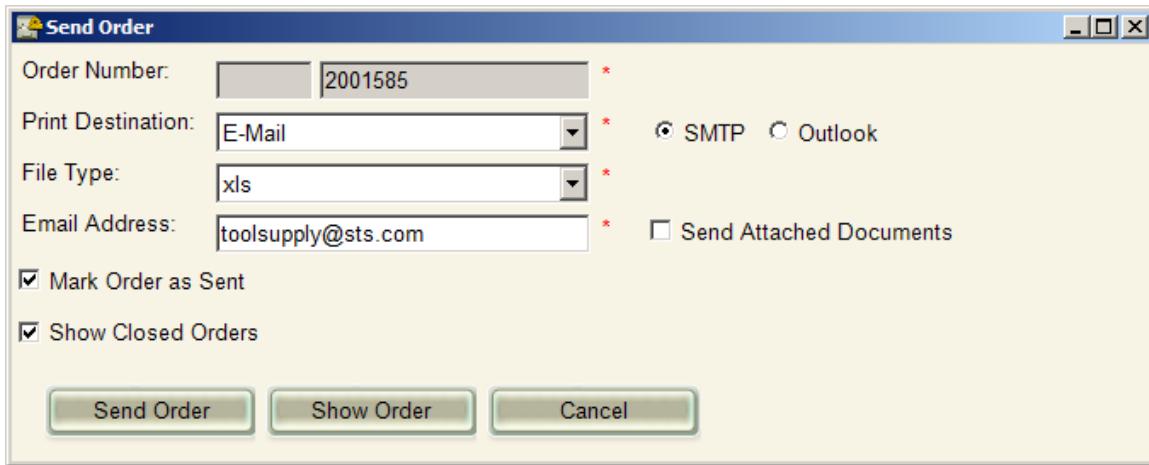
7.3 Sending an Order to Supplier

An order can be sent to a supplier in 2 ways:

- An **automatic** operation done after creating automatically an Order or an Internal Order. This option is described in Chapter B: Create Automatic Orders (section 7.2).
- A **manual** operation done by the user through the "Order maintenance" screen. The order must be in the 'Draft' or 'Open' status. Follow the steps described here in order to send the order.

In order to send the order manually:

1. Open the "Order maintenance" screen on the tab "General".
2. If the order is in status 'Draft', change the status to 'Open' and save the order details by clicking the  **<Save>** button on the toolbar.
3. Click the button  **Send Order**. The following screen will appear:



4. Fill in the required field:

Print Destination: Choose the output destination: **E-Mail**, **Print** or **No Sending** – select this option together with 'Mark Order as Sent' if you need to change the status of the order lines to 'Sent to supplier' without sending the order.

File Type: Choose the file type (xls, xml, rtf, Report or HTML).



Email Address: If 'E-Mail' was chosen as a "Print Destination", then the email address must be entered. By default, the email of the order supplier will be copied to here.

Send Attached Documents: Check this option if there are attachments on the 'Order Maintenance' screen → 'Links' tab and you need to attach them to email.

Mark Order as Sent: Check this option to mark the order as 'Sent'. It will also change all order lines to 'Sent to supplier' status.

Show Closed Orders: Check this option to include the closed order lines in the order output file.

5. Click the <Show Order> button to view the order in the chosen format before sending.
6. Click the <Send Order> button to execute the order definitions.

7.4 Order Invoice Entry

MATRIX-TM lets you control the approval of supplier invoices by assigning supplier invoices to received order lines. MATRIX-TM verifies that a received quantity can only be invoiced by the supplier once. After a supplier invoice is entered, you can print an invoice approval slip for processing actual payment to the supplier.



Important! This function tracks and compares supplier invoices and received orders by quantity **only**. It is not a full supplier-invoice approval program. In order to handle the payment of the supplier invoices, an ERP or accounting system should be used.

1. Open "Menu: Order → Invoices".
2. Click the <Add> button on the toolbar.
The "Invoice Maintenance" screen will be displayed.



Invoice Maintenance

PO Detail:	2005968 *	<input type="button" value="..."/>	
PO Key:	3002544	Line No.:	10
Item Code:	9802473	Item Description:	A4C0205N00CF02 KC5
Additional Item Code:	0304531	Ordered Quantity:	20.00
Received Quantity:	20.00	Sum of Invoiced Qtys:	3
Unit Price:	45.70		
Invoice Key:	30005296	Price:	45.70
Invoice Number:	XXX505067 *	References:	<input type="text"/>
Invoice Quantity:	3 *	Invoice Date:	20/07/2012
Create User:	admin	Update User:	admin
Create Date:	23/07/2012	Update Date:	23/07/2012

3. Click the browse button to select the order line that was fully or partially received to the cabinet. The screen "[Order Line Received Quantity](#)" will be displayed listing all the received order lines that **were not approved yet**.

Order Line Received Quantity

PO Detail	=	PO Key	=	PO Code	=	Supplier Name	=			
Received Quantity	=	PO Status	=	Supplier Name	=	Item Description	=			
Item Key	=	Item Code	=	Item Description	=	Additional Item Code	=			
Order Date	=	Receive Date	=	Additional Item Code	=					
... Found 725 Records. Row: 1										
<input type="button" value="Search"/>	<input type="button" value="Select"/>									
PO Detail	PO Key	Order Type	PO Code	Received Quantity	PO Status	Supplier Name	Item Key	Item Code	Item Description	Line
2005952	3002537	Standard		10.00	Close	Arnie Supplies	40000371	9803036	B707A1150...	22
2005967	3002544	Standard		3.00	Close	Arnie Supplies	1486	9802351	K210A0468...	9
2005968	3002544	Standard		20.00	Close	Arnie Supplies	4000044	9802473	A4C0205N0...	10
2005969	3002544	Standard		3.00	Close	Arnie Supplies	1451	9802316	B210A1250...	11
2005970	3002544	Standard		70.00	Close	Arnie Supplies	40000132	9802871	A4G0305M0	12

4. Select the order line from the list and double-click (or click the [Select](#) button).

The data from the order line will be filled-in automatically into the "Invoice Maintenance" screen.

<u>PO Detail:</u>	Purchase order line key.
<u>PO Key:</u>	Purchase order key.
<u>Line No.:</u>	Line number in the order.
<u>Item Code:</u>	The item code from the order line.
<u>Item Description:</u>	The item description from the order line.
<u>Additional Item Code:</u>	The additional item code from the order line.
<u>Ordered Quantity:</u>	The original ordered quantity from the order line.
<u>Received Quantity:</u>	The received quantity from the total ordered quantity.
<u>Unit Price:</u>	The item price from the order line.
<u>Sum of Invoices:</u>	The sum of quantity of the invoices which have been already assigned to this order line.

5. Fill in the fields:

<u>Invoice Number:</u>	The number of the supplier invoice.
<u>Invoice Quantity:</u>	The quantity charged in the invoice line. It is possible to add a quantity which does not exceed the received quantity less the previously approved invoiced quantities.
<u>Price:</u>	Loaded automatically from unit price from the order line and available for override.
<u>Reference:</u>	A place to add an additional reference e.g. an accounting number.
<u>Invoice Date:</u>	A date associated with the invoice, that can be used for invoice issue or payment date.

6. Click the  **<Save & Close>** button on the toolbar.

After all the invoice lines have been input, select the invoice and choose the  **<Print>** button to print an Invoice Approval Slip.

8 Stock Transactions

This chapter describes the transaction types which change stock quantities.

8.1 RECEIVE Items

Receive occurs when the ordered items are available to be received into stock. This module supports receive of all the types of order:

- | | |
|------------------------|--|
| Standard Order: | Order of new items from supplier (vendor).
This order type can contain any type of item (Durable / Kit / Reworkable / Expendable). |
| Rework Order: | Order to rework/regrind items by a regrinding supplier.
This order can contain Reworkable item type. |
| Internal Order: | Order of items issued from one cabinet by the "Transfer Orders" option for transfer to another cabinet (the ordering cabinet).
This order can contain any type of item. |



8.1.1 Receive Rules

The 'RECEIVE' option for an order line depends on the **Item Type**, **Bin Type**, **System Options 904 & 905**, **Order Type** and the combination between them. In the following tables, see the cases where the 'Receive' option is available and when it is not.

RECEIVE Rules system options 904/905 ([V5.0](#)):

The option **904** is for **REWORKED** bins and influences on **all the item types**.

The option **905** is for **USED** bins and influences only on **all the item types except Re-workable** items.

* All other items: Durable / Kit / Key / Gauge

System Option 904 (Reworked)	System Option 905 (Used)	Bin Type		STANDARD PURCHASE ORDER		REWORK (REGRIND) ORDER		RECEIVE WITHOUT ORDER	
		Reworked	Used	Re-workable	Other*	Re-workable	Other*	Re-workable	Other*
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓	✓	✓	✓	✓	✓
				✓	✓		✓		✓
		✓		✓	✓	✓	✓	✓	✓
				✓	✓			✓	✓
				✓			✓		✓
		✓				✓	✓	✓	✓
<input checked="" type="checkbox"/>				✓	✓	✓	✓	✓	✓
				✓			✓		✓
		✓				✓	✓	✓	✓
	<input checked="" type="checkbox"/>			✓	✓	✓	✓	✓	✓
				✓	✓		✓		✓
		✓		✓	✓	✓	✓	✓	✓

Summary:



The item type **Expendable** can only be new (cannot be reworked), therefore it is received only from standard order and not influenced by system options.

The item type **Reworkable** is influenced only by system option 904.

All the other item types (**Durable / Kit / Key / Gauge**) are influenced by system options 904 and 905.

See more information in Chapter B: [ITEM Life Cycle](#) (section 5.4.4).

8.1.2 Receive with MATRIX-TM Order

This type of Receive is based on the open purchase orders in MATRIX-TM Manage. For receive without order or for receive based on the order created in ERP system, please refer to Chapter B: [Receive with ERP Order](#) (section 8.1.3).

1. Open “Menu: Order → Receive Order”.

The screen "Open Orders" will appear displaying the list of all the order lines of all order types.

2. Select the requested order line and click the <Update> button (or double-click the line). The screen as following will appear:

Receive Order

PO Number:	3002114	Cabinet:	M31
Line:	2	Bin:	31-01-01-13
Item Code:	9802343	Capacity:	10
Item Description:	B210A06200	Items in Bin:	8,00
Supplier Code:	00	Allow Over Capacity:	<input checked="" type="checkbox"/>
Quantity:	5,00	Used Item:	<input type="checkbox"/>
Received:	0,00	Reworked:	<input type="checkbox"/>
On Route:	5,00		
Consignment:	<input type="checkbox"/>		
New Received:	<input type="text"/> *		
Remarks:	<input type="text"/>		

References

Reference 1:	<input type="text"/>
Reference 2:	<input type="text"/>

Buttons:

Receive Order **Cancel**

Fields description:

Cabinet: Cabinet containing the item of the selected order line. If only one cabinet contains this item, this field will be disabled.

Bin: Bins in the selected cabinet that can receive this item by Receive Rules as described in Chapter B: [Receive Rules](#) (section 8.1.1). If only one bin can contain this item, this field will be disabled.

Quantity: The original quantity in the order line.

Received: The total quantity received so far for this order line.

On Route: This field is relevant only for Internal Orders. It informs how many pieces were issued for transfer and still were not received into the destination cabinet.

New Received: Insert here the quantity you now want to receive. The maximum quantity in the Internal Order line can be up to 'On Route' quantity.

Remarks: Free text.

Reference fields: The reference fields are displayed for supporting interface with ERP systems. The number of reference fields (0-4) depends on the System Option 111.

3. In the 'Cabinet' and 'Bin' fields select the cabinet and bin into which the item will be received. If the bin is not assigned with "Allow Over Capacity", make sure that the current stock ('Item in Bin' field) and new stock ('New Received' field) together will not exceed the bin's Capacity.
4. Enter the received quantity in the "[New Received](#)" field and click the [**<Receive Order>**](#) button.

If the quantity received is less than the quantity ordered, a question will appear asking whether to close the order line or not. If you want later to receive the remaining quantity, click [**<No>**](#). Otherwise, click [**<Yes>**](#).



Note: It is possible to receive more than the ordered quantity. See system option 105 - defined in "Over Receive Percentage".

5. Follow the changes done after confirming the order line update:
 - In case of Standard or Rework order types, a '**Receive**' transaction is added to the list of transactions. In case of Internal Order, a '**Transfer**' transaction is created.
 - The stock of item/bin is updated with the received quantity.
 - Order Maintenance: In case of Standard or Rework orders, the relevant order line is changed to 'Partial' or 'Closed' status and the ordered quantity is reduced. In case of Internal Order, the relevant order line is changed to 'Closed' or remains 'On Route' until all the quantity on route is fully received.
 - Order Maintenance: The received quantity will be added to the "Received Quantity" in the order line (Tab: Details) and to the bin entity (Tab: General).
 - Remark added to the "Remarks" field will appear in the "Remark" tab in the relevant order line.



8.1.3 Receive without Order

This type of Receive is based on the orders created in ERP system or no orders at all. For receive based on order created in MATRIX-TM Manage, please refer to Chapter B:

[Receive with MATRIX-TM Order](#) (section 8.1.2).

1. Open "Menu: Order → Receive without Order".

The screen "Receive without Order" will appear displaying all the **bins** that have free space to store items according to its capacity and according to Receive Rules as described in Chapter B: [Receive Rules](#) (section 8.1.1).

The '**Maximum Quantity**' column represents the maximal number of items that can be received. When the maximum quantity = 9,999,999.00, it means that the bin was marked with 'Allow Over Capacity' and therefore there is no limit on the items can be received.

2. Select the desired bin and click the [**<Update>**](#) button (or double-click the line).

The screen as following will appear:

Item Code:	9802168	Cabinet:	M31
Item Description:	16IR G 60 BXC	Bin:	31-08-03-01
Capacity:	40	Allow Over Capacity:	<input type="checkbox"/>
Items in Bin:	11,00	Used Item:	<input type="checkbox"/>
Maximum Quantity:	29	Reworked:	<input type="checkbox"/>
Receive Quantity:	<input type="text"/> *		
Remarks:	<input type="text"/>		
References			
Reference 1:	<input type="text"/>		
Reference 2:	<input type="text"/>		
Receive		Cancel	

Fields description:

Item / Cabinet / Bin disabled fields: All the data regarding the selected bin.

Maximum Quantity: The maximum quantity that can be received.

Receive Quantity: Insert here the quantity you now want to receive, up to the maximum quantity.

Remarks: Free text.

Reference fields: The reference fields are displayed for supporting interface with ERP systems. The number of reference fields (0-4) depends on the System Option 111.

3. Enter the received quantity in the "New Received" field and the references to the order in ERP system and click the **<Receive Order>** button.
The stock of item/bin will be updated with the received quantity and '**Receive**' transaction will be added to the list of transactions, The reference fields, if entered will show in the transaction.

8.2 TRANSFER (Internal) Order

This module enables transferring items from a cabinet to the receiving (ordering) cabinet. It requires an open Internal Order that contains a list of items and quantities that need to be transferred. For more information see Chapter B: Orders (Purchase, Rework and Internal) (section 7).

1. Open "**Menu: Order → Transfer Order**".
2. Select the order line of item that you need to issue and click the  **<Update>** button (or double-click the line). The screen as following will appear:



Transfer Order

PO Number:	3001364	Line:	48
Item Code:	9802239	Item Description:	MIR6 L15 A60 BXC
Additional Item Code:	0303898	Item Long Description:	
Source		Destination	
Bin Code:	31-08-03-03	Cabinet Code:	31
In Stock:	15.00	Bin Code:	
Used Item:	<input type="checkbox"/>	Used Item:	<input type="checkbox"/>
Reworked:	<input type="checkbox"/>	Reworked:	<input type="checkbox"/>
Consignment:	<input type="checkbox"/>	Consignment:	<input type="checkbox"/>
Ordered Quantity:	10.00		
Received:	4.00		
On Route:	0.00		
Transfer Quantity:	6 *		
Maximum Quantity:	6		
Transfer Order		Cancel	

The 'Destination' frame in the above screen displays data regarding the cabinet and bin for which the order line was created and which is going to receive the item. The 'Source' frame displays data regarding the bins from which the items can be transferred.

Fields description:

Destination Cabinet Code: The cabinet for which the item was ordered.

Destination Bin Code: The bin for which the item was ordered. If none, the order was created on the Cabinet level.

Source Bin Code: The list of bins that contain available stock for transfer.

Ordered Quantity: The quantity ordered for the destination cabinet.

Received: The quantity received by Receive process.

On Route: The quantity that was issued for transfer and still was not received by the Destination Cabinet.

Transfer Quantity: The quantity to be transferred to the Destination Cabinet not exceeding the 'Maximum Quantity'.

Maximum Quantity: The maximum quantity that may be transferred considering the current stock in the selected bin and the quantity left to

transfer (in the above example, $(18-3-9) = 6 < 19$, the maximum quantity will be 6)).

3. Select the bin from which to issue the item.
4. Define the quantity that you want to issue for transfer in the "Transfer Quantity" field and click the <Transfer Order> button.
5. Follow the changes done after confirming the order line update:
 - A 'Transfer -' transaction (with negative Transaction quantity) with the logged-in user is added to the list of transactions.
 - The stock of item/bin is reduced by the transferred quantity.
 - Order Maintenance: The relevant order line is changed to 'On Route' status and the ordered quantity is reduced.
 - Order Maintenance: The transferred quantity will be added to the "On Route" quantity in the order line (Tab: Details) and will be reduced from the bin entity (Tab: General).
6. Continue with "Receive" process at the cabinet which created the Internal Order.

8.3 RETURN Order to Supplier

If there is a need to return items to a supplier because of damage, the wrong item was supplied or for any other reason, the user has an option to return the item to the supplier. The return option is available only if the order line was received into stock.

Maximum quantity for return is the quantity that was received in the order line.

1. Open "Menu: Order → Return to Supplier".
2. Search for the order line that you want to return and click the  <Update> button or double-click it. The following screen will be displayed:



Return To Supplier Maintenance

PO Detail:	3036115
Item Code:	9802871
Item Description:	A4G0305M03U04GMN KC5025
PO Key:	3002407
Line No.:	13
Supplier Name:	Arnie Supplies
Received Quantity:	40.00

Cabinet Code:	01
Bin Code:	01-04B2v
Quantity To Return:	2
Maximum Quantity:	40.00
In Stock:	70.00
Open Closed Order:	<input type="checkbox"/>
Remarks:	

Buttons:

Return to Supplier **Cancel**

This screen displays in the 'Cabinet Code' and 'Bin Code' fields all the cabinets and bins respectively that contain the item of the selected order line for return. If only one cabinet or bin contains this item, these fields will be disabled.

3. In the 'Cabinet Code' and 'Bin Code' select the cabinet and bin from which you want to return the items.
4. Fill in the quantity that you want to return up to the 'Maximum Quantity' (the lesser of the stock in the bin and the quantity previously received); the return reason in the remark field; and click the [Return to Supplier](#) button.

8.4 RETURN Items to Stock

This screen allows you to return used items to the cabinet for reuse.

8.4.1 Return Rules

The 'RETURN' option for item depends on the **Item Type**, **Bin Type**, **System Option 905** and the combination between them. In the following table, see the cases when the 'Return' option is available and when it is not.

Return Rules (V5.0):

System Option 904	System Option 905	Bin Type		RETURN option by Item type			
		Reworked	Used	Expendable	Reworkable	Durable / Kit / Key / Gauge	Note
√	√			N/A		√	
			√	N/A	√	√	
		√		N/A		√	
				N/A			
			√	N/A	√	√	
		√		N/A		√	
√				N/A			
			√	N/A	√	√	
		√		N/A		√	
	√			N/A		√	
			√	N/A	√	√	
		√		N/A		√	

Summary:

The Item Types that can be returned: all except Expendable.

The Bin Types that can accept those items for return:



- Used bin can accept all item types with no other condition.
- New and Reworked bins can accept all the item types except Reworkable, depending on the system options 904/905.

See more information in Chapter B: [ITEM Life Cycle](#) (section 5.4.4).

8.4.2 Return Item to Cabinet

In order to return a used item to stock, follow the next steps:

1. Open “[Menu: Operations → Return](#)”. The "Return" search screen will appear and will display all the available positions for return.



Note: This screen will display only the items that can be returned and only the bins that can accept those items for return according to the previous section.

2. Select the item and bin to which you wish to return the used item and click the [<Update>](#) button on the toolbar.
If you wish to return items to more than one position, click the <CTRL> button on the keyboard and mark all required items (while choosing the items you must continue pressing on the <CTRL> button on the keyboard). At the end, click the [<Update>](#) button.

The "Return Items" screen will appear with the requested item/s for return:

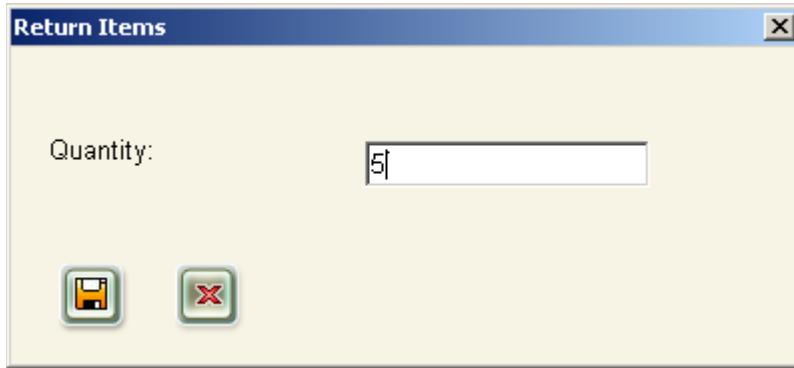
The screenshot shows a Windows-style dialog box titled "Return Items". Inside the dialog, there is a table with the following data:

Item	Item Description	Bin Code	Cabinet Name	Consignment	Return	Serial
4548067	GTIN ER32 DIN 9.00X7.00	MINIPOD-01-03-02	MINIPOD	No	1	
3600600	MTJNR 2525M-16W	MINITOUSH-01-05-04	MINITOUSH	No	3	
4604211	PIN GO BA235213	MINITOUSH-02-04-02	MINITOUSH	No	0	

At the bottom of the dialog, there are three buttons: "Return Item", "Delete", and "Cancel".

If you don't wish to return some of the items, mark the line in the grid and click the <Delete> button to remove the record from this screen.

3. Select the line for changing quantity for return and click the  <Update> button on the right side of the grid. The following screen will appear:



4. Fill in the quantity you wish to return and click the  <Save> button.
5. Click the <Return Item> button to confirm return of all the quantities. The stock will be updated and a 'Return to Cabinet' transaction will be recorded in the system for each record.



Note: You can return items to the bin according to the bin capacity limits.



8.5 ISSUE Item

This screen allows the user to issue items from stock.

In order to display this screen open “[Menu: Operations → Issue](#)”.

The screen will require the user to perform a number of steps before the issue:

- Choose employee who is requesting the issue (Issue to).
- Choose cost centers
- Search and Choose items
- Update quantities
- Operate issue process

Item Code	Item Description	Additional Item Code	Item Long Description	Item Type	Group	Cabinet Code	Bin Code
3200648	DCM 095-0...	0303769	MAXITOUC...	Durable	Tools	01	01-29B2b
3200648	DCM 095-0...	0303769	MAXITOUC...	Durable	Tools	MAXITOUC	MAXITOUC-0
3200648	DCM 095-0...	0303769	MAXITOUC...	Durable	Tools	MINIPOD	MINIPOD-02-0
3200648	DCM 095-0...	0303769	MAXITOUC...	Durable	Tools	01	01-29E51

Item Code	Item	Additional	Item Long	Cabinet	Bin Code	Bin type
3200648	DCM 095-0...	0303769	MAXITOUC+MINI...	MAXITO...	MAXITOUC-02-04-05	

Remarks:

**Choose employee requesting the issue:**

Choose the employee from the list:

Issue to: *

Choose cost centers:

Cost Center Department:	<input type="text" value="Department 1"/>	Machine:	<input type="text" value="Machine 1"/>
Work Center:	<input type="text" value="Work Center 1"/>	Job Number:	<input type="text" value="5501234"/>

In this section you should choose the cost centers to be associated with issuing the item.

The cost centers are determined in a hierarchical display order.

Example in screen: Department → Work center → Machine → Job number.



Note: The cost centers in the above picture are an example only.

The system manager can define up to four different cost centers that will appear in the system. You can update their names, their numbers and the order in which they will appear.

Search items:

In this screen the user selects the items and bins from where he wishes to issue.

Use the following search fields in order to locate the item and bin for issue.

- | | |
|--------------------------|--|
| <u>Item Code:</u> | Search by edit (use %value% for partial value) or by |
| <u>Item Description:</u> | Search by edit (use %value% for partial value). |
| <u>Cabinet:</u> | Search by list. |
| <u>Bin:</u> | Search by list or by |

Click the <Search> button on the toolbar.

You can also display the item picture by clicking the  [Item Picture](#)  [<Item Picture>](#) button.

Choose items to be issued:

Mark the item and click the  [<Down>](#) arrow button. This operation will move the items to the bottom table (issue list).



Note: If the quantity for issuing is not positive or the item is in a bin marked 'Not Active', then after clicking the  [<Down>](#) arrow button, a system message will appear and the record will be marked red.

Remove item from issue list:

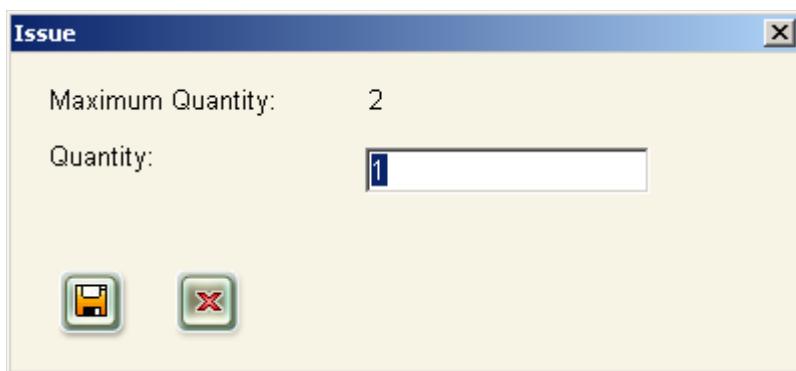
Mark the item and click the  [<Up>](#) arrow button. This operation will remove the items from the bottom table (issue list).

Update quantity to be issued:

The fields at the bottom table are for display only except the last field "Issue quantity" which must be completed.

Select the line and click the  [<Update>](#) button on the right side of the grid.

The following screen will appear:



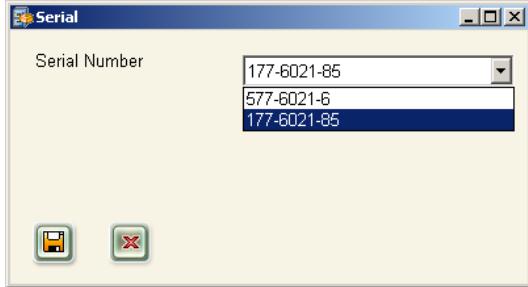
Fill in the quantity you wish to return and click the  [<Save>](#) button.



Note: You can only issue a quantity that complies with the "Default Issue Quantity".



Note: If the item is a 'Serial Item' the next dialog box will appear upon pressing the  <Down> Button:



Choose the 'Serial Item' you want to issue and press the  <Save> button. Note that you can only issue one serial at a time.

Processing the issue:

After all items requested for issuing have been moved to the bottom table (issue list) and

the quantities were set, click the [<Issue Item>](#) button . This operation will update the stock quantities and create an 'Issue' transaction.

8.5.1 Issue Kit

Open: "Menu: Operations → Issue".

The first step is to find the kit you wish to issue. It is a good habit to start the description of a kit with the text "KIT" on the item definition which will make it easier to text search for a kit. In the top part of the screen you will see the items which are the result of the selection. Please notice that in the example below the first line (outlined in blue) has no cabinet or bin. This means that each item comprising the Kit will be issued from its **respective bin**. The second line in the example below is an assembled kit. If you chose to issue this line, all the items comprising the Kit will be issued from **one bin**.



Issue

Issue to: admin creator *

Cost Center
Department: Drilling * Machine: Drilling Machine 12

Work Center: WC Drilling1 Job Number:

Generic Search
Item Code: Item Description: KIT1 d%
Cabinet: Bin:

Item Code	Item Description	Item Type	Group	Cabinet Code	Bin Code	Stock
6601234	KIT1 DEMO	Kit	Milling			
6601234	KIT1 DEMO	Kit	Milling	Demo1	Demo1-01-0...	10.00

Once a kit item is chosen with the arrow down (in our example the blue line), the following screen pops up and you will be asked to input the quantity for the kit.

Kit quantity

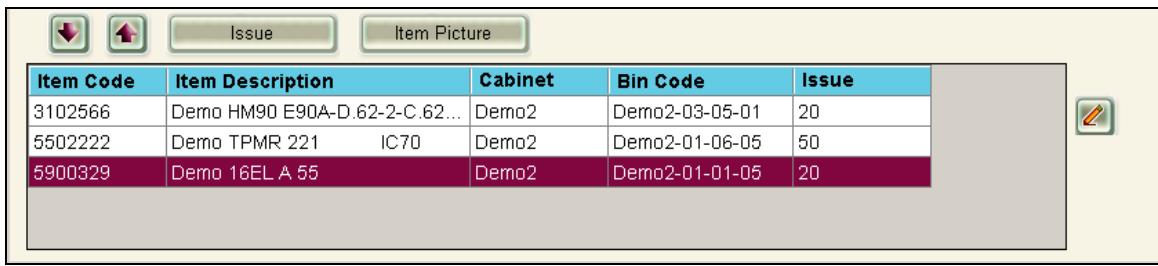
Maximum Quantity: 1000000

Quantity:

Once the **<Save>** button is clicked, all the component items' quantities are multiplied by the quantity of the kit. The resulting components list with their calculated quantities is located in the bottom grid, ready for issue.

MATRIX-TM will choose the component items according to a method which minimizes the issued levels (Drawers in MATRIX type cabinet) and maximizes storage efficiency by choosing the smallest bin which supplies the needed quantity.

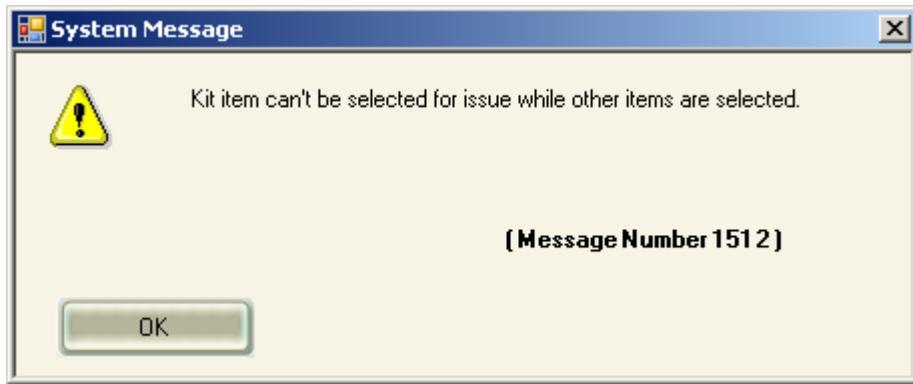
You can manually change the quantity of a kit component.



Item Code	Item Description	Cabinet	Bin Code	Issue	
3102566	Demo HM90 E90A-D.62-2-C.62...	Demo2	Demo2-03-05-01	20	
5502222	Demo TPMR 221 IC70	Demo2	Demo2-01-06-05	50	
5900329	Demo 16EL A 55	Demo2	Demo2-01-01-05	20	

You cannot add other items to the lower grid if it is full with components.

If you try to add a new item to the bottom screen, the following message will appear:



Once the  [<Issue>](#) button is clicked, the kit components will be issued as normal. Stock will be subtracted and '['Issue'](#)' transactions will be added to the transactions list for each component item. Those transactions will contain a remark referring to the kit (indicated in red).



Transaction Maintenance

Transaction Key:	522	Item Code:	3102566	Item Description:	Demo HM90 E90A-D.62-2
Transaction Type:	Issue	Bin Code:	Demo2-03-05-01	Cabinet:	Demo2 MatrixDemo2
Update					
Create User:	admin creator	Update User:	admin creator		
Create Date:	16/08/2006	Update Date:	16/08/2006	Status:	Active

General | PO Information | Cost Center

Transaction	Quantity
Date: 16/08/2006 10:02:50	Transaction quantity: 20.00
User: admin creator	<input type="button" value="Update Quantity"/>
Issue to: admin creator	
Remarks: For Kit 6601234 KIT1 DEMO	

8.5.1 Issue Confirmation

This feature enables using Touch station as a kiosk that allows only virtual issue, i.e. building issue list when the actual tools are supplied from a distanced warehouse by tool manager.

This screen lists all the virtual issues that need to be supplied with tools and to be marked as confirmed. Issue is considered as unconfirmed when the issue is done from cabinet that its 'Is Actual Issue' field is unchecked.

To see the list, open: ["Menu: Operations → Issue"](#).

For more details see Chapter C: Virtual Issue (section 13.1.5).



8.6 STOCK COUNT

This screen enables you to perform a stock count in the system.

In order to continue with the Stock Count procedure, follow these steps:

1. Open "Menu: Operations → Stock Count".

The "Stock Count" screen will appear as follow:

The screenshot shows the "Stock Count" window. At the top, there are search fields for Bin Key, Bin Code, Item Key, Cabinet Name, Item Code, Item Description, Last Count Date, Used Item, and Allow Over Capacity. Below the search area, a message says "Found 36 Records." A grid table displays 11 rows of data, each representing a bin record. The columns are: Bin Key, Bin Code, Item Key, Item Code, Item Description, Cabinet Name, Last Count Date, In Stock, and Capacity. The data in the grid is as follows:

Bin Key	Bin Code	Item Key	Item Code	Item Description	Cabinet Name	Last Count Date	In Stock	Capacity
1	cab1-01-01-01	1	durable	durable	cab1	25/09/2006 ...	0,00	50
2	cab1-01-01-02	1	durable	durable	cab1	25/09/2006 ...	0,00	50
3	cab1-01-01-03	1	durable	durable	cab1	25/09/2006 ...	0,00	50
4	cab1-01-01-04	1	durable	durable	cab1	13/09/2006 ...	0,00	50
5	cab1-01-01-05	4	kit	kit	cab1	27/09/2006 ...	15,00	50
6	cab1-01-01-06	4	kit	kit	cab1	27/09/2006 ...	4,00	50
7	cab1-01-01-07	4	kit	kit	cab1	18/09/2006 ...	0,00	50
8	cab1-01-01-08	4	kit	kit	cab1	25/09/2006 ...	0,00	50
9	cab1-01-01-09	2	expendable	expendable	cab1	26/09/2006 ...	0,00	50
10	cab1-01-01-10	2	expendable	expendable	cab1	25/09/2006 ...	0,00	50
11	cab1-01-01-11	2	expendable	expendable	cab1	18/09/2006 ...	0,00	50

2. Fill in the required fields to filter the search, or leave all fields blank to search all

records. Click the <Search> button on the toolbar.

3. Mark the bin record you wish to update and click the <Update> button on the toolbar (or double-click the record).

The "Update Stock Count" screen will appear as follow:

Update Stock Count

Item Code:	9802936
Item Description:	16IR 11.5 NPT BMA
Bin Code:	51-04-06-05
Stock / Capacity:	9 / 30
Allow Over Capacity:	<input checked="" type="checkbox"/>
Counting User:	admin
Counted Quantity:	<input type="text"/>

4. Select "Counting User" from the list.

In the "Counted Quantity" field, fill in the quantity that was counted.



Note: The counted quantity cannot exceed the defined capacity for the counted bin, unless the bin was assigned with the "Allow Over Capacity" check box.

5. Click the  <Save> button on the toolbar.

The new stock quantity will be updated and the "Last Count Date" in the search screen will also be updated for the specific bin counted.

A "Stock Count" transaction will be recorded in the transactions list.

In the "Bin Maintenance" screen in the "General" Tab, the "Last Count Date" will be updated for each record, even where the actual quantity of items counted has not changed.

Last Count Date:



8.7 STOCK TRANSFER

This screen enables you to transfer items from bin to bin by the following instructions:

1. Open "Menu: Operations → Stock Transfer".

The screen will display a list of bins with item definition that have not reached their full capacity (or the bins assigned with 'Allow Over Capacity').

2. Select the destination bin to receive stock from another bin with the same item

definition and click the [**<Update>**](#) button (or double-click the line).

The following screen will be displayed:

The dialog box is titled "Stock Transfer". It has two main sections: "Source" and "Destination".

Source:

- Bin Code: 51-01-02-13
- Stock / Capacity: 6 / 40
- Used Item:
- Reworked:
- Consignment:
- Transfer Quantity:
- Maximum Quantity: 6

Destination:

- Bin Code: 31-08-03-01
- Stock / Capacity: 11 / 40
- Used Item:
- Reworked:
- Consignment:
- Allow Over Capacity:

Remarks:

Buttons: Transfer, Cancel

The item / bin that you have selected are displayed on the "Destination" side.

The bin/s from which you can transfer the item are displayed on the "Source" side in the "Bin Code" list. If there are no bins from which to transfer, the displayed list will be empty and the [**<Transfer>**](#) button will be disabled.

3. Select from the "Source" side the bin from which to transfer the item, either from the combo box or by using either the [**<...>**](#) button.
4. Fill in the quantity and click the [**<Transfer>**](#) button.

This will create two 'Transfer' transactions under the logged in user name: one for source bin and the other for the destination bin.



5. Make the physical transfer of the items from the Source to the Destination bin by the "Count Bins" operation (or "Adjust Item") in the TOUCH module without adjusting quantities.

8.8 Recorded Stock Transactions

The transactions screen lists all the stock transactions recorded in the system.

You can access this screen via the "[Menu: Operations → Transaction](#)".

The following types of transactions are defined in the system:

Adjust Bin Quantity: Created with (+) or (-) quantity. In Manage, created by changing quantity in the 'Items in Bin' field on the 'Bin Maintenance' screen. In Touch, created by 'Adjust Item' module.

Scrap: Created with (-) quantity. In Manage, it is created by reducing the quantity in the 'Items in Bin' field on the 'Bin Maintenance' screen and selecting 'Scrap Items' option. Not available in Touch.

Issue *: Created with (+) or (-) quantity – with (+) when issuing item and with (-) when reversing transaction. In Manage, created by 'Issue' functionality and reversed by <Update Quantity> on the 'Transaction Maintenance' screen. In Touch, created by 'Issue' module and reversed by 'Transaction' module.

Receive: Created with (+) or (-) quantity – with (+) when receiving item and with (-) when returning to supplier. In Manage, created by 'Receive Order' functionality and reversed by 'Return to Supplier' functionality. In Touch, created by 'Receive' module and cannot be reversed.

Return To Cabinet: Created with (+) quantity. In Manage, created by 'Return' functionality. In Touch, created by 'Return' module.

Send To Rework: Created with (+) quantity. In Manage, created by sending Rework order to supplier. In Touch, cannot be created.

Stock Count: Created with (+) or (-) quantity. In Manage, created by Stock Count functionality. In Touch, created by 'Count Bins' module.

- Transfer:** Created with (+) or (-) quantity – with (-) when issuing item for transfer and with (+) when receiving item to its destination. In Manage, created by 'Stock Transfer' functionality or by 'Transfer Order' / 'Receive Order' functionalities. In Touch, created by 'Transfer Order' and 'Receive Order' modules.
- Zero Issue:** Created with 0 quantity. In Manage, cannot be created. In Touch, created by <Alert> option in the 'Issue' module.



Note: Only an **Issue** transaction can be modified by the user.

For more details, continue following here the instructions.

Transaction Maintenance

In order to view transaction details, select a transaction from the list and click the  [<Update>](#) button on the toolbar.

The "Transaction Maintenance" screen will be displayed.

In the upper part of the screen, you can view the following transaction data: Transaction Key; Transaction Type; Item Code; Item Description; Bin Code and Cabinet.

In the middle part of the screen you see the User who created the transaction and the date the Transaction was created. Details of the User who last updated the transaction are also recorded along with the date. In the Status field, the status of the transaction is recorded.

In the lower part of the screen, there are three subject tabs: General; Costs; and Cost Center (available only for Issue transactions).

Maintenance screen for any transaction type except ISSUE:



Transaction Maintenance

Transaction Key:	46220842	Item Code:	5622420	Item Description:	EC-E4L 06-14/20C06CF57 I
Transaction Type:	Adjust Bin Quantity	Bin Code:	52-06-01-03	Cabinet:	52 M52
Reworked:	<input type="checkbox"/>	Used Item:	<input type="checkbox"/>	Status:	Active
Request Key:			Serial Number:		
From:	Touch				

Update

Create User:	Yuri Dvorkin	Update User:	Yuri Dvorkin
Create Date:	02/02/2012	Update Date:	02/02/2012

General | Costs

Transaction	Quantity
Date: 02/02/2012	Transaction quantity: 1.00
User: Yuri Dvorkin	Quantity before Transaction: 2.00
Issued for:	Returned Quantity:
Remarks:	

Maintenance screen for ISSUE transaction:

Transaction Maintenance

Transaction Key:	46042781	Item Code:	6496682	Item Description:	MM GRIT 22K-1.5-01425IC5
Transaction Type:	Issue	Bin Code:	51-04-04-05	Cabinet:	51 M51
Reworked:	<input type="checkbox"/>	Used Item:	<input type="checkbox"/>	Status:	Active
Request Key:			Serial Number:		
From:	Touch				

Update

Create User:	Yuri Dvorkin	Update User:	Yuri Dvorkin
Create Date:	05/01/2011	Update Date:	05/01/2011

General | Costs | Cost Centers

Transaction	Quantity
Date: 05/01/2011	Transaction quantity: 1.00
User: Yuri Dvorkin	Quantity before Transaction: 2.00
Issued for:	Returned Quantity:
Update Quantity	
Remarks:	



Note: Compared to the "Transaction Maintenance" screen of the other transaction types, on the screen of **Issue** transactions some of the fields are enabled in order to

allow the user to modify the transaction details. Also the <Update Quantity> button and the "Cost Centers" tab become activated.



Note: Updating a transaction, especially the quantity, must be carried out carefully.

- Updating the **Transaction data** in following fields – **Issued for, Remarks, Transaction Value, Consignment and Cost Centers** – will cancel the original transaction, and create a new active and updated transaction. The new transaction will include in the relevant field a code for the canceled transaction for tracking purposes.
- Updating the **Quantity** of the transaction will create a new active transaction with the amount which was added or subtracted from the previous quantity. The new transaction will include in the relevant field a code for the previous transaction (which is also active) for tracking purposes.
- Updating transaction data including modifications to quantities will create two new transactions:
 - Transaction with the updated parameters without updating the amount, so that the original record is canceled.
 - Transaction with the updated parameters and the amount added or subtracted.
- Changing an Issue transaction quantity will change the stock of the bin; therefore the physical stock in the bin must be also taken out.

8.8.1 Tab: General

This tab displays the general transaction details: date and time of the transaction etc...

For any transaction type except ISSUE:

The tab does not enable to edit fields.



General		Costs
Transaction		
Date:	02/02/2012	09:10
User:	Yuri Dvorkin	
Issued for:		
Quantity		
Transaction quantity:		1.00
Quantity before Transaction:		2.00
Returned Quantity:		
Remarks:		

For ISSUE transaction:

The tab enables to edit **Issue for** field (the name of the person to whom an item was issued), **Remarks** field and to Update transaction quantity by [<Update Quantity>](#) button.

General		Costs	Cost Centers
Transaction			
Date:	05/01/2011	08:50	
User:	Yuri Dvorkin		
Issued for:			
Quantity			
Transaction quantity:		1.00	
Quantity before Transaction:		2.00	
Returned Quantity:			
Remarks:			

To update fields, edit value and click the [<Save>](#) button on the toolbar.

Update Quantity:

On the right hand side of the "General" tab, appears the Transaction Quantity. To modify this, follow the next steps.



Note: Only Issue transactions support changing the quantity.

1. Click the [<Update Quantity>](#) button.

The "Adjustment Quantity" screen (below) will then appear.

Adjustment Quantity

Transaction quantity:	10.00
Quantity to Add / Remove:	<input type="text"/> *
Corrected Transaction quantity:	10
Capacity:	100
Allow Over Capacity:	<input type="checkbox"/>
Current Stock quantity:	15.00
Corrected Stock quantity:	15

2. Fill in the “Quantity to Add / Remove” field.

For example, if you need to cancel issue of 2 pieces from 10 issued pieces, insert '-2'. The “Corrected Transaction quantity” and "Corrected Stock quantity" fields will be automatically updated.

3. To confirm the change, click the  [<Save>](#) button.

To cancel, click the  [<Exit>](#) button.

4. After the update quantity operation the stock in the bin is changed, so the physical stock of the bin must be also taken out. In order to take out the items or put them back physically into the cabinet, use the "Adjust Item" option (or "Count Bins" option) on the cabinet TOUCH module; open the bins and take the items out **without adjusting quantities**.



Remember! The original transaction is not changed - a new transaction is created that will reflect the difference in quantity resulting from the change.

8.8.2 Tab: Costs

This tab displays the following data for the transaction:

- PO number: If it is a 'Receive' transaction, this field will display the Order number. Otherwise, no value will be shown.
- Line No.: If it is a 'Receive' transaction, this field will display the line number from the order. Otherwise, no value will be shown.
- Reference fields: The reference fields 1-4 display the input from 'Receive' transactions when working with Interfaces (in SAP for example, Reference 1 = PO Number in SAP, Reference 2 = Line No. in SAP).
- Transaction value: The calculated transaction cost in the chosen currency. If it is a 'Receive' transaction, the currency will be taken from Order. Otherwise, it will have (*) for general currency.
- Trans. value in System currency: The calculated transaction cost in the system's default currency (system option 203).
- Consignment: Indicates if it is a consignment transaction. Its value is copied from the related item / bin.

For more information about the calculated values see Chapter B: [PRICES of Items and Transactions](#) (section 8.9).

For any transaction type except ISSUE:

The tab does not enable editing fields.

<input type="button" value="General"/>	<input type="button" value="Costs"/>
PO and Costs	
PO Number:	<input type="text" value="283"/>
Line No.:	<input type="text" value="6"/>
Reference 1:	<input type="text"/>
Reference 3:	<input type="text"/>
Reference 2:	<input type="text"/>
Reference 4:	<input type="text"/>
Transaction Value:	<input type="text" value="7.500"/>
Trans. value in System currency:	<input type="text" value="31.875"/>
<input type="checkbox"/> Consignment	

For ISSUE transaction:

The tab enables to edit **Line value customer currency** and the **Consignment** fields.

<input type="button" value="General"/>	<input type="button" value="Costs"/>	<input type="button" value="Cost Centers"/>	
PO and Costs			
PO Number:	<input type="text"/>	Line No.:	<input type="text"/>
Reference 1:	<input type="text"/>	Reference 3:	<input type="text"/>
Reference 2:	<input type="text"/>	Reference 4:	<input type="text"/>
Transaction Value:	<input type="text" value="10.000"/>	*	System Curr = NIS
Trans. value in System currency:	<input type="text" value="10.000"/>	System Curr = NIS	
<input type="checkbox"/> Consignment			

For issue transactions, it is possible to perform two types of updates in this tab:

1. To update the value of the transaction in the chosen currency:

Line value customer currency: *

After modifying the entry click the [<Save>](#) button. This will update both the chosen currency and the default currency; and

2. To sign / ensign the "Consignment" check box.

To confirm this change: click the [<Save>](#) button.

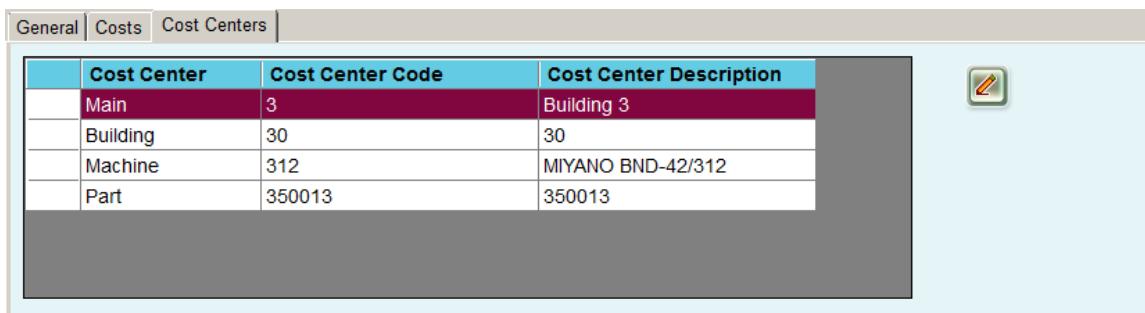
8.8.3 Tab: Cost Center



Note: The "Cost Centers" tab is available only for **Issue** transactions.

For ISSUE transaction:

The tab enables to edit **cost centers** fields.



Cost Center	Cost Center Code	Cost Center Description
Main	3	Building 3
Building	30	30
Machine	312	MIYANO BND-42/312
Part	350013	350013

In this tab you can View / Update the cost centers which have been allocated to the selected transaction. Every Issue transaction can be debited to a number of cost centers defined in the system according to the hierarchy (see Chapter B: [ISSUE Item](#) (section 8.5)).

In order to modify the cost centers, click the <Update> button.



Change the cost centers and confirm the change by clicking the  <Save> button.

To cancel, click the  <Exit> button.

8.9 PRICES of Items and Transactions

When a stock transaction is created in the system, the system calculates the value of the transaction depending on the **transaction type**, the **transaction quantity** and



source of the price. The following descriptions describe all the price fields and their influence in the system.

Prices fields in MANAGE module:

- Issue Price, Bin Maintenance (not mandatory field)
- Item Price, Item Maintenance (not mandatory field)
- Supplier Price, Item Maintenance → Item Supplier (**mandatory field**)
- Average Cost, Item Maintenance (not editable field)
- Price of Reworked, Item Maintenance (not mandatory field)
- Unit Price, Order Maintenance
- Price Item maintenance, Gauge tab (relevant only for gauges)

In the Order:

If the supplier of the order **does not supply** the item that is in the order, the price for the item in the order for field "Unit Price" will be taken by default from **Item Price**.

If the supplier of the order **supplies** the item that is in the order, the price for the item in the order for field "Unit Price" will be taken by default from **Supplier Price**.

In Receive transaction:

The transaction value will always take the price from the "Unit Price" field of the received order line.

In Issue transaction:

If "Issue Price" field has a value, the transaction value first will take this value.

If the bin is 'Reworked', it will calculate the transaction value by "Price of Reworked" field.

If none of the above and "Item Price" field has a value, it will take this field value.

Otherwise it will take the "Supplier Price" value.

In Return, Adjust Item, Count Bin and Transfer:

First, it will calculate the transaction value by "Average Cost".

If there is no value for "Average Cost" field, it will calculate the transaction value by "Item Price".

If there is no value also for "Item Price" field, it will use zero.

In 'Send to Calibration' and 'Return from Calibration' transactions:

It will calculate the transaction value by Item Maintenance → Gauge tab → "Price" field.

If there is no value for this price, it will use zero.

8.10 Managing Consignment Stock

Consignment stock: The supplier is the owner of the stock and the customer is charged when issuing items.

Non-consignment stock: The customer is the owner of the stock.

Mixed stock: Partial quantity of an item is consignment stock and part is non-consignment stock.

This chapter describes all the definitions that differentiate between managing consignment and non-consignment stock. Please ensure that the definitions in the database meet with your needs.

Item: The field 'Consignment' on the "Item Maintenance" screen. Mark this field if the item should be ordered as consignment. As a result all bins associated with this item will be marked consignment.

Bin: The field 'Consignment' on the "Bin Maintenance" screen. Mark this field if the bin contains consignment stock or remove the mark if the item is Non-consignment stock

Defaults: Check the default values of Consignment for Item and for Bin in the "Menu: Administration → Defaults List".

Standard Purchase Order: When creating order line:

- If the order line is on the Item level or Item/Cabinet level, it will take the value of Consignment from Item Maintenance screen.
- If the order line is on the Bin level, it will take the value of Consignment from the Bin Maintenance screen.
- This is relevant both for Manual and Automatic Orders.



Receive Order: If the order line is consignment, you will only be able to receive this item into a consignment bin. If the order line is non-consignment, you will only be able to receive this item into a non-consignment bin.

Return Item: Return of item is possible only into a bin that is NOT marked as 'Consignment'.

Transaction: The consignment info is recorded in the transaction.

9 Reports

There are two types of reports supported by the MANAGE module:

- Basic reports and;
- Advanced reports

9.1 Advanced Reports

The MANAGE module supports building Advanced Reports for different records in the system, such as transactions, orders, usage etc.

Build report template:

All the advanced reports have a basic screen to create the reports with full customization, such as selecting which fields to include or exclude from the report, selecting which records to display by setting conditions and filters, selecting level of details (Total values only or Detailed list), selecting design for report (Chart or List) and more.

This section describes in detail how to build and run the advanced transactions reports, but these instructions can be used for any type of advanced report.

Schedule the report run:



After making all the definitions, the basic screen enables you to save this report template and to schedule its running. Therefore a system user, for example can receive by email the dynamic results of a report run at scheduled time. For more information see Chapter D: [Report Scheduler](#) (section 23).

The available advanced reports:

- Transactions report;
- Issue / Return Comparison
- Orders report;
- Usage report;
- Stock report;
- Stock Shortage report;
- Item Additional Fields report;
- Bin Additional Fields report;
- Order Additional Fields report;

9.1.1 Creating a new report

1. Open the relevant advanced report screen.

For example, Advanced Transactions Report



Transactions Report

Description: DEMO Transactions report

Filter And Grouping | Choose Fields

Report Type	Field	Design Report:
<input type="checkbox"/> Listing (No Subtotals)	Quarter	Standard
<input type="checkbox"/> Listing + Subtotals	User Name	Chart
<input checked="" type="checkbox"/> Subtotals Only		X Field: Quarter

Condition operator: All conditions At least one condition

Simple Title

Field	From	To	Sort Type
Transaction Ty...	2,5	...	Ascend...
Transaction date	...	30/08/2006	Ascend...

Transaction	Transaction Type
<input type="checkbox"/> 1	Adjust Bin Quantity
<input checked="" type="checkbox"/> 2	Issue
<input type="checkbox"/> 3	Receive
<input type="checkbox"/> 4	Return To Cabinet
<input checked="" type="checkbox"/> 5	Transfer
<input type="checkbox"/> 6	Zero Issue
<input type="checkbox"/> 7	Stock Count
<input type="checkbox"/> 8	Updated

- Set report name: If you would like to save the report and use it later also, enter a name for the report in the "Description" field. Otherwise, for one-time run, it is not mandatory.

On the "Filter and Grouping" tab:

- Set report type: Select one of the three options for "Report Type" by the following table:

Listing (No Sub-totals)	Listing + Sub-totals	Sub-totals Only
Includes only detailed report lines without sub-total lines.	Includes detailed lines and sub-total lines grouped by defined field.	Includes only sub-total report lines without detailed report lines.
The "Group By" option is disabled .	The "Group By" option is enabled . Need to select the field/s	The "Group By" option is enabled . Need to select the field/s for



	for grouping the subtotals.	grouping the subtotals.
Chart design report is enabled.	Chart design report is disabled.	Chart design report is enabled.

4. **Set grouping:** If you selected report type of '**Listing**' or '**Sub-Totals Only**', select the field/s by which to group the sub-total lines in the "Group By" frame.

5. **Set report design:** Select one of the two options for "Design Report":

Standard: The report will be displayed as a list of records (both in "MS-Excel file" and "Report Document").

Chart: The report will be displayed as a chart according to the selected chart style. The availability of chart and its style options depends on the selected Report Type.

If you have selected a Chart design, the following definitions are required:

- a. Select value for "X Field" to represent the X coordinates of the chart.
- b. Select "Quantity" or "Value" for Y Field to represent the Y axis.
- c. Select chart type for "Chart" field
- d. Select "Color Style" of the chart

6. **Set conditions for filter:** The grid in the bottom part of the screen enables selecting fields and values for filtering the records in report. In the "Field" column select the field.

Field	From	To	Sort Type
Quantity			Ascend...
Cabinet Code			Ascend...
Consignment			Ascend...
	Yes		
	No		



As a result, the edit fields and browse buttons  in the columns From / To will be enabled / disabled for click, depending on the selected field type.

For some fields, dynamic objects will be displayed from the right side of the grid in order to select records for the filter. The selected records then will be shown also on the From/To columns.

From / To: If the browse button is enabled, click the button to get a search list and select record as the start / finish point for filter. Otherwise, click the row to edit the value for filter.

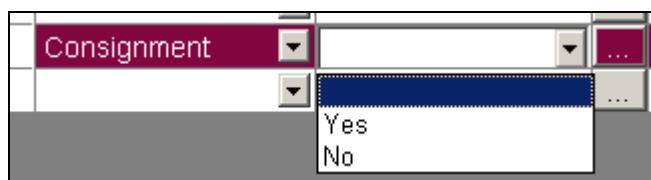
Sort Type: Set the order for viewing the data, either Ascending or Descending.

Examples:

- **Edit box:** If selecting "Item Description" field, by clicking the row dynamic edit box will be displayed allowing manual edition. The buttons "From" and "To" will be also enabled allowing selection of the items by the range of item descriptions.

Field	From	To	Sort Type
Item Description	Demo HM90 E90A-D1...  	Demo HM90 E90A...  	Ascend...  

- **Combo box:** If selecting "Consignment" field, dynamic list will be displayed allowing selection of single value. The "From" and "To" buttons will be disabled.



- **Grid:** If selecting "Transaction Type" field, a dynamic grid with all the transaction types will be displayed allowing multiple selection of the types for filtering.

The "From" and "To" buttons will be disabled.

	Code	Type
	<input type="checkbox"/> AD	Adjust Bin Quantity
►	<input checked="" type="checkbox"/> IS	Issue
	<input checked="" type="checkbox"/> RC	Receive
	<input checked="" type="checkbox"/> RB	Return To Cabinet
	<input checked="" type="checkbox"/> TR	Transfer
	<input type="checkbox"/> ZI	Zero Issue
	<input type="checkbox"/> SC	Stock Count
	<input type="checkbox"/> U	Updated

- **Dates:** If selecting "Transaction Date", dynamic fields will be displayed allowing selection of dates range for filtering.
 - A pre-defined period relative to the date of the report: yesterday; last 3 days; last week; last month; and last year.
 - Free choice of dates – from a specified date to a specified date.

The "From" and "To" buttons will be disabled.

Specify

From:

To:

- **Grid:** If selecting "Item Code" field, a dynamic grid with all the items will be displayed allowing multiple selection of the items for filtering.

The buttons "From" and "To" will be also enabled allowing selection of the items by the range of item codes.

	Item Code	Item Description
	3101686	Demo HM90 E90A...
	3101694	Demo HM90 E90A...
	3101745	Demo HM90 E90A...
	3101749	Demo HM90 E90A...
	3102566	Demo HM90 E90A...
	3201144	Demo CHAMRING ...
	3201154	Demo CHAMRING ...
	3201669	DemoDR-MF-10L-2.
	3201670	DemoDR-MF-10R-...
	3201671	DemoDR-MF-12L-2.

7. **Set condition operator:** Select one of the two options for "Condition Operator":

And: Means that **only** the records that will match **all** the defined conditions will appear in the report.

Or: Means that **all** the records that will match **at least one** of the defined conditions will appear in the report.

On the "Choose Fields" tab:

8. **Select fields:** Select the fields that you want to include in the report and cancel the check sign for fields to be excluded.



Note: If you want to display a report of Chart design using "Report Document", the fields' selection is not relevant.

Use arrows  and  to change the order in which the fields will be displayed.



Advanced Transactions Report

Saved Query Key:

Description:

Filter and Grouping Choose Fields

Select All

Field Name	Field Width
Transaction Key	1,00
Create Date	1,00
Transaction Time	1,00
Transaction Date	1,00
Create Date (+Time)	1,00
Month	0,50
Quarter	0,80
Item Code	1,00
Bin Code	1,50
Item Description	2,20
Cabinet Code	1,00
User Name	1,00
User Code	1,00
Transaction Type	0,80
Supplier Name	1,00
Site	1,00
Additional Item Code	1,00
Currency Name	1,50

9. **Run report:** There are 2 options for running reports:

MS-Excel file:

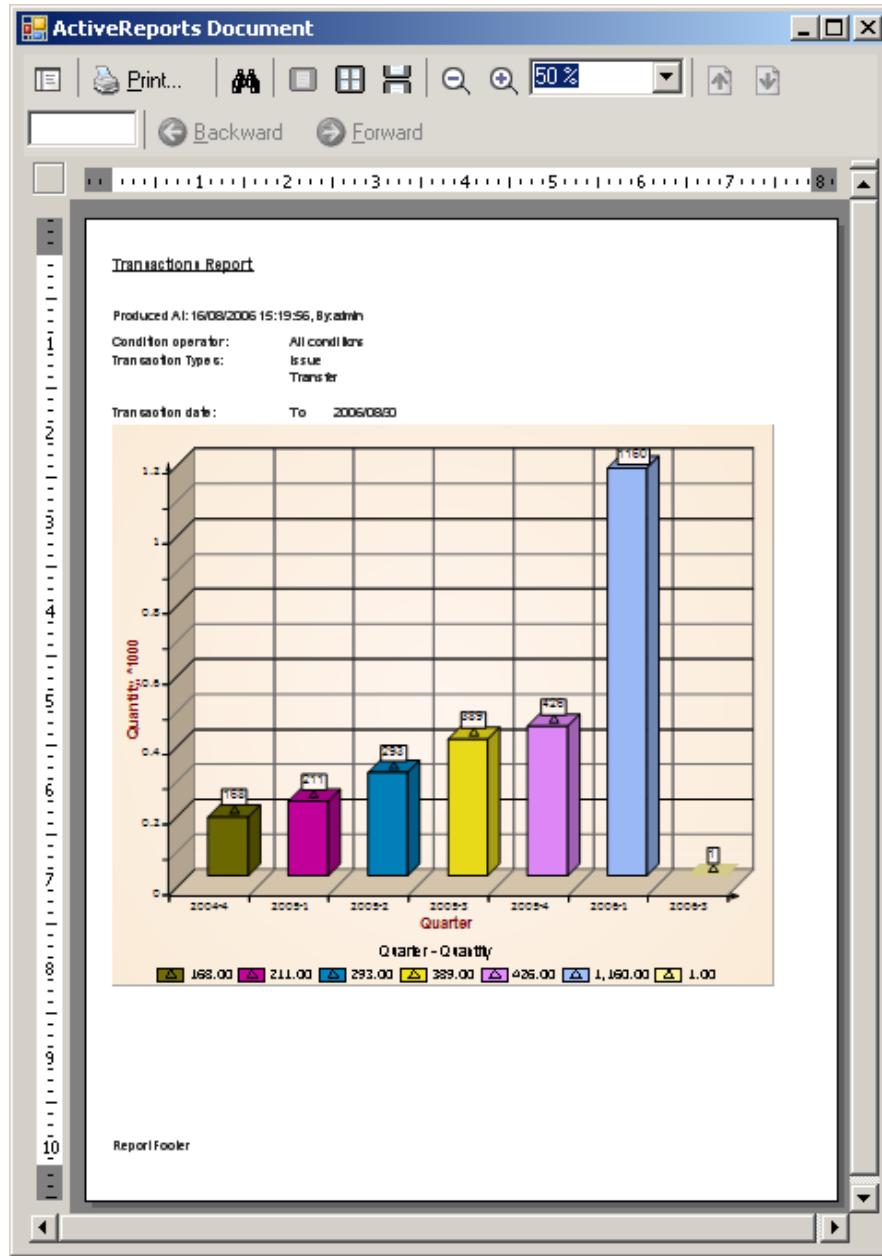
- Microsoft Excel file displaying report as a list of records.
- Activated by clicking the [<Print>](#) button on the toolbar.

Report Document:

- Special built-in program displaying a report as a list of records or Chart design according to the user's selections.
- The report is displayed in printing format.
- Activated by clicking the [<Report Viewer>](#) button on the toolbar.

If you want to display a report as "Report Document", select Standard or Chart under Design Report. If you want to display a report as MS-Excel file, this selection is not relevant and it will display anyway in Standard design.

Example for Report in Chart design:



9.1.2 Saving a Report

You can save your report parameters, in order to run the report again in the future.

To do this: after creating the report, click the  [Save](#) button on the toolbar.

The report will be added to a list under the defined report "Description".



Note: It is mandatory to fill in "Description" field if you want to save the report.

9.1.3 Finding a Saved Report

After saving a report you can find it by the following options:

Open from list of all the saved reports:

Open "Menu: Reports → Saved Advanced Reports". For more details read Chapter B: [Saved Advanced Reports](#) (section 9.12) or;

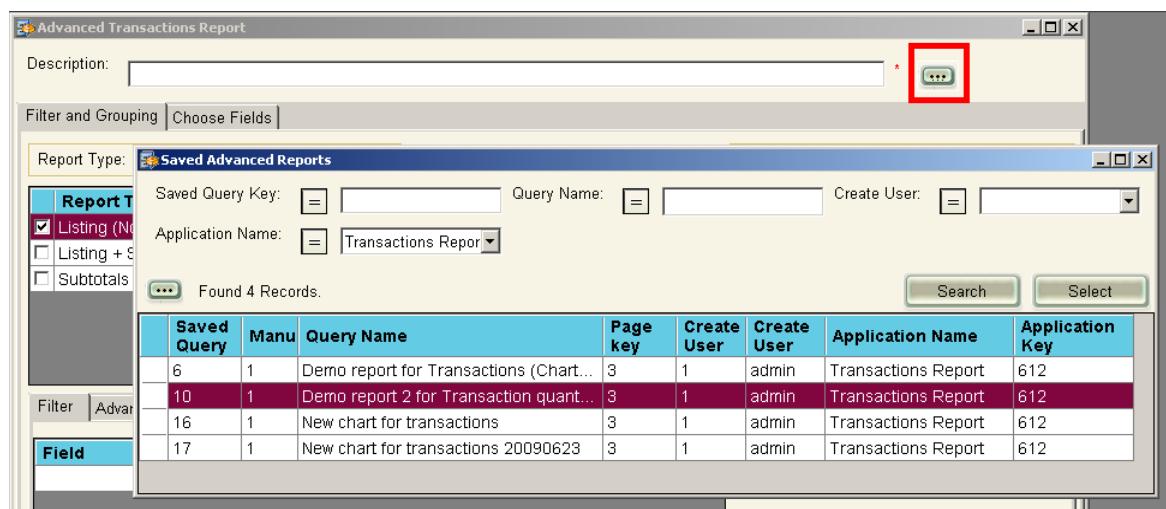
Open from report maintenance screen:

1. Select from main menu the relevant category of Advanced report.

For example, for transactions open "Menu: Reports → Transactions → Advanced Transactions Report".

2. Click the button to the right of the "Description" field.

The "Saved Report Parameters" search screen will appear:



3. Select relevant report from list and click the <Select> button (or double-click the line).
4. Modify the parameters if you wish, and then run the report by clicking the <Search> button or the <Print> button.



9.2 Transactions Reports

Transaction reports allow you to follow each stock operation performed in the system by either the TOUCH or MANAGE module.

9.2.1 Basic Transactions Report

This report displays in a generic view all the recorded stock transactions.

It details transaction type and quantity, the date and time when the transaction was created, the user who performed the operation and more.

To run the report, open “[Menu: Operations → Transaction](#)”.

Search Transaction

Transaction Key:	<input type="text"/>	Bin Code:	<input type="text"/>	Date:	<input type="text"/>
Bin Key:	<input type="text"/>	Transaction Type:	<input type="text"/>	PO Number:	<input type="text"/>
Item Code:	<input type="text"/>	Item Description:	<input type="text"/>	User Name:	<input type="text"/>
Issue to:	<input type="text"/>	Additional Item Code:	<input type="text"/>	Cabinet:	<input type="text"/>

Found 478 Records.

Trans Key	Date	Transaction Type	Item Key	Item Code	Item Description	Bin Key	Bin Code	Quantity before	Transaction quantity	User Name	PO Number
478	27/03/2007 15:50	Adjust Bin Qu...	69	8080803	KIT item (s...	720	KDemo1-04-03-02	20.00	-20.00	admin	
477	27/03/2007 15:49	Adjust Bin Qu...	69	8080803	KIT item (s...	719	KDemo1-04-03-01	10.00	-10.00	admin	
476	15/02/2007 12:25	Receive	21	5530123	Demo PIC...	636	KDemo1-01-A-06	10.00	5.00	admin	3
475	15/02/2007 12:25	Receive	21	5530123	Demo PIC...	14	Demo1-01-01-14	39.00	5.00	admin	3
474	15/02/2007 12:24	Receive	7	3101749	Demo HM9...	694	KDemo1-03-03-01	40.00	1.00	admin	3
473	15/02/2007 12:24	Receive	7	3101749	Demo HM9...	691	KDemo1-03-02-03	9.00	1.00	admin	3
472	15/02/2007 12:20	Issue	13	5501822	Demo TN...	738	NADemo1-02-01...	10.00	10.00	admin	
471	15/02/2007 12:20	Issue	3	3101694	Demo HM9...	728	NADemo1-01-01...	10.00	1.00	admin	
469	15/02/2007 12:19	Issue	3	3101694	Demo HM9...	632	KDemo1-01-A-02	10.00	1.00	admin	
470	15/02/2007 12:19	Issue	3	3101694	Demo HM9...	631	KDemo1-01-A-02	10.00	1.00	admin	



Note: This report, in contrast to other reports, also enables you to update the transactions.

For more information read Chapter B: [Recorded Stock Transactions](#) (section 8.8).

9.2.2 Advanced Transactions Report

This screen enables the user to create a customized report for transactions based on the records of the basic transactions report. It also enables the user to save the report and to run it at scheduled time.

The report displays the selected transactions by:



Quantity: The quantity of items in the transaction.

Value: The total monetary value of the transaction (taken from Line value system currency of the transaction).

To run the report, open “Menu: Reports → Transactions → Advanced Transactions Report”.

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.2.3 Issue / Return Comparison

This report enables to display returned quantities compared to the issued quantities per item/user.

To run the report, open “Menu: Reports → Transactions → Issue / Return Comparison”.



Issue / Return Comparison

Saved Query Key:

Description:

Filter and Grouping | Choose Fields

Report Type:

Report Type
<input type="checkbox"/> Listing (No Subtotals)
<input checked="" type="checkbox"/> Subtotals Only

Group By:

Field
Item Code

Design Report:

Standard Chart

Filter Advanced

Condition operator
 All conditions At least one condition

Top:
 Simple Title

Create User:
Create Date:
Update User:
Update Date:

Field Field

Field	Field
Returned Quantity	<>
	Issued Quantity
	=

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.3 Stock Reports

The stock reports allow following the actual stock quantities.

9.3.1 Advanced Stock Report

This screen enables the user to create a customized report for stock based on the basic stock reports. It also enables the user to save the definitions and to run the report at a scheduled time.

The report displays the stock by:

Quantity: The quantity of items in stock.

Value: The total monetary value of the stock =

Average Cost of the item * Quantity.



If the Average Cost is NULL, it will use Item Price.

If the Item Price is NULL, it will use primary Supplier Price.

Av. Monthly Usage: The average quantity of items used (issued) per month (calculated by Monthly Process).

To run the report, open “Menu: Reports → Stock Reports → Advanced Stock Report”.

The screenshot shows the 'Advanced Stock Report' configuration window. It includes sections for 'Report Type' (listing options), 'Group By' (Item Code), 'Design Report' (chart type selected), 'Condition operator' (All conditions selected), and a 'Simple Title' checkbox. Below these are filter and grouping fields for 'Field', 'From', 'To', and 'Sort Type'.

Field	From	To	Sort Type
Bin Is rework	No		Ascend...
Bin Is used	No		Ascend...
Item Code	4509194	6402508	Ascend...

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.3.2 Dead Stock by Item

This report displays all the items that were not in use and considered as "Dead" according to the following conditions:

There is stock for the item, but...

- There are no Issue / Receive transactions for the item OR;



- There is no Issue / Receive date OR;
- Last time that the item was Issued / Received was more than **X** months ago

The number of months is defined by **System Option 213** (Number of months with no Item/Bin activity).

To run the report, open “Menu: Reports → Stock Reports → Dead Stock by Item”.

Dead Items Report											
Item Key:			Item Code:		Item Description:						
Item Type:			Group:		Supplier Name:						
Consignment:											
Found 59 Records.											
Item Key	Item Code	Item Description	Item Type	Group	Item Price	Supplier Name	Consig	Quantity	Last Issue date	Last Receive	
47	5902160	Demo11R 28 U...	Expendable	Threading	1.00	Metaldur	No	12.00	08/02/2006 08:13		
6	5605180	Demo APKT 1003...	Expendable	Milling	6.00	Ingersoll	No	105.00	08/02/2006 08:13		
40	5600660	DemoSPKR 42ED...	Expendable	Milling	1.00	Iscar	No	40.00	08/02/2006 08:12		
27	6402110	Demo GIMY 304 ...	Expendable	Turn Groove	1.00	TaeguTec	No	40.00	08/02/2006 08:12		
2	3101686	Demo HM90 E90A...	Kit	Milling	105.00	Outiltec	No	51.00	08/02/2006 08:11		
5	3101745	Demo HM90 E90A...	Durable	Milling	75.30	Outiltec	No	80.00	01/11/2004		
9	5601196	Demo APKT 1003...	Expendable	Milling	6.87	Outiltec	No	89.00	01/11/2004		
22	5505421	Demo IDI 0295-S...	Expendable	Drilling	1.00	Iscar	No	85.00	01/11/2004		
1	5605179	Demo APKT 1003...	Expendable	Milling	20.00	Iscar	No	40.00			
4	3102566	Demo HM90 E90A...	Durable	Milling	86.30	Outiltec	No	66.00			
8	5600048	Demo APKT 1003...	Expendable	Milling	1.89	Ingersoll	No	150.00			
10	5600007	Demo TDCP 2.1	Expendable	Geo Turn	16.00	TaeguTec	No	6.00			

9.3.3 Dead Stock by Cabinet Report

This report displays all the items by cabinets that were not in use and considered as "Dead" according to the following conditions:

There is stock for the item in the cabinet, but...

- There are no Issue / Receive transactions for the cabinet OR;
- There is no Issue / Receive date OR;
- Last time that there was Issue / Receive transaction of that item on that cabinet was more than **X** months ago

For example: Item defined for bins in two different cabinets. For one cabinet there was an activity and for the other cabinet there was no activity. This item will appear in the report with details of the cabinet with no activity only.



The number of months is defined by **System Option 213** (Number of months with no Item/Bin activity).

To run the report, open “Menu: Reports → Stock Reports → Dead Stock by Cabinet”.

Cabinet Name	Item Code	Item Description	Item Type	Total Value	Supplier Name	Consign	Quantity	Last Issue date	Last Rec
Kardex 01	2301262	DGTR 2525-3	Expendable	343,20	Iscar	No	1,00		
MAXIPOD	2301348	DGFHL 26T23-2	Durable	2294,95	Iscar	No	5,00		
M31	2301383	DGTL 16B-1.4D30	Durable	585,04	Iscar	No	2,00	2011-04-04 ...	
Kardex 01	2301398	DGTR 16B-3D35	Durable	572,52	Iscar	No	2,00	2011-01-19 ...	
M52	2301570	DGFHR 32B-3D50	Durable	465,01	Iscar	No	1,00		
M71	2301570	DGFHR 32B-3D50	Durable	465,01	Iscar	No	1,00		
M31	2301623	PCHR 16-24	Durable	219,74	Iscar	No	1,00	2011-08-14 ...	
M52	2301623	PCHR 16-24	Durable	219,74	Iscar	No	1,00		

9.3.4 Dead Stock by Bin

This report displays all the bins that were not in use and considered as "Dead" according to the following conditions:

There is stock in the bin, but...

- There are no Issue / Receive transactions for the bin OR;
- There is no Issue / Receive date OR;
- Last time that there was Issue / Receive transaction on that bin was more than X months ago

The number of months is defined by **System Option 213** (Number of months with no Item/Bin activity).

To run the report, open “Menu: Reports → Stock Reports → Dead Stock by Bin”.



Dead Bins Report

Bin Key:	<input type="text"/>	Bin Code:	<input type="text"/>	Cabinet Name:	<input type="text"/>	
Item Key:	<input type="text"/>	Item Code:	<input type="text"/>	Item Description:	<input type="text"/>	
Item Type:	<input type="text"/>	Supplier Name:	<input type="text"/>			

Found 169 Records.

Bin Key	Bin Code	Item Key	Item Code	Item Type	Item Price	Quantity	Bin is used	Do not	Last Issue date	Last Receive	Last Count Date
48	Demo1-01-04-06	47	5902160	Expendable	1.00	12.00	No	No	08/02/2006 08:13		08/02/2006 07:27
41	Demo1-01-03-13	40	5600660	Expendable	1.00	40.00	No	No	08/02/2006 08:12		08/02/2006 07:26
36	Demo1-01-03-08	27	6402110	Expendable	1.00	10.00	No	No	08/02/2006 08:12		08/02/2006 07:26
366	Demo2-01-01-03	2	3101686	Kit	105.00	4.00	No	No	08/02/2006 08:11		
13	Demo1-01-01-13	22	5505421	Expendable	1.00	45.00	No	No	01/11/2004		08/02/2006 07:24
23	Demo1-01-02-09	9	5601196	Expendable	6.87	29.00	No	No	01/11/2004		08/02/2006 07:24
385	Demo2-01-02-08	5	3101745	Durable	75.30	14.00	No	No	01/11/2004		
1	Demo1-01-01-01	13	5501822	Expendable	1.00	10.00	No	No			08/02/2006 07:22
2	Demo1-01-01-02	10	5502097	Expendable	16.90	5.00	No	No			08/02/2006 07:23
3	Demo1-01-01-03	11	5502128	Expendable	19.99	20.00	No	No			08/02/2006 07:23
4	Demo1-01-01-04	12	5502149	Expendable	1.00	25.00	No	No			08/02/2006 07:23

9.3.5 Advanced Dead Stock Report

This screen enables the user to create a customized report for dead stock based on the basic dead stock reports. It also enables the user to save the definitions and to run the report at a scheduled time.

9.3.6 Stock by Bin

This report displays all the bins and their stock provided that the bin has an item definition. It also displays the **Bin** stock management information for each bin, such as: Min. & Max. quantities, draft and ordered quantities, usage information, etc.

To run the report, open “[Menu: Reports → Stock Reports → Stock by Bin](#)”.

9.3.7 Stock by Cabinet

This report displays all the items and their stock by cabinet. It also displays the **Item/Cabinet** stock management information for each item by cabinet, such as: Min & Max quantities, draft and ordered quantities, usage information, etc.

To run the report, open “[Menu: Reports → Stock Reports → Stock by Cabinet](#)”.



9.3.8 Stock by Item

This report displays all the items in the system and their stock.

It also displays the **Item** stock management information for each item, such as: Min & Max quantities, draft and ordered quantities, usage information, etc.

To run the report, open “[Menu: Reports → Stock Reports → Stock by Item](#)”.

9.3.9 Min Comparison

This report compares the Automatically Calculated Minimum stock with the Manually Determined Minimum stock on each stock management level (Bin, Item/Cabinet and Item levels). It calculates the difference between the two stock quantities in pieces and in percentage. It also calculates and displays the monetary value of the difference in the 'Saving' column.

To run the report, open “[Menu: Reports → Stock Reports → Min Comparison](#)”.

Calc Level	Item Key	Item Code	Item Description	Cabinet Name	Bin Code	Minimum Quantity	Override	Difference	% Difference	Savings	Effective Until
Item	1090	4548067	GTIN ER32 DIN 9 0...			1,97	2,00	0,03	2	9,1797	01/01/2013
Item	1092	4548070	GTIN ER32 DIN 12.0...			0,00					01/01/2013
Item	1093	5502148	TPGH 110204-XL I...			0,00	10,00	10,00	100	192,1000	01/01/2013
Item	1094	5503641	WOLH 05T304-GF ...			0,00					01/01/2013
Item	1095	5503660	XOMT 060204-GF I...			87,50	120,00	32,50	28	699,4000	31/12/2012
Item	1096	5503828	WNMG 06T308-GN ...			0,00					01/01/2013
Item	1097	5504004	VNMG 12T302-NF I...			7,02					01/01/2013
Item	1098	5504005	VNMG 12T304-NF I...			123,69					01/01/2013

9.3.10 Max Comparison

The report compares the Automatically Calculated Maximum stock with the Manually Determined Maximum stock on each stock management level (Bin, Item/Cabinet and Item levels). It calculates the difference between the two stock quantities in pieces and in



percentage. It also calculates and displays the monetary value of the difference in the 'Saving' column.

To run the report, open “Menu: Reports → Stock Reports → Max Comparison”.

Max Comparison											
Calc Level	Item Key	Item Code	Item Description	Cabinet Name	Bin Code	Maximum Quantity	Override	Difference	% Difference	Savings	Effective Until
Item	1090	4548067	GTIN ER32 DIN 9 0...			2,84	2,00	-0,84	42	-257,0316	01/01/2013
Item	1092	4548070	GTIN ER32 DIN 12.0...			0,00					01/01/2013
Item	1093	5502148	TPGH 110204-XL I...			0,00	20,00	20,00	100	384,2000	01/01/2013
Item	1094	5503641	WOLH 05T304-GF ...			0,00					01/01/2013
Item	1095	5503660	XOMT 060204-GF I...			137,50	140,00	2,50	2	53,8000	31/12/2012
Item	1096	5503828	WNMG 06T308-GN ...			0,00					01/01/2013
Item	1097	5504004	VNMG 12T302-NF I...			14,04					01/01/2013
Item	1098	5504005	VNMG 12T304-NF I...			247,37					01/01/2013

9.3.11 Stock Surplus Report

This report displays the stock surpluses on the all management levels.

It compares the stock quantity to the maximum quantity and whereas the stock quantity is above the maximum quantity, it calculates the difference in percent into the report.

To run the report, open “Menu: Reports → Stock Reports → Stock Surplus Report”.

Stock Surplus Report													
Item Key	Item Code	Item Description	Cabinet Name	Bin Code	Calc Level	Maximum Quantity	In Stock	% Difference	Effective Until	Ordered Quantity	On Route	Rework Quantity	Draft
2000...	4300439	LC 250 SET 1		Item	0,63	12,00	1905	01/01/2013	0,00			0	
2000...	9802040	5513-020-19		Item	1,36	12,00	883	01/01/2013	0,00			0	
2000...	9802283	MS1153		Item	2,44	12,00	492	01/01/2013	0,00			0	
4000...	6003380	PENTA 24N...		Item	6,89	12,00	175	01/01/2013	20,00	0		0	
1200...	5692702	MM TS110...		Item	0,00	12,00	~	01/01/2013	0,00			0	
1200...	6003241	DGN 3002Z ...		Item	0,00	12,00	~	01/01/2013	0,00			0	
1200...	9802517	DRILL SOLI...		Item	10,00	12,00	120	01/01/2013	0,00			0	
1800...	9802542	16ER 1.25 I...		Item	10,00	12,00	120	01/01/2013	0,00			0	
2500...	6402473	GIQR 8-0,7...		Item	10,00	12,00	120	01/01/2013	0,00			0	
2500...	5530211	SCD 039-02...		Item	0,00	12,00	~	01/01/2013	0,00			0	



9.4 Usage Reports

The usage reports allow you to track the usage of items on each stock management level (Bin, Item/Cabinet and Item levels) by month.

9.4.1 Basic Usage Report

This report displays in generic view the history of every monthly usage per Bin, per Item-Cabinet and per Item for all managed cabinets.

For the report, open “[Menu: Reports → Usage Report → Basic Usage Report](#)”.

The screenshot shows the 'Basic Usage Report' dialog box. At the top, there are several search fields: 'Key' (with dropdown), 'Site' (dropdown), 'Item Management Level' (dropdown set to 'Yes'), 'Cabinet Code' (with dropdown), 'Cabinet Name' (dropdown), 'Item Code' (text input), 'Item Description' (with dropdown), 'Bin Code' (dropdown), 'Month (YYYY/MM)' (dropdown set to '2012/06'), 'Additional Item Code' (with dropdown), 'Calc Level' (dropdown set to 'Item'), 'Frequency Level' (text input), and 'Override' (dropdown). Below the search area, a message says 'Found 1035 Records. Row: 1030'. A large grid table below contains 10 rows of data, each representing a record with columns: Key, Item Manager (checkbox), Item Key, Item Code, Item Description, Month (YYYY/MM), Minimum Value, Maximum Value, Usage, Av. Monthly Usage, Frequency, Average Frequency, and Calc Level. The data includes various item codes like 400..., 1586, 200..., 1066, etc., with their respective details and usage statistics.

Key	Item Manager	Item Key	Item Code	Item Description	Month (YYYY/MM)	Minimum Value	Maximum Value	Usage	Av. Monthly Usage	Frequency	Average Frequency	Calc Level
38...	Yes	400...	9803103	360505002W...	2012/06	0,00	0,00	0,00	0,000	0	0,000	Item
38...	Yes	1586	9803407	M25203800RT	2012/06	0,00	0,00	0,00	0,000	0	0,000	Item
38...	Yes	200...	4500133	ER25 SPR 15-16	2012/06	1,25	1,75	1,00	0,500	1	0,500	Item
38...	Yes	1066	3200648	DCM 095-028...	2012/06	6,88	9,63	2,00	2,750	1	1,000	Item
38...	Yes	120...	3201315	DR150-045-20...	2012/06	6,65	9,60	2,00	2,954	1	1,125	Item
38...	Yes	1062	2394966	DGAD 2N	2012/06	9,64	13,92	3,00	4,284	2	1,875	Item
38...	Yes	1057	2301346	DGFHL 26T23-3	2012/06	4,38	8,13	5,00	9,595	5	9,500	Item
< > < > < > < > < > < > < > < > < > < > < > < >												

9.4.2 Advanced Usage Report

This screen enables the user to create a customized report based on the records of the basic usage report. It also enables the user to save the definitions and run the report at a scheduled time.

The report displays the items by:

Usage: The quantity of items used (issued).

To run the report, open “[Menu: Reports → Usage Report → Advanced Usage Report](#)”.



Advanced Usage Report

Description: Demo report for Usage (Chart type)

Filter and Grouping | Choose Fields |

Report Type: Listing + Subtotals

Group By: Quarter

Design Report:

Standard Chart

X Field: Quarter

Y Field: Usage

Chart: Usage

Color Style: Default

Condition operator: All conditions At least one condition

Simple Title:

Field	From	To	Sort Type
Cabinet Code	Demo1,Demo2,		Ascend...

Cabinet	Cabinet Name
Demo1	MatrixDemo1
Demo2	MatrixDemo2
Demo3	MatrixDemo3
KDemo1	KardexDemo1
MDemo	MXDemo
NADemo1	Non-Automatic De...
NADemo2	Non-Automatic De...

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.



9.5 Stock Shortage

The stock shortage reports enables the user to track stock shortages per item for each stock management level (Bin, Item/Cabinet and Item levels) detailed.

9.5.1 Stock Shortage Report

This report displays stock shortages in all three stock management levels. It compares the stock to the minimum stock quantity, and lists those cases where the stock falls below the minimum. It also shows the draft and open orders quantities.

This is a good control tool, as it lets us know where problems in stock levels might occur.

For the report, open “[Menu: Reports → Stock Reports → Stock Shortage](#)”.

The screenshot shows the 'Stock Shortage' report interface. At the top, there are several search fields: 'Item Key' (with dropdown and equals sign buttons), 'Item Code' (with dropdown and equals sign buttons), 'Item Description' (with dropdown and equals sign buttons), 'Additional Item Code' (with dropdown and equals sign buttons), 'Cabinet Name' (with dropdown and equals sign buttons), 'Bin Key' (with dropdown and equals sign buttons), 'Bin Code' (with dropdown and equals sign buttons), 'Shortage' (with dropdown and equals sign buttons), 'Calc Level' (with dropdown and equals sign buttons), 'Supplier Name' (with dropdown and equals sign buttons), 'Site' (with dropdown and equals sign buttons), and 'Ordered Quantity' (with dropdown and equals sign buttons). Below these fields, a message 'Found 2 Records.' is displayed. The main area is a grid table with the following columns: Item Key, Item Code, Item Description, Cabinet Name, Bin Code, Current Stock, Minimum Quantity, Maximum Quantity, Shortage, Fill Quantity, and Critical Shortage. Two rows of data are visible:

Item Key	Item Code	Item Description	Cabinet Name	Bin Code	Current Stock	Minimum Quantity	Maximum Quantity	Shortage	Fill Quantity	Critical Shortage
16	5502203	Demo TPMT 321	Item Maintenance		.00	30.00	40.00	13	23	No
49	5902418	Demo 11IR 36 W	Bin Maintenance		.00	30.00	50.00	15	35	Yes
			Cabinet Maintenance							
			Stock Transfer							

By clicking the right mouse-button, a pop-up menu will appear displaying option 'Stock Transfer' for transferring items from bin to bin. This option will be opened only if the stock shortage is on the Bin level.



9.5.2 Advanced Stock Shortage

This screen enables the user to create a customized report for stock shortages based on the basic stock shortage report. It also enables the user to save the definitions and run the report at a scheduled time.

The report displays the stock by:

Shortage: The quantity of items missing up to the required minimum quantity.

To run the report, open “[Menu: Reports → Stock Shortage → Advanced Stock Shortage](#)”.

The screenshot shows the 'Advanced Stock Shortage' report configuration window. The 'Report Type' section is set to 'Listing (No Subtotals)'. The 'Design Report' section includes 'Standard' and 'Chart' options, with 'Chart' selected. The 'X Field' is set to 'Item Code', 'Y Field' to 'Shortage', and 'Chart' to 'Shortage'. The 'Color Style' is set to 'Default'. The 'Condition operator' section has 'All conditions' selected. A 'Simple Title' checkbox is unchecked. Below these settings is a large, empty table grid for defining report fields.

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.5.3 Early Warning Report

This report displays items and the prognosis for how many days the stock will be sufficient based on the statistics of usage (Usage, 3 Month Average, Lead Time, Stock Days).

This report will help you get ready and react before a delivery problem happens.



To run the report, open “Menu: Reports → Stock Shortage → Early Warning Report”.

Early Warning Report

Item Key	<input type="text"/>	Item Code	<input type="text"/>	Item Description	<input type="text"/>
Item Type	<input type="text"/>	Supplier Name	<input type="text"/>	Lead Time	<input type="text"/>
Stock Days	<input type="text"/>	Item Management Level	<input type="text"/>	Frequency	<input type="text"/>
Override	<input type="text"/>				

Found 1035 Records.

Item Key	Item Mana	Item Code	Item Description	Item Type	Supplier Name	Quantity	Minimum Quantity	Maximum Quantity	3 Months Average	Usage	Lead Time	Stock Days	Frequ	Overr	Order Quant
1057	Yes	2301346	DGFHL 26T2...	Durable		26.00	4.38	8.13	9,666666	4,798	8	156	C		5,00
1058	Yes	2301348	DGFHL 26T2...	Durable	Iscar	9.00	0.00	0.00	0,000000	0,000	2		Z		0,00
1059	Yes	2301394	DGTR 25B-2...	Durable	Iscar	1.00	0.70	1.00	0,000000	0,063	1	500	Z		0,00
1060	Yes	2301399	DGTL 16B-3...	Durable	AYRR	19996,00	2,00	3,00	3,000000	1,174	2	512718	E		7,00
1061	Yes	2301402	DGTR 25B-3...	Durable	Iscar	19.00	11247,79	16246,81	6666,333333	4999,019	2	1	E		0,00
1062	Yes	2394966	DGAD 2N	Durable	Iscar	19989,00	2,00	2,00	5,666666	3,642	2	164745	E		0,00
1063	Yes	2399897	DGTL 1612B...	Durable	Iscar	9,00	32,50	50,00	0,000000	0,000	38	27	E		0,00
1065	Yes	3110493	CM D12-A-W12	Durable	Iscar	1,00	1,00	1,00	0,000000	0,063	2	500	Z		0,00
1066	Yes	3200648	DCM 095-028	Durable	Iscar	19990,00	7,19	10,06	4,000000	2,875	8	208230	E		5,00

9.5.4 Advanced Early Warning Report

This screen enables the user to create a customized report for stock shortages based on the basic early warning report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “Menu: Reports → Stock Shortage → Advanced Early Warning Report”.

9.6 Stock Valuation Reports

The valuation reports allow the user to view the monetary value of the current stock.

The value is calculated by Average Cost of the item * Quantity.

If the Average Cost is NULL, it will use Item Price.

If the Item Price is NULL, it will use primary Supplier Price.



Note: This section describes basic reports for valuation of the stock. To build an advanced report for stock valuation, use Advanced Stock Report where you can see the value information as well. Read more in Chapter B: [Advanced Stock Report](#) (section 9.3.1).

9.6.1 Valuation by Bin report

This report displays in generic view all the bins that have item definition and their stock value. The stock value is expressed in Total Value:

Total Value = Average Cost of the item * Quantity in the current bin.

If the Average Cost is NULL, it will use Item Price.

If the Item Price is NULL, it will use primary Supplier Price.

For the report, open “[Menu: Reports → Stock Valuation Reports → Valuation by Bin Report](#)”.

9.6.2 Valuation by Cabinet report

This report displays in generic view all the items by each cabinet in the system and their stock value. The stock value is expressed in Total Value:

Total Value = Average Cost of the item * Quantity in the current cabinet.

If the Average Cost is NULL, it will use Item Price.

If the Item Price is NULL, it will use primary Supplier Price.

For the report, open “[Menu: Reports → Stock Valuation Reports → Valuation by Cabinet Report](#)”.

9.6.3 Valuation by Item report

This report displays in generic view all the items in the system and their stock value.

The stock value is expressed in Total Value:

Total Value = Average Cost of the item * Quantity of the item.

If the Average Cost is NULL, it will use Item Price.

If the Item Price is NULL, it will use primary Supplier Price.

For the report, open “[Menu: Reports → Stock Valuation Reports → Valuation by Item Report](#)”.



9.7 Orders Report

The orders report allows the user to follow up on all the orders created in the system.

9.7.1 Basic Orders Report

This report displays all the created order lines for items created by Automatic and Manual orders. It details the order which contains the order line, the item supplier, the item details, the status of the order line (Cancel, Close, Draft, Open, Partial, Sent to supplier), the order line level (Item, Item-Cabinet, Bin), the quantities received and remained from the order line, the price, the dates etc.

For the report, open “[Menu: Reports → Orders Report → Basic Orders Report](#)”.

The screenshot shows the 'Basic Orders Report' window. At the top, there are search fields for Order Type (Standard), Site, PO Key, PO Code, Supplier Name, Item Code, Item Description, Cabinet Code, Bin Code, Order Date, Request Date, Receive Date, Additional Item Code, Promised Date, and PO Status. Below the search area, a message says 'Found 2000 Records. Row: 296'. A large grid table below lists 2000 records with columns: Order Type, Site, PO Detail, PO Key, PO Code, Line No., Supplier Name, PO Detail status, Item Key, Item Code, Item Description, Order Quantity, Received Quantity, Price, Order Date, and Receipt Date. The data includes various suppliers like Nimo Sup., Armin Sup., Iscar, and Sandy Be., and items like TIT DRILL, ER20 SEAL, and DRILL CARBIDE.

Order Type	Site	PO Detail	PO Key	PO Code	Line No.	Supplier Name	PO Detail status	Item Key	Item Code	Item Description	Order Quantity	Received Quantity	Price	Order Date	Receipt Date
Standard	H1	2004...	200...		1	Nimo Sup...	Close	1258	9802120	A1148X2.3 TIT DRILL	10,00	10,00	97,20	30/01/2011	02/02/2...
Standard	H1	2004...	200...		1	Armin Sup...	Close	400...	9802864	B211A06100HP	8,00	8,00	2384,00	31/01/2011	31/01/2...
Standard	H1	2004...	300...		43	Iscar	Close	180...	4501056	ER20 SEAL 5- 6	1,00	1,00	138,95	01/02/2011	03/02/2...
Standard	H1	2004...	300...		44	Iscar	Close	400...	6003301	TAG N3C IC928	20,00	20,00	494,00	01/02/2011	03/02/2...
Standard	H1	2004...	300...		5	Sandy Be...	Close	320...	9802763	DRILL CARBIDE 2.9...	20,00	20,00	3960,00	01/02/2011	16/02/2...
Standard	H1	2004...	300...		7	Nimo Sup...	Close	1258	9802120	A1148X2.3 TIT DRILL	10,00	10,00	97,20	01/02/2011	21/04/2...
Standard	H1	2004...	300...		8	Nimo Sup...	Close	1257	9802119	A1148X1.6 TIT DRILL	10,00	10,00	98,50	01/02/2011	02/02/2...

9.7.2 Advanced Orders Report

This screen enables the user to create a customized report for orders based on the records of the basic orders report. It also enables the user to save the definitions and run the report at a scheduled time.

The report displays the order lines by:

Quantity: The quantity of items in the order line.



Value: The total monetary value of the order line (taken from Total Price of the order line = Unit Price * Quantity of the order line).

Remained Quantity: The quantity of items from order lines which still need to be received.

For the report, open “[Menu: Reports → Orders Report → Advanced Orders Report](#)”.

The screenshot shows the 'Advanced Orders Report' configuration window. It includes sections for Report Type (listing with subtotals selected), Group By (Item Code), Design Report (Chart type selected), Filter and Grouping, and a preview pane showing a chart with Item Code on the X-axis, Quantity on the Y-axis, and Value as Color Style. A condition operator section allows selecting 'All conditions' or 'At least one condition'. A simple title checkbox is also present. Below these are sections for Order Type filtering and a preview of the resulting report data.

Field	From	To	Sort Type
Order Type	1	1	Ascend...

Order	Order Type
1	Standard
2	Rework
3	Internal

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.7.3 Orders Simulator

This standard report calculates the estimated days to delivery of ordered items, their current stock level in stock days, and allows the user to filter those order lines where the difference is considered to be unacceptably small, for example 7 days or less. This simulation allows purchasing to focus on order lines that are urgently required in order to avoid a stock out.



For the report, open “[Menu: Reports → Orders Report → Orders Simulator](#)”.

<Stock Days> converts stock quantity into the estimated number of days until the item will reach zero quantity, based on average usage.

<Days to Delivery> calculates the number of days until an order line is likely to be received, based on the average lead time or promised date (if any).

PO Key:	<input type="text"/>	Order Date:	<input type="text"/>	Promised Date:	<input type="text"/>
Stock Days:	<input type="text"/>	Days To Delivery:	<input type="text"/>	Difference:	<input type="text"/>
Item Code:	<input type="text"/>	Additional Item Code:	<input type="text"/>	Item Description:	<input type="text"/>
PO Code:	<input type="text"/>				

... Found 76 Records.

Stock Days	Days To Delivery	Difference	Item Code	Additional Item Code	Item Description	Unit Price	In Stock
	-132		5593090		MTAR05-15-051R02L301C...	57.74	0.00
	-132		5593098		MTAR05-15-051R02L301C...	57.74	0.00
			5504835		WNMG 080412-TF IC3028	18.26	0.00
			5503106		IWSN 433M	20.10	0.00
			5550547		WNMG 080412-TNM IC8250	19.97	0.00
			5680595		ECT127A065-4C10R.8N72*...	493.33	0.00
			5680596		ECT060A065-4C10R.8N72*...	186.66	0.00
50	-125	50	9802351	0303441	K210A04688 CS3	338.00	9.00
124	-123	124	9802352	0303442	K210A06250 CS3	609.00	11.00
83	-123	83	9802381	0304239	B210A07800	213.00	9.00
57	-123	57	9802154	0300018	11IR 19 BSPT BXC	18.40	28.00
145	-125	145	9802220	0303354	MT 06036 C09 0.8 ISO	387.00	11.00
49	-120	49	9802236	0303862	MTR8 R0.2 L15 BXC	84.00	100.00
9	-123	9	9802284	0300262	TPGT110202HP KC730	24.40	25.00
66	-125	66	9802290	0300492	B210A05500 KEN	186.00	2.00
29	-123	29	9802297	0300506	B210A10400	338.00	10.00
37	-123	37	9802304	0300519	B225A06400	260.00	10.00
50	-125	50	9802350	0303440	B210A04688 CS3	338.00	10.00

9.7.4 Overdue Orders Report

The report lists overdue orders i.e. orders that have passed their Request or Promised Date.

For the report, open “[Menu: Reports → Orders Report → Overdue Orders Report](#)”.



9.7.5 Invoice Control

This report lists all the order lines (not including internal) that were partially or fully received (in status partial or closed), but there is no invoice or the invoice is for quantity less than received.

For the report, open "[Menu: Reports → Orders Reports → Invoice Control](#)".

9.7.6 Advanced Invoice Report

This report is based on the basic "Invoice Control" report.

For the report, open "[Menu: Reports → Orders Reports → Advanced Invoice Report](#)".

9.8 Additional Fields Report

The additional fields report allows the user to view the values of the additional customized fields added for the system entities (Bin, Item, Purchase Order, Purchase Order Line).

In order to add the customized fields to the entities, see Chapter B: [Additional Fields](#) (section 5.5).

9.8.1 Basic Additional Fields Report

This report displays in a generic view the entities that have additional fields and the values of these fields.

The possible entities are: **Bin, Item, Purchase Order, Purchase Order Line**.

The entities that do not have additional fields are not displayed in the report.

The information is displayed for viewing.

To open the entity for changes, select the record and click the right mouse button.

In order to add the fields to the entities, see Chapter B: [Additional Fields](#) (section 5.5).

To run the report, open "[Menu: Reports → Additional Fields Report → Additional Fields Report](#)".



Additional Fields Report

Table Name: Field Name: Entity:
Value:

Found 68 Records.

Table Name	Field Name	Entity	Value
PO	Supplied from:	2	Germany
PO	Supplied from:	3	
PO	Supplied from:	4	USA
PO	Supplied from:	1	
ITEM	Length	5605179	10.2
ITEM	Length	3101686	
ITEM	Length	3101694	5.7
ITEM	Length	3102566	
ITEM	Length	3101745	

Entity Maintenance

9.8.2 Additional Fields - Advanced Items Report

This screen enables the user to create a customized report based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “Menu: Reports → Additional Fields Report → Additional Fields - Advanced Items Report”.



Additional Fields-Advanced Items Report

Description: Report of additional fields for Items

Filter and Grouping | Choose Fields |

Report Type:

Report Type	
<input checked="" type="checkbox"/> Listing (No Subtotals)	

Design Report:

Standard Chart

Condition operator
 All conditions At least one condition

Simple Title

Field	From	To	Sort Type
Item Code	3101686	...	Ascend...
Supplier Name	Iscar	...	Ascend...
[Length]		...	Ascend...
		...	

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.8.3 Additional Fields - Advanced Bins Report

This screen enables the user to create a customized report for values of additional fields of BIN entities based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at scheduled time.

To run the report, open “Menu: Reports → Additional Fields Report → Additional Fields - Advanced Bins Report”.

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.8.4 Additional Fields - Advanced Orders Lines Report

This screen enables the user to create a customized report for values of additional fields of PURCHASE ORDER based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at scheduled time.

To run the report, open “Menu: Reports → Additional Fields Report → Additional Fields - Advanced Orders Lines Report”.

Please refer to Chapter B: [Advanced Reports](#) (section 9.1) for instructions how to build and run an Advanced Report.

9.8.5 Additional Fields - Advanced Kits Report

This screen enables the user to create a customized report for values of additional fields of KIT entities based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “Menu: Reports → Additional Fields Report → Additional Fields - Advanced Kits Report”.

The values for the report are taken from: “*Item Maintenance*” screen of Kit item type → “*Kit Items*” tab → select one of the kit items to display the bottom tabs → “*Additional Fields*” tab.



Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:
41000003	2500255	* Horiba	* Kit

General Technical Supplier Information Additional Fields Stock Management Locations Usage
Transactions Links Orders Alternative Cost Centers Kit Items

Item Key	Item Code	Item Description	Sequence	Quantity
25000067	9802569	Drill 1.8 Rubig 012501-000180	1	1
32000106	9802674	M432BC R15 L10R VBX	2	2
23000053	5650330	EB-A2 020-030/12C4M50 903	3	1
23000351	9802552	B212A03200HP KC7515	4	1
32000079	9802661	MLBRJ 1.8X4+8.5/50 TICN	5	1
25000066	9802568	Drill 2.5 Rubig 012501-000250	6	1
4000084	9802482	MS050/184 BXC	7	2
4000081	9802480	11IR 1.0 ISO BXC	8	2

General Additional Fields

Field	Value
Length (mm)	125

9.9 Interface Reports

These reports show the activity of system with interfaces.

9.9.1 In/Out Requests Report

This report displays the activity on “In/Out Requests”, i.e. Receive and Issue transactions against requests.

To run the report, open “Menu: Reports → Interface → In/Out Requests Report”.



In/Out Requests Report

Transaction Key	=	Request Key	=	Reference 1	=			
Reference 2	=	Request Type	=	Transaction Date	=			
Item Code	=	Item Description	=	Transaction Types	=			
Interface Status	=							

Found 4 Records. Row: 2

Transaction Key	Request Key	Transaction Date	Request Type	Request Status	Quantity	Actual Quantity	Item Code	Item Description	Cabinet Name	Transaction Types	Interface Status	
45002174	10000001	20/08/2012 ...	Out	Partially	2,00	10	2	2394966	DGAD 2N	MINIPOD	Issue	Not Transmitted
45002175	10000002	20/08/2012 ...	In	Partially	1,00	8	4	2394966	DGAD 2N	MAXITOUCH	Receive	Not Transmitted
45002176	10000002	20/08/2012 ...	In	Partially	1,00	8	4	2394966	DGAD 2N	MINIPOD	Receive	Not Transmitted
45002177	10000002	20/08/2012 ...	In	Partially	2,00	8	4	2394966	DGAD 2N	MAXITOUCH	Receive	Not Transmitted

The requests are added and shown on “[Menu: Administration → Interfaces → Requests](#)”.

9.9.2 Interface Report

This report displays the activity with interfaces defined in the system, such as SAP.

To run the report, open “[Menu: Reports → Interface → Interface Report](#)”.

Interface Report

Transaction Key	=	Transaction Date	=	Transaction Types	=	
Interface Status	=	Transmitted				

Found 11 Records. Row: 6

Transaction Key	Transaction Date	Item Code	Item Description	Cabinet Name	Quantity	Transaction Types	Status	Consign	Interface Status
46055332	30/01/2011 09:46	9802750	METCUT REAME...	Kardex 01	2,00	Issue	Active	No	Transmitted
46070259	02/03/2011 10:12	9802035	WNMG 080408-M...	M11	2,00	Issue	Active	No	Transmitted
46073119	07/03/2011 14:28	9802251	MGR6 B2.0 L15 B...	M11	1,00	Issue	Active	No	Transmitted
46078936	18/03/2011 08:46	5681767	ECR120B25-4C12...	M51	1,00	Issue	Active	No	Transmitted
46078937	17/03/2011 11:40	5681767	ECR120B25-4C12...	M51	1,00	Issue	Active	No	Transmitted
46078938	17/03/2011 11:39	5681767	ECR120B25-4C12...	M51	1,00	Issue	Active	No	Transmitted
46078943	17/03/2011 11:14	9802431	ROUGH MILL12+C...	M51	1,00	Issue	Active	No	Transmitted
46096589	26/04/2011 14:01	9802489	SEM06-11022 0.1...	Kardex 01	-5,00	Issue	Active	No	Transmitted
46099473	01/05/2011 15:49	9802225	22UER SP-050/020	Kardex 01	5,00	Issue	Active	No	Transmitted
46192221	30/11/2011 17:11	9802251	MGR6 B2.0 L15 B...	M51	1,00	Issue	Active	No	Transmitted
46235165	14/12/2011 16:35	9802844	M662FG W20 L15...	Kardex 01	-2,00	Issue	Active	No	Transmitted

9.10 Items Reports

This chapter describes all the reports related to items.



9.10.1 Item-Supplier Report

This report displays all the items that have at least one supplier definition.

Items that are supplied by more than one supplier are listed with a separate record for each supplier.

The report details the information of the item by supplier, such as his price for the item, his pack size, minimum order quantity, lead times calculated by the Monthly Usage Process and more.



Note: This report can be also used as a pricelist of supplier.

For the report, open “[Menu: Reports → Items → Item-Supplier Report](#)”.

The screenshot shows the 'Item-Supplier Report' dialog box. At the top, there are search fields for Supplier, Additional Item Code, Item Type, Supplier Item Code, % Discount, Minimum Order Quantity, Expire Date, Item Code, Item Description, Cost Breaks, and a button to find records. Below the search area, it says 'Found 64 Records.' A large grid table follows, with columns for Item Key, Item Code, Item Description, Type, Supplier Key, Supplier, Price Symbol, Pack Size, Price, Average Lead Time, Min. Lead Time, Max. Lead Time, Lead time override, Lead Average effective, and % Dis. The first few rows of data are visible, showing various items like Demo APK... and Demo HM9... with their respective details and supplier information.

Item Key	Item Code	Item Description	Type	Supplier Key	Supplier	Price Symbol	Pack Size	Price	Average Lead Time	Min. Lead Time	Max. Lead Time	Lead time override	Lead Average effective	% Dis.
1	5605179	Demo APK...	Expendable	1	Iscar	\$	10	100.00				8		20
2	3101686	Demo HM9...	Kit	2	Outiltec	\$	1	105.00				8		
3	3101694	Demo HM9...	Durable	3	Outiltec	\$	1	30.00				8		
4	3102566	Demo HM9...	Durable	4	Outiltec	\$	1	86.30				8		
5	3101745	Demo HM9...	Durable	5	Outiltec	\$	1	76.50				8		
6	5605180	Demo APK...	Expendable	6	Ingersoll	\$	1	6.00				8		
7	3101749	Demo HM9...	Durable	7	Outiltec	\$	1	57.40				8		
8	5600048	Demo APK...	Expendable	8	Ingersoll	\$	1	1.89				8		
9	5601196	Demo APK...	Expendable	9	Outiltec	\$	1	6.87				8		
10	5502097	Demo TPG...	Expendable	10	TaeguTec	\$	1	16.40				8		
11	5502128	Demo TPG...	Expendable	11	TaeguTec	\$	1	19.99				8		
12	5502140	Demo TPG...	Expendable	12	TaeguTec	\$	10	22.40				10		

9.10.2 Kits Report

This report displays all the kits in the system.

It details for each kit the component items and their quantities in the kit.

The information is displayed for viewing. To change a kit or its component items, select the record and click the right mouse button.

For the report, open “[Menu: Reports → Items → Kits Report](#)”.



Kits Report

Kit Key:	<input type="text"/>	Kit Code:	<input type="text"/>	Kit Description:	<input type="text"/>
Item Type:	<input type="text"/>	Item Key:	<input type="text"/>	Item Code:	<input type="text"/>
Additional Item Code:	<input type="text"/>	Item Description:	<input type="text"/>		

Found 17 Records.

Kit Key	Kit Code	Kit Description	Item Type	Item Key	Item Code	Item Description	Quantity	Seque	Item Price
2	3101686	Demo HM90 E90A-D20...	Durable	3	3101694	Demo HM90 E90A...	1	0	30.00
2	3101686	Demo HM90 E90A-D20...	Durable	4	3102566	Demo HM90 E90A...	1	0	86.30
2	3101686	Demo HM90 E90A-D20...	Durable	5	3101745	Demo HM90 E90A...	1	0	75.30
2	3101686	Demo HM90 E90A-D20...	Durable	7	3101749	Demo HM90 E90A-D...	1	0	57.40
2	3101686	Demo HM90 E90A-D20...	Reworkable	21	5530123	Demo PICCO L-MF...	1	0	1.00
2	3101686	Demo HM90 E90A-D20...	Expendable	1	5605179	Demo APKT 1003PDR...	1	0	20.00
2	3101686	Demo HM90 E90A-D20...	Expendable	6	5605180	Demo APKT 1003PDR...	1	0	6.00
▶ 68	8080802	KIT item (assembled+se...	Durable	3	3101694	Demo HM90 E90A...	2	1	30.00
68	8080802	KIT item (assembled+se...	Expendable	1	5605179	Demo APKT 1003PDR...	4	2	20.00
68	8080802	KIT item (assembled+se...	Reworkable	21	5530123	Demo PICCO L-MF...	6	3	1.00
69	8080803	KIT item (separated only)	Durable	37	4550257	Demo BHF MB63-63...	3	1	1.00
69	8080803	KIT item (separated only)	Expendable	13	5501822	Demo TNMS 431-12...	5	2	1.00
69	8080803	KIT item (separated only)	Reworkable	21	5530123	Demo PICCO L-MF...	1	3	1.00
69	8080803	KIT item (separated only)	Expendable	42	5600224	Demo SPK 42EDFL...	1	0	1.00
70	LAT 4.000	LAT 4.000	Durable	7	0404740	Demo UN000 F004	4	4	57.40

9.10.3 Item Catalog Pictures

This report allows the user to build a printed catalog for each item with barcodes and pictures.

To run the report, open “Menu: Reports → Items → Item Catalog Pictures”.

System Tables Administration Help Windows

Item Catalog Pictures

Item Key:	<input type="text"/>	Item Code:	<input type="text"/>	Additional Item Code:	<input type="text"/>
Item Description:	<input type="text"/>	Item Long Description:	<input type="text"/>		

Found 66 Records.

Item Key	Item Code	Additional Item Code	Item Description	Item Long Description	Item Code
1	5605179		Demo APKT 1003PDR HM9...	Demo APKT 1003PDR HM90 IC928	5605179...
2	3101686		Demo HM90 E90A-D20-3-W...	Demo HM90 E90A-D20-3-W20-C	3101686...
3	3101694		Demo HM90 E90A-D32-4-W...	Demo HM90 E90A-D32-4-W32-C	3101694...
4	3102566		Demo HM90 E90A-D.62-2-C...	Demo HM90 E90A-D.62-2-C.62-LB	3102566...
5	3101745		Demo HM90 E90A-D.75-3...	Demo HM90 E90A-D.75-3-W.75-C	3101745...
6	5605180		Demo APKT 1003PDR HM9...	Demo APKT 1003PDR HM90 IC4050 ...	5605180...
7	3101749		Demo HM90 E90A-D1.25-3...	Demo HM90 E90A-D1.25-3-W.75-C	3101749...
8	5600048		Demo APKT 1003PDR-HM ...	Demo APKT 1003PDR-HM IC635	5600048...
9	5601196		Demo APKT 1003PDTR-76 ...	Demo APKT 1003PDTR-76 IC328	5601196...
10	5502097		Demo TPGB 2-1 IC20	Demo TPGB 2-1 IC20	5502097

To build the Catalog, click the  <Print> button on the toolbar. This will export the list to Excel with barcodes and pictures.

Item Catalog Pictures

Item Key	Barcode	Item Code	Item Description	Item Picture
13		5501822	Demo TNMS 431-12 IC20	
15		5502161	Demo TPGH 321-R IC70	
16		5502203	Demo TPMT 321 IC70	
17		5502222	Demo TPMR 221 IC70	

9.10.4 Item Catalog Pictures by Cabinet

This report allows the user to build a printed catalog for each item with barcodes and pictures, with ability to filter by cabinet.



To run the report, open “Menu: Reports → Items → Item Catalog Pictures by Cabinet”.

9.10.5 Items-Cost Centers

This report displays the linked items to cost centers.

To run the report, open “Menu: Reports → Items → Items-Cost Centers”.

Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W2	WC Grinding2
7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W1	WC Grinding1
7	3101749	Demo HM90 E90A-D1.25-3....	Department	D1	Grinding

For instructions how to link items and cost centers please refer to Chapter B: [Define Items per Cost Center](#) (section 19.3).

9.10.6 Alternative Items Report

This report displays items and its alternative items.

To run the report, open “Menu: Reports → Items → Alternative Items Report”.

Item Key	Item Code	Item Description	Type	Alternative Item Key	Priority	Alternative Item Code	Alternative Item Description
1359	9802221	MFR6 B2.0 L22 BXC	Expendable	25000073		6403915	PICCO R 620.2006-20 1008
1361	9802223	21 ESP 6.5 BXC	Expendable	32000337	1	9802782	MVR 6 B2.0 L22 BXC
1361	9802223	21 ESP 6.5 BXC	Expendable	1419	2	9802282	NGD3094RK KC730
1366	9802228	MPR 5 R0.2 L10 BXC SP.	Expendable	32000128		9802682	M552 BC R20 L16R VBX
1383	9802245	MPR 6 R0.2 L22 BXC	Expendable	32000286		9802755	M662 BCR20 L21R VBX
1389	9802251	MGR6 B2.0 L15 BXC	Expendable	25000237		9802598	MGR6 B1.0 L15 BXC
1404	9802266	11IR 14NPT-050/167 BM...	Expendable	32000354		9802798	2IR 14 NPT VM7
23000003	0802548	MPP 5 R0.2 L15 BVC	Expendable	23000051		6403783	PICCO R 050.5.15_1C008



The values for the report are taken from: “Item Maintenance” screen → “Alternative” tab.

This screenshot shows the "Item Maintenance" window with the "Alternative" tab highlighted. The top section displays item details: Item Key 1361, Item Code 9802223, Item Description 21 ESP 6.5 BXC, and Item Type Expendable. Below this are several tabs: General, Technical, Supplier Information, Additional Fields, Stock Management, Locations, Usage, Transactions, Links, Orders, and Alternative. The "Alternative" tab is active. A table lists items with columns: Item Key, Item Code, Item Description, and Priority. The table contains two rows: one for MVR 6 B2.0 L22 BXC (Priority 1) and another for NGD3094RK KC730 (Priority 2).

9.10.7 Quantity Discount

This report displays discounts defined for items suppliers.

To run the report, open “Menu: Reports → Items → Quantity Discount”.

The values for the report are taken from: “Item Maintenance” screen → “Supplier Information” tab → select supplier display the bottom tabs → “Quantity Discount” tab.

This screenshot shows the "Item Maintenance" window with the "Supplier Information" tab selected. The top section displays item details: Item Key 23900417, Item Code 2390975, Item Description PCHBR 32-34R-15891*, and Item Type Durable. Below this are tabs: General, Technical, Supplier Information, Additional Fields, Stock Management, Locations, and Usage. The "Supplier Information" tab is active. A table lists suppliers with columns: Supplier Key, Supplier Name, Supplier Code, Currency, and Quantity Discount. One row is shown for Iscar. At the bottom, there are three tabs: General, Quantity Discount (which is highlighted), and Lead Time. Below these tabs is a table showing quantity discount details with columns: Quantity, Price, % Discount, Expiry Date, and Remarks. Five rows are listed with varying values.



9.11 Gauges Reports

These reports display information regarding serial items (durable and gauges).

9.11.1 Calibration History

This report displays all the Calibration Orders for gauges.

To run the report, open “Menu: Reports → Gauge → Calibration History”.

The screenshot shows a Windows application window titled "Calibration History". At the top, there are four search fields: "Item Code" with a dropdown arrow, "Item Description" with a dropdown arrow, "Serial Key" with a dropdown arrow, and "Serial Number" with a dropdown arrow. Below these are two more fields: "Serial status" with a dropdown arrow and "Bin Code" with a dropdown arrow. Underneath these fields is a dropdown menu labeled "Calibration Date" and another labeled "Calibration Reason", both with dropdown arrows. A message at the bottom left says "Found 34 Records. Row: 4". The main area is a grid table with 12 columns. The columns are: Serial Order No., Item Key, Item Code, Item Description, Serial Key, Serial Number, Serial status, Bin Code, Calibration Date, Status Modified By, Calibration Reason, and Update Date. The data in the grid includes various serial numbers, item codes, descriptions, and dates corresponding to the calibration history of the gauges.

Serial Order No.	Item Key	Item Code	Item Description	Serial Key	Serial Number	Serial status	Bin Code	Calibration Date	Status Modified By	Calibration Reason	Update Date
10000001	400...	4604211	PIN GO BA235213	10000001	4604211_01	In Stock	MAXITOU...	29/07/2012	Liora Banchik	Schedule	29/07/2012 09:37
10000025	400...	4604211	PIN GO BA235213	10000001	4604211_01	In Stock	MAXITOU...	19/08/2012 ...	admin		20/08/2012 14:15
10000037	400...	4604211	PIN GO BA235213	10000003	4604211_03	In Calibration	MAXITOU...	10/09/2012	admin		10/09/2012 10:24
10000005	400...	4604212	PIN GO BA235212	10000030	4604212_	Item Maintenance Bin Maintenance Serial Item Maintenance	MAXITOU...	21/06/2012	admin	Schedule	21/06/2012 11:43
10000010	400...	4604212	PIN GO BA235212	10000030	4604212_			21/06/2012	admin		10/09/2012 10:36
10000006	400...	4604212	PIN GO BA235212	10000031	4604212_				Liora Banchik	Schedule	21/06/2012 11:49
10000009	400...	4604212	PIN GO BA235212	10000031	4604212_	Calibration Order Maintenance	MAXITOU...	21/06/2012	admin	New	26/07/2012 15:29
10000026	400...	4604212	PIN GO BA235212	10000031	4604212_02			19/08/2012	admin		10/09/2012 10:37
10000007	400...	4604212	PIN GO BA235212	10000032	4604212_03				admin	Schedule	26/07/2012 15:27

The calibration orders are created when serial is sent to calibration by Manage / Touch applications or when serial is changed from status ‘In stock’ to status ‘In Calibration’.

To open order for maintenance, select order and right click.

The popup menu will appear with an option to open the “Calibration Order Maintenance” screen.

9.11.2 Advanced Serial Items Report

This report enables the user to create a customized report for serial items based on the records of the basic “Search Serial Items” screen. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “Menu: Reports → Gauge → Advanced Serial Items Report”.



9.11.3 Gauges Measurement Report

This report displays all the measurement records from all the calibration orders.

To run the report, open “Menu: Reports → Gauge → Gauges Measurement Report”.

The screenshot shows a Windows application window titled "Gauges Measurement Report". At the top, there are three search groups: "Item Key" with a dropdown menu, "Item Code" with a dropdown menu, and "Item Description" with a dropdown menu. Below these are "Serial Key" with a dropdown menu, "Serial Number" with a dropdown menu, and "Status" with a dropdown menu. Underneath are "Bin Code" with a dropdown menu and "Status Modified On" with a dropdown menu. A message "Found 44 Records. Row: 31" is displayed. The main area is a grid table with the following columns: Key, Item Key, Item Code, Serial Key, Serial Number, Status, Serial status, Status Modified, Status Modifi, Calibration Reason, Descripti, Result, Optimum Value, Minimum Value, and Maximum Value. The last two columns (Descripti, Result) are highlighted with a red border. The data in the grid is as follows:

Key	Item Key	Item Code	Serial Key	Serial Number	Status	Serial status	Status Modified	Status Modifi	Calibration Reason	Descripti	Result	Optimum Value	Minimum Value	Maximum Value
10...	40...	test3	1000...	test3_01	Out of Spec	Out of Spec	21/06/2012	admin		1	4	4	4	5
10...	40...	8040046	1000...	8040046-A3	In Stock	Scrap	10/06/2012	admin	Schedule	Length	5.30	5.18	5.42	
10...	40...	8040046	1000...	8040046-A3	In Stock	Scrap	10/06/2012	admin	Schedule	Length	5.30	5.18	5.42	
10...	40...	8040046	1000...	8040046-01	Out of Spec	In Stock	29/07/2012	Liora...	Schedule	Length	5.20	5.30	5.18	5.42
10...	40...	8040046	1000...	8040046-A3	In Stock	Scrap	05/07/2012	admin		Length	5.30	5.18	5.42	
10...	40...	8040046	1000...	8040046-A3	Scrap	Scrap	29/07/2012	Liora...		Length	5.30	5.18	5.42	
10...	40...	8040046	1000...	8040046-02	Scrap	In Calibration	01/08/2012	Liora...	Schedule	Length	5.30	5.18	5.42	
10...	40...	8040046	1000...	8040046-02	In Calibration	In Calibration	10/09/2012	admin	Schedule	Length	5.30	5.18	5.42	
10...	40...	8047906	1000...	8047906_02	In Stock	In Calibration	09/09/2012	admin	Schedule	1	4	6	5	7
10...	40...	8047906	1000...	8047906_02	In Stock	In Calibration		admin	Schedule	1	9	6	5	7

9.12 Administration Reports

These reports display administrative information.

9.12.1 User Groups

The report lists users and their user groups.

To run the report, open “Menu: Reports → Administration → User Group”.

9.12.2 Bin Limitation

This report displays user groups and the bins they are allowed to access.

To run the report, open “Menu: Reports → Administration → Bin Limitation”.



Bin Limitation

User Group	=	Item Code	=	Item Description	=
Bin Key	=	Bin Code	=	Cabinet Name	=
Site	=				

Found 2 Records. Row: 1

Key	User Group	Item Code	Item Description	Bin Key	Bin Code	Site	Cabinet Code	Cabinet Name
300...	Admin	9802477	NC DRILL10 90DEG ...	430000...	71-01-07-01	B7	71	M71
300...	Admin	9802643	B212A03400	430000...	71-01-07-12	B7	71	M71

The bins are defined for user group at:

The “Menu: Administration → Users and Authorizations → User Groups”;

The “User Group Maintenance” screen → “Bin Limitation” grid.

User Group Maintenance

Group Key:	1	User Group:	Admin	
Remarks:	Modules: ALL Item Auth: ALL			
Is Budget Active:	<input type="checkbox"/>	Ignore System Option 109:	<input type="checkbox"/>	
Number of Days:	<input type="text"/>		Budget Amount for Issue:	<input type="text"/>

Bin Limitation:

Bin Key	Bin Code	Item Key	Item Code	Cabinet Code
13	Demo1-01-01-13	22	5505421	Demo1
14	Demo1-01-01-14	21	5530123	Demo1

And also at:

The “Bin Maintenance” screen → “Authorizations” tab.



Bin Maintenance

Bin Key	Bin Code	Cabinet Code	Item Code	Item Description
43000099	71-01-07-12	*	71	*
9802643 B212A03400				

General | Stock Management | Additional Fields | Usage | Transactions | Orders | Bin Units | Authorizations |

Group Key	User Group	Bin Limitation	Remarks
1	Admin	NO	Modules: All items, Auth: All

9.12.3 History Log

This a report that shows the changes made on different records in the system, such as data changes on Item Bin, system Option etc.

For the report, open “[Menu: Administration → History Log](#)”.

History Log

Log Key:	=	Entity Name:	=	Date:	=
Type:	=	Table:	=	Key:	=
Field Key:	=	Field Name:	=	User:	=

Found 15 Records. Row: 5

Log Key	Entity Name	Date	Type	Table	Key	Field Key	Field Name	Old Value	New Value	User
1	System	2009-09-16 10:54	Update	TVL_SYSTEM_OPT...	OPTION_KEY	0	OPTION_VA...	4.2	4.5	admin
2	System	2009-09-16 11:08	Update	TVL_SYSTEM_OPT...	OPTION_KEY	1007	OPTION_VA...	60	10	admin
3	System	2009-09-16 11:08	Update	TVL_SYSTEM_OPT...	OPTION_KEY	1013	OPTION_VA...	2	1	admin
4	BIN	2009-09-16 11:10	Update	ENT_BIN_MASTER	BIN_KEY	1524	LAST_ISSU...	Jul 8 200...	Sep 16 20...	admin
5	BIN	2009-09-16 11:13	Update	ENT_BIN_MASTER	BIN_KEY	1085	LAST_ISSU...		Sep 16 20...	admin
6	Cost Cente...	2009-09-16 14:51	Update	Open Maintenance	DST_CEN...	3	MANUAL_IN...	1	3	admin
7	Cost Cente...	2009-09-16 14:58	Update	TVL_COST_CENTE...	COST_CEN...	3	MANUAL_IN...	3	1	admin
8	System	2009-09-16 14:58	Update	TVL_SYSTEM_OPT...	OPTION_KEY	1007	OPTION_VA...	10	60	admin
9	System	2009-09-16 14:58	Update	TVL_SYSTEM_OPT...	OPTION_KEY	1013	OPTION_VA...	1	2	admin
10	SUPPLIER	2009-09-20 01:01	Update	ENT_SUPPLIER_M...	SUPPLIER_...	1	DATE_LAS...	Sep 13 20...	Sep 20 20...	admin
11	System	2009-09-22 07:43	Update	TVL_SYSTEM_OPT...	OPTION_KEY	303	OPTION_VA...	0809	0709	admin
12	System	2009-09-22 07:57	Update	TVL_SYSTEM_OPT...	OPTION_KEY	303	OPTION_VA...	0709	0809	admin
13	USER PRO...	2009-09-23 10:18	Update	USER_PROFILES	USER_ID	1	USER_PAS...	K3wYQX2...	48JAEQd0...	admin
14	ITEM	2009-09-23 10:54	Update	ENT_ITEM_MASTER	ITEM_KEY	77	ADDITIONA...	1	Additional I...	admin
15	ITEM	2009-09-23 10:54	Update	ENT_ITEM_MASTER	ITEM_KEY	77	ITEM_LONG...	33	Item Long ...	admin

To record changes into this History Log, you need to set the **System Option 214 - Manage History Log file**.

By clicking the right-side mouse, the popup menu will be displayed with 'Open Maintenance' option to open the record that had the change.

9.12.4 Advanced History Log Report

This screen enables the user to create a customized report for changes made on different records in the system (such as data changes on Item, Bin, System Option etc.) based on the records of the basic History Log report. It also enables the user to save the definitions and run the report at a scheduled time.

For the report, open "[Menu: Reports → Administration → Advanced History Log Report](#)".

9.13 CPU – Tool Life Reports

The following reports are used to track the cost of tools used per production units and their tool life, based on the records entered into "Production Cost List".

For more information, read Chapter D: [CPU – Tool Life](#) (section 27).

9.13.1 Advanced CPU Report by Line

This screen enables the user to create a customized report for cost of tools used per production units, based on the records of the basic CPU report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open "[Menu: Reports → CPU – Tool Life → Advanced CPU Report by Line](#)".

This report uses the costs already calculated for basic CPU report and makes average calculations.

9.13.2 Advanced Tool Life Report by Line

This screen enables the user to create a customized report for tools used per production units and their tool life, based on the records of the basic Tool Life report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “[Menu: Reports → CPU – Tool Life → Advanced Tool Life Report by Line](#)”.

9.13.3 Advanced CPU Report

This screen enables the user to create a customized report for cost of tools used per production units. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open “[Menu: Reports → CPU – Tool Life → Advanced CPU Report](#)”.

This report enables to summarize costs by range of dates. When calculating the results, the report will include all the production cost records that their Begin Date and End Date are inside the range. If one of the dates will be out of the range, it will not be included for calculations.

9.14 Bin Units Report

This report displays in generic view all the Bin Units in the system.

For each bin unit it details the **Y-Z-X coordinates**, the '**Sent**' value which determines if this bin unit has a latch for opening and the **Cabinet / Bin** which uses this bin unit.

Please note that some records may not have coordinates. This will be bins without bin units.

To run the report, open “[Menu: Reports → Bin Units Report](#)”.



Bin Units Report

Cabinet Key:	<input type="text"/>	Cabinet Name:	<input type="text"/>	Bin Key:	<input type="text"/>
Bin Code:	<input type="text"/>	Item Code:	<input type="text"/>	Item Description:	<input type="text"/>
Y:	<input type="text"/>	X:	<input type="text"/>	Z:	<input type="text"/>
Sent:	<input type="text"/>	Drawer:	<input type="text"/>	Additional Item Code:	<input type="text"/>

Found 2000 Records.

Cabinet Key	Cabinet Name	Bin Key	Bin Code	Item Code	Item Description	Y	Z	X	Sent	Drawer
5	Non-Autom...	747	NADemo1-02-02-05			2	2	5	No	2
5	Non-Autom...	738	NADemo1-02-01-06	5501822	Demo TNMS 431-12 ...	2	1	6	No	2
5	Non-Autom...	748	NADemo1-02-02-06			2	2	6	No	2
5	Non-Autom...	739	NADemo1-02-01-07			2	1	7	No	2
5	Non-Autom...	749	NADemo1-02-02-07			2	2	7	No	2
5	Non-Autom...	740	NADemo1-02-01-08	5530123	Demo PICCO L-MFT60...	2	1	8	No	2
5	Non-Autom...	750	NADemo1-02-02-08			2	2	8	No	2
5	Non-Autom...	741	NADemo1-02-01-09	5530123	Demo PICCO L-MFT60...	2	1	9	No	2
5	Non-Autom...	751	NADemo1-02-02-09			2	2	9	No	2
5	Non-Autom...	742	NADemo1-02-01-10	5530123	Demo PICCO L-MFT60...	2	1	10	No	2
5	Non-Autom...	752	NADemo1-02-02-10			2	2	10	No	2

9.15 Cost Center Links

This report lists all the links created between different cost centers (the links created by marking the 'Cost Center Detail Parent' field on the cost center details).

For the report, open “Menu: Reports → Cost Center Links”.

Cost Center Links

Cost Center Name:	<input type="text"/>	Cost Center Details Key:	<input type="text"/>	Cost Center Code:	<input type="text"/>
Cost Center Description:	<input type="text"/>	Parent Name:	<input type="text"/>	Parent Detail Key:	<input type="text"/>
Parent Code:	<input type="text"/>	Parent Description:	<input type="text"/>		

Found 28 Records. Row: 1 Children cost centers Parent cost centers

Cost Center Links	Cost Center Detail Parent	Cost Center Name	Cost Center Details Key	Cost Center Code	Cost Center Description	Cost Center Key	Parent Name	Parent Detail Key	Parent Code	Parent Description
1	2	Work Center	5	W1	WC Grinding1	1	Department	1	D1	Grinding
2	2	Work Center	6	W2	WC Grinding2	1	Department			Cost Center Header Maintenance
3	2	Work Center	7	W3	WC Grinding3	1	Department			Cost Center Details Maintenance
4	2	Work Center	10	W5	WC Honing1	1	Department			Cost Center Parent Header Maintenance
8	2	Work Center	8	W4	WC Drilling1	1	Department			Cost Center Parent Details Maintenance
9	2	Work Center	9	W6	WC Drilling2	1	Department	4	D4	Drilling
10	3	Machine	14	M1	Grinding Machine 11	2	Work Center	5	W1	WC Grinding1
11	3	Machine	15	M2	Grinding Machine 12	2	Work Center	5	W1	WC Grinding1
12	3	Machine	16	M3	Grinding Machine 21	2	Work Center	6	W2	WC Grinding2
13	3	Machine	17	M4	Grinding Machine 22	2	Work Center	6	W2	WC Grinding2
15	3	Machine	19	M6	Grinding Machine 32	2	Work Center	7	W3	WC Grinding3
16	3	Machine	24	M11	Drilling Machine 11	2	Work Center	8	W4	WC Drilling1

**Delete links:**

This report allows you to delete links by selecting a record and clicking the <Delete> button on the toolbar. To delete multiple records at one time, hold the CTRL key and select the desired records. This option saves the need to enter into cost center detail screen and remove one by one the marks of the 'Cost Center Detail Parent' field.

Open records:

Right-click the mouse to get popup menu with options to open maintenance screens of the cost center headers and details.

9.16 Links Report

This report lists all the links defined for Items and Orders.

For the report, open "[Menu: Reports → Links Report](#)".

9.17 Saved Advanced Reports

This report lists the saved advanced reports of all the categories.

1. Open "[Menu: Reports → Saved Advanced Reports](#)".

The screenshot shows a software interface titled "Saved Advanced Reports". At the top, there are four input fields: "Saved Query Key" with a dropdown arrow, "Query Name" with a dropdown arrow, "Create User" with a dropdown arrow, and "Application Name" with a dropdown arrow. Below these fields is a message: "... Found 13 Records. Row: 3". A scrollable grid table follows, displaying 13 rows of data. The columns are labeled: "Saved Query", "Manual", "Query Name", "Page key", "Create User", "Create User", "Application Name", and "Application Key". The data includes various report names like "Demo report for Usage (Chart type)", "Transactions Report", and "Orders Reports", along with their corresponding keys and users.

Saved Query	Manual	Query Name	Page key	Create User	Create User	Application Name	Application Key
5	1	Demo report for Usage (Chart type)	9	1	admin	Usage Reports	1159
6	1	Demo report for Transactions (Chart ty...	3	1	admin	Transactions Report	612
7	1	Demo report for Orders (Chart type)	6	1	admin	Orders Reports	920
8	1	Demo report for Stock (Chart type)	12	1	admin	Stock Report	1224
9	1	Demo report 2 for Usage of Cabinets (...	9	1	admin	Usage Reports	1159
10	1	Demo report 2 for Transaction quantiti...	3	1	admin	Transactions Report	612

2. Locate the report and select its record.
3. To delete the report, click the  **<Delete>** button on the toolbar.
To open the report for editing or for getting results, continue.
4. Click the right-side mouse to display popup menu with 'Open Maintenance' option and select the option to open the report.
5. Modify the parameters if you wish, and then run the report by clicking the  **<Search>** button or the  **<Print>** button.

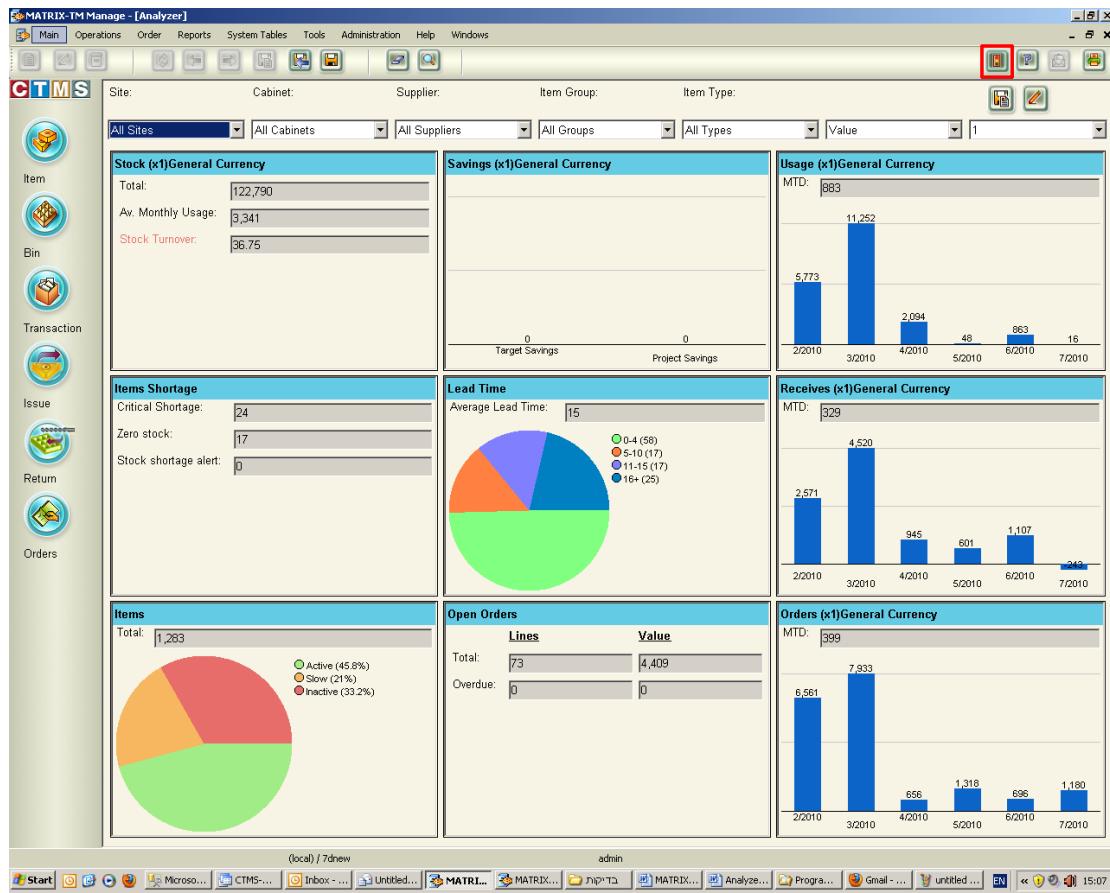
9.18 Analyzer

Analyzer is an analytical and management tool that displays key performance metrics all on one screen. The simplified format provides easy access to important data for decision makers, thus improving awareness and control.

It is also a flexible tool with different viewing options, quick reports and filters.



Analyzer is activated by clicking on the  **<Analyzer>** button on the right side of the toolbar.



Analyzer displays 9 default windows as follows (top to bottom, left to right):

Stock – Total Stock Value (In System Currency), Average Monthly Usage (the monthly average of all issue transactions in the last 6 months) and Stock Turnover which is the ratio between Stock Value and Average Usage – It shows much time (in months) it takes to use the entire stock managed by MATRIX. The optimal ratio for Stock Turnover is set at "3", when the stock ratio exceeds this number the text turns from green to red. This value can be changed in the window's parameters.

Items Shortage – includes data for all items that are set up for automatic reorder in the system at the Item Management Level. Critical Shortage is items below 50% of their MIN stock level (or any other % defined in the **System Option 810**). Zero Stock is an item which is in "Critical Shortage" and is also out of stock. Stock Shortage Alert is sent by a



User from TOUCH when the item he wants to issue is out of stock. The values shown represent the number of items or events.

Items – Total is the total number of items connected to at least one bin. The pie graph shows the breakdown by stock movement: "Active" is an item with a stock transaction in the last 6 months. "Slow" is an item with no issue transaction in the last 6-12 months. "Inactive" is an item with no issue transaction for more than 12 months.

Savings – The graph shows actual savings recorded to date for all projects and the total target savings for all savings accounts, where the project and savings account are defined for the current year.

Lead Time – Average Lead Time: The arithmetic average of all lead times for each order line made in the last 6 months. The pie graph is showing the breakdown by delivery days. The calculation is based upon the days elapsed between order and receive transaction. Internal orders are not included in the calculation.

Open Orders – Displaying the number of lines and their total values for open orders and for overdue orders. An order is considered open when the status is: for regular orders – Open \ Sent \ Partial; and for rework orders – Sent \ Partial; Internal orders are not included. An order is considered "Overdue" when the Request or Promised date has elapsed.

Usage – MTD: the current month's usage (sum of all issue transactions) in the system currency. It is shown together with a bar graph of the previous 6 months' usage month by month.

Receives – MTD: the current month's receives (sum of all receive transactions) in the system currency. It is shown together with a bar graph of the previous 6 months' receives month by month.

Orders – MTD: the current month's orders (excluding internal orders) are shown together with a bar graph of the previous 6 months orders month by month.

**Additional Windows:**

Analyzer has 4 more windows which can be displayed (the way to display them is explained in the end of this chapter):

Top Cost Centers – Displays the Cost Centers that had the largest issue count in the last 30 days.

Top Items – Displays the items that were issued the most in the last 30 days.

Usage vs. Receives [MTD] - Displays a graph comparing the Usage (Issues) and the Receives made in the current month.

Bins Shortage – Bins with zero stock: The amount of bins (which are associated to an item) that have zero stock. The pie chart illustrates the percentage of the zero stock bins in compare to bins with stock.

Filtering Options:

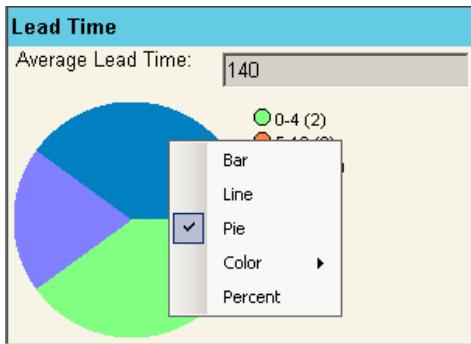
When Analyzer is activated all data is displayed. It is possible to filter data by using the filters at the top. Data can be filtered by: Site, Cabinet, Supplier, Item Group, Item Type, Value / Quantity (values in system currency) and the number of zeroes to be displayed in numbers.

* Only the Savings window will not be influenced by these filters.

** Only some windows will be affected by changing Value to Quantity. These windows show the system currency in the aqua colored window header when the Value filter is selected.

Graph Type:

The type and style of a graph can be edited by placing the mouse cursor over any graph and right clicking for edit options:

**Quick Reports:**

Each window in the analyzer is connected to a matching detailed report. Clicking on the blue header bar of each window opens the detailed report.

*The reports are automatically filtered by the filters you are using in Analyzer.

Printing:

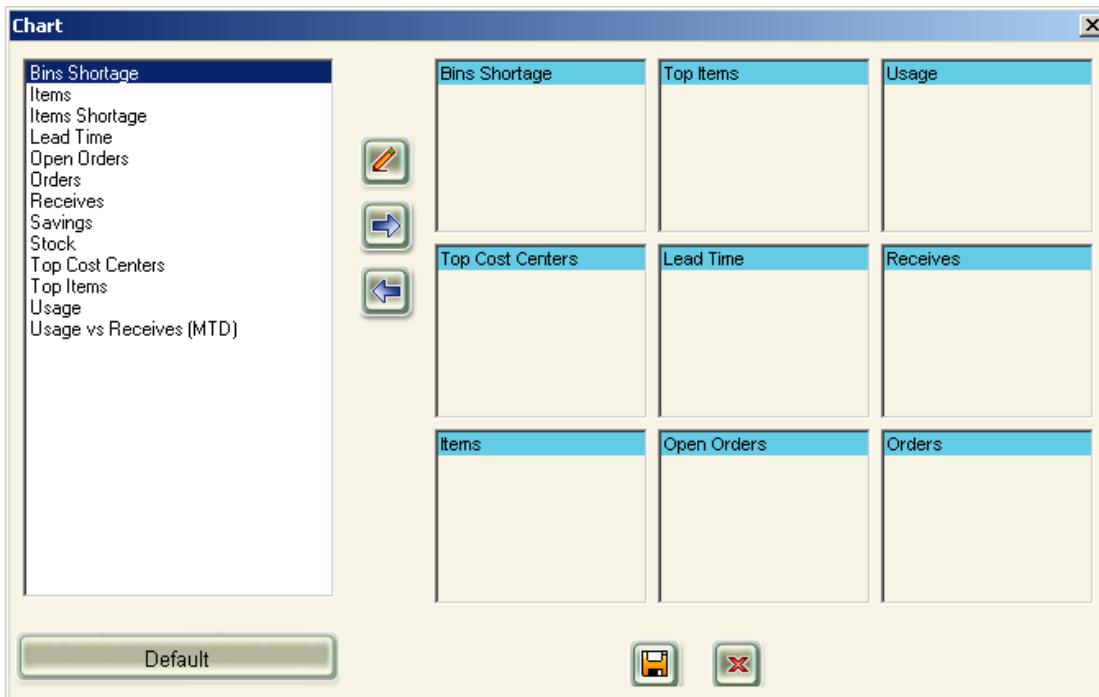
A snapshot can be printed by clicking the  [<Print>](#) button on the toolbar.

Saving a snapshot:

A picture of the screen shot can be saved by clicking the  [<Save As>](#) button on the top of the Analyzer window.

Replacing and changing the position of Windows:

Additional window options are available. By clicking the  [<Update>](#) button a new window will be opened, allowing you to change the configuration of Analyzer:



In this window you can change the position of a window simply by dragging and dropping it into the new location. You can also choose a window from the list on the left and drag it to a position in the analyzer window.

Pressing the Default button will return the windows into their original positions.

Choosing a window name and pressing the <Update> button will open a window in which you can change different parameters related to each window. For example, you can change the number of records displayed by changing the parameter value.



10 Help and Technical support

The system has a "[Help](#)" module that describes all the Topics of the MATRIX-TM software. In case a user cannot solve a problem in the system using the Help or needs to ask any question about the use of the machine and software, there is an option to send an email from the system to Technical Support.

10.1 MANAGE Help Documentation

The MATRIX-TM software has an option to open Help by topic.

When using some system features and opening screens, the help is available through the toolbar.

For example:

1. Open "[Menu: Main → Bin](#)" to receive a list of bins.

The button  [<Help>](#) on the toolbar will be enabled.

2. Click the  [<Help>](#) button on the toolbar.

MANAGE Help will be opened to the topic "Bin".

Usually it will describe the feature, fields and the instructions for use.

From here you can search for other topics of the MANAGE module and [TOUCH module](#).

Also:

- You can view the MATRIX-TM Help by going to "[Menu: Help → Help](#)" or;
- For Help files on different languages (only those that were translated), open the MATRIX-TM installation folder and continue to the folder "...\\MATRIX-TM\\helpFiles\".



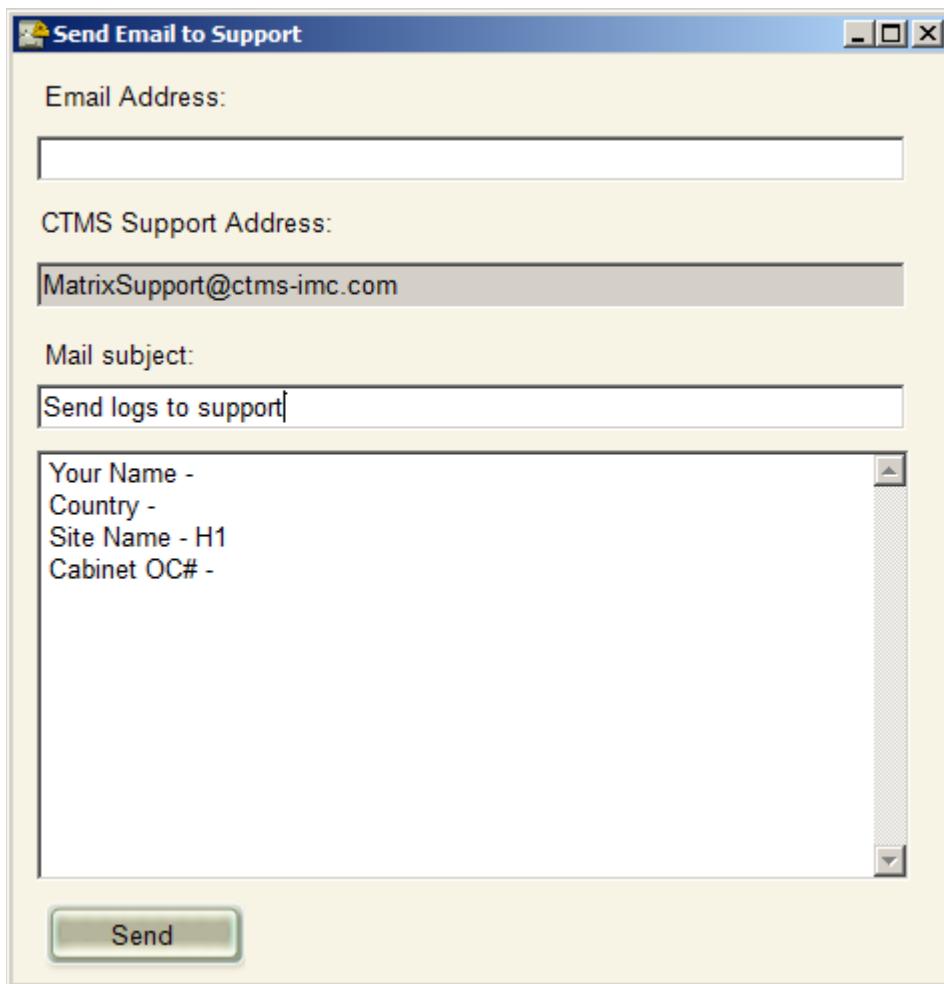
10.2 Sending Logs from MATRIX-TM

The user has an option to send an email directly from MATRIX-TM MANAGE to Technical Support (or to any other email address).

The e-mail will automatically attach the log files **AutoPO.[YYYYMMDD].log** and **Communication.[YYYYMMDD].log** that the system created for the same day, in order to help resolve the issue.

1. Open "[Menu: Help → Send Email to Support](#)".

The following screen will appear:



2. Here you can set the "Email Address", "Mail subject".

Use the message box to describe the problem and click <Send> button.

You will be notified about the success or failure of the sending.

In case of delivery failure:

1. Open "Menu: Administration → System Options".
2. Search system options by the group "Email".
3. Search for **Option 705** of "Mail server" and verify that the option value was set correctly. Check for other email options as well.

10.3 Create an Email Report

The user has an option to create a report draft and send it through email.

When working with generic search screens, the  [**<E-Mail>**](#) button is available on the toolbar. This feature uses the email program installed on your PC and creates an email draft that you can edit and send.

For example:

1. Open "Menu: Main → Bin" to receive a list of bins.
The button [**<E-Mail>**](#) on the toolbar will be enabled.

2. Click the  [**<E-Mail>**](#) button on the toolbar.

An E-Mail draft will be created on your Desktop, attaching to it an MS-Excel file of Bins report. By using the email program you can edit the email address, subject, etc.



CHAPTER C: MATRIX-TM TOUCH MODULE

TOUCH Module Preview

The TOUCH module has been planned and designed around the typical method of working. Our target is to improve, control and shorten the work process and access to data.

The system allows the worker to perform a variety of operations with the MATRIX dispenser, such as issuing, returning, counting etc, all through an easy to use touch screen.



11 Required pre-definitions for TOUCH system

In order to be able to work on the TOUCH module with the cabinets defined in the database, the user must first login to the MANAGE module and create touch definitions.

Login to MANAGE system and follow these instructions:

11.1 Define the Touch definition for computer

1. Open "Menu: Administration → Touch Machine → Touch Machine Administration".
2. Click the <Add> button.

The "Touch Maintenance" screen will be displayed.

The screenshot shows a Windows-style dialog box titled "Touch Maintenance". It contains two text input fields: "Computer Name:" with the value "MATRIX5-CTMS" and "TOUCH Description:" with the value "R&D Tech Center". Both fields have an asterisk (*) next to them, indicating they are required. The window has standard minimize, maximize, and close buttons at the top right.

The user must define here the Touch definition for the computer.

3. Fill the "Touch Description" field with a significant value that describes the name of the TOUCH workstation.
Fill the "Computer Name" field with the exact name of the **PC that will run TOUCH** (the value can be taken from: Go to **that computer** Properties, follow tab "**Computer Name**", click <Change...> button, use the value of "**Computer Name**" field).
4. Click the <Save> button.

11.2 Define the Touch - Cabinet definition for computer

1. Open "Menu: Administration → Touch Machine → Touch-Cabinet".
2. Click the <Add> button.

The "Touch-Cabinet Maintenance" screen will be displayed. The user must define here which cabinets to connect to the previously created touch name.



Touch-Cabinet Maintenance

TOUCH Description:	R&D Tech Center	* Cabinet Name:	MAXIPOD
<ul style="list-style-type: none">MAXITOUCHMINIPODMINITUUCHMAXIPODRECYCLE01RECYCLE02M71M72			

3. For field "Touch Description" select the previously created Touch name.
For field "Cabinet Name" select the cabinet you want to attach to the Touch.
4. Click the <Save> button and close the screen.
5. In order to attach more cabinets to current TOUCH, repeat steps above.



12 TOUCH Interface and Initial operations

12.1 Login to the TOUCH Module

1. Run the TOUCH module from the Start menu (or by link on your desktop) to receive the Login screen.
2. By using the virtual keyboard enter your user name and password or use the barcode reader to read the number marked on your employee card.
3. Press on the <OK> button or <Enter> on the keyboard.

The system will check the data entered and if confirmed, you will login to the system.



12.2 Main TOUCH Menu

After login you will receive the Main Menu screen:



Press on the required operation button:

Issue – Issue items

Return – Return goods back into the cabinet

Receive – Enter orders from vendor into the cabinet (restocking)

Change Issue – Allows authorized users to correct issue transaction quantities per User

Adjust – Adjust stock quantities of items

Count – Stock counting of the cabinet

Transfer – Transfer items to another cabinet against an internal order

Receive without Order – Enables to receive an item without having priorly created purchase order in Manage module.

Send to Calibration – Send gauges to calibration.

- Return from Calibration** – Return gauges from calibration to stock.
- Requests** – Issue and Receive items according to requests received via interface or from Manage.
- Advanced** – An administrative option for maintaining the cabinet and its items.



Important! The system will only display the user's authorized options. In order to set the authorizations, read Chapter D: [Controls Authorization](#) (section 18.3.2).

12.3 Operating Principles

12.3.1 Basic System Operating Buttons

Option name	Button	Description
Main Menu		On toolbar: Return to main menu
Drawer mapping		On toolbar: Open drawer mapping window
Print		On toolbar: Open list of transactions to print
Item Information		On toolbar: Display list of items to view its information
Change Password		On toolbar: Change login password for any user
Help		On toolbar: Run Help file
Exit		On toolbar: Exit the system to Login screen
Add & Shopping Basket		In Issue Module: An option to create shopping basket by adding items to it.
Next		Go to next screen



Back		Return to previous screen
Browse		Choose from adjacent list
Search		Start searching data
Clear / Clear All	 	Clear all filters to display lists (items, bins, order, etc.) with no filters.
Favorite		Available for Issue and Return modules, displays list of favorite items that were recently issued.
Advanced		Advanced search by item classifications
Group		Search Item by Group
Show keyboard		Display the virtual keyboard
Hide keyboard		Hide the virtual keyboard
Quantity buttons		Change quantities in selected bin
OK		Confirm last operation
Cancel		Cancel last operation
Exit		Exit the system to Operating System
Print		On Drawer Mapping window: for printing details of item and bin

12.3.2 Virtual Keyboard

By using the virtual keyboard you can key in data to the screens.



Operating buttons:

- Numbers** – Key in the number that appears on the button.
- Letters** – Key in the letter in the chosen language.
- Tab** – Moves the cursor to the next data field on the screen.
- Enter** – Pressing this button initiates a search based on the data keyed in.
- Bksp** – Deletes last letter keyed in.
- Shift** – Pressing this button will activate the upper case content of each button or will switch the keyboard language.

The virtual keyboard will look as below after pressing on the Shift button:



Displaying the virtual keyboard:

Displaying the virtual keyboard in relevant screens is done by pressing on the [**<Show>**](#) button.



Hide the keyboard by pressing on the [**<Hide>**](#) button.

Pressing one of the buttons will make it light up in yellow.

12.3.3 Barcode Interface

The purpose of this interface is to save time by reading data with barcode.

The reader will transfer the data to the field where the cursor is positioned at the time, instead of the user having to key in the data.



Important! The Barcode reader is usually configured to add a prefix to the read barcode (the information is available from the Barcode supplier or its hardware documentation).

In order to work with barcodes, the barcode configured prefix must fit the prefix expected to be read in the MATRIX-TM software. To fit the prefix, set the **System Option 1012** (Barcode prefix) in the MANAGE module.

The barcode can be used in several screens:**1. Login to the system:**

If the user has a badge with a barcode ID number, he can login automatically to the system by reading the barcode with the barcode reader or otherwise manually input the user name and password.

To enable login with a bar-coded badge, define the '**User Code**' / '**Badge Number**' for the user in the MANAGE module. For more information, read Chapter D: [**Users**](#) (section 18.2).

2. Input Cost Centers in the 'Issue' process:



If the cost centers are configured as Numerical or Alpha-numerical fields (and not as a list) in the MANAGE module, the user can input the values by reading them by barcode.

3. Search Item:

In all the search screens where the system expects to get item information like Item Code or Item Description, the user can read a barcode of the item. As a response, if only one match was found, the next screen of the process will appear. If more than one match is found, a filtered list will appear that includes only the relevant records.



Note: Sometimes the Barcode reader adds additional characters to the number (for example barcode number 3101749 reads as 03101749). In this case, set value for the '**Barcode**' field of the item in the MANAGE module exactly as the barcode reader reads it. For more information, read Chapter B: [Item](#) (section 5.4).

4. Search Order:

In any search screen where the system expects to get an item or order information, the user can read the barcode of the order that matches the '**PO Code**' value after which a screen with a filtered list will appear that includes only the relevant order line/s.

For example, 'Receive' and 'Transfer' processes.

5. Search Bin in the 'Count Bins' process:

In the search screen of the 'Count Bins' process where the system expects to get a bin or item information, the user can read the barcode of the bin that matches fully or partially to the '**Bin Code**' value after which a screen will appear with a filtered list that includes only the relevant records.

12.3.4 Search Screens

Through this screen you will be able to search various data that exists in the system.





Important! The quantity displayed in 'In Stock' column includes all the quantities excluding the stock of Reworkable items in bins marked as 'Used' since those items are not available for use.

Issue Item

ITMDemo v5.0 admin 298 02/08/2012 11:57:48

Found 93 Records. Select record to update.

Item Code	Group	Item Description	Item Long Description	Item Type	In Stock
3029027	MILLLINE	TPO18R063M22.0-06		Durable	6
3101057	AFO	HeliOcto Cutter – F45KT D063...		Durable	14
3101686	Milling	Demo HM90 E90A-D20-3-W20...	Demo HM90 E90A-D20-3-W20...	Durable	24
3101694	Milling	Demo HM90 E90A-D32-4-W32...	Demo HM90 E90A-D32-4-W32...	Durable	43
3101745	Milling	Demo HM90 E90A-D.75-3-W.7...	Demo HM90 E90A-D.75-3-W.7...	Durable	44
3101749	Milling	Demo HM90 E90A-D1.25-3-W....	Demo HM90 E90A-D1.25-3-W....	Durable	38
3102566	Milling	Demo HM90 E90A-D.62-2-C.6...	Demo HM90 E90A-D.62-2-C.6...	Durable	38
3103956	AFO	HeliAlu Cutter – HM90 EAL-D5...		Durable	9
3109297	MILLLINE	TPD05R040M22.0E08		Durable	3
3201144	Drilling	Demo CHAMRING 110-WN32-...	Demo CHAMRING 110-WN32-09	Durable	52
3201154	Drilling	Demo CHAMRING 080-WN20-...	Demo CHAMRING 080-WN20-06	Reworkable	0

Back **Next**

Search for the record:

There are a number of methods to search for a record and to get it displayed in the list:
Use one of the Search methods described below.

Select the record:

After finding the record by one of the methods mentioned before, select the requested record in the list and press on the **Next >** button (or double press on the record) in order to continue the process.



Note: The system enables to sort the records and to resize the columns.



Pressing on the header of the relevant column (Item Code, Supplier Code, PO, etc) will sort the records in **ascending** order and another press on will change the sort to **descending** order.

Resize the columns by pressing and dragging the separator line between the headers of the columns.

12.3.4.1 Search with no filter

Press on the **<Search>** button to display all records and scroll down to the desired record.

12.3.4.2 Search by Barcode reader

Set the focus on the location line and scan the barcode.

The barcode will be entered into location line and only the relevant records will be displayed in the list.

See more information in Chapter C: [Barcode Interface](#) (section 12.3.3).

Enter an Item

12.3.4.3 Search by Virtual keyboard

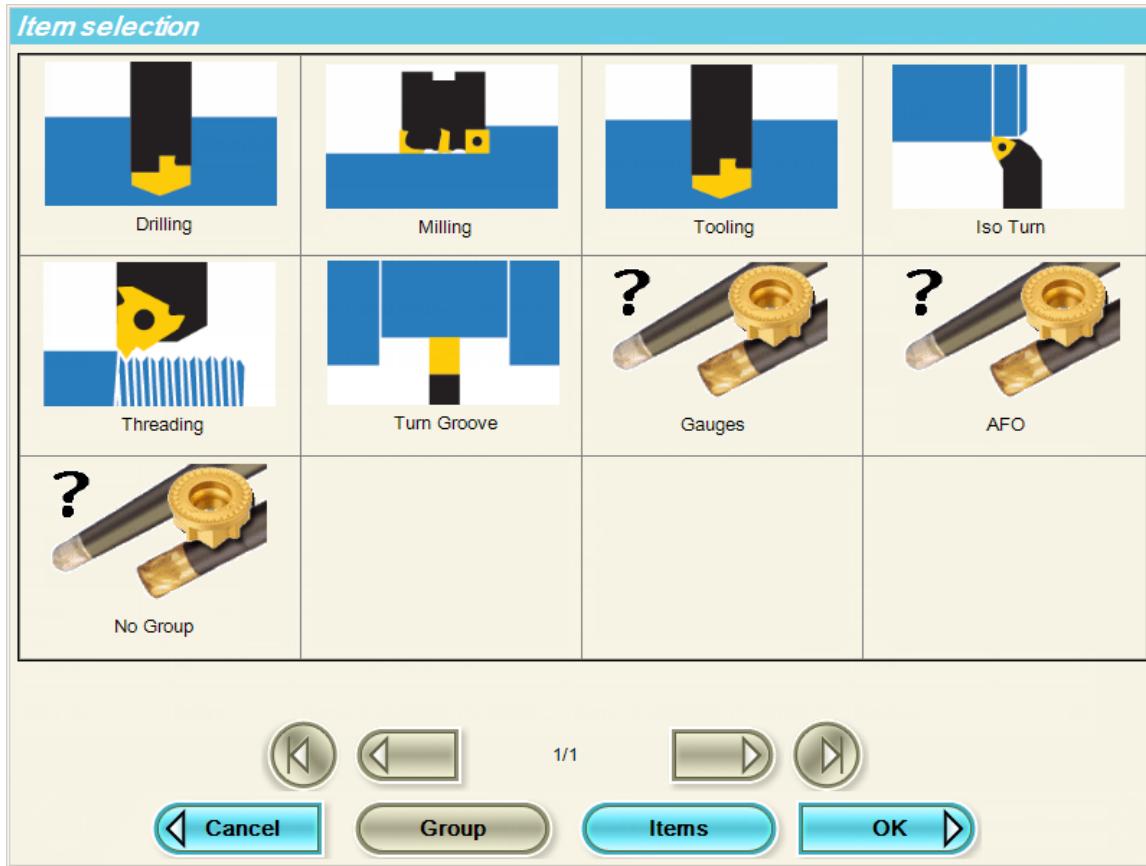
Press on the **<Show>** button on the bottom part of the screen in order to display virtual keyboard. Enter item code, item description, or part of them and press on the **<Search>** button.

12.3.4.4 Search by Group or by Item Image

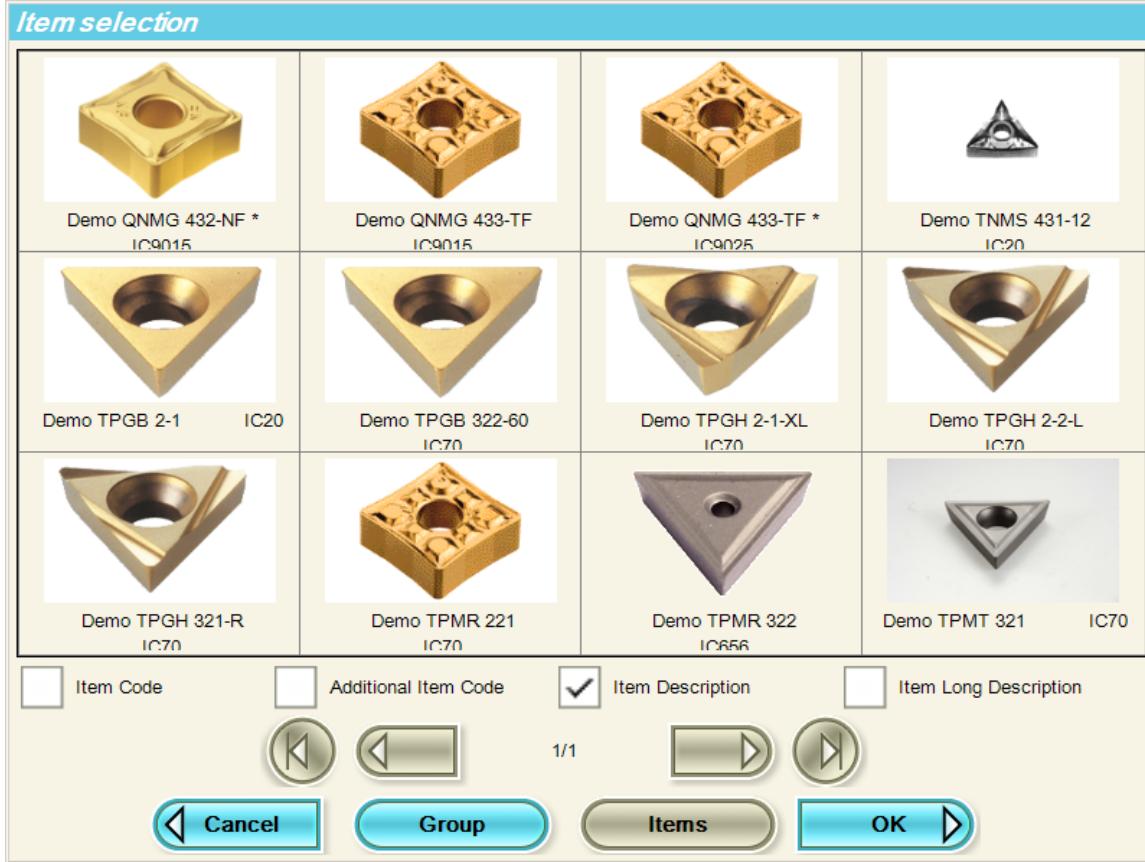
This search allows you to locate an item by its Group or Image.

1. Press on the **<Group>** button in the search screen.

The screen as following will appear:



2. Select the appropriate product group and;
3. To view all the items of the selected group as a **LIST**, press on the **<OK>** button.
In order to return to the full list, open the window again and press on the **<Cancel>** button.
4. To view all the items of the selected group as **IMAGES**, press on the **<Items>** button.
The screen will display item images and descriptions:



To return to the groups, press on the  **<Group>** button.

To select a particular item, select the item image and press on the **<OK>** button.

12.3.4.5 Search by Advanced

This option allows you to search an item by its application and by additional fields.

1. Press on the **<Advanced>** button on the search screen.

The screen as following will appear:



Advanced Search Filter

Application	Drilling	<input type="button" value="..."/>
Main Family	Drilling Inserts	<input type="button" value="..."/>
Sub Family	Drilling Three effective Inserts	<input type="button" value="..."/>
Corner number	4	<input type="button" value="..."/>

Number pad:

1 2 3 4 5 6 7 8 9 0 ←

Cancel Clear All OK

Fields description:

Application: This is a **constant** field that automatically generates a list of applications linked to the 'Main Family' and 'Sub Family' which have been assigned to an Item. This list is not seen in Manage.

Main Family: This is a **constant** field which displays a list of system defined classifications for 'Main Family'. Only those classifications to which an item has been linked will be displayed.

Sub Family: This is a **constant** field which displays a list of system defined classifications for 'Sub Family'. Only those classifications to which an item has been linked will be displayed. The list of Sub Family classifications is filtered according to the selected Main Family.

Additional Fields are added to the **Item** entity in the Manage module as described in Chapter B: [Additional Fields](#) (section 5.5).



For example, Item entity has four additional fields of different types added by the Manage module: The field 'Size' (**numeric** type) will display a list of used values and numeric keyboard for input; the field 'Color' (**text** type) will display a list of used values and alpha-numeric keyboard; the field 'Tested' (**Boolean** type) and the field 'Test Date' (**date** type) will display the list of used values.

2. Insert the data for filtering the items on the search screen and press on the **OK** button. In order to cancel the filter, open the 'Advanced' window again and press on the **<Cancel>** button.

12.3.5 Adjust Search Screens

This feature enables to adjust the search screens and grids per database.

The following operations are available for change and for save:

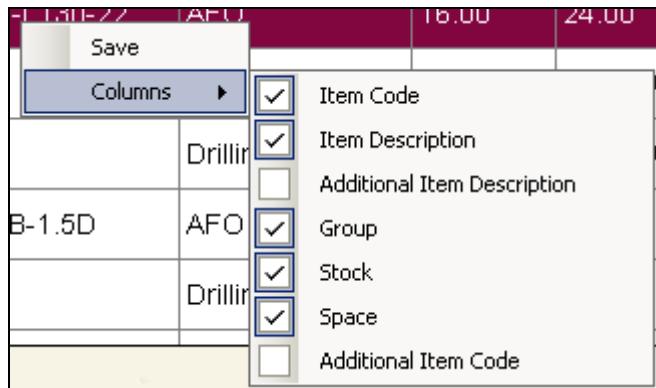
- **Adding / Removing** columns to the view by the right-click popup menu
- **Reducing / Enlarging** columns width by dragging
- **Relocating** the columns to different position by dragging
- **Sorting** the data by selected column by pressing the column header

See below the example for the view before changes and after changes:

Figure 1 displays example for search screen before changes.

For example, open the search screen of 'Receive without Order' option and make the following changes:

- 1) Click the right mouse-button to get the popup menu and expand the '**Columns**' option. This option will display all the columns that can be added / removed. Check the columns that you wish to display and uncheck those which are not relevant, for example 'Additional Item Code' and 'Additional Item Description'.



- 2) **Enlarge** column width by dragging with mouse, for example 'Item Description' and 'Space' column.
- 3) **Relocate** column to different position by dragging it with mouse, for example relocate 'Group' column after 'Item Description'.
- 4) **Sort** the view by clicking the column header, for example 'Item Code' header.
- 5) Click the right mouse-button to get the popup menu and click the '**Save**' option to save all the changes done. Next time you open this screen it will be loaded by the saved definitions.



Figure 1: Search screen before changes

Receive Item

admin: ITMDemo42		27/07/2008						CTMS	
Please enter Item/Order									
<input type="button" value="Search"/> <input type="button" value="X"/> <input type="button" value="Group..."/>									
Item Code	Item Description		Stock	Additional Item Description		Group	Space	Alt It...	
5502154	Demo TPGH 2-2-L IC70		8.00	Demo TPGH 2-2-L I...		Iso Turn	2.00		
5900235	Demo 11ER 0.35 ISO IC50M		8.00	Demo 11ER 0.35 ISO ...		Threading	2.00		
5600775	Demo ADKT 150550R-HM IC250...		8.00	DemoADKT 150550R-H...		Milling	2.00		
5502149	Demo TPGH 2-1-XL IC70		7.00	Demo TPGH 2-1-XL ...		Iso Turn	3.00		
5504734	Demo QNMG 433-TF IC9015		7.00	Demo QNMG 433-TF ...		Iso Turn	3.00		
5600795	Demo SPKR 42EDTR-HS IC250 ...		7.00	DemoSPKR 42EDTR-HS ...		Milling	3.00		
5600774	Demo ADKT 150550R-HM IC635...		7.00	DemoADKT 150550R-H...		Milling	3.00		
3299216	Demo DR-MF-08R-2.25D-12A-04 *		7.00	DemoDR-MF-08R-2.25D...		Drilling	3.00		
5502097	Demo TPGB 2-1 IC20		6.00	Demo TPGB 2-1 I...		Iso Turn	4.00		
5502282	Demo TPU 221 IC20		6.00	Demo TPU 221 IC...		Milling	4.00		
5505421	Demo IDI 0295-SG IC908		6.00	Demo IDI 0295-SG I...		Drilling	4.00		

Figure 2: Search screen after changes

Receive Item

admin: ITMDemo42		27/07/2008						CTMS	
Please enter Item/Order									
<input type="button" value="Search"/> <input type="button" value="X"/> <input type="button" value="Group..."/>									
Item Code	Item Description		Group	Stock	Space				
3101057	HeliOcto Cutter – F45KT D063-22-R06		AFO	9.00	51.00				
3101686	Demo HM90 E90A-D20-3-W20-C		Milling	73.00	9999999.00				
3101694	Demo HM90 E90A-D32-4-W32-C		Milling	55.00	9999999.00				
3101745	Demo HM90 E90A-D.75-3-W.75-C		Milling	84.00	156.00				
3101749	Demo HM90 E90A-D1.25-3-W.75-C		Milling	90.00	9999999.00				
3102566	Demo HM90 E90A-D.62-2-C.62-LB		Milling	9.00	151.00				
3103956	HeliAlu Cutter – HM90 EAL-D50-W32-L130-22		AFO	16.00	24.00				
3201144	Demo CHAMRING 110-WN32-09		Save	Columns >		Item Code	9.00		
3201154	Demo CHAMRING 080-WN20-06		Drillin			Item Description	9.00		
3201568	ChamDrillJet Drill – DSM 160-024-20B-1.5D		AFO			Additional Item Description			
3201669	Demo DR-MF-10L-2.25D-12A-05		Drillin			Group			
						Stock			
						Space			
						Additional Item Code			



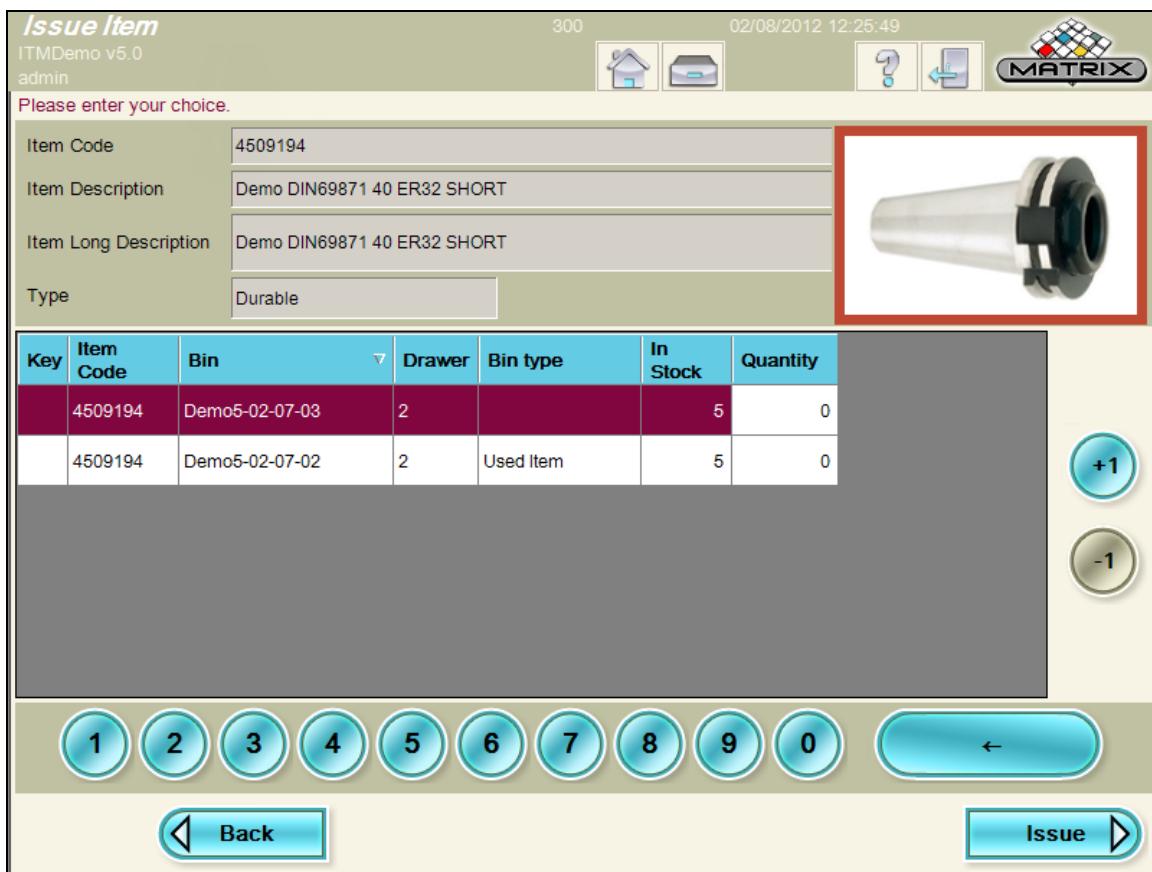
12.3.6 Item Information

This feature enables to display in TOUCH application additional information regarding the item from the MANAGE application.

In any module in Touch where item image is displayed on top of the window, user can press on the image and the system will display "Item Information" screen.

Example:

1. Open any module; select any item and press <Next> to get the screen with the item image.



2. Press on the image area.

The "Item Information" screen will be displayed. The buttons on top represent tabs which display the data from these tabs in Manage module:

General: General data.



- Item Picture:** Displays enlarged item image.
- Supplier:** List of item's suppliers.
- Additional Fields:** Additional fields of the item.
- Location:** Displays all the bins that store the item.
- Links:** Displays links defined for the item and enables the user to run them.
- Kit Items:** If the item is of Kit type, displays the list of items related to the kit.
- Cost Centers:** For 'Change Issue' module displays for cost centers for which the item was issued. For all the other modules, displays the list of cost center to which this item is linked.
- Transaction:** List of transactions.
- Serial:** Serial pieces of the item.
- Calibration:** Displays the history.
- Price:** Information regarding prices
- Orders:** Lists order lines of the item by the following:
Purchase order – header DRAFT – order lines in status Draft, Open,
Sent to Supplier,
Purchase order – header OPEN – order lines in status Open, Sent
to Supplier, Partial.
Internal Order – header OPEN – order lines in status Open, On
Route.
Does not display order lines in status Close, Cancel or Deleted.
- Alternative:** List of alternative items to the current item.

This data is displayed only for view!



Item Information

Item Key	23
Item Code	4509194
Additional Item Code	
Item Description	Demo DIN69871 40 ER32 SHORT
Long Description	Demo DIN69871 40 ER32 SHORT
Barcode	04509194
Item Type	Durable
Item Group	Tooling
Category	Regular
Item Auth Group	Iscar
Unit of Measure	Pieces
Main Family	
Sub Family	
Primary Supplier	Iscar
Item Management Level	<input checked="" type="checkbox"/>
Serial	<input type="checkbox"/>
Special	<input checked="" type="checkbox"/>
Remarks	

General **Item Picture** **Supplier** **Additional Fields** **Location** **Links** **Cost Centers** **Transaction** **Price** **Orders** **Alternative**

< Back

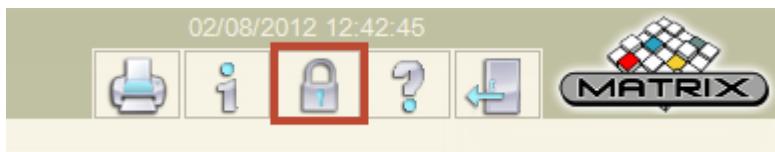
3. Switch to the other tabs by pressing on the buttons.
4. To close the window, press on the <Back> button.

12.4 Change Password

This feature enables changing passwords for any user.

To operate the feature:

1. Login to the TOUCH application and go to the Main menu.



2. Press on the <Change Password> button on the top of the window.



The following screen will be displayed:

Change password

User Name	<input type="text"/>
Password	<input type="password"/>
New Password	<input type="password"/>
Confirm Password	<input type="password"/>
Badge Number	<input type="text"/>

A virtual keyboard is displayed below the input fields. It includes a numeric keypad (1-0, .), a standard QWERTY layout, and function keys like Tab, Shift, Enter, and Cancel/OK.

Cancel OK

3. Enter the existing 'User Name' and 'Password' of the user for whom you wish to change the password, enter the new password and confirm by <OK> button.

Badge Number – an option to set operator's badge number for login by input device, such as barcode reader or magnetic card reader, etc.

12.5 Advanced

This is a tool that helps to follow the communication between the hardware and software, to test the communication without using Touch modules or creating transactions.

To use this tool, press <Advanced> Icon on the TOUCH Main Menu.

To run this tool:

On Main Menu screen press the <Advanced> icon.

The "Local Information" screen will appear.



Local Information

ITMDemo v5.0
admin

Cabinet Code	Cabinet Type	Online	Site Name	Port Number	Baud Rate	Sequence	IP Address
Demo5	Matrix Series 4	<input checked="" type="checkbox"/>	Buildind 2	3	115200	1	
NADemo1	Non Automatic	<input checked="" type="checkbox"/>	My Site	1	9600	1	

02/08/2012 12:51:02

Cabinet

Site Mapping

Error

History Log

Local Information

System Options

Advanced

Reset

Clear Buffer

Back

Tabs:

- Cabinet:** Lists the cabinets attached to the current Touch station and shows their status.
- Site Mapping:** Displays on one screen all the cabinets with its drawers and bins on the current Touch station. It allows opening drawers / bins, setting items into empty bins, setting its initial stock and making some bin definitions.
- Error:** Lists the communication errors.
- History Log:** It lists the log files created by the system and allows displaying its content.
- Local Information:** Displays information regarding the PC and the Server.
- System Options:** Displays list of system options.
- Advanced:** For general Touch settings.



12.5.1 Cabinet

This tab lists the cabinets attached to the current Touch station displaying connection information such as Port Number, Baud Rate, Sequence, etc.

The screenshot shows the 'Local Information' screen of the MATRIX-TM Software. The main area displays a table of connected cabinets:

Cabinet Code	Cabinet Type	Online	Site Name	Port Number	Baud Rate	Seque	IP Address	Multi connections
MAXTOU...	Matrix MAXI	<input checked="" type="checkbox"/>	R&D Lobby	257	0	1	10.10.10.10	<input checked="" type="checkbox"/>
MINIPOD	Matrix MINI	<input type="checkbox"/>	R&D Lobby	256	0	1	10.10.3.74	<input checked="" type="checkbox"/>
MINITOUC...	Matrix MINI	<input type="checkbox"/>	R&D Tech ...	256	0	1	10.10.3.74	<input checked="" type="checkbox"/>
MAXIPOD	Matrix MAXI	<input type="checkbox"/>	R&D Tech ...	253	0	1	192.168.3....	<input checked="" type="checkbox"/>

Below the table are three buttons: 'Reset', 'Clear Buffer', and 'Logout'. On the left, there is a 'Back' button. On the right, a vertical menu lists: Cabinet (highlighted in yellow), Site Mapping, Error, History Log, Local Information, System Options, and Advanced.

The <Reset> button to reset errors of the selected cabinet.

The <Clear Buffer> button to clear buffer of commands sent to cabinet.

The <Login / Logout> buttons are used for multi-connections and change according to the state of the 'Online' mark on the selected cabinet. Cabinet is marked as 'Online' when one of the Touch stations is open on a screen that locks-out other Touch stations from connecting to it, such as the bin grid screen.

For example, if a cabinet is connected to more than one Touch station and is currently in use on another Touch station, this cabinet will be marked 'Online' on our current Touch



station and the button will be <Logout>. Pressing on the <Logout> button will release the cabinet and will make it available for our connection.

12.5.2 Site Mapping

The Site Mapping displays on one screen all the information regarding the current Touch station – easy access to data on the levels of cabinet / drawers / bin / item.

This tool helps to test communication between hardware and MATRIX-TM software and to maintain the Matrix hardware by giving physical access to drawers and bins. When opening drawers / bins by this module, no stock transactions are created.

The available actions and information on Site Mapping:

- Viewing all the cabinets connected to the current Touch station, drawers preview, details of each bin and items stored.
- **Opening any drawer / bin** – good for testing communication between hardware and software, for maintaining the hardware and for accessing to the tool storage place.
- **Setting items for unallocated bins and setting initial stock** – good time saver, especially for initial set-up of the cabinet.
- **Changing some of the bin definitions** – cancels the need for switching between Manage and Touch applications.

To use this tool:

1. Press <Advanced> Icon on the TOUCH Main Menu

Site Mapping

2. Press the **Site Mapping** <Site Mapping> button from the right side buttons.

The Site Mapping tool will be displayed.



Local Information

ITMDemo v5.0
admin

Cabinet Demo5 Drawer 1

05/08/2012 08:11:10

Matrix

Cabinet

Site Mapping

Error

History Log

Local Information

System Options

Advanced

ooo

Open Selected Bin

Open all bins

Bin Update

General **Stock** **Remarks** **Cabinet Log**

25/40	3/10	5/10	6/10	0/10	34/40	7/40	23/40	6/10	16/40	7/10	8/10	31/40
0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
0/40	0/10	0/40	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
5/10	6/10	6/10	23/40	0/10	7/10	5/10	8/10	8/10	0/10	0/10	0/10	0/10
1/10	4/10	6/10	8/10	9/10	3/10	2/10	6/10	7/10	4/40	8/10	2/10	8/10
10/10	9/10	0/10	10/10	7/10	4/10	6/10	6/10	7/10	23/40	8/10	10/10	6/40
2/10	3/10	3/10	10/10	8/10	5/10	7/10	10/10	6/10	5/10	6/40	4/10	3/10

Item Code: Item Description:
Bin Code: Demo5-01-07-11
Stock / Capacity: Allow Over Capacity
 Serial Bin of Used Bin Consignment
 Special Bin of Reworked

Back

3. Press the **ooo** <Browse> button for selecting drawer for display.

The screen as following will be displayed:



Cabinets List

Site	Cabinet	Drawer
My Site	Demo5	1
Buildind 2		2
		3
		4
		5
		6
		7
		8

< Cancel **OK >**

This screen lists only the cabinets related to the current Touch station.

4. Select the relevant **Site / Cabinet / Drawer** and press the **<OK>** button.

This will display graphically the selected drawer with divisions to bins and the stock/capacity of each bin.

5. Press on the relevant bin to display its data and to allow changes on this bin.

The selected bin will be colored with blue and its data will be displayed on the bottom part of the screen.

6. On the right part of the drawer preview the following buttons are displayed:

Press the **<Open Selected Bin>** button to open drawer and the selected bin.

Press the **<Open all bins>** button to open the drawer and all of its bins.

Press the **<Bin Update>** button to set item for a selected bin (only if not allocated to any item yet) or to change some of the bin definitions.

7. By pressing the **<Bin Update>** button, the following screen is displayed:



Bin Maintenance

The Value of this field must be numeric.

Bin Code	Item Code	Item Description
Demo5-01-07-11		<input type="text"/> 

Capacity Allow Over Capacity

Items in Bin Consignment

Default Issue Quantity Issue Any Quantity
 Only Default Quantity
 Do not Issue

8. Press the  <Browse> button to display a list of items and select an item to associate with the bin (for a bin already allocated with an item, this button will not be displayed). The item data will be loaded and the fields from the left side will be available for update.
9. If required, set the stock into 'Items in bin' field and set the other bin definitions.
For completing the operation, press the <Save> button.
The data will be loaded into the tabs (General / Stock Remarks / Cabinet Log) on the bottom part of the Site Mapping window.

Similar tool is also displayed on the MANAGE application for opening Manage maintenance screens. To read more about this tool on MANAGE, follow Chapter D: [Site Mapping](#) (section 16.6.1).

12.5.3 Error

This tab lists the communication errors from the Cabinet Log.



Local Information

Demo2012 v5.0
admin

Cabinet Code	Bin Code	Drawer	Row	Solenoid	Message Text	Date
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18
MAXITOUCH	0	0	0		Drawer is not close (one or more)	18

MATRIX

- Cabinet**
- Site Mapping**
- Error**
- History Log**

12.5.4 History Log

This tab shows a content of selected log file, created by the system.

To open the list of log files, press the <Browse> button and select log name.

Local Information

Demo2012 v5.0
admin

log.log

ooo

Clear All

```

02/05/2012 10:09:55 AM Debug YONATAN-OR-PC UserLogin Master Login: UserName: admin, PWD: 1
02/05/2012 10:09:55 AM Debug YONATAN-OR-PC UserLogin Master Login successful for user 'admin'
02/05/2012 10:09:55 AM Debug YONATAN-OR-PC UserLogin Master LoadExtendedProfile()
02/05/2012 10:09:55 AM Debug YONATAN-OR-PC 1 LoadGroups For User: 1
02/05/2012 10:09:55 AM Debug YONATAN-OR-PC 1 LoadMenuAuth()
02/05/2012 10:09:55 AM Debug YONATAN-OR-PC 1 Menu Auth Where SQL: USER_ID=1 Or int_group_id in (1)
02/05/2012 10:09:58 AM YONATAN-OR-PC DAL Master Table 'allowed_apps' has no primary key column. Setting column
02/05/2012 10:10:00 AM Debug YONATAN-OR-PC 1 Allowed Menu Items: 32,12,136,15,16,128,19,5,167,21,36,82,31,13
,129,144,145,146,143,27,131,140,130,77,132,148,133,153,154,152,175,177,188,189,176,182,184,183,181,7,81,139,24,2
02/05/2012 10:10:00 AM Debug YONATAN-OR-PC 1 LoadControlsAuth()
02/05/2012 10:10:00 AM Debug YONATAN-OR-PC 1 Controls Auth Where SQL: USER_ID=1 Or int_group_id in (1)

```

MATRIX

- Cabinet**
- Site Mapping**
- Error**
- History Log**
- Local Information**

12.5.5 Local Information

This tab displays information regarding the PC running TOUCH and the Database Server.

This information might be useful in defining the following parameters:

Computer Name: Used for attaching cabinet to the Touch station.

Command Line: The file executed for running the Touch application.

Server Name: Used on the 'Settings' screen and also for the registration code.



Local Information

Demo2012 v5.0
admin

Operation system Version: Microsoft Windows NT 6.1.7601 Service Pack 1
 Up time: 268,5 :Hours
 System Directory: C:\Windows\system32
 Current Directory: C:\Program Files\MATRIX-TM 5.0\Application
Computer Name: NATAN-OR-PC
 User Domain Name: ISCARDP
 User Name: liora
 Full computer name: natan-Or-PC.isc.com
 IP Address: 10.10.28.6
 Command Line: "C:\Program Files\MATRIX-TM 5.0\Application\Touch.exe"

PrivateMemorySize: 89
 WorkingSet: 94
 StartTime: 05/08/2012 12:39:23
 TotalProcessorTime 00:00:22.6201450

Check registration file:
 Installation date: 20120502
 *20120502 (Your trial license has expired.)

Server Name: NATAN-OR-PC
 SQL SERVER version: Microsoft SQL Server 2008 R2 (RTM) - 10.50.1600.1 (Intel X86)
 Apr 2 2010 15:53:02
 Copyright (c) Microsoft Corporation
 Express Edition with Advanced Services on Windows NT 6.1 <X86> (Build 7601: Service Pack 1)

Registry data:
 Registry code: 7TYJ1x325kj4ejHiCXsIh+71Vi5kA
 Version: 60
 Number of licenses: 10

Now online:
 NATAN-OR-PC

[Back](#)

05/08/2012 13:53:15

[Cabinet](#)
 [Site Mapping](#)
 [Error](#)
 [History Log](#)
 Local Information
 [System Options](#)
 [Advanced](#)

12.5.6 System Options

Displays list of system options, for view only.

Local Information

Demo2012 v5.0
admin

Option Key	Option Name	Option Value
0	Database Version	5.0
1	Installation Path	c:\program files\matrix-tm 5.0\Application
2	Scheduler task computer Name	natan-Or-PC.iscar.com
105	Over Receive Percentage	10
107	Activate issue budget by Quantity of items	1
108	Activate issue budget by Amount	1
109	Force to issue old items before new items	0
110	Display options for partial receive?	0
111	Number of reference fields to use on Receive	2
112	Type of Reference fields	2
113	Return Only Issued Items	0
114	Request for Reference fields	1

05/08/2012 14:05:32

[Cabinet](#)
 [Site Mapping](#)
 [Error](#)
 [History Log](#)
 [Local Information](#)
 System Options
 [Advanced](#)



12.5.7 Advanced

For general Touch settings.

Refresh Processes – if unchecked, the Touch screen will load its screens from the memory and not a new one (recommended).

Restart Win – an option to restart Windows operating system.

Reload Touch – closes the Touch and opens it again in one action.

Refresh cache – refreshes cache memory with updates. Used in case there were changes in the Manage application (system options, texts, etc.) that we would like to reflect on the Touch currently running.

13 System operations



13.1 ISSUE Item

This module enables to a user to issue items from the cabinet.

Press on the [**<Issue>**](#) icon on the Main Menu.

The following operations have to be performed as a part of the issue process:

- Choose cost center/s.
- Choose item.
- Choose bins and quantities to be issued.
- Execute the Issue transaction.
- Stock Shortage.



Choose cost center

In the Issue process, before the user selects items, the user must select the cost centers to which the desired items will be issued. However, the system administrator can configure the system in the way that cost center information will not be mandatory.

The number of cost center headers, their names, input types (Choose from list, Numeric keyboard, Alpha-Numeric keyboard or Barcode), possible and default values and hierarchy between them and more options (like required fields or not, changeable or not) are configured by the MANAGE module.

For more information read Chapter D: [Define Cost Centers](#) (section 19) and Chapter D: [User Cost Centers](#) (section 20).

Example:

The following screen shows a sample configuration of four cost center headers:

The screenshot shows the 'Issue Item' screen of the MATRIX-TM Software V5.0. At the top, it displays 'ITMDemo v5.0' and 'admin'. The main area is titled 'Please input the following data' and contains four input fields for cost center headers:

Header	Value	Action
Department	Drilling	Barcode icon
Work Center	WC Drilling1	Barcode icon
Machine	Drilling Machine 11	Barcode icon
Job Number	1	Text input field

At the bottom, there is a numeric keypad with digits 1-9, 0, and a decimal point, along with 'Back' and 'Next' buttons.

If the cost center headers are defined as a hierarchy, they need to be entered in order: Department → Work Center → Machine and the Job Number. Otherwise, the order will not matter.



Setting the cost centers for the cost center headers can be done in several ways depending on the cost center header type:

Department: Cost center header of type 'Choose from List'. Press on the <...> button will open a list of optional cost centers for this header. Select the desired cost center and press on the OK button.

Work Center: This cost center header type is also of type 'Choose from List'. If this cost center header is defined in hierarchy with the one before it, the list of cost centers will be displayed automatically after selecting the previous cost center header. Otherwise the user will have to open the list manually.

Machine: This cost center header type is like Work Center.

Job Number: Cost center header of type 'Numeric Keyboard'. Touching it will dynamically display the Virtual Keyboard. Use the Virtual Keyboard to enter the data manually or use the Barcode Reader.

After setting the cost centers, press on the [<Next>](#) button.

Choose item

Next, the search screen will appear that enables the user to search and choose an item. Use the search methods described before (in Chapter C: [Search Screens](#) (section 12.3.4)) in order to locate the item.



Issue Item

ITMDemo v5.0 admin
Found 93 Records. Select record to update.

Item Code	Group	Item Description	Item Long Description	Item Type	In Stock
3029027	MILLLINE	TPO18R063M22.0-06		Durable	6
3101057	AFO	HeliOcto Cutter – F45KT D0...		Durable	14
3101686	Milling	Demo HM90 E90A-D20-3...	Demo HM90 E90A-D20-3-W20-C	Durable	27
3101694	Milling	Demo HM90 E90A-D32-4...	Demo HM90 E90A-D32-4-W32-C	Durable	49
3101745	Milling	Demo HM90 E90A-D.75-3...	Demo HM90 E90A-D.75-3-W.75-C	Durable	47
3101749	Milling	Demo HM90 E90A-D1.25-3...	Demo HM90 E90A-D1.25-3-W.75-C ...	Durable	38
3102566	Milling	Demo HM90 E90A-D.62-2...	Demo HM90 E90A-D.62-2-C.62-LB ...	Durable	47
3103956	AFO	HeliAlu Cutter – HM90 EAL...		Durable	9
3109297	MILLLINE	TPD05R040M22.0E08		Durable	3
3201144	Drilling	Demo CHAMRING 110-WN...	Demo CHAMRING 110-WN32-09	Durable	52
3201154	Drilling	Demo CHAMRING 080-WN...	Demo CHAMRING 080-WN20-06	Reworkable	0

0



Note: If the desired item has a stock shortage, meaning the quantity in stock is zero, you can select the item in order to send an alert about the shortage. For instructions, read the "Stock Shortage" paragraph below.

Choose bins and quantities to be Issued

If you select an item of KIT type, for instructions please read the 'Issue a Kit' paragraph below.

Otherwise, the following screen will appear:



Issue Item

ITMDemo v5.0
admin

Please enter your choice.

Item Code	3101686	
Item Description	Demo HM90 E90A-D20-3-W20-C	
Item Long Description	Demo HM90 E90A-D20-3-W20-C	
Type	Durable	

Key	Item Code	Bin	Cabinet	Drawer	Bin type	In Stock	Consignm	Quantity
	3101686	NADemo1-01-02-03	NADemo1	1		6	No	0
	3101686	NADemo1-02-01-05	NADemo1	2		6	No	0
	3101686	Demo5-01-02-09	Demo5	1		7	No	1
	3101686	Demo5-01-02-14	Demo5	1		2	No	0
	3101686	Demo5-03-02-01	Demo5	3		3	No	0
	3101686	Demo5-03-02-02	Demo5	3		3	No	0

1 2 3 4 5 6 7 8 9 0 ←
< Back Issue >

The top part of the screen displays the selected item's data and picture.

Beneath the item data a table appears containing a record of all bins that are associated with the chosen item.



Note: In the line marked in red displayed an explanation of the next step to be performed.

The column named “**Current Stock**” contains the actual quantity stored in each bin.

In the “**Quantity**” field you can choose the quantity to issue for the selected item.

There are two ways to select the quantity:

1. By using the numbers from the virtual keyboard.



2. By pressing on the Add/Reduce buttons or .

If the quantity in the chosen bin is exceeded, then another press on the Add button will move the cursor automatically to the next bin in the table.



Note: The quantity that will appear on the Add/Reduce buttons is the default issue quantity defined for that item in the MANAGE system. If no default issue quantity is defined, then the Add/Reduce buttons will be +1/-1.



Note: If the field “Issue Any Quantity” is marked in the MANAGE system under the Cabinet details, then you have the possibility to issue any quantity in the bin. If this field is not marked, you can issue only the full quantity that exists in the bin or not issue at all.

Issue

1. After selecting the quantity of the chosen item from each bin, press on the  **<Issue>** button. The drawer light will come on.
2. Open the drawer and take out the entered quantities of the items issued.
3. Close the drawer. After closing the drawer the stock quantity will be updated in the system.
4. Press on the  **<Exit>** button will take you directly to the Login screen.

Stock Shortage

In case the item is out of stock, the user can send an Alert that will create a stock shortage transaction ('Zero Issue' transaction) and also send an email to the responsible stock manager.

1. In the search item screen, select on the item record that is out of stock (the line will be lightened in color) and press on the **<Next>** button.

The screen as following will appear:



Issue Item

ITMDemo v5.0 60 02/08/2012 10:57:37

admin

The stock for the selected item is 0. To create stock shortage transaction, please press <Alert>.

Item Code	5601196	
Item Description	Demo APKT 1003PDTR-76 IC328	
Item Long Description	Demo APKT 1003PDTR-76 IC328	
Last Issue		

Cabinet	Name	Quantity
Demo4	MXDemo4	2,00
Demo2	MXDemo2	10,00
Demo1	MXDemo1	79,00

< Back **Alert >**

This screen displays (at the top part) the Item Code and Item Description. Beneath that section there is a display of all existing stock of that item in other cabinets or warehouses that are not connected to the currently accessed TOUCH system.

2. Press on the [<Alert>](#) button. This will create a stock shortage transaction and send an alert by email to the responsible stock manager.



Note: The email for alert is taken from the cabinet details.

13.1.1 Issue a Kit

Kit component items can be located all together in one bin and issued as one complete assembled item or; each kit component item can be located in its own bin, so when issuing, the components will be issued from different bins drawer by drawer,

1. Press on the [<Issue>](#) Icon and enter the relevant cost centers as usual.



2. Then search for kit type items. For example, if you set up the Kit using the word "KIT" in the item description, then searching KIT will bring up all kits in the cabinet. In the screen below, the result is shown in the top part of the screen.

The screenshot shows the 'Issue Item' screen of the MATRIX-TM Software. At the top, there is a header bar with the title 'Issue Item', the version 'ITMDemo v5.0', the user 'admin', and the date/time '02/08/2012 11:22:40'. Below the header are several buttons: 'Search', 'Clear All', 'Favorite', 'Advanced', and 'Group...'. A search input field contains the word 'kit'. The main area displays a grid of search results:

Item Code	Group	Item Description	Item Long Description	Item Type	In Stock
K8080801	No Group	KIT of assembled tools	KIT item (assembled only)	Kit	60
K8080802	No Group	KIT of assembled and separ...	KIT item (assembled+separated)	Kit	50

At the bottom of the screen, there are navigation buttons: 'Back' (with a keyboard icon), '+', a shopping cart icon, a quantity input field containing '0', and 'Next' (with a right-pointing arrow icon).

3. Select Kit item and press on the <Next> button.
4. If you receive the following pop up question, execute this step. Otherwise, continue to the next step.

The screenshot shows a 'System Message' dialog box. The title bar says 'System Message'. The message text is: 'Message Number 1514' followed by a warning icon (yellow exclamation mark) and the question: 'Do you want to issue kit items as an assembly? YES = Assembly NO = Separated items'. At the bottom, there are two buttons: 'Yes' and 'No'.



The pop up question allows you to issue the kit items as an assembly from one bin or as separated items from multiple bins.

Yes for Assembly:

Select **<Yes>** to issue all the kit's component items from one bin as a regular issue of items. The system will display the regular window where you will be required to fill in the quantities for issue. In this case there is no need to continue with the following steps, but proceed to execute a regular issue operation.

Or;

No for Separated Items:

Select **<No>** to issue the kit's component items from its own separate bin. A series of steps will be initiated. In this case please continue to the next step.



Note: Receiving this message means that the system was set to allow selection between two options for issuing a kit. In order to limit issuing kit components only from separate bins and thus avoiding this message, set System Option **1014**.

5. The following window will pop up requesting the user to enter the quantity of kits to issue.

A screenshot of a software window titled "Kit quantity". It displays a message "Please select quantity" above a text input field containing the number "3". Below the input field is a numeric keypad with digits 1 through 9 and 0, and arrows for navigating between digits. At the bottom left is a "Back" button, and at the bottom right is a "Next" button.

6. Enter quantity and press **<Next>** to proceed to the next step.

If some items in the kit are not in stock or not enough, the following message notifying about the shortage will appear.

**Problems**

Do you want to continue this issue?

Item Code	Item Description	Transaction quantity	Actual Quantity	Error
3102566	Demo HM90 E90A-D.62-2-C.62-LB	300	47	The quantity for issuing is greater than the quantity in the bin.
3101745	Demo HM90 E90A-D.75-3-W.75-C	100	47	The quantity for issuing is greater than the quantity in the bin.
3101694	Demo HM90 E90A-D32-4-W32-C	200	49	The quantity for issuing is greater than the quantity in the bin.
3101686	Demo HM90 E90A-D20-3-W20-C	100	27	The quantity for issuing is greater than the quantity in the bin.

Cancel

OK

Transaction quantity: The requested quantity which is the quantity in kit multiplied by number of requested kits.

Actual Quantity: The actual quantity available for issue.

If you choose [Cancel](#), the issue process will be canceled.

If you choose [OK](#), the system will continue the issue process like described in the next step, considering the remained stock of the kit component items.

7. A list of the kit's component items and their respective quantities will be shown. The displayed quantities represent the respective quantities of each component item in that kit multiplied by the quantity of kits to be issued.



Issue Item

ITMDemo v5.0
admin

Please enter your choice.

Item Code	3101694	
Item Description	Demo HM90 E90A-D32-4-W32-C	
Item Long Description	Demo HM90 E90A-D32-4-W32-C	
Type	Durable	

Key	Item Code	Bin	Cabinet	Drawer	Bin type	Consignm	In Stock	Quantity
	3101686	NADemo1-01-02-03	NADemo1	1		No	6	3
1	3101694	NADemo1-01-02-01	NADemo1	1	Used Item	No	9	6
	3101745	Demo5-03-04-01	Demo5	3		No	3	3
	3102566	Demo5-01-02-06	Demo5	1	Used Item	No	5	1
	3102566	Demo5-01-02-03	Demo5	1		No	8	8

+1 -1

1 2 3 4 5 6 7 8 9 0 ←

Back Issue



Note: MATRIX-TM will choose the components according to a method which minimizes the number of drawers to open and maximizes storage efficiency by choosing the smallest bin which supplies the needed quantity.

8. Edit the quantities, if required, and press **<Issue>** to proceed to the next step. The list of component items in the cabinet/s will be displayed for issue drawer by drawer. After you pick-up the items from each drawer and close the drawer, you will be prompted to pick-up items from the next drawer and so on, until all items from all drawers have been picked-up.

After each drawer is closed, the stock of the kits' component items is subtracted and issue transactions are written. Those transactions contain a remark noting the kit item.



13.1.2 Issue an Item from Locker

The purpose of this process is to issue item from locker (from a bin defined in a Non-Automatic cabinet) by issuing first the key for the locker from Matrix cabinet bin.

To enable this process, please make first the item definitions in Manage module as described in Chapter B: [Key Management](#) (section 5.4.6).

Issue a key process:

1. Press on the <Issue> icon from the Main screen and enter the relevant cost centers, as usual.
2. In the "Item Selection" screen select item which is known as stored in locker and continue to the next screen of bins.
3. Select the bin which is used as locker and connected to key, set the quantity for issue and press on the <Issue> button.

The screenshot shows the 'Issue Item - Touch' application interface. At the top, it displays the user 'admin: ITMDemo42' and the date '10/07/2008'. Below this is a search bar and a placeholder image of a tool. The main area is titled 'Please choose bins and quantity.' and contains a table of bins:

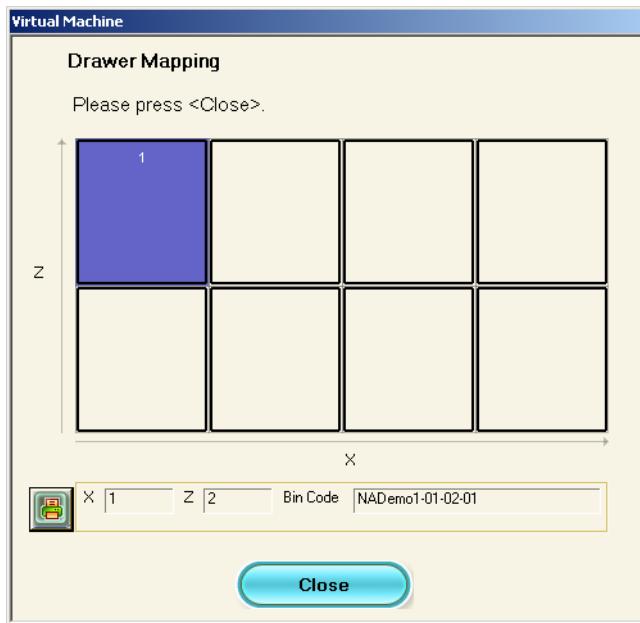
Bin	Cabinet	Drawer	Current Stock	Bin type	Quantity
Demo4-07-02-13	Demo4	7	1.00	USED ITEM	
Demo4-07-02-14	Demo4	7	1.00	USED ITEM	
NADemo1-01-01-04	NADemo1	1	8.00		
NADemo1-01-02-01	NADemo1	1	9.00	USED ITEM	1
NADemo1-01-02-02	NADemo1	1	25.00	REWORKED	

Below the table are buttons for 'Main Menu', 'Back', and 'Issue'. At the bottom is a numeric keypad from 1 to 9, a zero button, and a backspace button.

Pressing on the <Issue> button will display Drawer Mapping of **Non-Automatic cabinet** drawer with marking the relevant locker position and at the same time the Matrix drawer will be available for opening the bin with the key. You can also print the drawer mapping by pressing the <print> key.



You will be required to issue the key from Matrix bin in order to issue the item from the locker and then to return the key to the bin by <Return> option.



4. Issue the key from Matrix bin and follow the Drawer Mapping to locate the locker with item to issue. Issue the item using the key and then press on the <Close> button to complete the issue process.
5. For following the transactions created, return to Main Menu and select the <Change Issue> option.

Transactions							
admin: ITMDemo42		10/07/2008				CTMS	
Select record to update.							
Date	Item Code	Item Description	Group	Quant	User Name	Bin Code	
7/10/2008 9:59 AM	KD3101694	Key To 3101694 in Non...	Keys	1.00	admin cr...	Demo4-01-01-01	
7/10/2008 9:59 AM	3101694	Demo HM90 E90A-D32...	Milling	1.00	admin cr...	NADemo1-01-02-01	
4/28/2008 9:47 AM	3101694	Demo HM90 E90A-D32...	Milling	4.00	admin cr...	NADemo1-01-02-02	
4/22/2008 12:57 PM	KR5530123	Key To 5530123 in Non...	Keys	1.00	admin cr...	Demo4-04-02-02	

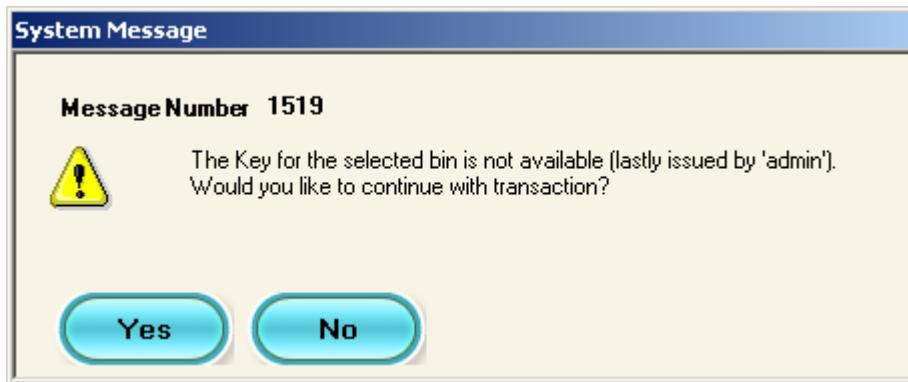
Two Issue transactions were created: one for the key and one for the item.

6. After issuing the item, return the key to the Matrix by selecting the <Return> option and selecting the key item.

Exception:

If on the step 3 after pressing the <Issue> button you get the following message, this means that the key for the locker is not available, The user who last issued this key will be displayed in the window, You will be requested to select if you want to continue the issue process without issuing key.

By pressing <Yes>, you will continue issue process to next step and this will create Issue transaction only for the item stored in locker. By pressing <No>, the issue process will be stopped.



13.1.3 Issue Items by Cost Centers

You can define list of items that will be available for Issue according to the selected cost center, All the other items to be filtered and non-accessible. This will require defining the links between cost centers and items in the Manage application.

For making the required definitions please follow the Chapter D: [Define Items per Cost Center](#) (section 19.3)

13.1.4 Issue a 'Serial Item'

A 'Serial Item' can be issued via the 'Issue' process in the Touch Module.

In order to issue a 'Serial Item' follow the following steps as described in chapter 13.1 'ISSUE Item':

1. Press the <Issue> icon from the Main screen.
2. Fill in the relevant cost center details.



3. Choose an Item which is defined as Serial (Gauge or Durable serial).
4. Choose the bin/s from which you want to issue the item by setting issue quantity.
5. Press <Issue> and open the drawer.

The screen as following will appear:

Serial Items

Press <Next> to continue.

Item Code	8047906	Bin Code	MINITOUCHE-01-03-03
Serial Number	Issue		
8047906_01	<input type="checkbox"/>		
8047906_05 (Calibration Overdue)	<input type="checkbox"/>		
Transaction quantity	1	0	

Next >

6. Take out the serial/s and mark their number.
 - If barcode is available on the tool, you can scan it into top field to make the system recognize it automatically.
 - If the requested quantity is equal to the stock quantity, all the serials will be issued automatically.
 - Serial Items pending calibration will be marked as 'Calibration Overdue'.
7. Press the <Next> button.
8. Close the drawer.



13.1.5 Virtual Issue

This feature allows a user to use Touch from a kiosk or regular desktop (with PC and screen only) – making virtual issue transactions and then going to the warehouse manager to pick-up the tools.

When the user issues an item from a kiosk, the 'Issue' transaction is recorded, the stock is reduced but the transaction status is unconfirmed.

When going to the warehouse manager to collect the item/s, the manager can view all the items that were issued but not confirmed. Based on this view he can physically issue the items and mark each transaction as confirmed.

To use Touch in this way make the following settings:

1. On the relevant PC (kiosk) install the Touch application.
2. Follow Manage menu: Administration → Touch Machine → Touch Machine Administration and create record for the kiosk computer name.
3. Follow Manage menu: Administration → Touch Machine → Touch-Cabinet and link to the computer name all the cabinets that their stock will be virtually issued from the kiosk. Usually these will be manual warehouses defined as Non-automatic cabinets.
4. Open the "Cabinet Maintenance" screen of the cabinet/s that you previously linked to the kiosk and unmark the 'Is Actual Issue' field. This change will cause to all the Issue transactions from this cabinet/s to appear in the list of unconfirmed transactions in the 'Issue Confirmation' menu.
5. Login to Touch on the kiosk and make virtual issues.
6. Pick-up the tools from the non-automatic cabinet.

The warehouse manager will confirm the actual issue from the Manage menu:
Operations → Issue Confirmation.

This view will display all the issue transactions from cabinet that are not marked with 'Is Actual Issue' and that were not yet confirmed. The warehouse manager will locate the relevant transaction, deliver the tool according to the transaction details and finally double-click the transaction to confirm its issue.



13.2 RECEIVE Item

The purpose of this process is to restock the cabinet with the items that were ordered. The system will display all open order lines filtering the order lines that were ordered for cabinets/warehouses that are not connected to the current TOUCH station.

The process supports receive of all the types of orders:

Standard Purchase Order: Order of new items supplied by supplier (vendor).

Rework Order: Order of reworked/regrind items supplied usually by regrinding supplier.

Internal Order: Internal Order of items from another system defined cabinet.

For more information, it is important to read Chapter B: [RECEIVE Items](#) (section 8.1).

Receive stock process:

1. Press on the <Receive> icon from the Main screen.

The search screen will be displayed, like following, listing all the order open lines.



Receive

ITMDemo v5.0
admin

Found 13 Records. Select record to update.

Supplier Name	PO Key	PO Code	Item Code	Item Description	Group	Quantity	Remained Quantity	Consignr	Cabinet Name	Bin Code
Iscar	9	3	5598498	Demo QNMG 433...	Iso Turn	10	5	No		
Iscar	9	3	4509194	Demo DIN69871 ...	Tooling	13	6	No	MXDemo4	
Iscar	9	3	4604434	PIN NOGO BA23...	Gauges	16	6	No		
Iscar	11	5	3101686	Demo HM90 E90...	Milling	10	10	No	MXDemo4	Demo4-...
Iscar	11	5	4509194	Demo DIN69871 ...	Tooling	10	10	No	MXDemo4	Demo4-...
Iscar	11	5	3201669	Demo DR-MF-10...	Drilling	10	10	No	MXDemo4	Demo4-...
Iscar	9	3	5605179	Demo APKT 100...	Milling	10	10	Yes		
Iscar	9	3	5605179	Demo APKT 100...	Milling	10	10	Yes		
Iscar	9	3	5600774	Demo ADKT 150...	Milling	63	20	No		
Iscar	9	3	5598308	Demo QNMG 432...	Iso Turn	40	38	No		
Iscar	9	3	5600658	Demo SPKR 42E...	Milling	90	45	No		

Back Next

Please notice that some order lines might be with "Bin Code" information and some lines without this information: The order lines with "Bin Code" information were ordered on the Bin level for particular bins. The order lines without "Bin Code" information were ordered on the Item level (meaning with no specific bin assignment) or Cabinet level (for particular cabinet). The order lines that were ordered for a particular bin or cabinet can be received also to different locations, as described below.

2. Select the order line you wish to receive into stock and press on the [<Next>](#) button.
 If the System Option **111** (Number of reference fields to use on Receive) is set to 1 or more, the "References" screen will appear.



Receive

ITMDemo v5.0
admin

Please input the following data

Reference 1	#568999
Reference 2	435

300 05/08/2012 14:41:18

Home Help Question Back MATRIX

1 2 3 4 5 6 7 8 9 0 ←
q w e r t y u i o p
a s d f g h j k l :
/ z x c v b n m , . - Enter
Tab Shift

Back Next

This screen supports working with interface to ERP systems.

For example: In interface to SAP, Reference 1 = PO Number, Reference 2 = Line No.

For more details, see Chapter D: [Interfaces](#) (section 24).

If the System Option **111** is set to 0 or none, the “Receive Item” screen will appear, as below.



Note: The text in red appearing above the table describes the next operation to be performed.



Receive

ITMDemo v5.0 299 05/08/2012 14:42:01

admin

Please enter your choice.

Item Code	5600774							
Item Description	Demo ADKT 150550R-HM IC635							
Item Long Description	DemoADKT 150550R-HM IC635							
PO Code	3	Remained Quantity	20					

Key	Bin	Cabinet	Drawer	Bin type	In Stock	Space	Receive
	Demo5-04-04-03	Demo5	4		3	7	0
	Demo5-03-07-02	Demo5	3		0	10	0
	Demo5-02-03-06	Demo5	2		0	10	0

Number Buttons: 1 2 3 4 5 6 7 8 9 0

Action Buttons: Back, Fill, Show All Bins, Receive

Control Buttons: +, -

At the top part of the screen the Item data and the Purchase Order Code will appear.

The table displays the bin/bins which can receive the item.



Important! If the order line is not on the Bin level (not associated to a specific bin), all available bins connected to that item in the different cabinets will be listed.

If the chosen order line connected to a specific bin, only that specific bin will be displayed.

In this case, to see all the available bins use the <Show All Bins> button.

The default receive quantity will be the order line quantity and the bin free space (current stock less bin capacity). You can choose to receive the item to a number of bins provided that they are in the same drawer.

Allocation principle:

The default quantity will be allocated to bins in the following way:

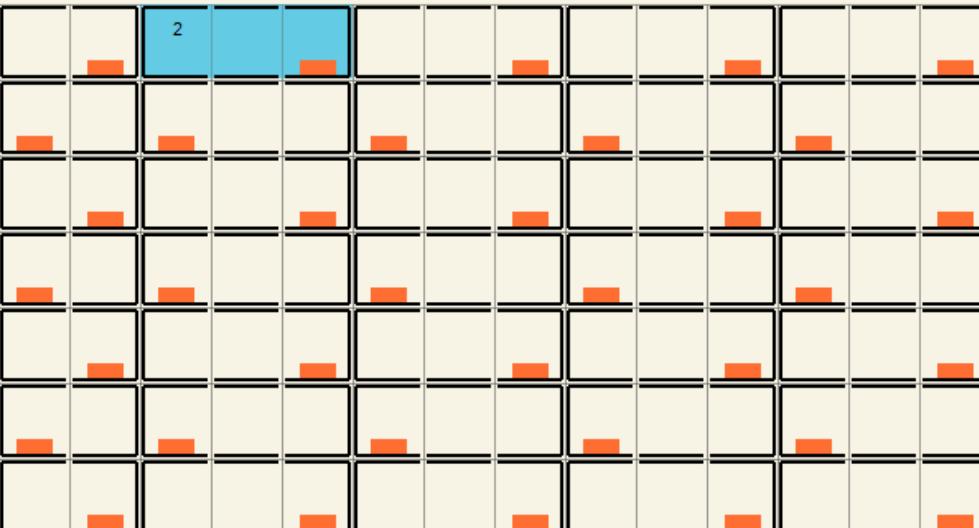
- If the first bin has the “Allow Over Capacity” flag turned on, then the entire order quantity will be loaded into this bin.



- If the capacity of the bin is limited (does not allow over capacity), then the system will exploit the available space (quantity) in this bin for loading. If some items still remain unallocated, the system will check the next bins in the table in the same manner until the entire quantity of the order line is loaded.
3. If you selected an order line that was ordered on the Bin or Cabinet levels (like described in the previous step) and you wish to receive the order to a bin different from the bin/cabinet of the order line, press on the **Show All Bins** [**<Show All Bins>**](#) button. This button will be disabled, if you selected order line on the Item line. As a result, it will display all the bins in the current TOUCH station that hold this item and that have enough space to receive them (also bins that their space is zero, but marked with 'Allow Over Capacity' sign).
4. Edit the quantities to receive in the "**Receive**" column by using the Add/Reduce buttons or through the virtual keyboard and press on the [**<Receive>**](#) button.

Virtual Machine (Drawer Is Open)

To close the transaction, please press on the <Close Drawer>.

Cabinet Code	Demo5	Drawer	3
			
Item	5600774	Demo ADKT 150550R-HM	IC635
Bin Code	Demo5-03-07-02		
 Close Drawer		 	Remarks

5. Open the drawer and put the items to receive into the allocated bin/s.
6. Close the drawer.
Stock will be updated.



Note: In case you update a smaller quantity than in the order line, the system will display the following screen:

System Message

Message Number: 20239



This quantity is less than Ordered quantity. Do you want to close the current order line?

Yes

No

Cancel

If the **Yes** button is pressed, then the order line will be closed even though not all the quantity was received. If the **No** button is pressed, then the order line will stay open with the balance which remains to be received.

Serial Items:

Receiving a serial item is very similar to receiving any other item. The only difference occurs in choosing the quantity. The user can only choose "1" as the quantity for receive (Only one serial item can be received at a time).

After pressing the **<Receive>** button the following screen appears:



Serial Number

Serial Number

Serial Number	Status Name
86_SN01	Unallocated
86_SN02	Unallocated
86_SN03	Unallocated
86_SN14	Unallocated
86_SN15	Unallocated
86_SN16	Unallocated
86_SN17	Unallocated

This screen allows the user to type (or barcode scan) the serial number of the newly received item. The user can also choose an already existing serial with the status "Unallocated".

13.3 RETURN Item

This option allows the user to return items previously issued from the cabinet or to scrap them, by entering a scrap reason.

The display of items for return depends on system option 113 (Return Only Issued Items):

All Returnable Items – shows all the items that are allowed to be returned according to their Item Type.

Return Only Issued Items – shows all the items that are allowed to be returned according to their Item Type and that their 'Issued Quantity' is more than zero, i.e. were issued and not fully returned.

Return against transactions – shows Issue transactions that their 'Returned Quantity' is less than 'Issued Quantity', i.e. were issued and not fully returned.



1. Press on the <Return> icon from the Main screen.

Item Code	Item Description	Group	In Stock	Item Type
3101057	HeliOcto Cutter – F45KT D063-22-R06	AFO	14	Durable
3103956	HeliAlu Cutter – HM90 EAL-D50-W32-L130-22	AFO	9	Durable
3201568	ChamDrillJet Drill – DSM 160-024-20B-1.5D	AFO	3	Durable
KD3101694	Key To 3101694 in Non-Auto	Keys	0	Key
KR5530123	Key To 5530123 in Non-Auto	Keys	3	Key
4604211	PIN GO BA235213	Gauges	2	Gauge
4604434	PIN NOGO BA232119	Gauges	0	Gauge
5605180	Demo APK1 1003PDR HM90 IC4050	Milling	21	Durable
3201144	Demo CHAMRING 110-WN32-09	Drilling	52	Durable
4509194	Demo DIN69871 40 ER32 SHORT	Tooling	10	Durable
3102566	Demo HM90 E90A-D.62-2-C.62-LB	Milling	29	Durable

Icons at the bottom: Computer keyboard, Back, Next.

The following screen is displayed in case system option **113** is set to display items.



Return Item

ITMDemo v5.0 admin 300 05/08/2012 15:16:54

Found 20 Records. Select record to update.

Bin Code	Item Code	Item Description	Group	Date	Quantity	User Name	Sc N
Demo5-02-01-01	3101745	Demo HM90 E90A-D.75-3-W.7...	Milling	05/08/2012 14:32	1	admin creator	
Demo5-01-02-06	3102566	Demo HM90 E90A-D.62-2-C.6...	Milling	05/08/2012 14:31	3	admin creator	
Demo5-01-02-14	3101686	Demo HM90 E90A-D20-3-W20...	Milling	05/08/2012 14:31	1	admin creator	
Demo5-01-01-01	KD3101694	Key To 3101694 in Non-Auto	Keys	05/08/2012 14:31	1	admin creator	
NADemo1-01-02-...	3101694	Demo HM90 E90A-D32-4-W32...	Milling	05/08/2012 14:31	2	admin creator	
Demo5-02-01-01	3101745	Demo HM90 E90A-D.75-3-W.7...	Milling	05/08/2012 14:29	3	admin creator	
Demo5-01-04-08	3102566	Demo HM90 E90A-D.62-2-C.6...	Milling	05/08/2012 14:29	8	admin creator	
Demo5-01-02-09	3101686	Demo HM90 E90A-D20-3-W20...	Milling	05/08/2012 14:29	3	admin creator	
Demo5-01-04-11	3102566	Demo HM90 E90A-D.62-2-C.6...	Milling	05/08/2012 14:29	1	admin creator	
Demo5-01-01-01	KD3101694	Key To 3101694 in Non-Auto	Keys	05/08/2012 14:29	1	admin creator	

Back **Next**

The following screen is displayed in case system option **113** is set to display transactions.

- Search and choose the item you wish to return and press the **<Next>** button.

The “Return Item” screen will then appear:



Note: The text in red above the table describes the next operation to be performed.



Return Item

ITMDemo v5.0 300 05/08/2012 15:24:01

admin

Please enter your choice.

Item Code	3102566		
Item Description	Demo HM90 E90A-D.62-2-C.62-LB		
Item Long Description	Demo HM90 E90A-D.62-2-C.62-LB		
Type	Durable		

Key	Bin	Cabinet	Drawer	Bin type	Capacity	Current Stock quantity	Issued Quantity	Return
	Demo5-01-02-06	Demo5	1	Used Item	10	1	4	0
	Demo5-01-04-10	Demo5	1	Used Item	10	0	0	2
	Demo5-07-02-01	Demo5	7	Used Item	10	0	0	0
	Demo5-01-02-07	Demo5	1	Reworked	10	6	0	0
	Demo5-07-01-03	Demo5	7	Reworked	10	0	0	0
	Demo5-07-01-04	Demo5	7	Reworked	10	0	0	0

1 2 3 4 5 6 7 8 9 0 ←
< Back Scrap Return >



Note: If the item is a serial item, before choosing the bin, the user will be asked to choose the serial number of the item he wishes to return.

- Input the quantity to be returned or scrapped in the "Return" column. Items may be returned to multiple bins at the same time.

The quantities can be updated by using the virtual keyboard or Plus/Minus buttons.

- For return:

- Press on the [<Return>](#) button.
- Open the lit up drawer and return the item/s to the bin/s.
- Close the drawer.

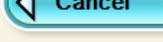
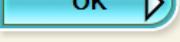
For scrap:

- Press on the [<Scrap>](#) button.

The following screen will be displayed:

Scrap

Item Code	3102566	
Bin Code	Demo5-01-04-10	
Scrap Reasons		
Remarks		

- Press the <Browse> button the enter the scrap reason, a remark and then press the <OK> button. The drawer will not be opened because scrap items are not physically returned to bins.



Note: You can return a quantity of items that exceeds the bin capacity if the bin is defined as "Allow Over Capacity", otherwise you can return only up to the bin capacity limit.

13.4 ADJUST ITEM

Stock adjustment is used where items in bins are incorrectly recorded in the system, and therefore need to be adjusted. Access to this option is normally restricted to the stock control manager.



Stock adjustment process

1. Press on the <Adjust> icon from the Main screen.
2. Search and choose the item you wish to adjust.
3. Press on the <Next> button.
4. The “Adjust Items” screen will appear:



Note: The text in red above the table describes the next operation to be performed.

Adjust Items

admin: ITMDemo	24.12.2006	?	CTMS
Item Code:	5502128 (Expendable)		
Item Description:	Demo TPGB 322-60 IC70		
Item Long Description:	Demo TPGB 322-60 IC70		
In Stock:	148,00		

Open bin to adjust

Cabinet	Drawer	Bin	Type	Issue	In Stock
Demo1	1	Demo1-01-01-03			20
Demo1	9	Demo1-09-01-13			100
Demo1	9	Demo1-09-07-02			28
Demo1	9	Demo1-09-07-08			0

Main Menu **Back** **Adjust**

5. Select the bin you wish to adjust.



Note: You can choose only one bin at a time to be adjusted.

6. Press on the <Adjust> button.
7. Open the drawer which is lit up.
8. Check the quantity in the bin.



9. Adjust the stock quantity in the bin, in the field “In Stock”, by using either the Add/Reduce buttons or virtual keyboard.
10. Close the drawer.

The stock will be adjusted with the selected changes. A stock adjustment transaction will be created.

Serial Items:

If a serial item was chosen, pressing the <Adjust> button will open the next window:

Serial			
Serial Number:	Serial status:	New Status:	In Stock:
1	In Stock	In Stock	<input checked="" type="checkbox"/>
2	In Stock	In Stock	<input checked="" type="checkbox"/>
3	In Stock	In Stock	<input checked="" type="checkbox"/>
33	Issued	Issued	<input type="checkbox"/>
55	In Stock	In Stock	<input checked="" type="checkbox"/>

Old Bin Quantity: New Bin Quantity:

This window allows you to change the status of each serial item in the bin by pressing the <...> button next to it.



13.5 COUNT BINS

The purpose of this process is to count the stock in the bins.

In order to be able to cycle count the bins, the system will display the locations by the last counting date. This will help us count first those bins which have the oldest “[Last Counting Date](#)”.

Stock counting process

1. Press on the [<Count>](#) icon from the Main screen.
2. Search and choose the Bin you wish to count.
3. Question displayed: Do you want to count all bins in the drawer?
If you press [<Yes>](#) all the bins in that specific drawer will be selected for counting.
4. The next screen will appear:



Note: The text in red above the table describes the next operation to be performed.

Cabinet	Bin Code	Item Code	Description	Quantity	Counted	Group
Demo1	Demo1-01-05-03	KIT 2 (asse...	KIT 2 Demo	0.00		No Group
Demo1	Demo1-01-05-04	KIT 2 (asse...	KIT 2 Demo	0.00		No Group
Demo1	Demo1-02-01-01	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-02	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-03	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-04	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-06	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-01-07	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-01	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-02	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-04	Item 4 for kit	Item 4 for kit	0.00		No Group

Show Back Next



5. Press on the <Open> button.
6. Open the drawer which is lit up. All bins chosen for counting will open.
7. For every bin on the screen with discrepancies, you must update the correct stock quantities in the “Quantity” field. This can be done by using the virtual keyboard.
 - Pressing the Quantity field of a bin containing a serial item, will open the next window:

Serial			
Serial Number:	Serial status:	New Status:	In Stock:
177-6021-83	In Stock	In Stock	<input type="checkbox"/> <input checked="" type="checkbox"/>
Old Bin Quantity:	1	New Bin Quantity:	1
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>	

This window allows you to change the status of each serial item in the bin by pressing the <...> button next to it.



Note: You can also close the drawer and then update the counted quantities in the system.



Note: If all quantities in the bin match the counted quantities, you can mark the Counted field for all displayed bins by pressing on the <Mark All> button.

Mark All

<Mark All>



Note: Where the quantity is updated, the “Counted” field will be automatically marked. If there were no differences between the counted quantity and the “Quantity” field, the “Counted” field check box must be marked manually. This will update the last counted date for that bin.

8. Close the drawer.
9. Press on the [<Update>](#) button.
10. All stock quantities will be updated and for every bin that was marked as counted, the last counting date will be updated. A stock count transaction on the difference will also be created.

13.6 TRANSFER ORDER

This module enables transferring items from one cabinet to another (the ordering / receiving cabinet) against an Internal Order. An Internal Order contains order lines that detail the ordering cabinet / bin, the ordered item and quantity that needs to be transferred. For more information regarding internal orders see Chapter B: Orders (Purchase, Rework and Internal) (section 7).

1. Press on the [<Transfer>](#) icon from the Main screen.

The following screen will be displayed:



Transfer Order

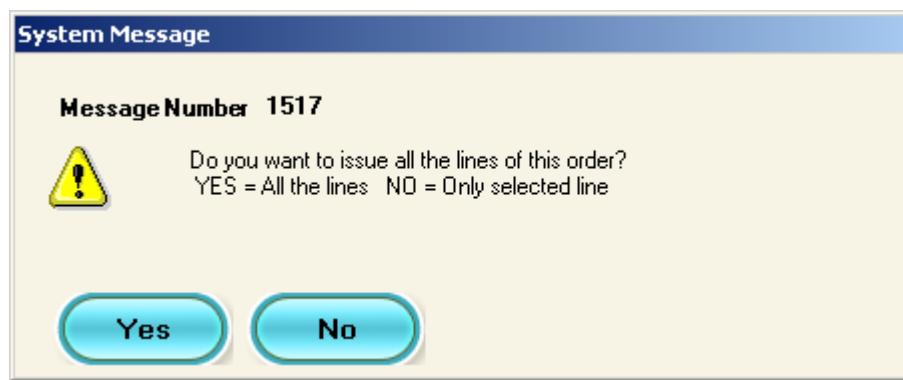
admin creator: ITMDemover40	14/12/2007	?	Print	CTMS
Please enter Item/Order				
<input type="text"/> Search X Group...				
Supplier Name	PO Code	Line No.	Item Code	Description
Internal Su...	int 28/10-3	1	2300158	ID2300158
Internal Su...	int 28/10-3	9	2300161	ID2300161
Internal Su...	int 28/10-3	11	3101694	Demo HM9...

[Show](#) [Back](#) [Next](#)

This screen displays all the Internal Order lines with the status 'Open' and 'On Route'.

2. Search and select the order line for transfer.

If there is more than one order line in the list, the following message will displayed:



3. Press on **<Yes>** button to transfer all the order lines or press on **<No>** button to transfer only the selected order line.



* By pressing on <Yes>, the next screen will display the items from all the lines of the selected order (as in the following screen) and will allow transferring them together.

Transfer Order

admin creator: ITMDemover40	14/12/2007			
Item Code:	3101694			
Item Description:	Demo HM90 E90A-D32-4-W32-C			
Item Long Description:	Demo HM90 E90A-D32-4-W32-C			
Type:	Durable			

Please choose bins and quantity.

Item Code	Item Description	Cabinet	Drawer	Bin	Current Stock	Quantity
3101694	Demo HM90 E90A-...	Demo1	9	Demo1-0...	17.00	8
2300158	ID2300158	Demo3	3	Demo3-0...	49.00	10
2300161	ID2300161	Demo3	3	Demo3-0...	24.00	10

+1 -1

Main Menu Back Issue

1 2 3 4 5 6 7 8 9 0 ←

* By pressing on <No>, the next screen will display the item from the selected order line and its bin locations (as in the following screen).



Transfer Order

admin creator: ITMDemover40	14/12/2007				
Item Code:	3101694				
Item Description:	Demo HM90 E90A-D32-4-W32-C				
Item Long Description:	Demo HM90 E90A-D32-4-W32-C				
Type:	Durable				



Please choose bins and quantity.

Cabinet	Drawer	Bin	Bin type	Current Stock	Quantity
Demo1	1	Demo1-01-05-06		4.00	
Demo1	9	Demo1-09-01-02		3.00	
Demo1	9	Demo1-09-07-05		17.00	
MatrixM...	6	MatrixMKT-06-04-03		20.00	

+1 -1

Main Menu Back Issue

1 2 3 4 5 6 7 8 9 0 ←

4. Set the quantities for transfer and press on the <Issue> button.
5. Follow the instructions displayed in red text above the grid to complete the transfer of items.



Note: The text in red above the table describes the next operation to be performed.

6. In order to complete the transfer of items, continue to "Receive" process at the cabinet which created the Internal Order.



13.7 CHANGE ISSUE

This module can be accessed by authorized users only. It displays all the **Issue** transactions, enables filtering the list by the user who issued each item, and allows the user to return any issued item (the whole quantity or partial quantity) to the stock.

To correct Issue transactions:

1. Press on the <Change Issue> icon.

The following screen will be displayed:

Transactions						
admin creator: ITMDemover40	11/12/2007					CTMS
Select record to update.						
<input type="button" value="Search"/> <input type="button" value="X"/> admin creator <input type="button" value="ooo"/>						
Date	Item Code	Description	Group	Quantit	Bin Code	User Name
14/10/2007 10:58	3101686	Demo HM90 E90A-...	Milling	1.00	Kardex-02-(1-2)*(1...	admin creator
14/10/2007 10:58	3101686	Demo HM90 E90A-...	Milling	1.00	Kardex-01-4-5	admin creator
14/10/2007 10:51	3101686	Demo HM90 E90A-...	Milling	1.00	Kardex-01-4-5	admin creator
06/08/2007 08:00	3101686	Demo HM90 E90A-...	Milling	1.00	Demo HM90 E90A-D20-3-W20-C	admin creator
10/10/2007 12:19	3101745	Demo HM90 E90A-...	Milling	3.00	Demo2-01-02-08	admin creator
30/08/2007 11:47	3101745	Demo HM90 E90A-...	Milling	1.00	MatrixMKT-02-02-02	admin creator
02/08/2007 12:33	3101745	Demo HM90 E90A-...	Milling	1.00	MatrixMKT-02-02-02	admin creator
25/11/2007 14:21	3101749	Demo HM90 E90A-...	Milling	1.00	Demo1-09-03-06	admin creator
10/10/2007 15:34	3101749	Demo HM90 E90A-...	Milling	7.00	Demo1-09-03-12	admin creator
10/10/2007 15:34	3101749	Demo HM90 E90A-...	Milling	2.00	Demo1-09-03-12	admin creator
10/10/2007 15:29	3101749	Demo HM90 E90A-...	Milling	5.00	Demo2-02-03-04	admin creator

This screen displays all the Issue transactions. By default it displays transactions for the currently logged in user.

2. To display all the transactions or transactions of other users press on the <...> button. A screen with all users will be displayed:



Select a user (to filter the transactions created by this user) or press on <Cancel> button to see all the transactions.

3. Search for a transaction by item code / description.



Transactions						
admin creator: ITMDemover40		11/12/2007				
Select record to update.						
6402508			<input type="button" value="Search"/>	<input type="button" value="X"/>		
Date	Item Code	Description	Group	Quantit	Bin Code	User Name
25/11/2007 14:21	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	admin creator
07/10/2007 11:40	6402508	Demo GIMY 315 ...	Turn Gro...	15.00	Matrix-02-02-03	admin creator
05/09/2007 11:24	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	admin creator
21/03/2007 09:49	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r
18/03/2007 08:08	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r
14/03/2007 14:23	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	danny d
11/03/2007 15:59	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r
11/03/2007 15:23	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r
11/03/2007 15:22	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r
26/02/2007 12:56	6402508	Demo GIMY 315 ...	Turn Gro...	10.00	Matrix-02-02-03	rachel r
22/02/2007 16:35	6402508	Demo GIMY 315 ...	Turn Gro...	1.00	Matrix-02-02-03	rachel r

4. Select transaction to correct. The following screen will be displayed:



Update Issue Transaction

admin creator: ITMDemover40	11/12/2007				
Item Code:	6402508				
Item Description:	Demo GIMY 315 IC508				
Item Long Description:	Demo GIMY 315 IC508				

Please enter Quantity to Return.

Bin	Capacity	Allowed	Current Stock	Transaction quantity	Quantity
Matrix-02-02-03	100	NO	50.00	15.00	5

+10
-10

[Main Menu](#) [Back](#) [Return](#)

1 2 3 4 5 6 7 8 9 0 ←

- Set the quantity for return, **which should not exceed the issued quantity or bin capacity.**

Press on the <Return> button.

- Open the bin following the instructions written at the top of the screen (in RED) and return the items.

- Close the drawer.

At this point a **reversal 'Issue'** transaction (with negative Transaction quantity) will be created with the date/time and user of the original transaction.

Check this transaction in the MANAGE Module: [Operations → Transaction](#).



13.8 RECEIVE without ORDER

This module displays all the items that can be stored in the current Touch station and enables to receive an item without having a purchase order. This option is needed in the following cases:

- When the purchase orders are created in ERP system without creating them in Matrix system and the items are ready to be received to the stock.
- When there is a receipt and items from unknown source that need to be registered as a part of received stock.

To use this functionality in Manage application, please refer to Chapter B: [Receive with ERP Order](#) (section 8.1.3).

To Receive Item without an Order:

1. Press on the <Receive without Order> icon.

The following screen will be displayed:

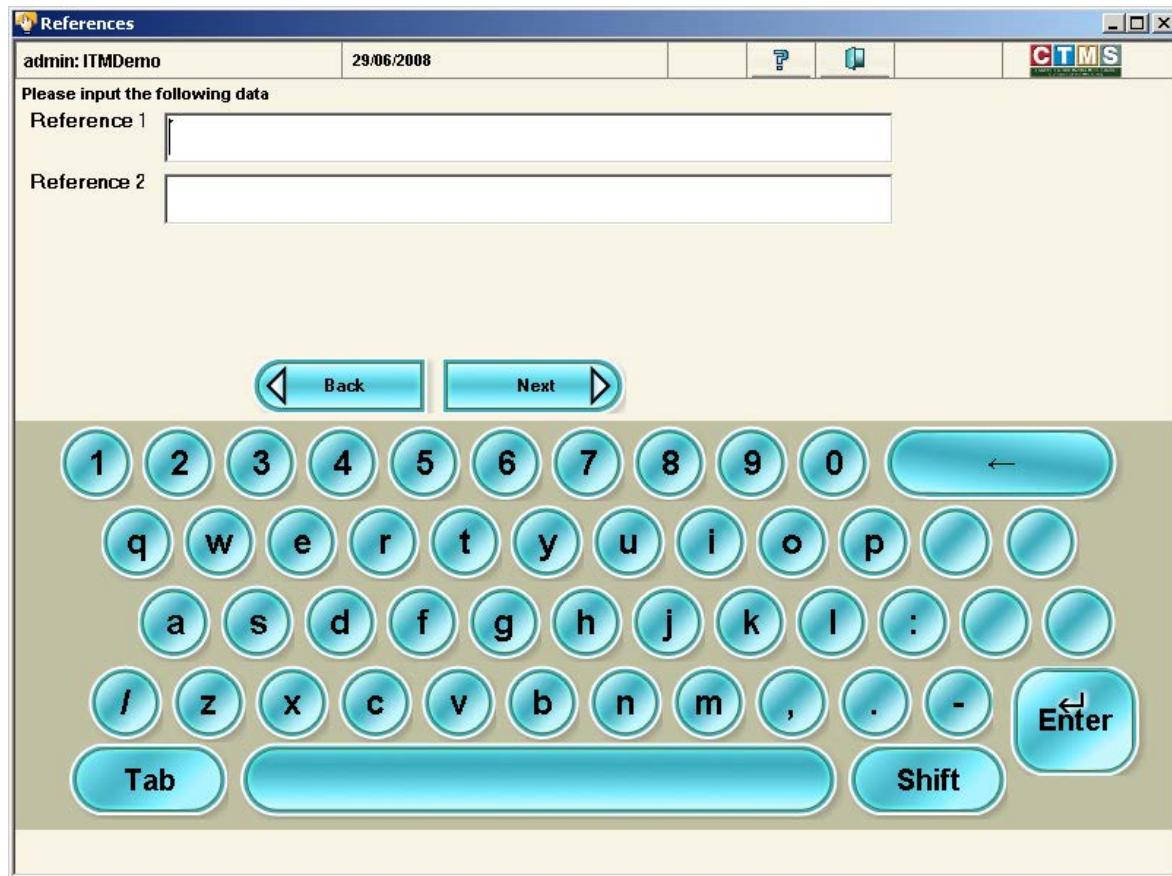
Receive Item

admin: ITMDemo	29/06/2008	?	Print	CTMS	
Please enter Item/Order		<input type="text"/>	Search	X	Group...
Item Code	Additional Item Description	Item Description	Group	Stock	Space
3101057		HeliOcto Cutter – F45KT D063-22-...	AFO	9.00	1.00
3101686	Demo HM90 E90A-D2...	Demo HM90 E90A-D20-3-W20-C ...	Milling	73.00	9999999.00
3101694	Demo HM90 E90A-D3...	Demo HM90 E90A-D32-4-W32-C ...	Milling	56.00	9999999.00
3101745	Demo HM90 E90A-D.7...	Demo HM90 E90A-D.75-3-W.75-C ...	Milling	84.00	156.00
3101749	Demo HM90 E90A-D1....	Demo HM90 E90A-D1.25-3-W.75-...	Milling	90.00	9999999.00
3102566	Demo HM90 E90A-D.6...	Demo HM90 E90A-D.62-2-C.62-LB...	Milling	9.00	151.00
3103956		HeliAlu Cutter – HM90 EAL-D50-W...	AFO	16.00	24.00
3201144	Demo CHAMRING 110...	Demo CHAMRING 110-WN32-09	Drilling	79.00	9999999.00
3201154	Demo CHAMRING 080...	Demo CHAMRING 080-WN20-06	Drilling	37.00	9999999.00
3201568		ChamDrillJet Drill – DSM 160-024-...	AFO	8.00	32.00
3201669	DemoDR-MF-10L-2.25...	Demo DR-MF-10L-2.25D-12A-05 ...	Drilling	72.00	78.00

[Show](#) [Back](#) [Next](#)

This screen displays all the items of the current Touch station that also have free space to be stored in. The '**Space**' column represents the maximal number of items that can be received. When the space = 9,999,999.00, it means that some of the bins with that item was marked with 'Allow Over Capacity' and therefore there is no limit on the number of items that can be received.

2. Select the item you wish to receive into stock and press on the [Next](#) button.
If the System Option **111** (Number of reference fields to use on Receive) is set to 1 or more, the "References" screen will appear.



This screen supports working with interface to ERP systems.

For example: In interface to SAP, Reference 1 = PO Number, Reference 2 = PO Line No.

Edit the reference fields and press on the [Next](#) button.

For more details, see Chapter D: [Interfaces](#) (section 24).

If the System Option 111 is set to 0 or none, the "References" screen will be skipped.

3. The “Receive Item” screen will appear, as below.

Receive Item

admin: ITMDemo	29/06/2008						
Item Code:	3101694 (Durable)						
Item Description:	Demo HM90 E90A-D32-4-W32-C						
Item Long Description:	Demo HM90 E90A-D32-4-W32-C						

Choose Bin and quantity

Bin	Cabinet	Drawer	Bin type	In Stock	Space	Receive
NADemo1-01-01-04	Non-Auto D...	1		8.00	999999.00	
Demo4-01-01-07	MXDemo4 - ...	1		0.00	10.00	4
Demo4-01-01-08	MXDemo4 - ...	1		0.00	10.00	
Demo4-01-01-09	MXDemo4 - ...	1		0.00	10.00	0
Demo4-01-01-10	MXDemo4 - ...	1		0.00	10.00	

Main Menu **Back** **Receive**

1 **2** **3** **4** **5** **6** **7** **8** **9** **0** **←**

The table displays the bin/bins allocated to this item and that have enough space to receive the item in the current TOUCH station.

4. Edit the quantities to receive in the “**Receive**” field by using the Add/Reduce buttons or through the virtual keyboard and press on the <**Receive**> button.
 5. Open the drawer and put the items to receive into the allocated bin/s.
 6. Close the drawer.
- Stock will be updated and a 'Receive' transaction/s will be created.

13.9 Working with Key to Lockers

MATRIX-TM lets you manage Keys. Keys are stored in MATRIX cabinet and external lockers (defined as bins of a Non-Automatic cabinet) connected to the key.

When issuing an item located in an external cabinet or locker, the MATRIX cabinet will actually issue the key for the locker, and create separate transactions: one for the key and



one for the item.

To enable this process, please make first the item definitions in Manage module as described in Chapter B: [Key Management](#) (section 5.4.6).

Here are described Touch modules and the way the Key Management is handled in each:

Issue: When item in locker is selected for issue, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and **Issue** transaction for the item. The Issue of the key itself is **not available**.

Receive / Receive without Order: When item is selected to be received to a locker, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and **Receive** transaction for the item. The Receive of the key itself is **not available** (In 'Receive' it shows the item, but filters the bins marked as 'Used'. In 'Receive without Order' it filters the item of Key type).

Return: When an item is selected to be returned to locker, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and '**Return to Cabinet**' transaction for the item. The Return of the key itself is **available** in order to place the key back after the operation from the locker was completed.

Change Issue: When item issued from locker is selected to be returned, it does not open the bin with the key and creates only **reversed Issue** transaction for the item. The return of the key itself is available – it opens the bin with the key and creates **reversed Issue** transaction.

Adjust Item: When item in locker selected to be adjusted, it opens the bin with the key and in case quantity is changed two transactions are created - **Issue** transaction for the key and **Adjust Bin Quantity** transaction for the item. The Adjust of the key itself is **available**.

Count Bins: When item in locker is selected to be counted, it does not open the bin with the key and creates only '**Stock Count**' transaction for the item. The count of the key itself is available – it opens the bin with the key and creates **Stock Count** transaction.

Transfer Order: When item in locker selected to be transferred, it opens the bin with the key and two transactions are created – '**Issue**' transaction for the key and '**Transfer**' transaction for the item. The Transfer of the key itself is **not available** (It filters the bins marked as 'Used').

13.10 IN / OUT REQUESTS

A user, who has authority to use this option, can issue and receive items according to the requests received from MANAGE or machines that are connected via the THINC interface. This option facilitates the issue of items needed to assemble toolsets for manufacturing machines and to store them in Matrix pending use. Prior to using this option, the interface must be defined to handle transmission of such requests.

For a full description see Chapter D: [THINC Interface – IN / OUT Requests](#) (section 24.2).

13.11 GAUGES



The purpose of these processes is to allow a user to send and return 'Serial Items' from Calibration.

The **<Send to Calibration>** process allows you to view all the serial items that are pending for calibration. You are able to choose an item and remove it from the bin and send it to calibration.

The **<Return from Calibration>** process allows you to view all the gauges that were sent to calibration, choose a gauge and return it to stock.



13.11.1 Send to Calibration

In order to send a gauge to calibration:

1. Press on the <Send to Calibration> icon from the Main screen.

A search screen as following will appear:

Send Gauge to Calibration									
Demo2012 v5.0 Liora Banchik									
Found 12 Records. Select record to update.									
					Search	Clear All	All	Group...	
Item Code	Item Description	Serial Number	Status	Last Calibration Date	Next Calibration Date	Interval Type	Schedule Interval	Issues Interval	Issues
8047906	M GAUGE DRIV.CAT3...	8047906_01	In Stock	2012-05-17		Manual	0		2
8047906	M GAUGE DRIV.CAT3...	8047906_02	In Stock	2012-05-17		Manual	0		0
8047906	M GAUGE DRIV.CAT3...	8047906_04	In Stock	2012-05-17		Manual	0		0
4604212	4604212	4604212_02	In Stock	2012-06-21	2001-01-01	Manual	0		0
4604434	PIN NOGO BA232119	4604434_03	In Stock	2012-05-17	2012-05-18	Days or Issues	1	1	0
4604212	4604212	4604212_04	In Stock	2012-06-24	2012-06-25	Days or Issues	1	1	2
4604212	4604212	4604212_09	In Stock	2012-07-26	2012-07-27	Days or Issues	1	1	0
4604211	PIN GO BA235213	4604211_01	In Stock	2012-07-29	2012-07-30	Days	1		1
4604212	4604212	4604212_10	In Stock	2012-07-29	2012-07-30	Days or Issues	1	1	0
8040046	M GAUGE HSK 100FA..	8040046-A2	In Stock	2012-06-07	2012-12-07	Months & Issues	6	50	2
8040046	M GAUGE HSK 100FA..	8040046-03	Inactive	2012-06-07	2012-12-07	Months & Issues	6	50	11
8040046	M GAUGE HSK 100FA..	8040046-02	Out of Spec	2012-06-07	2012-12-07	Months & Issues	6	50	8



Back



Next

This screen shows all the 'Serial Items' which their 'Item Type' is Gauge and in status **In Stock / Inactive / Out of Spec**, and their 'Next Calibration Date' has passed.

If you need to see all the serials and not necessarily those that have expired, press on the <All> button on the top.

2. Select serial number for sending to calibration and press on the <Next> button.
3. On the following screen press on the <Send> button.
4. Open the drawer which is lit and pick the item.
5. Close the drawer.

This process will: change the status of the Serial Item to 'In Calibration'; create a 'Calibration History' record; and create a 'Send to Calibration' transaction.



13.11.2 Return from Calibration

In order to return a gauge from calibration:

1. Press on the <Return from Calibration> icon from the Main screen.

A search screen will appear, showing all the Gauges that were sent to calibration.

Return Gauge from Calibration

Demo2012 v5.0 300 2012-08-01 08:51:04
Liora Banchik

Found 5 Records. Select record to update.

Item Code	Item Description	Serial Number	Status	Last Calibration Date
8040046	M GAUGE HSK 100FACE ANGLE	8040046-02	In Calibration	2012-06-07
4604212	PIN GO BA235212	4604212_03	In Calibration	2012-06-21
4604212	PIN GO BA235212	4604212_05	In Calibration	2012-06-24
4604212	PIN GO BA235212	4604212_06	In Calibration	2012-06-24
4604212	PIN GO BA235212	4604212_01	In Calibration	2012-06-21

Search **Clear All** **Group...**

Back **Next**

2. Select the serial number for returning from calibration and press on the <Next> button.
3. On the following screen press on the <Update> button.

A following screen will be displayed:



Calibration

Please enter your choice.

Status

In Stock



DD MM YYYY

Calibration Date

1 8 2012

Next Calibration Date

1 1 2013

1

2

3

4

5

6

7

8

9

0

←



Cancel

OK



This screen lets you change statuses and enter calibration dates.

4. Press on the <...> button to display statuses.

The following screen will be displayed to set status:

List of Status

In Stock

Lost

Out of Spec

Scrap

< Cancel OK >

- In Stock: For returning serial to stock.
This will change the status of the serial to 'In Stock'; update the 'Calibration History' record's status; and create a 'Return from Calibration' transaction.
- Lost: For reporting the serial as Lost. The bin will not be opened.
- Out of Spec: For returning serial to bin, but reporting it as not usable.
- Scrap: For scrapping the serial. The bin will not be opened.

5. Select appropriate status and press the **<OK>** button.
6. On the "Calibration" screen set the '*Next Calibration Date*' and press the **<OK>** button.
7. On the bin grid screen press on the **<Return>** button to open drawer.
8. Open the drawer which is lit and return the item.
9. Close the drawer.



Note: The system allows you return a gauge only to the bin to which it has been associated.



14 Common Problems

14.1 Machine problems

Problems caused by hardware or system failures of the MATRIX cabinet.

In the case of a problem:

- Consult the Hardware Manual, Troubleshooting (if a hardware problem); and
- Contact your support hotline; and
- Send the error log by printing it or sending it by e-mail.

How to send the log:

1. In Manage open “[Menu: Administration → Touch Machine → Cabinet Log](#)”.
2. Enter search parameters and click the [**<Search>**](#) button.
3. Click the [**<Print>**](#) button on the toolbar.

An excel file will be opened. You can send it by mail or print it.



14.2 Error Message Descriptions

Error description & solution	Error Message	Error message number
The system manager must correct Z value in the Bin Units of the cabinet.	Wrong Row Id	90001
The system manager must correct X value in the Bin Units of the cabinet.	Wrong Solenoid Id	90002
Trying to open a cabinet that does not exist in the system. Call system manager / technician.	Wrong Cabinet Id	90004
Close the drawers.	Command Is Already In queue – Device Is Busy	90005
Requested bin lid does not open. Call support.	Unable to open compartment	90006
No connection with requested cabinet / drawer. Call support.	No connection to Cabinet/Drawer	90007
No connection with the machine. Call support.	Problem with Connection	90008
Problem with connection port. Call support.	Port Is Not Open	90009
The system manager must correct Y value in the Bin Units of the cabinet.	Wrong Drawer Id	90011
Exit and Re-Enter the system.	Buffer Is Full	90012
Connection port not available. Call technician.	Port Is Not Available	90013



CHAPTER D: SYSTEM ADMINISTRATION

Introduction

This Chapter of the Guide is intended for the use of the system manager.

The system manager is a "Super User" that is permitted to create users and manage general data in the system.

In order to be familiar with the whole system you must read the entire User Guide, and follow the technical directions mentioned in Chapter B: [Operational Principles](#) (section 4.3).

The administration screens are used for the following purposes:

- Managing and maintaining the system tables.
- Defining users, groups of users and authorizations.
- Support of system language and texts.
- Maintenance of the system parameters which affect the way the system will perform.



15 Settings

Defining the basic setting of the system:

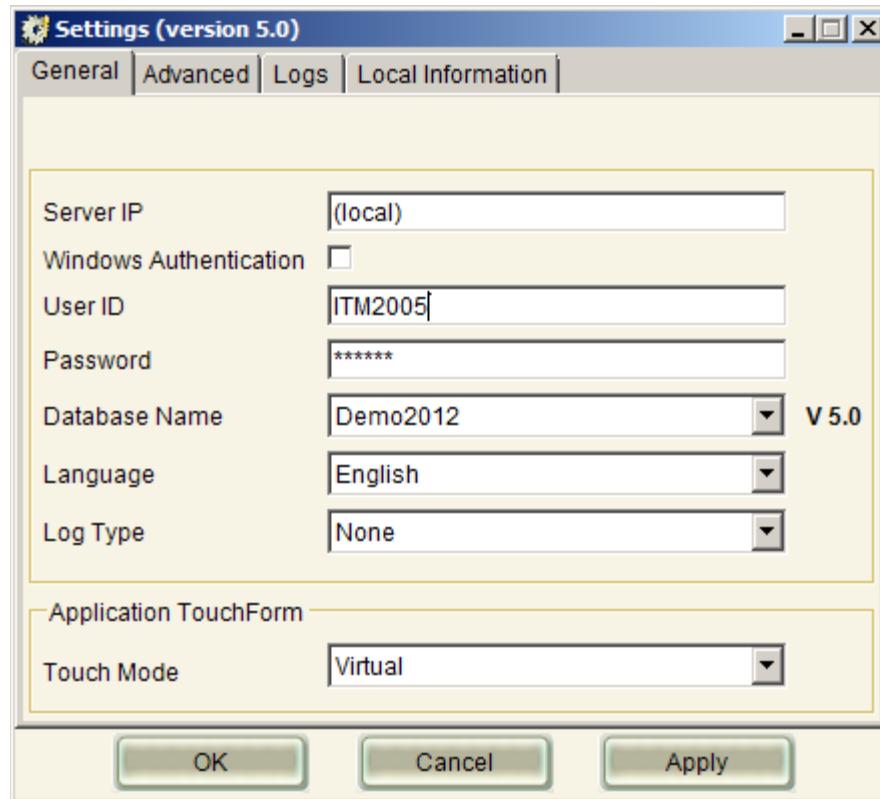
In order to set the following parameters you need to use the Setting program.

There are two ways to get to the Setting program:

- In the Main menu open “[Menu: Administration → Settings](#)”
- Use the Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Settings

15.1 Settings configuration

The "Settings" screen:





Please notice that if UAC (User Account Control) on the PC is ON, this application must be run with "**Run as Administrator**" option (this option appears on the popup menu when making right mouse click on the file).

Server IP: Is the server name where the database of MATRIX is located. If the database is running on the same computer where the MATRIX is installed, then put in this field the name **local**.

User ID: This is the user ID which is used to access the database (Initially will be ITM)

Password: This is the password which is used to access the database (Initially will be ITM)

Database Name: This is a combo box that lets you chose a database from the list.

Language: This combo includes all the installed languages. Choose one.

Log File: The system will be able to create logs on the selected level. You can find those logs in the directory "Logs" under the installation directory. Select a log level.

No – No error logs will be written.

Minimum – Logs will be written only on selected events.

Maximum – Extensive logs will be written.

Touch Mode: Select the mode to run Touch application.

Machine – working with cabinet machine.

Virtual – working virtually with no cabinet machine and no simulator.

Simulator – working virtually with simulator cabinet.

For more information, please refer to Chapter A: [Connect to the Database](#) (section 3.1).

15.2 Working with different languages

One of the specialties of the system is its ability to work with different languages.

The MATRIX-TM software has a very strong language support. You can see what languages are supported by MATRIX if you pull down the Language menu of the Setting Configuration Editor through "[Menu: Administration → Settings](#)"



15.2.1 Defining Texts

All existing Texts in the system are saved under the menu "[Menu: Administration → Texts](#)".

Each text in the system is defined with a text code. For each text there is defined a number of translations to different languages.

The default language is English (en-US).

The system manager adds the translated text for the new language.

There are 4 types of texts:

1. Page Titles – Heading of each page
2. User controls – Field names within the screens
3. General Texts – General texts. For example: Button names
4. Messages

15.2.2 Search Texts

1. Enter menu "Menu: Administration → Texts".

The screenshot shows a Windows application window titled "Texts". At the top, there are four search fields: "Text Key" (with value 3), "Text Root Key" (with value 3), "Text Code" (with value About), and "Text" (with value About). Below these, there are two more fields: "Culture" (with value English) and another "Text" field (with value English). A message "Found 3000 Records." is displayed above a grid. The grid has columns labeled "Text Key", "Text Root Key", "Text Code", "Text", and "Culture". The first few rows of data are:

Text Key	Text Root Key	Text Code	Text	Culture
3	3	About	About	English
4	4	Add	Add1	English
5	5	AddItemCode	Additional Item Code	English
6	6	Additionaldescription	Additional Item Description	English
7	7	AdditionalItemCode	Additional Item Code	English
8	8	AddText	Add Text	English
9	9	AdjustItem	Adjust Item	English
10	10	AdjustItemInstrLine	Open bin to adjust:	English
11	11	AdjustItemsTitle	Adjust Items	English
12	12	AdjustItemTouch	Adjust Item Touch	English

2. Locate the text that you wish to translate and double-click the record or click the [<Update>](#) button. The following window will then appear:



Root Text Maintenance

Text Code: mnuTouchCountBins Group: User Controls

Culture	Text
en-US	Count Bins
de	Inventur
ko	케를 세으십시오
it	Conta lo scomparto
cz	Přepočítat Bin
he	אלאן בינים
ch	计算物品盒
fr	Compter casier
br	Contar bins
pl	Przelicz Miejsce
sp	Inventario de Contenedor
sl	Preštej predalnike.
sv	Inventera Fack
da-DK	Optæl rum
jp	ピン計数
ru	Инвентаризация
sk	Prepočítat' priečinok
hu	rekeszek számlálása
nl	Tel vakken

The right side of the grid has three buttons: a pencil icon (Edit), a delete icon (Delete), and a plus icon (Add). The 'Edit' and 'Delete' buttons are highlighted with a red box.

This grid displays translations of the selected text to different languages supported by the system. The buttons on the right side of the grid allow you change/delete the existing translations or add a missing translation.

3. For update, select the relevant culture record and click the <Update> button.

The following window will then appear:

Text Maintenance

Culture: fr Text: Compter casiers

4. Make the required changes and click the <Save> button.

5. Click the <Save> button on the main toolbar.



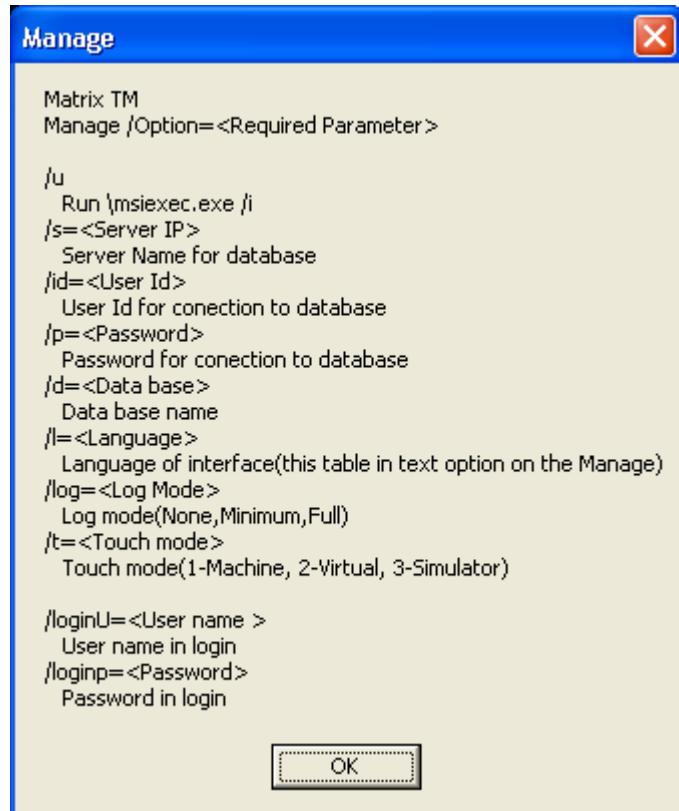


Note: Only "Messages" group translations are effective online. All other translations require re-entering to the system.

15.3 Override Settings definitions

Usually before running Manage and/or Touch applications, users select definitions on the 'Settings' program. You can run these applications also by command line or by shortcut that includes the connecting parameters, thus overriding definitions on the 'Settings' program. This is useful, for example, when working with several databases or several languages correspondingly.

To see available parameters run *cmd.exe*, login to the "..Matrix-TM\Application" directory and type *Manage /?* for details.



By command line: Type *Manage* with relevant parameters and run.



By shortcut: Create new shortcut to application file, in the 'Target' line add relevant parameters and run.

For example, create two shortcuts when each of them runs the same database, but with different interface languages:

"C:\Program Files\MATRIX-TM\Application\Manage.exe" /d=ITMDemo /l=en-UG

"C:\Program Files\MATRIX-TM\Application\Manage.exe" /d=ITMDemo /l=ru

16 System Tables

In order to open the tables, click the "[System Tables](#)" menu.

This menu will give you the ability to Search, Update and Delete existing records or create new records in the different tables. The correct way of working is to follow the operating principles described in the User Guide.

Existing tables in the system:

- Currency
- Item Category
- Item Group
- Item Authorizations Group
- Shipping Method
- Site
- Budget Group
- Unit of Measure
- Scrap Reasons
- Application (Application, Main Family and Sub Family)

16.1 Currency

In order to define a new currency, follow the next steps:

1. Open "[Menu: System Tables → Currency](#)".
2. Click the <Add> button and the following screen will appear:



Currency Maintenance

Currency key:	<input type="text" value="0"/>	Currency Symbol:	<input type="text" value="[]"/>	
Currency Name:	<input type="text" value="General Currency"/>	*	Exchange Rate:	<input type="text" value="1,0000"/>

3. Fill in the data: Currency Symbol, Currency Name, Exchange Rate
4. Click the [<Save>](#) button.

16.2 Item Category

In order to define a new item category, follow the next steps:

1. Open “Menu: System Tables → Item Category”.
2. Click the [<Add>](#) button and the following screen will appear:

Item Category Maintenance

Category Key:	<input type="text" value="0"/>	Category Code:	<input type="text" value="[]"/>
Category Name:	<input type="text" value="General Category"/>		

3. Fill in the data: Category Code, Category Name
4. Click the [<Save>](#) button.

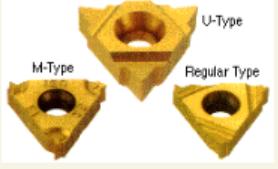
16.3 Item Group

In order to define a new item group, follow the next steps:

1. Open “Menu: System Tables → Item Group”.
2. Click the [<Add>](#) button and the following screen will appear:



Item Group Maintenance

Group Key:	14
Group Code:	Inserts
Group Description:	Inserts
	
Create User:	admin creator
Update User:	admin creator
Create Date:	2010-03-16
Update Date:	2010-08-29

3. Fill in the data: Group Code, Group Description
4. Click the  **<Save>** button.

16.3.1 Add Images to Item Groups

The item Group image can be displayed in the Manage and Touch modules.

To use this feature, the folder defined in System Option **404** (Group Pictures path) must contain all the files with the extension as defined in System Option **204** (Picture File Type). When displaying item Groups in Touch, the system will try to find the compatible image and to display it. If no matching file is found, then 'No Image' will be displayed.

In Manage, the image of item Groups will be displayed for Items that do not have their own image.

1. Rename the image file using Item 'Group Code' value and extension such as defined in the System Option **204** (jpg / gif / bmp).
For example, the image name of group with Group Code = 10 will be: **10.gif**
2. Put the image file in the folder defined in the System Option **404**.



Recommendation: Locate the image files in one folder shared to all the Matrix users and set the system option **404** (for example, \\pcname\\Matrix\\GroupImages). This will prevent unnecessary copies of files and maintenance for each folder separately.



16.4 Item Authorizations Group

In case that you want to restrict the issue of items to certain employees, you can use the Authorization by Item option. To activate this option you need to define four parts:

- Define Item Authorization Groups.
- Define User Groups (this topic is covered in Chapter D: [Group of Users](#) (section 18.1)) – when adding users to the system, you will be required to link them to a User Group to define their use rights).
- Link items to an Item Authorization Group.
- Link User Groups with the Item Authorization Groups.

16.4.1 Defining Item Authorization Groups

1. Open "Menu: System Tables → Item Authorization Group"
2. Define the Item Authorization Group. Try to plan the number of groups that you want to use taking into account that a smaller number of groups will make it easier to manage.

The screenshot shows a software window titled "Item Authorizations Group". At the top, there are two search fields: "Item Authorizations Group Key" with an equals sign and a text input field, and "Item Authorizations Group Name" with an equals sign and a text input field. Below the search fields, a message says "Found 5 Records.". A table displays the following data:

Item Authorizations Group Key	Item Authorizations Group Name
1	High Value
2	Low Value
3	Medium Value
4	No Value
5	Most High Value

All you need to define to create an Item Authorization Group is the Group Name.



Item Auth Group Maintenance

Item Authorizations Group Name: No Value *

16.4.2 Linking items to an Item Authorization Group

In order to connect an item, go to the item maintenance option. You will find the Item Authorization Group field. You have a combo box that lets you link the group to this item.

Item Maintenance

General Supplier Information Custom Fields Stock Management Location Remarks and links

Additional item code:

Item Long Description: Demo HM90 E90A-D20-3-W20-C

Item Group: Milling

Item Authorizations Group: Medium Value

Unit of Measure: High Value
Low Value
Medium Value
No Value
Most High Value

Category:

Barcode:

Main Family:

Sub Family:

Pack Size: 1

Default Issue Quantity: 1.00

Item Price: 105.00

Primary Supplier: Outiltec

Update
Create User: admin creator Update User: admin creator
Create Date: 07/02/2006 Update Date: 04/06/2006

Remarks



An item which is not assigned to a group, may be accessed by all users.

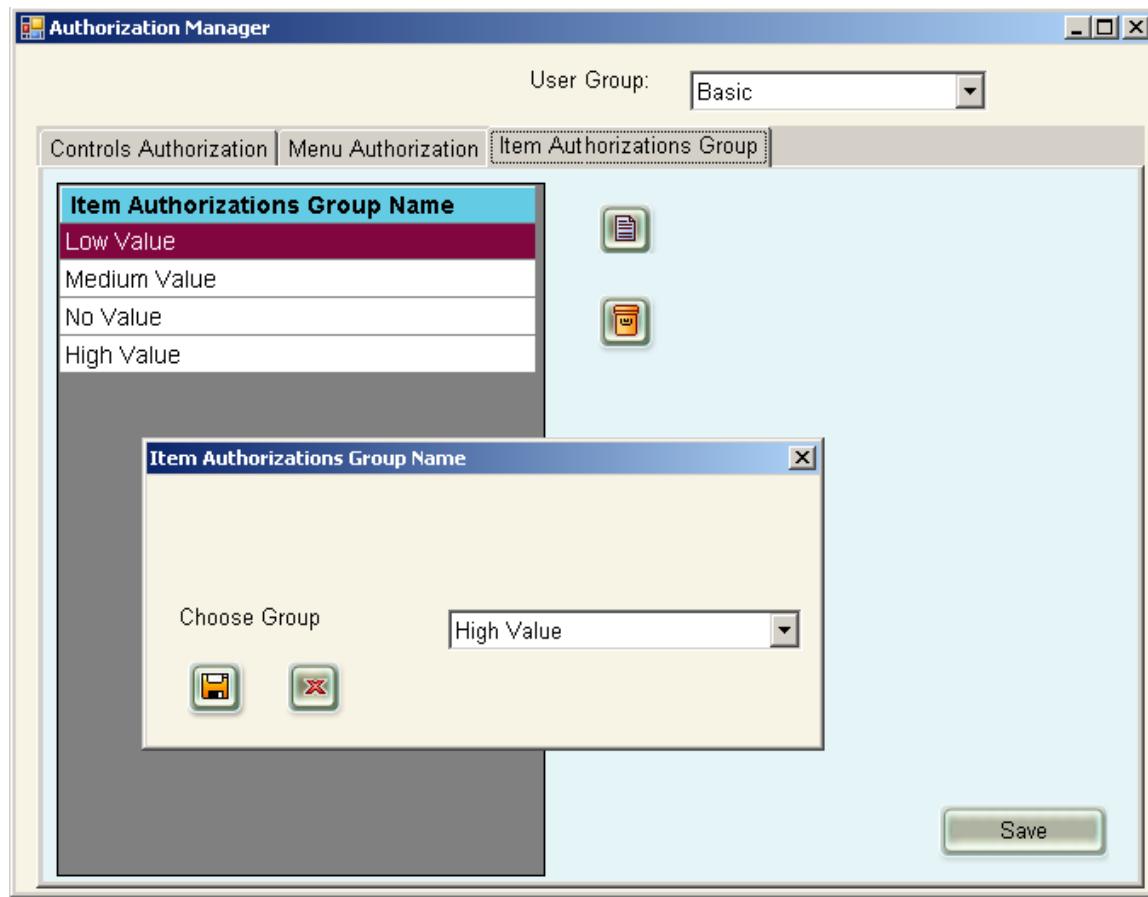
16.4.3 Link User Groups with the Item Authorization

Group

Once the Item Authorization Groups are defined you need to link them to User groups. This means that the chosen User Group is authorized to issue items from the chosen Item Authorization Group.

1. Open "[Administration → Users and Authorizations → Authorization Manager](#)"
2. In the Authorization Manager choose the "Item Authorization Group" tab. Here you can connect the User Group to the Item Authorization Group.

In order to connect a new user group, simply click on the  [**<Add>**](#) button and from the combo list chose the group you desire.





16.4.4 Issue of Items subject to Authorization restrictions

The issue option in Manage and Touch will restrict you to choose items that you are authorized to issue. Such items are part of an item authorization group which is defined for the User Group allocated to the specific user. Please notice: an item with no group is available for all users.

16.5 Shipping Method

In order to define a new shipping method, follow the next steps:

1. Open “Menu: System Tables → Shipping Method”.
2. Click the [<Add>](#) button and the following screen will appear:

The screenshot shows a Windows-style dialog box titled "Shipping Method Maintenance". It contains two text input fields: "Shipping Method Key" with the value "2" and "Shipping Method Name" with the value "DHL". There is also a small red asterisk (*) next to the "Shipping Method Name" field. The window has standard minimize, maximize, and close buttons at the top right.

3. Fill in the data: Shipping Method Name
4. Click the [<Save>](#) button.

16.6 Site

In order to define a new site, follow the next steps:

1. Open “Menu: System Tables → Site”.
2. Click the [<Add>](#) button and the following screen will appear:



Site Maintenance

Site Key:	3	Site Name:	ATD Sale Point *
Site Description:	Sale Point with Matrix	Site Company:	ATD
Phone No.:		Fax No.:	
Bill to Address 1:	ATD - Accounting	Ship to Address 1:	ATD - Stock Warehouse
Bill to Address 2:	Dizengof 34/5	Ship to Address 2:	Dizengof 34/6
Bill to Address 3:	Milan 240002	Ship to Address 3:	Milan 240002
Bill to Address 4:	Italy	Ship to Address 4:	Italy
Contact Person:	Patrick Twain - Purchase Manager	E-Mail:	Patrick.Twain@ATD.com

3. Fill in the data: Site Name, Site Description, Site Company and other contact details.
These details will be loaded into Order screen, according to Order Site.
4. Click the **<Save>** button.

16.6.1 Site Mapping

The Site Mapping displays on one screen the whole content of our database: all the sites, the cabinets on each site, the drawers on each cabinet, the bins in each drawer and the item stored in each bin.

To access this tool, open “**Menu: Main → Site Mapping**”.

The first level represents the list of Sites. The second level represents the list of Cabinets on the selected site. The third level represents the list of Drawers on the selected cabinet.

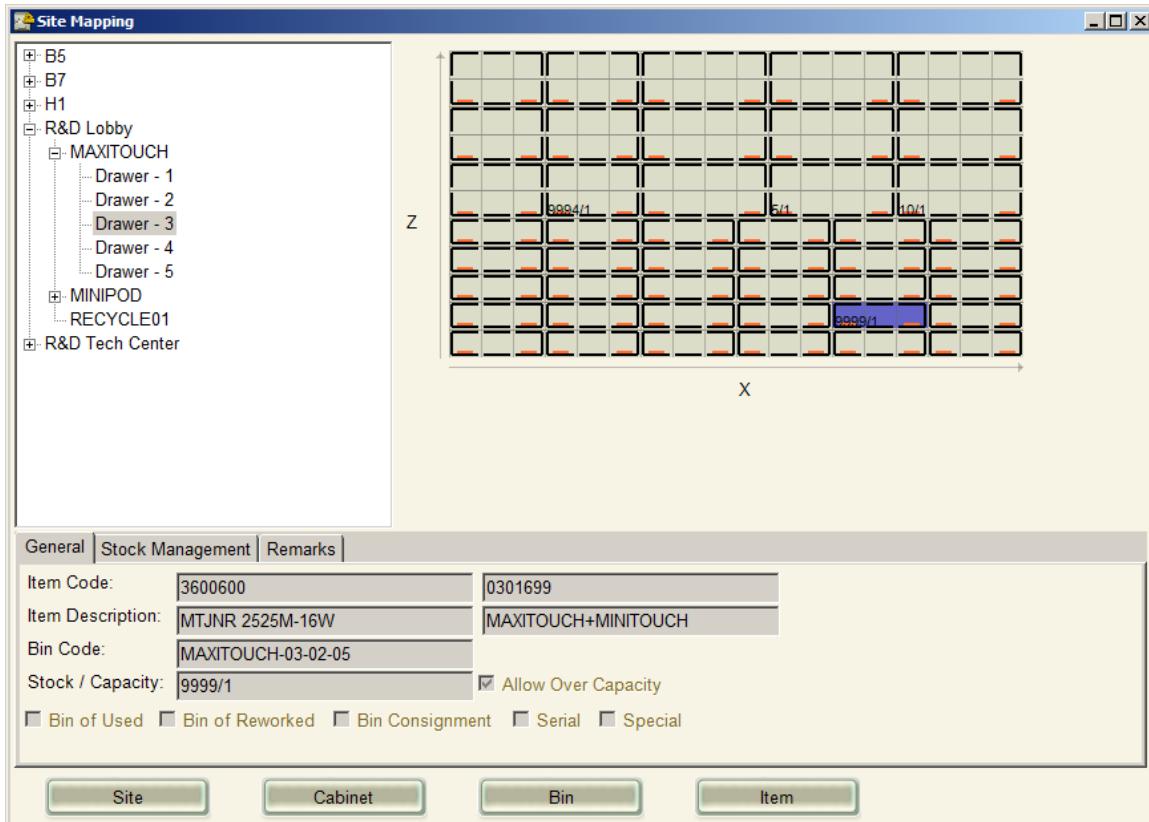
1. Select relevant Site, Cabinet and Drawer.
This will display graphically the selected drawer with all the bins and the stock/capacity of each bin.
2. On the graphical display click on some bin.
This will display on the bottom section the information regarding the selected bin, the item stored in this bin and buttons that open maintenance screens.

Click <Site> button to open 'Site Maintenance' screen of the selected site.

Click <Cabinet> button to open 'Cabinet Maintenance' screen of the selected cabinet.

Click <Bin> button to open 'Bin Maintenance' screen of the selected bin.

Click <Item> button to open 'Item Maintenance' screen of the selected item.



Site Mapping on Matrix-TM TOUCH:

A similar tool is also displayed on the TOUCH application, which can also open any drawer and bin/s in the cabinet. This facilitates maintenance of the Matrix-TM cabinets' hardware and for the communication between hardware and software.

To read more about this tool on TOUCH, follow Chapter C: [Site Mapping](#) (section 12.5.2).

16.7 Budgets for Issue

You can restrict the issue of items from MATRIX-TM Touch according to a defined budget. Each time a user wishes to issue an item via MATRIX-TM Touch, the requested issue will



be checked to ensure that it does not exceed the **user's** budget, either by quantity and / or amount, within a specific time period.

Budget options

We can define a budget by **Quantity** and / or **Amount**:

- In the Budget Group we have budget definitions by item, quantity and days.
- In the User Group we have a definition by amount and days

16.7.1 Budget by Quantity of Items

Issue process with budget restrictions

If system option 107 is set, the user's User Group is attached to a Budget Group and the requested item is in that group, MATRIX-TM will allow the item to be issued subject to the following quantity restriction:

$$\text{Allowed Quantity} = \frac{\text{Budget Quantity for the defined period}}{\text{Quantity issued to date for the defined period}}$$

For example:

If the number of days defined is 2, the system checks transactions for today and yesterday. If the number of days is 7, the system will check the last 7 days.

To create budget definitions:

To restrict issue by quantity of items you will need to activate the budget, to create budget group and to link budget group to the user group.

Activate budget:

1. Set System Option 107 (Activate issue budget by Quantity of items) = YES

**Create budget group:**

2. Open "Menu: System Tables → Budget Group"

The screenshot shows a Windows application window titled "Budget Group". At the top, there are two search fields: "Budget Group Key:" with an equals sign icon and a text input field, and "Budget Group Name:" with an equals sign icon and a text input field. Below the search fields, the message "Found 3 Records." is displayed. A grid table follows, with columns labeled "Budget Group Key", "Budget Group Name", and "Number Of Days". The data in the grid is as follows:

Budget Group Key	Budget Group Name	Number Of Days
1	High Value Items	1
2	Average Value Item	4
9	Low Value Items	7

3. Click the <Add> button on the toolbar to add a new budget group.

The following screen will be displayed:

The screenshot shows a Windows application window titled "Budget Group Maintenance". It contains two text input fields: "Budget Group Name:" followed by a text input field, and "Default Number of Days:" followed by a text input field. Both input fields have a red asterisk (*) indicating they are required fields.

4. Fill in the required fields and click the <Save> button. The Budget group will be created and grid will be displayed for adding new items.



Budget Group Maintenance

Budget Group Name:	<input type="text" value="Low Value Items"/>	*	Default Number of Days:	<input type="text" value="7"/>
Item Code	Item Description	Quantity	Number Of Days	
3201669	DemoDR-MF-10L-2.25D-12...	10	7	
5605179	Demo APKT 1003PDR HM9...	30	7	
3101694	Demo HM90 E90A-D32-4-W...	50	7	
5502149	Demo TPGB 2-1-XL IC7...	30	7	
1111111	KIT 1 Demo	20	7	
5502097	Demo TPGB 2-1 IC20...	50	7	

Quantity: Number Of Days:

5. Click the [<Add>](#) button on the right side of the grid and select the desired item from the opened "Search Item" screen. The item will be added to the grid.
 6. Fill in the following fields for each added item:

Quantity: The maximum quantity of the item that can be issued

Number of Days: Number of days for which this quantity budget will be checked
 7. Repeat the step 5-6 to add items to list.
- Use the [<Update>](#) and [<Delete>](#) buttons to maintain the item records.
8. Click the [<Save & Close>](#) button to save all the definitions. The budget group will be added to the list of budget groups. To add more items and item details, use the [<Update>](#) button or double click on the desired budget group.

Link budget group to a user group:

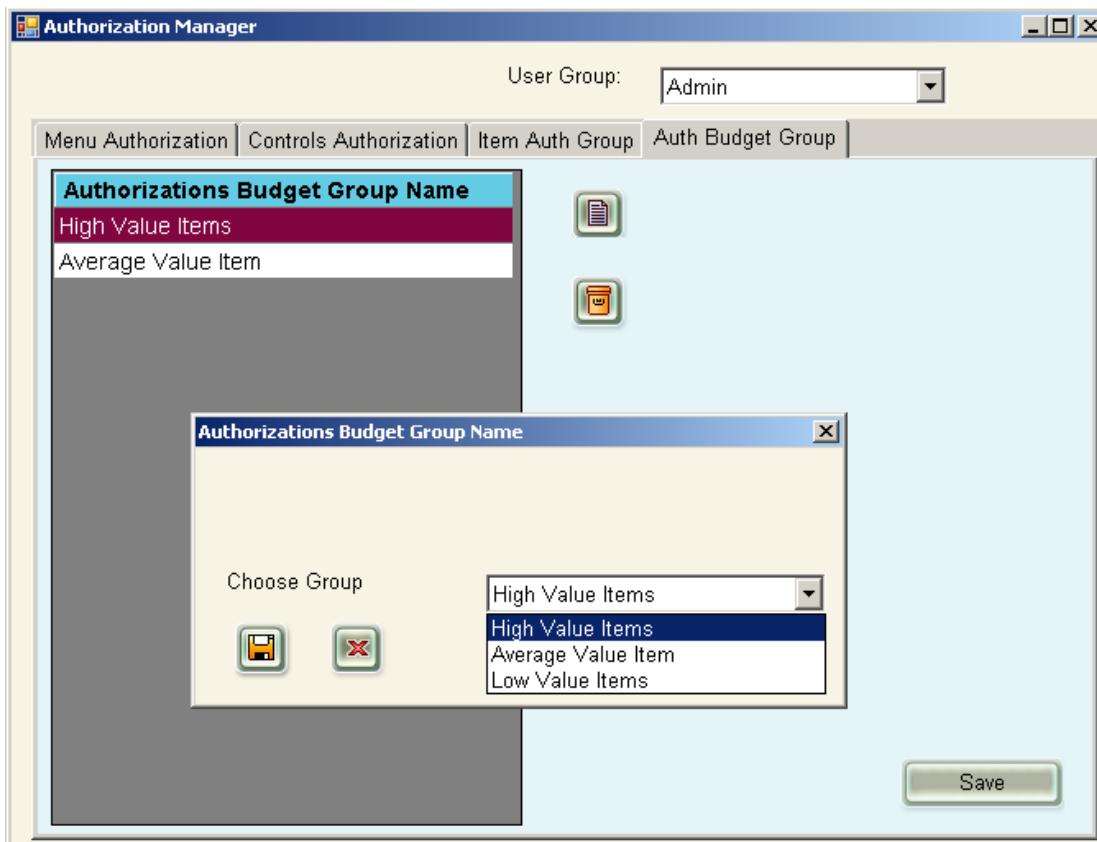
Once the Budget Groups are defined, you need to link them to User groups. This means that a user within the chosen User Group is limited to issuing items according to the items defined in the Budget groups, their quantities in the defined period.

9. Open "Administration → Users and Authorizations → Authorization Manager".



10. In the Authorization Manager choose the "Budget Authorization Group" tab. Here you can connect the User Group to the Budget Group.

In order to connect a new user group, click the <Add> button and from the combo list chose the group you desire.



Note: If there is no Budget group associated with the user group, it means that no budget restrictions apply to the users in this User Group.

16.7.2 Budget by Amount

Issue process with budget restrictions

If system option 108 is set and the user's User Group has a defined Budget amount, MATRIX-TM will allow the item to be issued subject to the following quantity restriction:

Allowed Quantity = (Budget amount – Amount already issued per User)

Item Price



Note: Amount already issued per User is summed from the **value in Issue transactions** in the last number of days defined for the user.

To create budget definitions:

To restrict issue by amount you will need to activate the budget and to define amount limitations for the user group.

Activate budget:

1. Set System Option 108 (Activate issue budget by Amount) = YES.

Define budget for user group:

2. The budget definitions for Amount and Days are added on User Group screens.
Please continue to Chapter D: [Group of Users](#) (section 18.1) to define budget amount and budget days for the user group for which you wish to restrict the issue.

16.8 Unit of Measure

In order to define a new unit of measure, follow the next steps:

1. Open “Menu: System Tables → Unit of Measure”.
2. Click the  [**<Add>**](#) button and the following screen will appear:



Unit Of Measure Maintenance

Unit Measure Key:	<input type="text" value="01"/>	Unit Measure Code:	<input type="text" value="00"/> *
Unit Measure Symbol:	<input type="text" value="U"/>	Unit Measure Name:	<input type="text" value="General Units"/> *
Decimal Length:	<input type="text" value="0"/>		

3. Fill in the data: Unit Measure Code, Unit Measure Symbol, Unit Measure Name and Decimal Length
4. Click the [<Save>](#) button.

16.9 Scrap Reasons

MANAGE allows you to scrap items and define reasons for the scrapping.

1. Open “[Menu: System Tables → Scrap Reasons](#)”.
2. Click the [<Add>](#) button and the following screen will appear:

Scrap Reasons

Key:	<input type="text" value="1"/>	Code:	<input type="text" value="01"/> *
Description:	<input type="text" value="Over regrinded"/>	Long Description:	<input type="text"/>

3. Fill in the data and click the [<Save>](#) button on the toolbar.
4. Open in MX-Manage any bin with stock and reduce its quantity. Before confirming the adjustment, you can set this reduction as a Scrap and selecting the Scrap Reason from a drop down list of pre-defined reasons.

This will create a 'Scrap' transaction noting the Scrap Reason in the reference field.



Stock Adjustment

Bin Code:	Item Code:	Item Description:
Demo4-05-04-05	5605179	Demo APKT 1003PDR HM90 IC928
Old Bin Quantity:	2,00	Scrap
New Bin Quantity:	1	Scrap Items <input checked="" type="radio"/>
Scrap	-1	Scrap Reasons: Over regrinded Over regrinded
Comments:		
<input type="button" value="Save"/> <input type="button" value="Cancel"/>		

16.10 Application, Main Family and Sub-Family

Application, Main Family and Sub Family is a worthwhile classification that can be used to sort and evaluate the use of items. The list of applications and families can be edited, and each item can be categorized and searched in Manage and Touch by these categories.

Manage:

Categorize items by 'Main Family' and 'Sub Family' on the "Item Maintenance" screen.

Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:																			
22	5505421	Demo IDI 0295-SG IC908	Expendable																			
<table border="1"> <tr> <th colspan="2">Links</th> <th colspan="2">Orders</th> <th colspan="4">Cost Centers</th> </tr> <tr> <th>General</th> <th>Supplier Information</th> <th>Additional Fields</th> <th>Stock Management</th> <th>Locations</th> <th>Usage</th> <th>Transactions</th> <th></th> </tr> </table>				Links		Orders		Cost Centers				General	Supplier Information	Additional Fields	Stock Management	Locations	Usage	Transactions				
Links		Orders		Cost Centers																		
General	Supplier Information	Additional Fields	Stock Management	Locations	Usage	Transactions																
<table border="1"> <tr> <td>Additional Item Code:</td> <td></td> <td rowspan="9"> </td> </tr> <tr> <td>Item Long Description:</td> <td>Demo IDI 0295-SG IC908</td> </tr> <tr> <td>Barcode:</td> <td>05505421</td> </tr> <tr> <td>Item Auth Group:</td> <td></td> </tr> <tr> <td>Unit of Measure:</td> <td>Pieces</td> </tr> <tr> <td>Item Group:</td> <td>Drilling</td> </tr> <tr> <td>Category:</td> <td>Regular</td> </tr> <tr> <td>Main Family:</td> <td>Drilling Inserts</td> </tr> <tr> <td>Sub Family:</td> <td>Drilling Two effective Inserts</td> </tr> </table>				Additional Item Code:			Item Long Description:	Demo IDI 0295-SG IC908	Barcode:	05505421	Item Auth Group:		Unit of Measure:	Pieces	Item Group:	Drilling	Category:	Regular	Main Family:	Drilling Inserts	Sub Family:	Drilling Two effective Inserts
Additional Item Code:																						
Item Long Description:	Demo IDI 0295-SG IC908																					
Barcode:	05505421																					
Item Auth Group:																						
Unit of Measure:	Pieces																					
Item Group:	Drilling																					
Category:	Regular																					
Main Family:	Drilling Inserts																					
Sub Family:	Drilling Two effective Inserts																					
<table border="1"> <tr> <td>Pack Size:</td> <td>5</td> </tr> <tr> <td>Default Issue Quantity:</td> <td>5,00</td> </tr> <tr> <td>Item Weight:</td> <td></td> </tr> </table>				Pack Size:	5	Default Issue Quantity:	5,00	Item Weight:														
Pack Size:	5																					
Default Issue Quantity:	5,00																					
Item Weight:																						

**Touch:**

Open search screen, press on the <Advanced> button.

The screenshot shows the 'Item selection' window. At the top, there is a header bar with the CTMS logo. Below it, a message says 'Please select an item'. A table lists items with columns: Item Code, Group, Item Description, Additional Item Description, In Stock, and Additional Item. One row is selected, showing Item Code 5505421, Group Drilling, Item Description Demo IDI 0295-SG IC908, Additional Item Description Demo IDI 0295-SG ..., In Stock 115.00, and Additional Item. Below this is the 'Advanced' button, which is highlighted with a red box. Other buttons include Search, Cancel, and Group... .

The screenshot shows the 'Advanced' dialog box. It contains four text input fields with associated browse buttons (three small circles with 'ooo' inside). The fields are: Application Name (Drilling), Main Family (Drilling Inserts), Sub Family (Drilling Two effective Inserts), and Corner number (empty). At the bottom left is a 'Show' button with a monitor icon. At the bottom right are 'OK' and 'Cancel' buttons.

16.10.1 Application

1. Open "Menu: System Tables → Application → Application".
2. Click the <Add> button and the following screen will appear:



The screenshot shows a Windows application window titled "Application Maintenance". It contains three text input fields: "Application Key" (disabled), "Application Code" (disabled), and "Application Name" (disabled). There is also a small red asterisk (*) next to the "Application Name" field.

3. Fill in the data and click the <Save> button on the toolbar.

Now this application can be selected for defining a new Main Family.

16.10.2 Main Family

1. Open "Menu: System Tables → Application → Main Family".

2. Click the <Add> button and the following screen will appear:

The screenshot shows a Windows application window titled "Family Maintenance". It has several input fields: "Family Key" (disabled), "Main Family Code" (disabled), "Application Name" (containing "Drilling"), and "Family Name" (a dropdown menu listing "Drilling", "Turning", "Holders", "MILLING", "Remeering", "Grip", and "Threading"). A small red asterisk (*) is present next to the "Family Name" field.

3. Select the Application that you have previously defined, fill in the other data and click

the <Save> button on the toolbar.

Now this Main Family can be selected for defining a new Sub Family.

16.10.3 Sub Family

1. Open "Menu: System Tables → Application → Sub Family".

2. Click the <Add> button and the following screen will appear:



Sub Family Maintenance

Sub family key:	33
Family Name:	Drilling Inserts *
Sub Family Code:	SF33 *
Sub Family Name:	Drilling Two effective Inserts *

3. Select the Main Family that you previously defined, and then fill in the new sub-family data and click the <Save> button on the toolbar.

Now this Sub Family can be selected for categorizing an item.



17 System Options

The system options are parameters which define how the system will behave in different operations. This is a very powerful tool that lets the organization which operates MATRIX-TM to adapt the way the system behaves to its individual needs.

Find System Option:

1. Open "Menu: Administration → System Options".

The following screen will appear:

The screenshot shows a Windows application window titled "Search System Options". At the top, there are four search fields: "Group" (a dropdown menu), "Option Key" (a text input field), "Option Name" (a text input field), and "Option Description" (a text input field). Below these fields, a message says "Found 47 Records.". A scrollable grid table displays 47 records of system options. The columns are labeled "Option Key", "Option Name", "Group", "Option Description", and "Option Value". The "Option Key" column contains numerical values like 704, 705, 706, etc. The "Option Name" column contains descriptive text such as "Customer E-mail Ad...", "Mail server", "Mail subject", etc. The "Group" column includes categories like "E-mail", "Purchase", "Planning", and "Touch". The "Option Description" column provides a brief explanation of each option. The "Option Value" column contains specific settings like "ryanai@iscar.co.il", "iscarexch", "New mail from Matrix", etc. One row, specifically the one for "Default file format fo...", has a dark red background, indicating it is selected or highlighted.

Option Key	Option Name	Group	Option Description	Option Value
704	Customer E-mail Ad...	E-mail	Mail From address for outgoing mail	ryanai@iscar.co.il
705	Mail server	E-mail	SMTP mail Server name or address	iscarexch
706	Mail subject	E-mail	Mail From Subject for outgoing mail	New mail from Matrix
801	Auto-purchase Print...	Purchase	Auto-purchase Print Destination	E-Mail
802	Auto-purchase	Purchase	How to run auto purchase: 0=No run, 1=Make P...	Recommendation
804	Quantity percent to ...	Purchase	When calculating lead time, if an order was sup...	90
805	PO code prefix	Purchase	First part of the PO number	XXXX
806	Default file format fo...	Purchase	Default file format for Order	xls
807	Auto PO Day	Purchase	What day to generate the automatic PO.	
808	Auto PO Time	Purchase	What time to generate the automatic PO	
809	Default Site Key	Purchase	Default Site Key for New Order	0
900	Average usage calc...	Planning	Average Usage can be an arithmetic average (...	MWA
901	MWA factor	Planning	This is the factor used to make the weighting of...	0.3
902	Percent of extreme l...	Planning	This is the percentage of extreme cases we re...	0.1
903	Stock Management I...	Planning	Stock manage level used for the automatic ord...	All levels
1004	Requires password ...	Touch	Does the user have to input password after ba...	No

2. Use the search fields to locate system option.

Selecting relevant group in the "Group" combo-box will immediately narrow the list to your selection.

Update System Option:

1. Select the system option you wish to update from the search list and click the <Update> button on the toolbar. A screen like the following will appear:





System Option Maintenance

Option Key:	900
Option Name:	Average usage calculation type
Option Description:	Average Usage can be an arithmetic average (FLAT) or a Moving Weighted Average (MWA)
Option Value:	MWA MWA Flat

2. Enter value to the "Option Value" field and click the <Save> button on the toolbar.

17.1 Table of All System Options

The following table lists all the 88 system options and their descriptions as they appear in the Manage application.

Option Key	Option Name	Group	Option Description
0	Database Version	System Parameters	Database Version - Do Not Change !!!
1	Installation Path	System Parameters	MATRIX-TM Installation Path - Do Not Change !!!
2	Scheduler task computer Name	System Parameters	Scheduler task computer Name (Full computer name) - Do Not Change !!!
105	Over Receive Percentage	Operation	The percentage that determines the Additional quantity of items above Ordered Quantity that user can receive in 'Receive' process.
107	Activate issue budget by Quantity of items	Operation	If checked, the system will limit the quantity of items available for issue according to the quantity limitation defined in the budget group that is associated with the user group.
108	Activate issue budget by Amount	Operation	If checked, the system will limit the quantity of items available for issue according to the amount limitation defined in the budget group that is associated with the user group.
109	Force to issue old items before new items	Operation	If checked, the TOUCH module will force to issue Used / Reworked items before displaying new items.
110	Display options for partial receive?	Operation	Display options to close order line or remain open (only for Standard and Rework order types), when the order line is received partially. If unchecked, the order line will not be closed until fully received.
111	Number of reference fields to use on Receive	Operation	Number of reference fields to use on 'Receive' process for interfaces with ERP systems.
112	Type of Reference fields	Operation	Type of Reference fields for Interfaces: Numeric or Text.
113	Return Only Issued Items	Operation	In 'Return' display Only those Items that were issued.
114	Request for Reference fields	Operation	Request reference fields to use on 'Receive' process for interfaces with ERP systems.
115	Order for issuing Consignment items	Operation	Order for issuing Consignment and Non Consignment items.
203	System Currency Key	General	The system currency key.
204	Picture File Type	General	File type for the product pictures.
205	Number of Records to display	General	Maximal number of records to display in search screens.



Option Key	Option Name	Group	Option Description
206	Default Unit of Measure	General	Default unit of measure for new items.
207	No. of days to keep Log	General	Number of days to keep Log.
208	Bar-Code font	General	Bar-code font for reports.
209	Create Scheduled Reports	General	Activate job that automatically creates the Scheduled reports.
210	Display records on Search	General	Display records when opening search screen.
211	Report Footer	General	Text for Report Footer.
212	Report Header	General	Text for Report Header.
213	Number of months with no Item/Bin activity	General	Number of months with no activities on Item/Bin/Cabinet for defining its stock as Dead for the reports.
214	Manage History Log file	General	Record History of changes into Log file.
300	Default Lead Time	Statistics	The default value for the Lead Time of Item Supplier and also for the Monthly Lead Time calculation.
301	Number of months for Average calculations	Statistics	How many months to use for calculating the Average Usage, Frequency and Lead time during monthly process.
303	Last Monthly Process	Statistics	Last month (in format MMYY) that was fully processed and updated automatically by the Monthly Process.
304	End of Month Day	Statistics	The day to run the Monthly Process (end of month process).
305	End of Month Time	Statistics	The time to run the Monthly Process (end of month process).
306	CPU Deviation	Statistics	The CPU Deviation % that will be used by the Advanced CPU Report to display results only above this value.
400	Path for Item Pictures	Path and files	Path for the ITEM picture files.
401	Path for Reports	Path and files	Path for automatically generated Scheduling reports.
402	Path for Logo	Path and files	Path for program Logo image.
404	Path for Group Pictures	Path and files	Path for the ITEM GROUP picture files.
405	Path for Logs	Path and files	Path for creating system Log files.
406	Path for Alerts template	Path and files	Path for template that is used for Alerts.
407	Path for template used to print Item Label	Path and files	Path for template used in Touch for printing Single Item data.
408	Path for template used to print Transactions	Path and files	Path for template used in Touch to print List of Transactions.
600	Create Database Auto-Backup	Backup	Activate job that automatically creates the Backup copy of the Database.
602	Database Auto-Backup folder	Backup	Path for Auto-Backup copy of the Database.
603	Database Auto-Backup Day	Backup	Day to create Auto-Backup of the Database.
604	No. of days to keep Database Backup	Backup	Number of days to keep Database Backup.

Option Key	Option Name	Group	Option Description
605	Database Auto-Backup Time	Backup	Database Auto-Backup Time
701	Server Port	E-mail	SMTP server mail port.
702	User Name	E-mail	User name, if SMTP server requires authentication for outgoing email.
703	User Password	E-mail	User password, if SMTP server requires authentication for outgoing email.
704	Sender email	E-mail	Mail <From> address for outgoing mail.
705	Mail Server	E-mail	SMTP mail Server name or address.
706	Mail subject	E-mail	Mail <Subject> for outgoing mail.
707	Use SSL	E-mail	Use Secure Authentication. When the network security requires secure authentication in sending email, this parameter must be set respectively.
708	E-Mail for Technical Support	E-mail	E-Mail address for Technical Support.
801	Auto-Purchase print destination	Purchase	Auto-Purchase print destination.
802	Auto-Purchase creation mode	Purchase	How to run auto purchase: 0=No run, 1= Create purchase Draft, 2= Create purchase Orders, 3=Create purchase Orders and Send to supplier.
804	Percent for considering order line as supplied	Purchase	For calculating lead times of suppliers, if an order was supplied to this percent, it will be considered as a good supply.
805	PO code prefix	Purchase	First part of the Purchase Order number.
806	Default file format for order	Purchase	Default file format for Order.
807	Auto PO Day	Purchase	What day to generate the automatic PO.
808	Auto PO Time	Purchase	What time to generate the automatic PO.
809	Default Site Key	Purchase	Default Site Key for New Order.
810	Critical Minimum Stock Percent	Purchase	Percent from the Minimum stock quantity that determines the critical stock. This value is used only for 'Advanced Stock Shortage' reports. Stock below minimum but above this percent is considered as Non-Critical shortage. Stock below minimum and below this percent is considered as Critical shortage.
812	Create Auto PO Code	Purchase	If checked, the PO Code field will receive a number that is incremented automatically.
813	Path for template file for Orders reports	Purchase	Path for template file that is used for Orders reports.
814	Request date on create order line	Purchase	On create order line, the 'Request Date' is taken from header. If value=NO, then 'Request Date' will be empty.
815	Consider Issued items as stock	Purchase	If checked, all the Returnable items that were issued and counted into "Issued Quantity" field will be considered as a part of stock for Automatic Orders.
816	Never order more than capacity	Purchase	Never order more than capacity.

Option Key	Option Name	Group	Option Description
900	Average usage calculation type	Planning	Average Usage can be an arithmetic average (FLAT) or a Moving Weighted Average (MWA).
901	MWA factor	Planning	The factor used to make the weighting of the MWA average. Please use values in range of 0 - 1.
902	Percent of Extreme lead time cases	Planning	The percentage of extreme cases (between 0 - 0.49) when the lead time was very short or too long. The Monthly Process will ignore them when calculating the average lead time.
903	Stock Management level	Planning	Stock management level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.
904	Item from Reworked bin good as New	Planning	If checked, Reworked bin will function the same as New bin for Reworkable items: 1) The stock from Reworked bin will be summed up from the Bin level to the Cabinet and Item levels. 2) The Receive process will allow using reworked bin for receiving new item and new bin for receiving reworked item, meaning mixing in one bin new and reworked items.
905	Item from Used bin good as New	Planning	If checked, Used bin will function the same as New bin for Durable/Kit items: 1) The stock from Used bin will be summed up from the Bin level to the Cabinet and Item levels. 2) The Receive & Return processes will allow using used bin for new item and new bin for used item, meaning mixing in one bin new and used items.
1004	Require password when badge is scanned	Touch	Does the user have to input password after badge is scanned?
1007	Login Time-out	Touch	Waiting time (in seconds) until the system will automatically log the user out, if no actions were done. If Zero, then there will be no timeout.
1008	User for Automatic login	Touch	User name that after loading TOUCH, the system will log him in automatically and will not log him out after timeout.
1010	Show Keyboard on Item Search	Touch	Show virtual keyboard when opening search screen.
1012	Barcode Reader prefix	Touch	Prefix that Barcode Reader adds to the scanned code.
1013	Waiting time until Forcing transactions	Touch	Waiting time (in minutes) from opening drawer until forcing ISSUE or RETURN transaction, if drawer was not closed.
1014	Display options for issuing KIT?	Touch	Display options for issuing KIT as Assembly or as Separated Items. If unchecked, kit will be issued by Separated Items.
1015	Source of description for item image	Touch	Source of description for item image.
1016	Link Address in Touch	Touch	Address used for Link on Touch.
1017	Link Icon	Touch	Path for Icon file for Link on Touch.
1018	Link Keyboard Type	Touch	Keyboard Type used for Link on Touch.



Option Key	Option Name	Group	Option Description
1019	Show all items on Items list	Touch	If checked, all the items in the database will be shown on "i" list on Touch. Otherwise, only the items of the current Touch station will be shown.
1020	Number of days for 'Favorites' list	Touch	All the items issued during this number of past days will be added to the 'Favorites' list on Touch.
1021	Return Serial Item by Barcode Only	Touch	If checked, when returning serial item the user will have to use barcode (no virtual keyboard and no option to select from list).
1022	Screen to be displayed after issue	Touch	The screen that will appear after an Issue is completed.
1023	Allow issue of expired gauge	Touch	Allow issue of gauge expired according to calibration date and/or number of issues.

17.2 Special System Options

This section explains about system options that require special attention and described here with more details since wrong values for these options might cause different processes in the system not to work as expected.

A lot of the system options influence automatic processes, therefore it is recommended to set them when initiating the database and before the processes will start to run.

Option Key	Option Name	Special care
0	Database Version	This parameter must use sign for decimal value according to your regional settings. For example, for European settings use coma (,) and for US settings use dot (.).
1	Installation Path	This path must point to folder which includes the file ScheduleServices.exe .
2	Scheduler task computer Name	This system option is relevant only if the automatic processes are run by Matrix-TM Agent and not by Jobs (SQL Agent). If by Matrix-TM Agent: It is the computer name where the Matrix-TM Agent runs. The option is automatically set when making Agent definitions (see Database Administration → Matrix-TM Agent → <u>Computer name of service</u>). If by Jobs (SQL Agent): It should be blank.



113	Return Only Issued Items	<p>Decide what to show on the 'Return' module on Touch:</p> <p>All Returnable Items – shows all the items that are allowed to be returned according to their Item Type.</p> <p>Return Only Issued Items – shows all the items that are allowed to be returned according to their Item Type and that their 'Issued Quantity' is more than zero, i.e. were issued and not fully returned.</p> <p>Return against transactions – shows Issue transactions that their 'Returned Quantity' is less than 'Issued Quantity', i.e. were issued and not fully returned.</p>
203	System Currency Key	This key will be used for automatic orders. Verify that this key points to the expected currency.
204	Picture File Type	To ensure that all the pictures will be loaded properly, verify that all the files have extension as defined here.
205	Number of Records to display	New records are added to the end of the list, for example like with list of Transactions. If number of records will exceed this value, the last records will be cut. To see the last records as first records in the search screen, please sort the list, for example by key / date and save this sort. Next time the list will be opened with new records on top and the old records will be cut.
209	Create Scheduled Reports	Set this system option for creating automatic scheduled reports, job [DBName]ReportsEngine .
214	Manage History Log file	If your database is replicated, set to NO to cancel the record (the option causes failures in replication in V4.5).
300	Default Lead Time	Set this value when initiating the database and before first Monthly Process starts to run.
301	Number of months for Average calculations	Set this value when initiating the database and before first Monthly Process starts to run.
303	Last Monthly Process	Set this value when initiating the database and before first Monthly Process starts to run.
304	End of Month Day	<p>Set this system option for running automatic monthly process, job [DBName]EndOfMonthProcess.</p> <p>Recommended to set to 'First Day of the Month'.</p>



		Set this system option for running automatic monthly process, job [DBName]EndOfMonthProcess . Since this process takes a while, it is recommended to set to night time or when slow movement.
305	End of Month Time	<u>Recommendation:</u> Locate the image files in one folder shared to all the Matrix users and define here global path, for example: \pcname\Matrix\Images . This will prevent unnecessary copies of files and maintenance for each folder separately.
400	Item Pictures path	To created reports into path defined here, each Matrix user must have writing permissions for this path. If there is a problem with permissions, use folder which is shared for all the users or use environment variable such as %TEMP%\MatrixTempDir\Reports .
401	Reports path	<u>Recommendation:</u> Locate the image files in one folder shared to all the Matrix users and define here global path, for example: \pcname\Matrix\Images . This will prevent unnecessary copies of files and maintenance for each folder separately.
404	Group Pictures path	The recommended path = %TEMP%\Matrix-TM\Logs . Thus it will record the logs locally to personal logged-in user' folder, such as C:\Documents and Settings\user\Local Settings\Temp.
405	Path for Logs	<u>Recommendation:</u> If the database located not on the backed-up server, create the database backup file on the server which has automatic backup for the files or; create it locally and then transfer the file to backed-up server.
600	Create Database Auto-Backup	Set this system option for creating automatic backup, job [DBName]AutoBackup .
602	Database Auto-Backup folder	<u>Recommendation:</u> Set this system option for scheduling the automatic backup.
603	Database Auto-Backup Day	Set this system option for scheduling the automatic backup.
605	Database Auto-Backup Time	Set this system option for enabling sending emails (orders, reports) through the system.
701	Server Port	Set this system option for enabling sending emails (orders, reports) through the system.
702	User Name	Set this system option for enabling sending emails (orders, reports) through the system.



703	User Password	Set this system option for enabling sending emails (orders, reports) through the system.
705	Mail Server	Set this system option for enabling sending emails (orders, reports) through the system.
707	Use SSL	Set this system option for enabling sending emails (orders, reports) through the system.
802	Auto-Purchase creation mode	This system option is important for creating automatic orders.
807	Auto PO Day	Set this system option for creating automatic orders, job [DBName]AutoPOService.
808	Auto PO Time	Set this system option for creating automatic orders, job [DBName]AutoPOService.
809	Default Site Key	This key will be used for automatic orders. Verify that this key points to the expected site.
813	Path for template file for Orders reports	Set to full path (short path caused problems in V4.5), such as: C:\Program Files\MATRIX-TM 4.5\ReportTemplates\StandartReport.rpx.
815	Count Issued Durable items	Important to set this option properly when working with Durable items and Automatic Orders.
900	Average usage calculation type	Set this value when initiating the database and before first Monthly Process starts to run.
901	MWA factor	Set this value when initiating the database and before first Monthly Process starts to run. This parameter must use sign for decimal value according to your regional settings. For example, for European settings use coma (,) and for US settings use dot (.).
902	Percent of Extreme lead time cases	Set this value when initiating the database and before first Monthly Process starts to run. This parameter must use sign for decimal value according to your regional settings. For example, for European settings use coma (,) and for US settings use dot (.).
903	Stock Management level	This system option is important for creating automatic orders.
904	Item from Reworked bin good as New	This system option is important to be set when initiating the database since it influences on the functionality of the system (stock calculation, Receive module).



905	Item from Used bin good as New	This system option is important to be set when initiating the database since it influences on the functionality of the system (stock calculation, Receive & Return modules).
1007	Login Time-out	Set this system option when initiating the database in order to give enough time for users until logout.
1012	Barcode Reader prefix	To enable use of the barcode reader, set this system option accordingly to the prefix of the device.

18 Managing users and authorizations

Defining groups of users helps to manage the authorization level of each user.

A large number of users can be connected up to one group or one user can be connected to a number of groups.

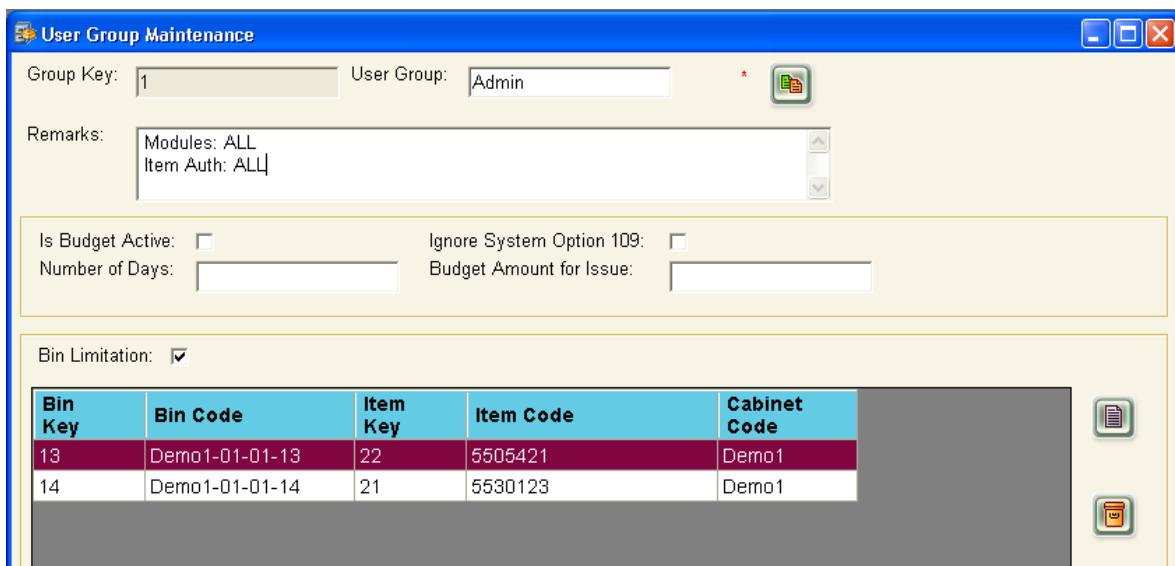
18.1 User Groups

In order to define a new group, only the name of the group must be entered.

1. Open “Menu: Administration → Users and Authorizations → User Groups”.

2. Click the  **<Add>** button on the toolbar.

The following screen will appear:



The screenshot shows the "User Group Maintenance" dialog box. At the top, there are fields for "Group Key" (set to 1) and "User Group" (set to Admin). Below these are "Remarks" fields containing "Modules: ALL" and "Item Auth: ALL". Underneath, there are sections for budgeting: "Is Budget Active" (unchecked), "Number of Days" (empty), "Ignore System Option 109" (unchecked), and "Budget Amount for Issue" (empty). At the bottom, a table titled "Bin Limitation" lists two rows of data:

Bin Key	Bin Code	Item Key	Item Code	Cabinet Code
13	Demo1-01-01-13	22	5505421	Demo1
14	Demo1-01-01-14	21	5530123	Demo1

3. Fill in the fields for a new "User Group":

User Group: User group name.

Remarks: Free text.

The following fields are relevant only in case you want to restrict issue for this user group (see also Chapter D: [Budget by Amount](#) (section 16.7.2)):

Is Budget Active: Check the box if the group has a budget limitation for issuing



Budget Amount for Issue: Fill in the budget limit amount. The amount currency is the System Currency (System Option 203).

Number of Days: Fill in the number of days for the budget check.

Ignore System Option 109: Even if the system option 109 (issue used or rework items before new items) was marked, a user linked to this user group will not be forced to issue used or rework items first.

Bin Limitation: If this field is marked, a user linked to this user group will see only those bins that are listed on the grid below – relevant only for **Touch for Issue / Return / Receive / Receive without Order / Change Issue** modules. In order to limit access for users of this user group, mark this field and select the bins that should be accessible for these users.

See also Chapter B: [Tab: Authorizations](#) (section 5.3.1.9).

4. Click the [**<Save>**](#) button on the toolbar.

All the authorizations of the system are described in the authorization management (see Chapter D: [Authorization Manager](#) (section 18.3)).

Connection of a user name to a group is done through the definition of users (see Chapter D: [Users](#) (section 18.2))

18.2 Users

Entering the system is done by a "User Name" and "Password".

In order to be able to enter the system, the system manager must define every user name and its password, and to which group it's connected. The user will get the authorizations from the group/s to which it is assigned.

Search User

Entering the user definition is done through the menu.

1. Open ["Menu: Administration → Users and Authorizations → Users"](#).



2. Fill the parameters for search and click the <Search> button on the toolbar.

The following screen will appear:

Search User

User Key:	=	<input type="text"/>	User Name:	=	<input type="text"/>	Full Name:	=	<input type="text"/>
User Code:	=	<input type="text"/>	Phone No.:	=	<input type="text"/>	Last Issue date:	=	<input type="text"/>

Found 5 Records.

	User Key	User Name	Full Name	User Code	Phone No.	Last Issue date	
	1	admin	admin				
	2	liorar	Liora Rafailov				
	3	mishab	Michael B				
	5	ira	Irka				
	8	1	1 1				

Through this screen you have the ability to update / delete / add details of a user.

Add User

1. Click the <Add> button through the permanent data record.

The following screen will appear (without frame on the bottom part):



User Maintenance

User Key:	23000001	User Name:	LB
Password:	*****	* Confirm Password:	*****
Full Name:	Liora Banchik	Phone No.:	
E-Mail:	liorar@imc.com	Locked	<input type="checkbox"/>
First Name:	Liora	* Last Name:	Banchik
Badge Number:	08F7BB9000000000	Middle Name:	
User's Language:	English	User Code:	75660
Supplier Name:			
Remarks:			

User Group

User Group	
Admin	

2. Enter the user details:

- User Name: User name used for login (letters and numbers) to Manage and Touch applications.
- Password: Insert the password.
- Confirm password: Insert the same password.
- Full Name: Full name. If empty, on <Save> filled automatically with First Name & Middle Name & Last Name.
- Phone No.: Phone No.
- E-Mail: Insert the email for receiving the scheduled reports and more.
- Locked: Check the box for locking the login to the system for the user.
- First Name: First Name.
- Last Name: Last Name.
- Middle Name: Middle Name.
- Badge Number: The barcode on the personal card in order to login to the Touch module by the barcode reader.

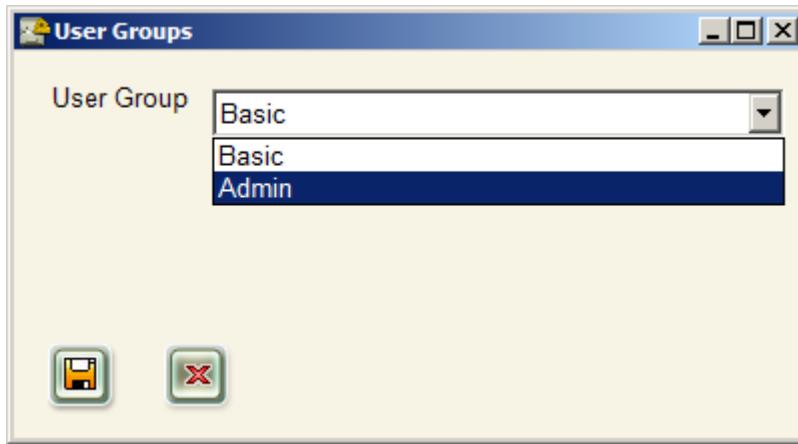
<u>User Code:</u>	User reference ID in the company' ERP system for using of interfaces. The users can also login to the Touch module automatically by scanning a tag with this code (in addition to the badge number).
<u>User's Language:</u>	The personal settings of interface language for Manage and Touch modules. If no value is selected, the default language will be taken from general setting.
<u>Supplier Name:</u>	Used to create user for a supplier to re-stock items for his orders. This user will be able to receive on Touch only orders of the defined supplier.
<u>Remarks:</u>	Free text.

Click the  **<Save>** button on the toolbar.

3. Assign user to group/groups: After saving, a frame will appear on the bottom of the window, with the possibility to connect the user to a "Group" or "Groups of Users".

In order to add the user to a group, click the  **<Add>** button inside the frame.

The following screen will appear:



4. Choose the group required and click the  **<Save>** button on the dialog screen.
5. Repeat the steps 3-4 to assign the user to other groups.
6. Click the  **<Save>** button on the toolbar.



18.3 Authorization Manager

The authorizations available in the system are defined per User Group.

The authorizations management is divided into two parts:

1. Menu Authorization – authorization to menus in Manage.
2. Controls Authorization – authorization to options in Touch and controls in Manage.

18.3.1 Menu Authorization

To set Menu authorizations in the Manage module:

1. Open "[Menu: Administration → Users and Authorizations → Authorization Manager](#)".
2. In the 'User Group' field select the group for which you want to set the authorizations.
3. Select "Menu Authorization" tab.

In this tab you receive a list of all menus and sub-menus defined for the Manage.

The screenshot shows the 'Authorization Manager' application window. At the top, there's a title bar with the window name and standard minimize, maximize, and close buttons. Below the title bar, a dropdown menu labeled 'User Group:' is set to 'Admin'. A horizontal tab bar below the dropdown contains four tabs: 'Menu Authorization' (which is highlighted in blue), 'Controls Authorization', 'Item Auth Group', and 'Budget Auth Group'. The main area of the window is a tree view of menu items. Each item has a checkbox next to its name. Some items have sub-items, indicated by a '+' sign before them. The checked items include: Main (Bin, Item, Cabinet, Supplier), Operations (Issue, Return, Stock Count, Stock Transfer, Transaction), Order (Order, Transfer Order, Receive Order, Invoices, Return to Supplier), and Reports (Stock Reports, Usage Reports, Stock Shortage, Stock Valuation Reports). At the bottom right of the main area is a 'Save' button.

4. Mark all the required menus with and click the  **<Save>** button.

Login to the system as a User of this User Group to check the new settings.



Note: You can give authorization to a full menu or specific sub-menus.

Giving authorization to a sub-menu will be allowed only if the group has authorization to enter the main menu.

18.3.2 Controls Authorization

To set Controls authorizations in Touch and Manage:

1. Open "[Menu: Administration → Users and Authorizations → Authorization Manager](#)".
2. In the 'User Group' field select the group for which you want to set the authorizations.
3. Select "[Controls Authorization](#)" tab.

In this tab you receive a list of all the subjects in the system.

Under each subject is a list of screens. Selecting a screen will display its controls and operations available for the screen.



Authorization Manager

User Group: Admin

Menu Authorization Controls Authorization Item Auth Group Budget Auth Group

*** TOUCH SYSTEM ***

- Adjust Item
- Change Issue
- Count Bins
- Issue
- Item Information
- Main Menu
- Print
- Receive
- Receive without Order
- Requests
- Return
- Return from Calibration
- Send to Calibration
- Transfer Order

Additional Fields

- Additional Fields Report
- Additional Fields-Advanced Bins Report
- Additional Fields-Advanced Items Report
- Additional Fields-Advanced Kits Report
- Additional Fields-Advanced Orders Lines R
- Adjust Item
- Advanced CPU Report
- Advanced CPU Report by Line
- Advanced Dead Stock Report
- Advanced Early Warning Report

Control Name	Authorization
Change Issue	Enabled
Change Password	Enabled
Count Bins	Enabled
Exit	Enabled
Issue	Disabled
Link Icon	Hidden
Print	Enabled

Add
 Update
 Delete
 Save

4. Select a relevant screen from the list to display its controls on the grid and screen operations under the grid.

5. For every relevant control, there is a list of authorization options. Select one of them:

Enabled – Allowed operation

Disabled – Disallowed operation (will be colored in grey)

Hidden – Hidden operation

6. Then mark the operations that should be available for the selected screen with a ✓.

For example, if none of the operations are marked, then the selected screen will be 'read only'. Note: some of the operations are not changeable (defined by the system as not changeable):





7. Click the  [**<Save>**](#) button to save the changes.

Login to the system as a User of this User Group and check the changes done.

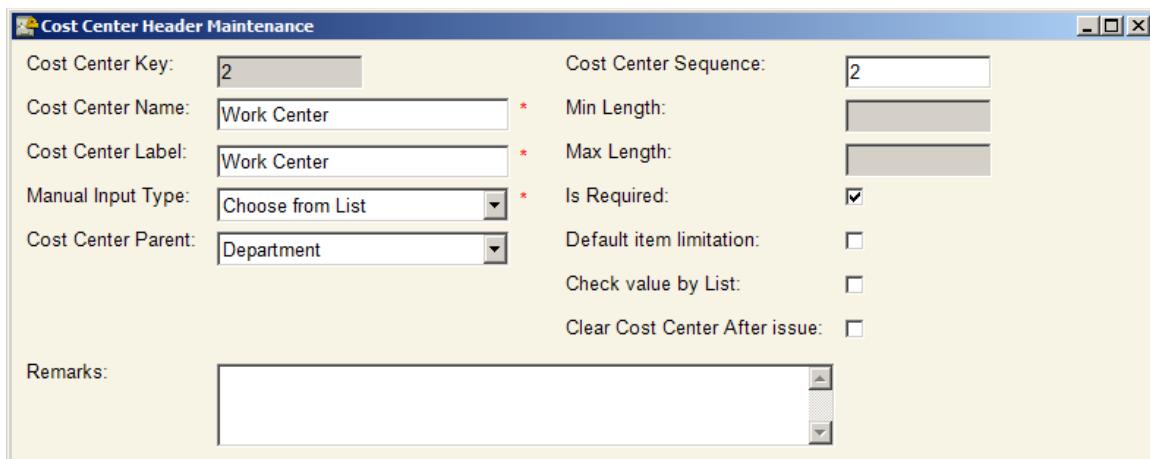
19 Cost Centers

Defining the cost centers and its details is done from the menu “Administration”.

19.1 Add Cost Center Header

Here you can Add / Update / Delete the Cost Center Header that appears in the system.

1. Open “Menu: Administration → Cost Center Header”.
2. Click the  <Add> button and the following screen will appear:



The screenshot shows a Windows application window titled "Cost Center Header Maintenance". It contains the following fields:

Cost Center Key:	2	Cost Center Sequence:	2
Cost Center Name:	Work Center	* Min Length:	<input type="text"/>
Cost Center Label:	Work Center	* Max Length:	<input type="text"/>
Manual Input Type:	Choose from List	* Is Required:	<input checked="" type="checkbox"/>
Cost Center Parent:	Department	Default item limitation:	<input type="checkbox"/>
		Check value by List:	<input type="checkbox"/>
		Clear Cost Center After issue:	<input type="checkbox"/>
Remarks:	<input type="text"/>		

Fields description:

Cost Center Key: The record Key.

Cost Center Name: Cost center name.

Cost Center Label: Cost center label.

Manual Input Type: Four options are available:

Choose from List – User will select cost center from a list. To see a list, add the cost center details to the header.

Numeric Keyboard – User will input value manually inserting only numerical characters. In Touch, a virtual numerical keyboard will be displayed.

Alpha-Numeric Keyboard – User will input value manually by inserting any character. In Touch, a virtual alpha-numerical keyboard will be displayed.

Barcode - User will input value using barcode reader only. In Touch, no virtual alpha-numerical keyboard will be displayed.

Cost Center Parent: Cost center header from which the current header inherits cost centers.

Cost Center Sequence: The location of this header in the hierarchy of all the cost center headers. The software supports displaying up to four cost center headers.

Min Length: Minimal length for input value. Not relevant for list type.

Max Length: Maximal length for input value. Not relevant for list type.

Is Required: If marked, user will have to insert value for the cost center header. Otherwise, he will not be able to continue the operation.

Default Item Limitation: If marked, all the cost centers that will be added to this header will also get this mark by default (the 'Item Limitation' field on the 'Cost Center Details Maintenance' screen). For more details see Chapter D: [Define Items per Cost Center](#) (section 19.3).

Check value by List: If marked, the value entered by user on Touch will be checked for its validity according to the list of available values. Useful when the cost center input is via Barcode with a pre-defined list of cost center details.

Clear Cost Center After issue: If set, in TOUCH in Issue process the values entered into Cost Centers will be cleared for next issue. To use this, the system option **1022** (following screen after issue) should be set to 'Cost Centers' screen.

Remarks: Free text.

3. Fill in the data and click the  [**<Save>**](#) button on the toolbar.



19.2 Add Cost Center Detail

Here you can Add / Update / Delete the Cost Center Details connected to the header, and maintain the definitions of the cost center lines.

1. Open "Menu: Administration → Cost Center Details".

2. Click the <Add> button and the following screen will appear:

Cost Center Details Maintenance

Cost Center Name:	Work Center	*
Cost Center Code:	W1	
Cost Center Description:	WC Grinding1	*
Barcode:	75069	
Active:	<input checked="" type="checkbox"/>	

Cost Center Detail Parent Item Limitation

	Cost Center Detail Parent	Active
<input checked="" type="checkbox"/>	Grinding	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Honing	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Milling	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Drilling	<input checked="" type="checkbox"/>

Cost Center Details Maintenance

Cost Center Name:	Work Center	*
Cost Center Code:	W1	
Cost Center Description:	WC Grinding1	*
Barcode:	75069	
Active:	<input checked="" type="checkbox"/>	

Cost Center Detail Parent Item Limitation

Item Limitation:

Item Code	Item Description	Additional Item Code	Additional Item Description	Group Description	Category Name
5605179	Demo APKT 1003P...		Demo APKT 1003P...	Milling	Regular
3101686	Demo HM90 E90A...		Demo HM90 E90A...	Milling	Regular
3101694	Demo HM90 E90A...		Demo HM90 E90A...	Milling	Regular
3102566	Demo HM90 E90A...		Demo HM90 E90A...	Milling	Regular
3101745	Demo HM90 E90A...		Demo HM90 E90A...	Milling	Regular

Fields description:

<u>Cost Center Name</u> *:	A list with all the cost center headers defined.
<u>Cost Center Code</u> :	Cost center code.
<u>Cost Center Description</u> *:	Cost center description.
<u>Barcode</u> :	An option to enter barcode for Cost center to be used for searching cost center on TOUCH. Relevant for cost center headers of 'Choose from List' type.
<u>Cost Center Detail Parent</u> :	Displays in the grid a list of cost centers of the parent cost center. Marking cost centers here will link them to the parent cost center.
<u>Item Limitation</u> :	If marked, only those items that were added to the bottom list will be available for issue in Touch module for this cost center.

3. In the 'Cost Center Name' field select the header for which you wish to add cost centers, insert the data for the 'Cost Center Code' and 'Cost Center Description' and click the  [<Save>](#) button.

This will create a grid of Cost Center Detail Parent.

4. In the 'Cost Center Detail Parent' mark the parent cost centers to which this cost center is linked and click again the  [<Save>](#) button.

For example: If a work center has a number of machines, and if machine 10 is under cost center C1 and cost center C2, then in the machine detail the parent cost centers would be C1 and C2.

5. Repeat the above step for all the cost centers that you need to add.
6. Open "[Menu: Reports → Cost Center Links](#)".

This report lists all the links created between different cost centers (created by marking the 'Cost Center Detail Parent' field).



Cost Center Links											
Cost Center Details			Cost Center Details			Cost Center Details			Cost Center Details		
Cost Center Name:	=	Cost Center Details Key:	=	Cost Center Code:	=	Cost Center Name:	=	Cost Center Details Key:	=	Cost Center Code:	=
Cost Center Description:	=		Parent Name:	=	<th>Parent Detail Key:</th> <td>=</td> <td></td> <th>Parent Code:</th> <td>=</td> <td></td>	Parent Detail Key:	=		Parent Code:	=	
Parent Code:	=		Parent Description:	=			=			=	
... Found 28 Records. Row: 1 Children cost centers											
Parent cost centers											
Cost Center Links	Cost Center Detail Parent	Cost Center Name	Cost Center Details Key	Cost Center Code	Cost Center Description	Cost Center Key	Parent Name	Parent Detail Key	Parent Code	Parent Description	
HEADER			COST CENTER DETAIL			HEADER			COST CENTER DETAIL		
1	2	Work Center	5	W1	WC Grinding1	1	Department	1	D1	Grinding	
2	2	Work Center	6	W2	WC Grinding2	1	Department			Cost Center Header Maintenance	
3	2	Work Center	7	W3	WC Grinding3	1	Department			Cost Center Details Maintenance	
4	2	Work Center	10	W5	WC Honing1	1	Department			Cost Center Parent Header Maintenance	
8	2	Work Center	8	W4	WC Drilling1	1	Department			Cost Center Parent Details Maintenance	
9	2	Work Center	9	W6	WC Drilling2	1	Department	4	D4	Drilling	
10	3	Machine	14	M1	Grinding Machine 11	2	Work Center	5	W1	WC Grinding1	
11	3	Machine	15	M2	Grinding Machine 12	2	Work Center	5	W1	WC Grinding1	
12	3	Machine	16	M3	Grinding Machine 21	2	Work Center	6	W2	WC Grinding2	
13	3	Machine	17	M4	Grinding Machine 22	2	Work Center	6	W2	WC Grinding2	
15	3	Machine	19	M6	Grinding Machine 32	2	Work Center	7	W3	WC Grinding3	
16	3	Machine	24	M11	Drilling Machine 11	2	Work Center	8	W4	WC Drilling1	

This report also enables you to delete links by selecting a record and clicking the button on the toolbar. By holding the CTRL key you can make multiple selections of links and delete them all at once. This option saves the need to enter into cost center detail screen and remove one by one the marks of the 'Cost Center Detail Parent' field.

You can also right-click the mouse to get a popup menu with options to open maintenance screen of the cost center headers and details.

See also Chapter C: [Cost Center Links](#) (section 9.11).

19.3 Define Items per Cost Center

You can define a list of items that will be available for Issue according to the selected cost center in Touch application in Issue module. This will require defining the links between cost centers and items. This will not have effect on the Issue in the Manage application.

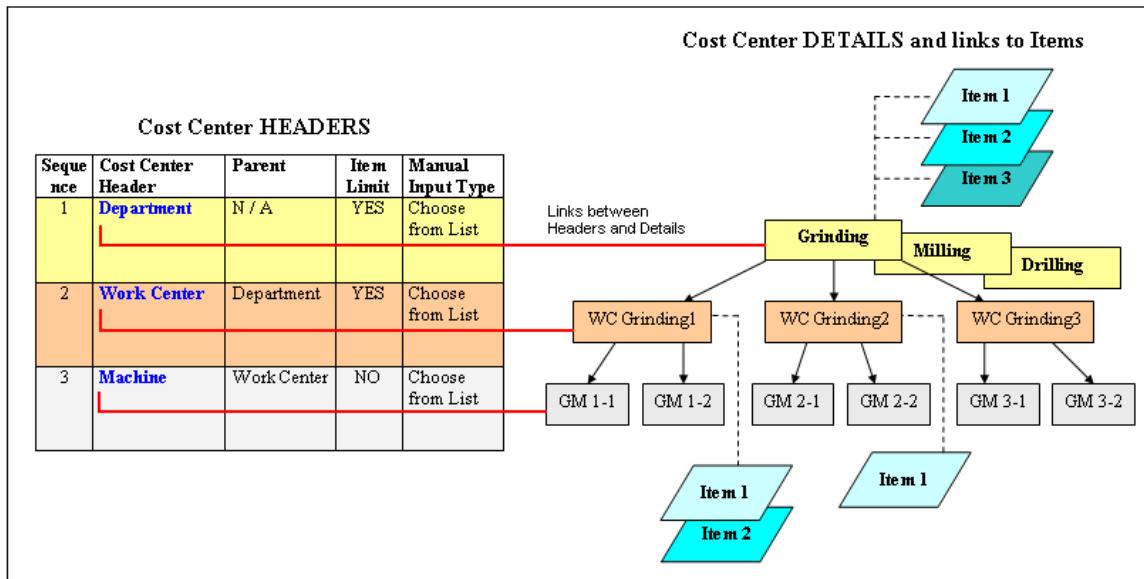
There are two ways to make these definitions which are described in the following paragraphs:

Link cost centers to ITEM - For each item to link the cost centers that will use this item.



Link items to COST CENTER – For each cost center to link the items that should be available.

The image below shows, as example, structure of headers and cost centers and the item linked to them.



Important notes before creating the links:

- The definition if to limit items for issue is made on the COST CENTER **DETAIL** level. The definition on the Header level is used only for default for 'Item Limitation' field when adding cost center to the header.
- The items that will be available for issue are defined on the COST CENTER **DETAIL** level.
- List of items available for issue can be linked only to cost centers that their header is of input type '**Choose from List**'.
- When there is more than one cost center header of input type '**Choose from List**' and they are item limited (Item Limit = YES)

If the second header hierarchies cost centers from its parent (like in the example, Work Center is related to its parent Department), it is enough to link items to the cost centers of second header only (link Item 1 & Item 2 directly to cost center WC Grinding 1).



Otherwise, it will be required to link the items to the cost centers of both headers separately (link Item 1 & Item 2 & Item 3 to cost center Grinding and then also link Item 1 & Item 2 to cost center WC Grinding 1).

- If cost center detail is defined to limit items (Item Limitation = YES) and this cost center has no linked items, then selecting this cost center in Touch will display no items (like in example, cost center WC Grinding 3).

19.3.1 Link Cost Centers to ITEM

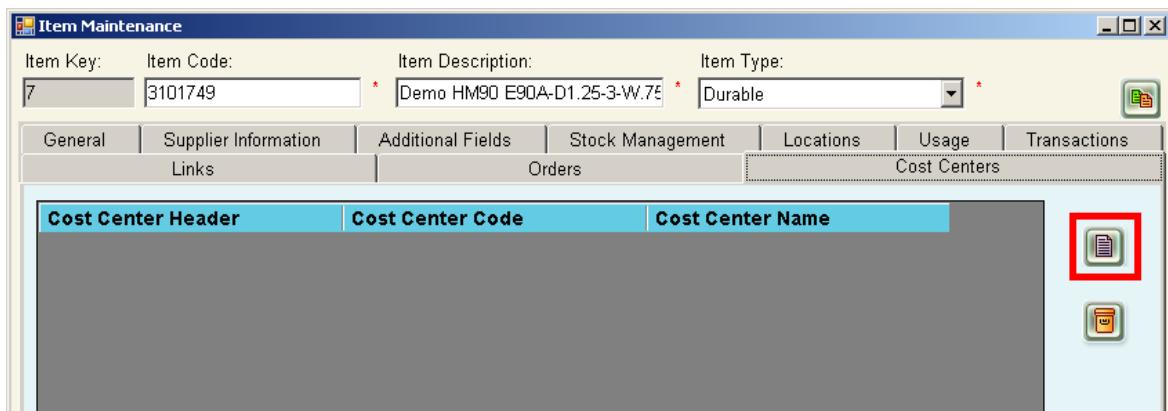
Described here the first and recommended option for making the required definitions.

This way the user will link cost centers to ITEM using 'Item Maintenance' screen.

Selecting these cost centers in Touch will display the item.

The instructions are based on the existing cost centers and items which are part of 'ITMDemo' database.

1. Select item to open its "Item Maintenance" screen and select 'Cost Centers' tab.



2. Click the [**<Add>**](#) button on the right side of the grid. This will display the list of cost centers.



Search Cost Center Details

Cost Center Details Key:	=	Cost Center Code:	=	Name:	=
Cost Center Description: =					
... Found 27 Records.					
Cost Center Details Key	Name	Cost Center Code	Cost Center Description		
1	Department	D1	Grinding		
2	Department	D2	Honing		
3	Department	D3	Milling		
4	Department	D4	Drilling		
5	Work Center	W1	WC Grinding1		
6	Work Center	W2	WC Grinding2		
7	Work Center	W3	WC Grinding3		

- Select the cost centers for which this item should be available for issue and click the <Select> button. You can select multiple cost centers by holding the CTRL key and selecting the records.

Item Maintenance

Item Key:	Item Code:	Item Description:	Item Type:																																	
7	3101749	* Demo HM90 E90A-D1.25-3-W.75	* Durable																																	
<table border="1"> <tr> <td>General</td> <td>Supplier Information</td> <td>Additional Fields</td> <td>Stock Management</td> <td>Locations</td> <td>Usage</td> <td>Transactions</td> </tr> <tr> <td>Links</td> <td></td> <td>Orders</td> <td></td> <td>Cost Centers</td> <td></td> <td></td> </tr> <tr> <td colspan="7"> <table border="1"> <tr> <th>Cost Center Header</th> <th>Cost Center Code</th> <th>Cost Center Name</th> </tr> <tr> <td>Department</td> <td>D1</td> <td>Grinding</td> </tr> <tr> <td>Work Center</td> <td>W1</td> <td>WC Grinding1</td> </tr> <tr> <td>Work Center</td> <td>W2</td> <td>WC Grinding2</td> </tr> </table> </td> </tr> </table>				General	Supplier Information	Additional Fields	Stock Management	Locations	Usage	Transactions	Links		Orders		Cost Centers			<table border="1"> <tr> <th>Cost Center Header</th> <th>Cost Center Code</th> <th>Cost Center Name</th> </tr> <tr> <td>Department</td> <td>D1</td> <td>Grinding</td> </tr> <tr> <td>Work Center</td> <td>W1</td> <td>WC Grinding1</td> </tr> <tr> <td>Work Center</td> <td>W2</td> <td>WC Grinding2</td> </tr> </table>							Cost Center Header	Cost Center Code	Cost Center Name	Department	D1	Grinding	Work Center	W1	WC Grinding1	Work Center	W2	WC Grinding2
General	Supplier Information	Additional Fields	Stock Management	Locations	Usage	Transactions																														
Links		Orders		Cost Centers																																
<table border="1"> <tr> <th>Cost Center Header</th> <th>Cost Center Code</th> <th>Cost Center Name</th> </tr> <tr> <td>Department</td> <td>D1</td> <td>Grinding</td> </tr> <tr> <td>Work Center</td> <td>W1</td> <td>WC Grinding1</td> </tr> <tr> <td>Work Center</td> <td>W2</td> <td>WC Grinding2</td> </tr> </table>							Cost Center Header	Cost Center Code	Cost Center Name	Department	D1	Grinding	Work Center	W1	WC Grinding1	Work Center	W2	WC Grinding2																		
Cost Center Header	Cost Center Code	Cost Center Name																																		
Department	D1	Grinding																																		
Work Center	W1	WC Grinding1																																		
Work Center	W2	WC Grinding2																																		

- Click the <Save> button on the main toolbar.
- Open the report that displays the linked item to cost centers by "Menu: Reports → Items → Items-Cost Centers". The screen will display results as following:

Items-Cost Centers

Item Key:	=	Item Code:	=	Item Description:	=
Cost Center Name:	=				
... Found 3 Records.					
Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W2	WC Grinding2
7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W1	WC Grinding1
7	3101749	Demo HM90 E90A-D1.25-3...	Department	D1	Grinding



6. Open the **cost center detail** for which you want to limit item selection for issue, mark the 'Item Limitation' field and save.

In the example here, open the cost center details: Grinding, WC Grinding1, WC Grinding 2.

By this, the required definitions are completed.

Open Touch application and test the results in the '**Issue**' module:

For the cost centers screen select the cost centers which you have defined for the item:

The screenshot shows the 'Cost Centers' screen. At the top, it displays 'admin: ITMDemo' and the date '21/07/2008'. Below this, a message says 'Please input the following data'. There are four input fields: 'Department' (Grinding), 'Work Center' (WC Grinding1), 'Machine' (Grinding Machine 11), and 'Job Number' (empty). To the right of each input field is a blue button with three white circles. Below the input fields are two blue buttons: 'Back' and 'Next'. At the bottom is a numeric keypad with digits 1 through 0 and a clear/cancel button.

Department = Grinding

Work Center = WC Grinding 1 or WC Grinding 2

And continue...

The screenshot shows the 'Item selection' screen. At the top, it displays 'admin: ITMDemo' and the date '24-09-2009'. Below this, a message says 'Please select an item'. There is a search bar with a magnifying glass icon and several other buttons: 'Search', 'Advanced', and 'Group...'. A table below the search bar lists items with columns: Item Code, Item Description, Group, Additional Item Code, Additional Item Description, and In Stock. One row is visible, showing Item Code 3101749, Item Description Demo HM90 E90A-D..., Group Milling, Additional Item Code empty, Additional Item Description Demo HM90 E90A-D..., and In Stock 93,00.

The screen of the items will filter the list and will display only the item that was linked to the selected cost centers.

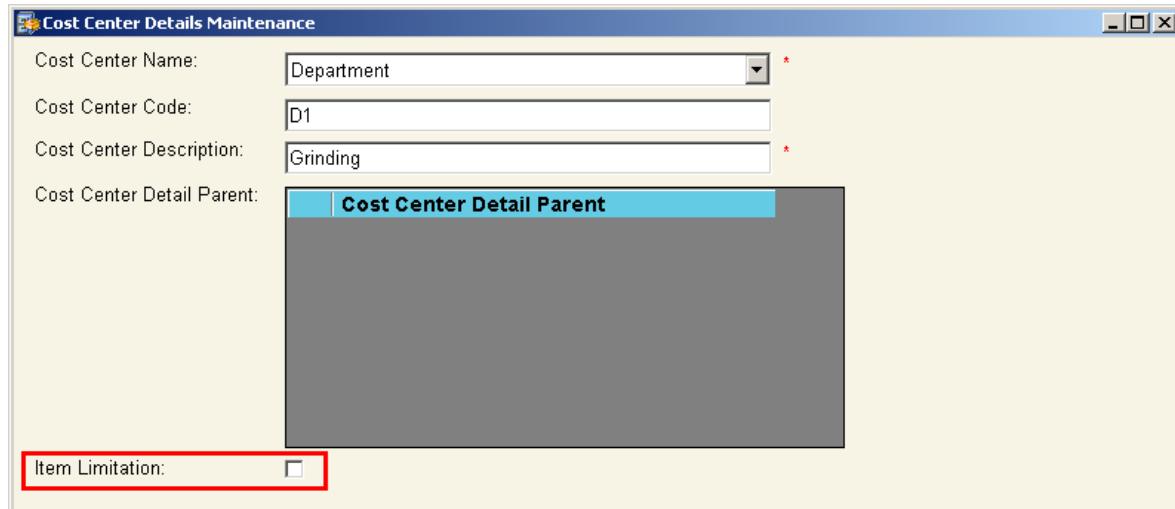
19.3.2 Link Items to COST CENTER

Described here is the second option for making the required definitions.

This way the user will link items to COST CENTER using 'Cost Center Detail Maintenance' screen. Selecting these cost centers in Touch will display the item.

The instructions are based on the existing cost centers and items which are part of 'ITMDemo' database.

1. Open the **cost center detail** for which you want to links items that will be available for issue. By this example, open the cost center Department = Grinding.



The screenshot shows the 'Cost Center Details Maintenance' window. It contains four input fields: 'Cost Center Name' (Department), 'Cost Center Code' (D1), 'Cost Center Description' (Grinding), and 'Cost Center Detail Parent'. Below these fields is a large gray area labeled 'Cost Center Detail Parent'. At the bottom left, there is a field labeled 'Item Limitation' with a checkbox next to it. The 'Item Limitation' field and its checkbox are highlighted with a red border.

2. Mark the 'Item Limitation' field to display additional grid on the bottom part of the screen for adding the items.



Cost Center Details Maintenance

Cost Center Name:	Department	*																		
Cost Center Code:	D1																			
Cost Center Description:	Grinding	*																		
Cost Center Detail Parent:	Cost Center Detail Parent																			
Item Limitation:	<input checked="" type="checkbox"/>																			
<table border="1"> <thead> <tr> <th>Item Code</th> <th>Item Description</th> <th>Additional Item Code</th> <th>Additional Item Description</th> <th>Group Description</th> <th>Category Name</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Item Code	Item Description	Additional Item Code	Additional Item Description	Group Description	Category Name												
Item Code	Item Description	Additional Item Code	Additional Item Description	Group Description	Category Name															

3. Click the <Add> button on the right side of the grid. This will display the list of items.

Search Item

Item Key:	=	Item Code:	=	Group:	=
Item Type:	=	Additional Item Code:	=	Category:	=
Item Description:	=	Item Long Description:	=	Main Family:	=
Primary Supplier:	=	Item Auth Group:	=	Sub Family:	=

... Found 79 Records.

Item Key	Category	Group	Item Code	Additional Item Code	Item Description	Pack Size	Item Type	Item Long Description
1	Regular	Milling	5605179		Demo APKT 1003PDR H...	10	Expendable	Demo APKT 1003P...
2	Regular	Milling	3101686		Demo HM90 E90A-D20...	1	Durable	Demo HM90 E90A-D...
3	Regular	Milling	3101694		Demo HM90 E90A-D32...	1	Durable	Demo HM90 E90A-D...
4	Regular	Milling	3102566		Demo HM90 E90A-D.62...	1	Durable	Demo HM90 E90A-D...
5	Regular	Milling	3101745		Demo HM90 E90A-D.75...	1	Durable	Demo HM90 E90A-D...
6	Regular	Milling	5605180		Demo APKT 1003PDR H...	10	Durable	Demo APKT 1003P...
7	Regular	Milling	3101749		Demo HM90 E90A-D1.2...	1	Durable	Demo HM90 E90A-D...
8	Regular	Milling	5600048		Demo APKT 1003PDR-H...	1	Expendable	Demo APKT 1003P...
9	Regular	Milling	5601196		Demo APKT 1003PDRD...	1	Expendable	Demo APKT 1003P...

4. Select the items that should be available for issue for this cost center and click the <Select> button. You can select multiple items by holding the CTRL key and selecting the records.



Cost Center Details Maintenance

Cost Center Name:	Department	*																		
Cost Center Code:	D1																			
Cost Center Description:	Grinding	*																		
Cost Center Detail Parent:	Cost Center Detail Parent																			
Item Limitation:	<input checked="" type="checkbox"/>																			
Item <table border="1"> <thead> <tr> <th>Item Code</th> <th>Item Description</th> <th>Additional Item Code</th> <th>Additional Item Description</th> <th>Group Description</th> <th>Category Name</th> </tr> </thead> <tbody> <tr> <td>3101686</td> <td>Demo HM90 E90A-...</td> <td></td> <td>Demo HM90 E90A-...</td> <td>Milling</td> <td>Regular</td> </tr> <tr> <td>3101749</td> <td>Demo HM90 E90A-...</td> <td></td> <td>Demo HM90 E90A-...</td> <td>Milling</td> <td>Regular</td> </tr> </tbody> </table>			Item Code	Item Description	Additional Item Code	Additional Item Description	Group Description	Category Name	3101686	Demo HM90 E90A-...		Demo HM90 E90A-...	Milling	Regular	3101749	Demo HM90 E90A-...		Demo HM90 E90A-...	Milling	Regular
Item Code	Item Description	Additional Item Code	Additional Item Description	Group Description	Category Name															
3101686	Demo HM90 E90A-...		Demo HM90 E90A-...	Milling	Regular															
3101749	Demo HM90 E90A-...		Demo HM90 E90A-...	Milling	Regular															

5. Click the **<Save>** button on the main toolbar.
6. Open the report that displays the linked item to cost centers by "Menu: Reports → Items → Items-Cost Centers". The screen will display results as following:

Items-Cost Centers

Item Key:	=	Item Code:	=	Item Description:	=
Cost Center Name:	=				
Found 2 Records.					
Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
2	3101686	Demo HM90 E90A-D20-3-W...	Department	D1	Grinding
7	3101749	Demo HM90 E90A-D1.25-3...	Department	D1	Grinding

These two items will be available for cost center Department = Grinding.

7. Repeat steps 1-5 and select the same two items for cost centers:
Work Center = WC Grinding 1
Work Center = WC Grinding 2
8. Repeat the step 6 for displaying the report. The screen will display results as following:



Items-Cost Centers						
Item Key:		Item Code:		Item Description:		
Cost Center Name:						
<input type="button" value="..."/> Found 6 Records.						
	Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
	2	3101686	Demo HM90 E90A-D20-3-W...	Department	D1	Grinding
	7	3101749	Demo HM90 E90A-D1.25-3...	Department	D1	Grinding
	2	3101686	Demo HM90 E90A-D20-3-W...	Work Center	W1	WC Grinding1
	7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W1	WC Grinding1
	2	3101686	Demo HM90 E90A-D20-3-W...	Work Center	W2	WC Grinding2
	7	3101749	Demo HM90 E90A-D1.25-3...	Work Center	W2	WC Grinding2

These two items will be available for cost center Department = Grinding and for its two sub-cost centers Work Center = WC Grinding 1 and WC Grinding 2.

By this, the required definitions are completed.

Open Touch application and test the results in the '**Issue**' module:

For the cost centers screen select the cost centers for which you have defined the items:

Cost Centers	
admin: ITMDemo	21/07/2008
Please input the following data	
Department	Grinding
Work Center	WC Grinding1
Machine	Grinding Machine 11
Job Number	
<input type="button" value="Back"/> <input type="button" value="Next"/> <input type="button" value="Next"/>	
<input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> <input type="button" value="9"/> <input type="button" value="0"/> <input type="button" value="←"/>	

Department = Grinding

Work Center = WC Grinding 1 or WC Grinding 2

And continue...



Item selection					
admin: ITMDemo		24-09-2009			
Please select an item					
Item Code	Item Description	Group	Additional Item Code	Additional Item Description	In Stock
3101686	Demo HM90 E90A-D...	Milling		Demo HM90 E90A-D...	46,00
3101749	Demo HM90 E90A-D...	Milling		Demo HM90 E90A-D...	93,00

The screen of the items will filter the list and will display only the two items that were linked to the selected cost centers.

19.4 User Cost Centers

This option defines default cost centers per User.

When the User goes to issue items, the cost centers assigned to this User will be displayed.

This can save time and prevent mistakes. The User is allowed to change the default cost centers, if authorized to do so.

1. Open "Menu: Administration → Users and Authorizations → User Cost Centers".

User Cost Center Maintenance	
User Name:	<input type="text" value="admin"/> *
Cost Center Name:	<input type="text" value="Machine"/> *
Cost Center Description:	<input type="text" value="OKUMA LT-10/112"/> *
Default Value:	<input checked="" type="checkbox"/>
Is Changeable:	<input checked="" type="checkbox"/>

Fields description:

User Name *: Lists all the users defined in the system.

Cost Center Name *: Cost center headers defined in the system.



Cost Center Description *: List of cost centers belonging to the selected 'Cost Center Name' (header).

Default Value: If checked, this cost center will be automatically set as default. Otherwise, this cost center will appear in the list of possible cost centers for user selection.

Only one cost center for each combination of user+header can be marked as default. Setting cost center as default will uncheck this mark for other cost centers defined for the same user+header.

Is Changeable: Authorizes the user to modify the default cost center. This field is available for change only in case the cost center marked as default.

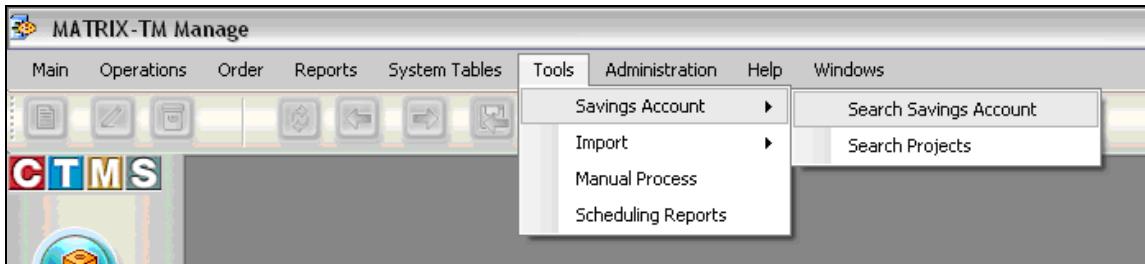
2. Fill the fields according to the fields described above and according to this principle:
In general, as long as there are cost center/s defined for user, the user will be limited to this list in TOUCH.
If those marked as "**Default Value**" not marked with "**Is Changeable**", then it will be displayed as default cost center in TOUCH and user will not be able to change cost center.
If those marked as "**Default Value**" are marked also with "**Is Changeable**", then it will be displayed as default cost center in TOUCH and user will be able to change cost centers but only from his list.
If no user cost center which is marked as "**Default Value**", then no cost center will be displayed as default in TOUCH and user will be able to select only cost centers from his list.

3. Click the **<Save>** button.
4. Repeat the same steps for each Cost Center Name.



20 Savings Account

This unique management tool measures tool and machining cost savings from productivity projects, and tracks project savings against target savings. The purpose of 'Savings Account' is to focus attention on productivity & continuous improvement.



Create the 'Savings Account' record and save. Once the account is saved, you can begin to add Projects to this Savings Account.

20.1 Adding "Savings Account"

To open Savings Account for any of the cost center headers:

1. Open "[Menu: Tools → Savings Account → Search Savings Account](#)".
2. Click the [<Add>](#) button on the toolbar to add new savings account.

The following screen will appear:

Account Key:	Account Description:	Cost Center:		
<input type="text"/>	<input type="text"/>	Factory *		
Year:	Target Savings:	Project Savings:	Tool cost savings:	Machining cost savings:
<input type="text"/>				

Fields description:

Account Description: Type in a name of your choosing.

Cost Center: Normally Part or Component.



<u>Year:</u>	Normally select the current calendar year so that the accumulated savings of all projects for this Savings Accounts will be shown in the Analyzer.
<u>Target Savings:</u>	The requested target savings for all the projects of the defined year.
<u>Project Savings:</u>	Total of Tool cost savings and Machining cost savings.
<u>Tool cost savings:</u>	Calculated tool cost savings from all projects in this Savings Account.
<u>Machining cost savings:</u>	Calculated machine cost savings from all projects in this Savings Account.

3. Enter values and click the <Save> button on the toolbar.

Once the account is saved, the following tabs are created:

Project Key	Project Description	Begin Date	End Date	Parts Count	Project Savings	Tool cost savings	Machining cost savings
1	CTMS 1	1/01/2008	31/12/2008	378,312	215,637.84	26,481.84	189,156.00
2	CTMS 2	1/01/2008	31/12/2008	154,343	83,345.22	21,608.02	61,737.20

- General tab:** To create new projects for this Savings Account, to view current projects and to edit or delete a project.
For more details, follow the next chapter.
- Graphs tab:** Displays graphically the Savings Account data. The graph style can be modified by placing the mouse cursor over the graph and right clicking for edit options.
- Links tab:** Allows linking supporting documentation relevant to projects in the Savings Account. After selecting the <Links> tab, click the Add icon



and links any type of document required, such as Word, Excel, PDF, JPEG etc...

20.2 Adding "Projects" to Savings Account

A Project records the tool and machining costs to produce a particular part, compares those costs before and after the adoption of a new tool or process, and calculates the relevant savings, both on a cost per part basis, and for the total number of parts produced for the defined period of the Project.

To add Projects to Savings Account:

1. While the relevant Savings Account is open, on the 'General' tab click the <Add> button from the right side of the grid.

General							
Project Key	Project Description	Begin Date	End Date	Parts Count	Project Savings	Tool cost savings	Machining cost savings
1	CTMS 1	01.01.2008	31.12.2008	378.312	215.637,84	26.481,84	189.156,00
2	CTMS 2	01.01.2008	31.12.2008	154.343	83.345,22	21.608,02	61.737,20

The screenshot shows a software interface with a toolbar at the top. Below the toolbar is a grid table with columns: Project Key, Project Description, Begin Date, End Date, Parts Count, Project Savings, Tool cost savings, and Machining cost savings. The first two rows of the grid contain data for 'CTMS 1' and 'CTMS 2'. To the right of the grid is a vertical toolbar with three icons: a document (highlighted with a red box), a pencil, and a clipboard.

The following screen will appear:

The screenshot shows a 'Project' dialog box with the following fields:

- Project Key: 1
- Project Description: CTMS 1
- Cost Center Code: 3500164
- Begin Date: 1/01/2008
- End Date: 31/12/2008
- Parts Count: 378312
- Usage: 68,565.44
- Tooling cost per part: Before: 0.25, After: 0.18, Savings: 0.07
- Machining cost per part: Before: 3.00, After: 2.50, Savings: 0.50
- Cost per part: Before: 3.25, After: 2.68, Savings: 0.57
- Project Savings: 26,481.84, 189,156.00, 215,637.84
- Create User: admin creator
- Update User: admin creator
- Create Date: 27/04/2009
- Update Date: 27/04/2009

The dialog box has tabs for 'Project' and 'Links'. The 'Project' tab is active. The 'Links' tab is visible at the bottom.

Input fields are white – calculated fields are grey.

Fields description:

- Project Description: Type in a name of your choosing. Cost Center Code:
The part number.
- Begin Date / End Date: The period for which tool Usage data for the selected part will be allocated to the Project.
- Parts Count: The quantity of parts produced to date during the above period.
- Tooling cost per part / Before: The estimated cost of tools per part before the Project.
- Machining cost per part / Before / After: The estimated or tested cost to machine each part before and after the Project (old method or tool v. new method or tool).

2. Enter values and click the  [<Save>](#) button on the toolbar.

When reviewing a project, first press the [<Refresh>](#) button to update Usage data.

Projects can be also searched via "Menu: Tools → Savings Account → Search Projects".

The filtered list of projects can be printed in Excel.

21 Manual Processes

21.1 Monthly Process

The main purpose of the monthly process is to calculate the Minimum and Maximum factors of the different stock levels (Bin, Item-cabinet, Item) for the system's statistics and for automatic reordering of the items. In order to be able to calculate the Minimum and Maximum factors the following parameters are first being calculated:

- Average Lead Time
- Average Usage
- Frequency and Frequency Levels
- Min and Max levels

Before running the Monthly Process, the system will check the **Last month** that was fully processed (described in system option 303 in MMYY format) and the **Current month** (by the PC time). If the [Last month] is the month before the [Current month], the process will stop notifying that the Monthly Process was already completed for this period. See the following example.

Example: If now it is September 2007 and system option 303 is set to 0807 (meaning August 2007), then the process will not run at this month anymore. In order to recalculate the months July 2007 and August 2007, set the system option to 0607 (June 2007).

Average Lead Time:

This step calculates minimum and maximum lead times for each Item-Supplier according to the order lines which were supplied during a defined period of time. Using the results, the system calculates the Average Lead Time which will be used in the next steps of the Monthly Process. If no order lines exist, the system pulls the defaults.

The step uses system options: 300, 301, 902.

Average Monthly Usage:

This step calculates average monthly usage for each item based on the Issue transactions. The calculation has two options:

MWA – Moving Weighted Average

Flat – Arithmetic Average

The system options which affect the average usage calculations are: 301, 900, and 901.

Average Frequency and Frequency Class:

Calculated from the Issue transactions frequency. According to the Issue transaction occurrence, the system calculates the classes of frequency. **A** is the most frequent bin, cabinet or item, **B** is less and so on.

The Frequency levels are calculated according to the following table:

Frequency Class	Minimum Frequency	Maximum Frequency
A	20	100000
B	10	20
C	5	10
D	2.5	5
E	0.5	2.5
Z	0	0.5
N	-2	-1

Minimum Quantity and Maximum Quantity:

Calculated according to the Min and Max Factors which are retrieved according to the Average Lead Time and the Frequency Classes (calculated before).

The Min and Max factors are multiplied by the Average Usage to obtain Min and Max levels in quantity. Those Min and Max levels are stored in the Bin, Item-Cabinet and Cabinet levels.

The monthly process will update the last monthly process system option number 303.

The process can be run through the automatic scheduler or through the menu option.

Remember! - If you run the process manually, the last monthly process cannot be last month, since in this case nothing will happen. In order to run last month you need to



change it to one month before. After changing any system option you need to exit the system to activate the change.

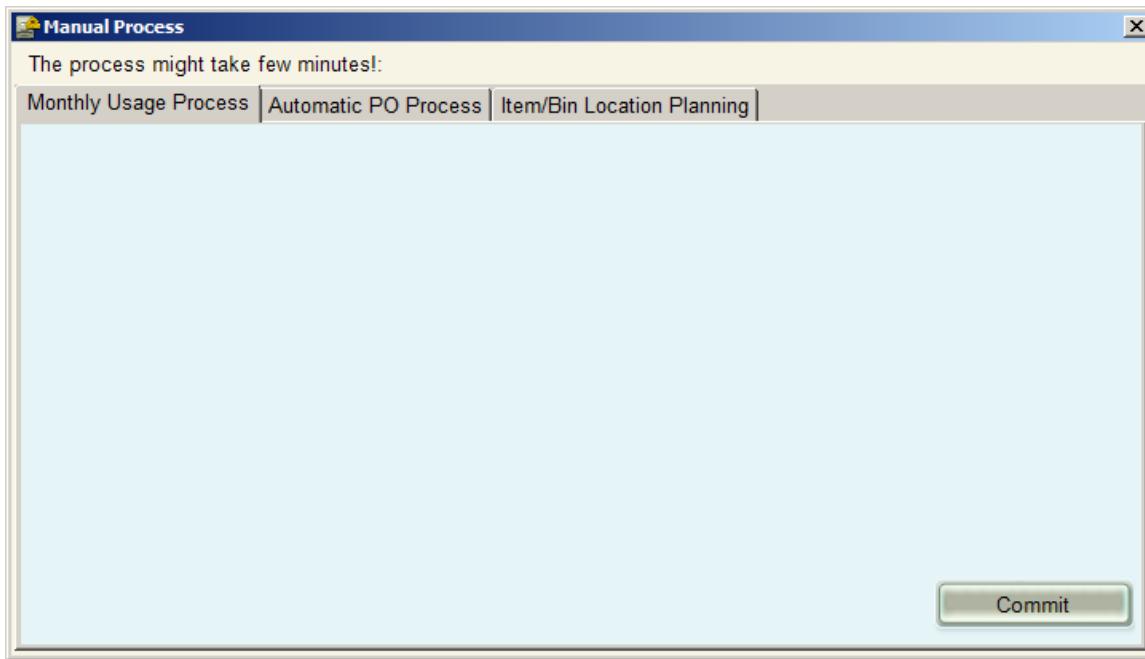
This is a list of the system options which affect the Monthly Process.

Option Key	Option Name	Option Description
300	Default Lead Time	The default value for the Lead Time of Item Supplier and also for the Monthly Lead Time calculation.
301	Number of months for Average calculations	How many months to use for calculating the Average Usage, Frequency and Lead time during monthly process.
303	Last Monthly Process	Last month (in format MMYY) that was fully processed and updated automatically by the Monthly Process.
304	End of Month Day	What day to run the Monthly Process (end of month process).
305	End of Month Time	What time to run the Monthly Process (end of month process).
900	Average usage calculation type	Average Usage can be an arithmetic average (FLAT) or a Moving Weighted Average (MWA).
901	MWA factor	The factor used to make the weighting of the MWA average. Please use values in range of 0 - 1.
902	Percent of Extreme lead time cases	The percentage of extreme cases (between 0 - 0.99) when the lead time was very short or too long. The Monthly Process will ignore them when calculating the average lead time.

It is recommended to make the "End of Month" process a scheduled process to run at the beginning of the new month. You can schedule this task through the task scheduler.

You can also run this option manually through the menus:

"Menu: Tools → Manual Process", choose the Monthly Usage Process and click <Commit>.



21.2 Automatic PO Process

This process scans the system and locates stock shortages. Once a stock shortage has been found, the system will create an automatic order to fulfill the need. In general the system is looking at the current stock in the selected stock level and comparing it to the minimum stock level parameter. If the stock is less than the minimum stock level, an order will be created to bring the stock up to the maximum stock level.

The order which is created can be assigned to a certain Bin, an Item-Cabinet or an Item. The decision as to which stock level will apply to replenish is defined in the bin (Bin stock management), in the Cabinet and also in the Item. The system also looks at system option 903 (see explanation below). The orders which are created can be active orders or draft orders. See system option no 802 for a detailed explanation.

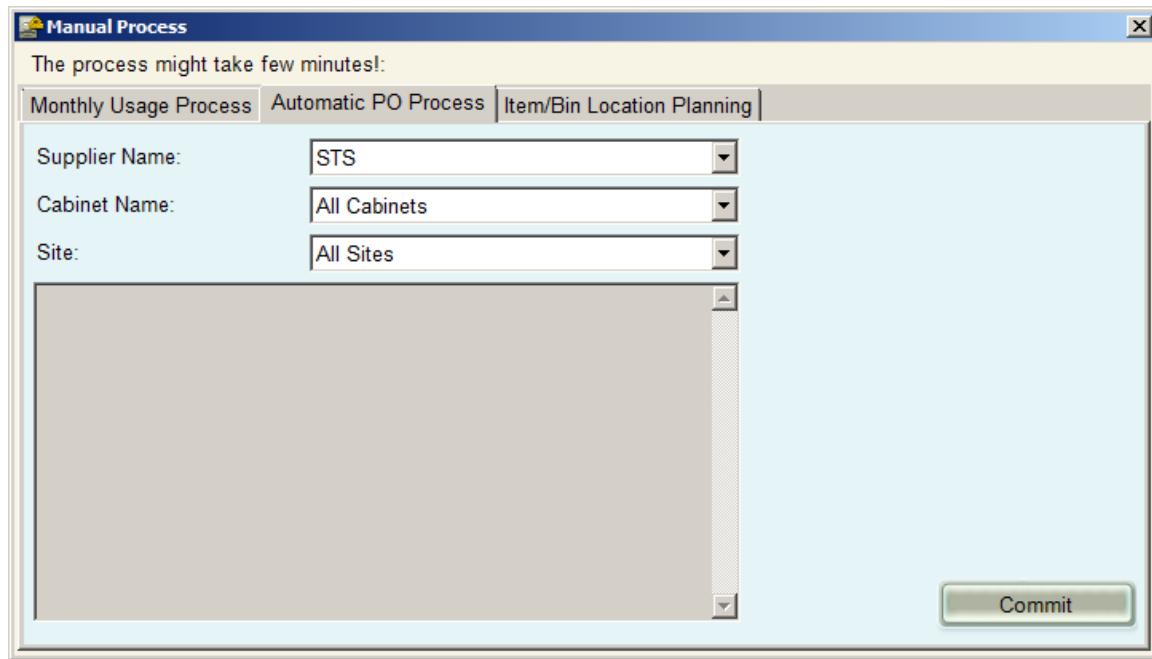
It is recommended to make the automatic PO process a scheduled process to run daily or weekly. You can schedule this task through the task scheduler.

You can also run this option manually through the menus:

1. Open "[Menu: Tools → Manual Process](#)"
2. Select the "Automatic PO Process" option
3. If you want to create orders only for a specific Supplier / Cabinet / Site, select the values from the lists. Otherwise, if you do not choose any of the values, the automatic process will create orders for all the suppliers, cabinets and sites by its stock shortage details.

Please notice that orders will be split for every supplier and every site.

4. Click the [**<Commit>**](#) button to send the order.



Following you can find the system options which are related to the automatic PO process.

Option	Option Name	Option Description
802	Auto-purchase	How to run auto purchase, 0=No run, 1= Create purchase Draft, 2= Create purchase Orders, 3=Create purchase Orders and Send to supplier
807	Auto PO Day	What day to generate the automatic PO.
808	Auto PO Time	What time to generate the automatic PO
903	Stock Management level	Stock manage level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.

22 Import Data

The "Import Data" module enables administrator users to import data located in an external file into the database of the MATRIX-TM software. In this way the user does not have to add data records manually through the Manage module, and an entire data table can be loaded automatically. After importing the records, the user can manage (update, delete) them through the application in the same way as if they had been added manually.



Important! Through this module, data is manipulated massively. It is recommended that you use it only after you fully understand how Import Data works.

Two types of files can be used for import: Text file (*.txt) or MS-Excel file (*.xls):

Chapter D: [Tables for Import](#) (section 22.1) and the Chapter D: [Tips for Preparing Input Data](#) (section 22.2) describe the tables that can be used for importing data, the accepted formats for each field and tips for editing the data. Use these chapters in preparing the import data file to ensure successful import.

Excel file (*.xls) (recommended option)

1. Add one or more sheets using one sheet per one data tables.
2. Use the top row for describing the column names (optional).
3. Edit the data according to the expected data format.

Text file (*.txt)

1. Create text file for only one data table.
2. Use the top row for describing the column names (optional).
3. Edit the data according to the expected data format.
4. Use one of the separators (',',';','|' or **TAB**) to separate between the columns.

22.1 Tables for Import

This section describes the tables that can be used for importing data into the database, detailing the fields for each table and the accepted input format. Follow this section for creating appropriate input data and use the tips described in Chapter D: [Tips for Preparing Input Data](#) (section 22.2).



Note: When using Excel, you can add more than one sheet to the file, but import the data from each sheet separately.



Important! Some of the tables can be imported independently and import of some tables will be based on the prior import of other tables. The order of tables for import indicated here is the recommended order for import into your database.

22.1.1 Import Users

This section describes Import of **Users** by table **USER_PROFILES**.

This table can be imported independently, however it is recommended to manually add the User Groups (as described in Chapter D: [Group of Users](#) (section 18.1)) in order to enable the import of User Group definition as well (see in table GROUP_NAME field).

Input Format	Field in the User Interface	Field Name
Free text up to 10 characters	User Name	USER_NAME (Required, Unique)
Free text up to 50 characters	Password	USER_PASSWORD defined as PASSWORD (Required)
Free text up to 40 characters	Full Name	USER_CAPTION defined as FULL_NAME (Required)
Free text up to 20 characters	First Name	STR_FIRST_NAME defined as FIRST_NAME (Required)
Free text up to 20 characters	Last Name	STR_LAST_NAME defined as LAST_NAME (Required)
User Group as appears in the 'User Group Maintenance' screen	User Group	GROUP_NAME (Required, Unique)
Free text up to 50 characters	Phone No.	PHONE_NUMBER
Free text up to 500 characters	E-Mail	EMAIL

0 (Not locked) or 1 (Locked)	Locked	USER_LOCKED
Free text up to 50 characters	Badge Number	BADGE_NUMBER
Free text up to 50 characters	User Code	USER_CODE
Short format, like in Texts (for example: en-US, de)	User's Language	INT_LANGUAGE_KEY
These fields are not in the interface and not recommended for import.		USER_NUMBER
		STR_PERSON_ID
		INT_DENY_DELETE
		USER_CREATED
		USER_LAST_MODIFIED
		DATE_LAST_ISSUE
		DATE_PASSWORD_EXPIRED
		DATE_LOCKED
		DATE_CREATED
		DATE_LAST_MODIFIED

Example for Excel format:

USER_NAME	PASSWORD	FULL_NAME	FIRST_NAME	LAST_NAME	GROUP_NAME
GrantH	1245	Grant Hackett	Grant	Hackett	Admin
IanT	2535	Ian Thorpe	Ian	Thorpe	Admin
GeorgeB	2323	George Bush	George	Bush	Basic
HillaryC	6565	Hillary Clinton	Hillary	Clinton	Basic
AndrewB	8565	Andrew Benson	Andrew	Benson	Basic
GregR	1204	Greg Reid	Greg	Reid	Basic
KobiB	1209	Kobi Bryant	Kobi	Bryant	Basic
JacobC	1112	Jacob Cohen	Jacob	Cohen	Basic

...continuation of the table

PHONE_NUMBER	EMAIL	BADGE_NUMBER	INT_LANGUAGE_KEY
(+1) 955-85-66	Grant@tooling.com	60050	en-US
(+1) 955-85-67	Ian@tooling.com	60051	en-US
(+1) 955-85-68	George@tooling.com	60052	de
(+1) 955-85-69	Hillary@tooling.com	60053	de
(+1) 955-85-70	Andrew@tooling.com	60054	hu
(+1) 955-85-71	Greg@tooling.com	60055	de
(+1) 955-85-72	Kobi@tooling.com	60056	ru
(+1) 955-85-73	Jacob@tooling.com	60057	he



Note: It is not necessary to rename the column names in Excel the same as in the example, but the format of the value must be equal (*Numeric, Text, Boolean or Date*).

22.1.2 Import Item Groups

This section describes Import of **Item Groups** by table **TVL_ITEM_GROUPS**.

This table can be imported independently.

Input Format	Field in the User Interface	Field Name
Free text up to 50 characters	Group Code	GROUP_CODE (Required, Unique)
Free text up to 100 characters	Group Description	GROUP_DESCRIPTION (Required)
These fields are not in the interface and not recommended for import.		DATE_CREATED
		USER_CREATED
		DATE_LAST_MODIFIED
		USER_LAST_MODIFIED

Example for Excel format:

GROUP_CODE	GROUP_DESCRIPTION
01	Tooling
02	Milling
03	Drilling
04	Threading
05	ISO Turn

22.1.3 Import Suppliers

This section describes Import of **Suppliers** by table **ENT_SUPPLIER_MASTER**.

This table can be imported independently, but before this Units of Measure and Currencies must be added manually.

Input Format	Field in the User Interface	Field Name
Free text up to 10 characters	Supplier Code	SUPPLIER_CODE (Required, Unique)
Free text up to 50 characters	Supplier Name	SUPPLIER_NAME (Required)
Currency key	Currency	CURRENCY_KEY (Required)
Shipping Method Name as appears in the 'Shipping Method Maintenance' screen	Shipping Method	SHIPPING_METHOD_KEY defined as SHIPPING_METHOD_NAME (Required)
Free text up to 50 characters	Additional Supplier Code	ADD_SUPPLIER_CODE
Free text up to 45 characters	Address – first line	SHIP_TO_ADDRESS1
Free text up to 45 characters	Address – second line	SHIP_TO_ADDRESS2
Free text up to 45 characters	Address – third line	SHIP_TO_ADDRESS3
Free text up to 45 characters	Address – fourth line	SHIP_TO_ADDRESS4
Free text up to 20 characters	Phone No.	SUPPLIER_PHONE
Free text up to 20 characters	Fax No.	SUPPLIER_FAX
Free text up to 100 characters	E-Mail	SUPPLIER_EMAIL
Free text up to 200 characters	Home Page	HOME_PAGE
Free text up to 50 characters	Contact Person	CONTACT_PERSON
Order Method by the next options: 2-Email 3-Print 4-No Sending	Order Method	ORDER_METHOD_KEY
Free text up to 500 characters	Remarks	REMARKS
0 (Not to send) or 1 (To send)	Send To ERP	SEND_ERP
Value from 1-13 by the order appears in the list	Schedule Day	AUTO_PO_DAY
Value from 1-24 by the order appears in the list	Schedule Time	AUTO_PO_TIME
The field is not editable in the interface and not recommended for import	Date Last Updated	DATE_LAST_RUN
Value from 1-3 by the order appears in the list: 1-Specified 2-Default Schedule 3-Do not run	Schedule Type	SCHEDULER_TYPE
These fields are not in the interface and not recommended for		BILL_TO_ADDRESS1



import.	BILL_TO_ADDRESS2
	BILL_TO_ADDRESS3
	BILL_TO_ADDRESS4
	DATE_CREATED
	USER_CREATED
	DATE_LAST_MODIFIED
	USER_LAST_MODIFIED

Example for Excel format:

SUPPLIER_CODE	SUPPLIER_NAME	CURRENCY_KEY	SHIPPING_METHOD_KEY	SEND_E_RP	SHIP_TO_ADDRESS1	SHIP_TO_ADDRESS2
01	Iscar	0	DHL	0	Dizengof st. 34/5 TA	Israel
02	Outiltec	0	DHL	1	New York	USA
03	Ingersoll	0	EXPRESS	0	Hannover	Germany
04	TaeguTec	0	EXPRESS	1	Beijing	China

...continuation of the table

SUPPLIER_PHONE	SUPPLIER_EMAIL	HOME_PAGE	CONTACT_PERSON
+972 50 687 000 2	Iscar@support.com	www.Iscar.com	Jacob Cohen
+972 50 687 000 3	Outiltec@support.com	www.Outiltec.com	Peter Brosnan
+972 50 687 000 4	Ingersoll@support.com	www.Ingersoll.com	Chuck Elder
+972 50 687 000 5	TaequTec@support.com	www.TaequTec.com	Jackie Chang

22.1.4 Import Items and their Suppliers

This section describes Import of **Items** by table **ENT_ITEM_MASTER** and Import of **Items' suppliers** by table **ENT_ITEM_SUPPLIERS**.

These tables cannot be imported independently, See the note.



Note: In order to import items and their suppliers' definitions, the following tables must be first imported or added manually: Unit of Measure, Item Groups (can be imported as described before), Item Category, Suppliers (can be imported as described before).

Import **Items** by table **ENT_ITEM_MASTER**:

According to this table, Items should be added with no supplier definitions to the view "Menu: Main → Item → Search Item"

Input Format	Field in the User Interface	Field Name
Free text up to 30 characters	Item Code	ITEM_CODE defined as Item Code (Required, Unique)
Free text up to 50 characters	Item Description	ITEM_DESCRIPTION defined as Description (Required)
One of the following values: E -Expendable R -Reworkable D -Durable K -Kit	Item Type	TYPE_KEY defined as TYPE_CODE (Required)
Group Code as appears in the 'Item Group Maintenance' screen	Item Group	GROUP_KEY defined as GROUP_CODE (Required)
Numerical	Pack Size	PACKET_SIZE (Required)
Unit Measure Code as appears in the 'Unit of Measure Maintenance' screen	Unit of Measure	UM_KEY defined as UNIT_OF_MEASURE_CODE (Required)
Numerical	Default Issue Quantity	DEFAULT_ISSUE_QTY (Required)
Category Code as appears in the 'Item Category Maintenance' screen	Category	CRC_KEY defined as CATEGORY_CODE (Required)
Supplier Code as appears in the 'Supplier Maintenance' screen. Please notice that this field cannot be updated by import before importing Item	Primary Supplier	SUPPLIER_KEY defined as SUPPLIER_CODE

Suppliers.		
Free text up to 30 characters	Additional Item Code	ADDITIONAL_ITEM_CODE
Free text up to 100 characters	Item Long Description	ITEM_LONG_DESCRIPTION
Numerical	Item Price	ITEM_PRICE
Free text up to 50 characters	Barcode	UPC
0 (No) or 1 (Yes)	Item Management Level	IS_CALC_LEVEL
0 (No) or 1 (Yes)	Consignment	IS_CONSIGNMENT
Free text	Remarks	REMARKS
	Main Family	MAIN_FAMILY_KEY
	Sub Family	SUB_FAMILY_KEY
Item Authorizations Group Key as appears in the 'Item Auth Group Maintenance' screen	Item Auth Group	ITEM_AUTH_GROUP_KEY
Numerical (These fields are not editable in the interface)	Average Cost	ITEM_COST
Numerical	Price of Reworked	REWORK_PRICE
Numerical	Item Weight	ITEM_WEIGHT
These fields are not editable in the interface and not recommended for import.		USER_CREATED
		DATE_CREATED
		USER_LAST_MODIFIED
		DATE_LAST_MODIFIED

Import **Items' suppliers** by ENT_ITEM_SUPPLIERS:

According to this table Supplier/s should be added to the 'Item Maintenance' screen on tab 'Supplier Information'.

Input Format	Field in the User Interface	Field Name
Free text	Item Code	ITEM_KEY defined as Item Code (Required, Unique)
Supplier Code as appears in the 'Supplier Maintenance' screen	Supplier Code on the 'Supplier Information' tab of the Item	SUPPLIER_KEY defined as SUPPLIER_CODE (Required, Unique)
Numerical	Supplier Price	SUPPLIER_PRICE (Required)
Numerical	Pack Size	PACKAGE_SIZE (Required)
Unit Measure Code as appears in the 'Unit of Measure Maintenance' screen	Unit of Measure	UM_KEY defined as UNIT_OF_MEASURE_CODE (Required)
Free text up to 30 characters	Supplier Item Code	SUPP_ITEM_CODE
Free text up to 100 characters	Supplier Item Description	SUPP_ITEM_DESCRIPTION
Date & Time	Expire Date	EXPIRATION_DATE
Numerical	Minimum Order Quantity	MIN_ORDER_QTY
Numerical	% Discount	SUPPLIER_DISCOUNT
Free text	Remarks	REMARKS
0 (No) or 1 (Yes)	Cost Breaks on the 'Supplier Information' tab of the Item	IS_COST_BREAK



Numerical	Lead Time Override on the sub-tab 'Usage Information'	LEAD_AV_OVERRIDE
Date & Time	Lead Average Effective Date	LEAD_AV_AD
These fields are not editable (or not visible) in the interface and not recommended for import.		IS_AUTO_PURCHASE
		MIN_LEAD_TIME
		MAX_LEAD_TIME
		LEAD_AV
		USER_CREATED
		DATE_CREATED
		USER_LAST_MODIFIED
		DATE_LAST_MODIFIED

Example for Excel format:

The table below lists item data with corresponding suppliers' data (**yellow** fields are for Items table, **green** fields for Item Suppliers table). Some of the items in the example have more than one supplier definition, meaning more than one supplier supplies this item. In this case add another row for the same Item Code and fill in only the data for the supplier.

Item Code	Description	UPC	TYPE_CODE	GROUP_CODE	PACKET_SIZE	DEFAULT_ISSUE_QTY	CATEGORY_CODE	ITEM_PRICE
2300167	ID2300167	02300167	E	0	1	1	R	10
2300167								
2300168	ID2300168	02300168	E	1	10	10		20
2300168								
2300168								
2300169	ID2300169	02300169	D	2	5	5	G	30
2300170	ID2300170	02300170	D	3	5	5	K	40
2300171	ID2300171	02300171	R	4	10	10	A	50
2300172	ID2300172	02300172	R	5	5	5		60
2300173	ID2300173	02300173	K	6	1	1		70

...continuation of the table

REWORK_PRICE	IS_CALC_LEVEL	IS_CONSIGNMENT	SUPPLIER_KEY	SUPPLIER_CODE	SUPPLIER_PRICE	SUPPLIER_DISCOUNT	MIN_ORDER_QTY	PACKAGE_SIZE
5	1	1	1	01	8	10	10	5
				02	6	20	10	5
10	1	1	2	02	18	10	5	5
				03	16	20	5	5
				04	14	30	5	5
15	1	1	3	03	28	10	20	10
20	1	1	4	04	38		20	10



25	1	1	5	05	48		20	10
30	1	0	1	01	58	10	20	10
35	1	0	1	01	68	10	20	10

Import Items and their Suppliers:

In order to import items together with their suppliers, both tables ENT_ITEM_MASTER and ENT_ITEM_SUPPLIERS should be added to one import project and imported at once.

Otherwise you can import the items first and their suppliers later and then create a link between them. For separated import follow these steps:

1. Edit for input the data of Items and Item Suppliers in one table or in two separate tables.
2. Create import project with ENT_ITEM_MASTER table for importing only Items and import the data.

At this stage Items should be added with no supplier definitions to the view "Menu: Main → Item → Search Item".

3. Create import project with ENT_ITEM_SUPPLIERS table for importing Suppliers for the items that were already imported and then import the data.

At this stage Supplier/s will be added to the 'Item Maintenance' screen on tab 'Supplier Information'.

4. Import again the ENT_ITEM_MASTER table only with the SUPPLIER_KEY field for 'Primary Supplier' value. This value cannot be imported correctly before carrying out the previous step 3.



22.1.5 Import Cost Centers

This section describes Import of **Cost centers** by table **TVL_COST_CENTER_DETAILS** and Import of **Cost Centers' Links** by table **TVL_COST_CENTER_LINKS**.

These tables cannot be imported independently, See the note.



Note: In order to import Cost Centers and the links between them, you must first add manually Cost Center Headers as described in Chapter D: [Add Cost Center Header](#) (section 19.1).

Import **Cost centers** by **TVL_COST_CENTER_DETAILS**:

This table allows you to add Cost Centers to the view "Menu: Administration → Cost Center Details" with no link to other cost centers.

Input Format	Field in the User Interface	Field Name
Free text up to 50 characters	Cost Center Code	COST_CENTER_CODE (Required, Unique)
Free text up to 50 characters	Cost Center Description	COST_CENTER_VALUE (Required)
Cost Center Name as appears on the 'Cost Center Header Maintenance' screen	Cost Center Name	COST_CENTER_KEY defined as COST_CENTER_HEADER (Required, Unique)
This field is not in use anymore since the change in version 4 in Cost Centers: Now every Cost Center can be linked to several different Cost Centers on the Cost Center Header above.		COST_CENTER_DTL_FATHER_KEY
These fields are not editable in the interface and not recommended for import.		USER_CREATED DATE_CREATED USER_LAST_MODIFIED DATE_LAST_MODIFIED

Import **Cost Centers' Hierarchy** by table **TVL_COST_CENTER_LINKS**:

This table allows you to link the cost center to its parent cost center/s as seen on the 'Cost Center Details Maintenance' screen.

Input Format	Field in the User Interface	Field Name
Free text up to 50 characters	Cost Center Code	COST_CENTER_DTL_KEY defined as COST_CENTER_CODE_CHILD



		D (Required, Unique)
Free text up to 50 characters	The 'Cost Center Code' of the 'Cost Center Detail Parent' which is marked on the 'Cost Center Details Maintenance' screen	COST_CENTER_FATHER_KEY defined as COST_CENTER_CODE_PARENT (Required, Unique)
These fields are not editable (and not visible) in the interface and not recommended for import.		USER_CREATED DATE_CREATED USER_LAST_MODIFIED DATE_LAST_MODIFIED

Example for Excel format:

This example is for import of cost centers for two headers that were manually created, as seen on the attached screen:

Cost Center	Cost Center Name	Cost Center Label	Is Required	Cost Center Parent	Manual Input Type	Cost Center Sequence
1	Work Center	Work Center	No		Choose from List	1
2	Machine	Machine	No	Work Center	Choose from List	2
3	Job Number	Job Number	No		Numeric Keyboard	3

The header called 'Work Center' is independent and the header called 'Machine' hierarchies cost centers from Work Center header.

1. Create manually Cost Center Headers
2. Create data table for the cost centers of 'Work Center' header, as in the following table:

Table 1: Data for table TVL_COST_CENTER_DETAILS:

COST_CENTER_HEADER	COST_CENTER_CODE	COST_CENTER_VALUE
Work Center	WC01	Tooling
Work Center	WC02	Milling
Work Center	WC03	Drilling
Work Center	WC04	Threading



3. Create import project for importing the cost centers of 'Work Center' header and import the data, as in the following screens:

Import project header

Import Data

Import | **Tables Properties**

Import Project Key: Project Name: **Import**

Project Properties

File Name: **...**

With Head:

Sheet Name:

Result

Table name - TBL_COST_CENTER_DETAILS
On Source file - 4 rows
Inserted - 4 rows
Updated - 0 rows
Failed - 0 rows

Table Name	Status
TBL_COST_CENTER_DETAILS	Update/Insert



Import project – adjusting columns between Excel and Project details

Import Data

Import		Tables Properties	
		Table Name: TVL_COST_CENTER_DETAILS	
Field Name	Is Unique	Column Name	Sequence
COST_CENTER_CODE	<input checked="" type="checkbox"/>	COST_CENTER_CODE	2
COST_CENTER_VALUE	<input type="checkbox"/>	COST_CENTER_VALUE	3
COST_CENTER_KEY	<input checked="" type="checkbox"/>	COST_CENTER_HEADER	

Column Properties

Field Name:	COST_CENTER_CODE	In File:	<input checked="" type="checkbox"/>
Required:	Yes	Column Name:	<input checked="" type="radio"/> COST_CENTER_CODE
Is Unique:	<input checked="" type="checkbox"/>	Sequence:	<input checked="" type="radio"/> 2
		Default Value:	<input type="text"/>

Cost centers of Work Center header imported by the project:

Search Cost Center Details

Cost Center Details Key:	<input type="button" value=">"/> <input type="text" value="27"/>	Cost Center Code:	<input type="button" value="="/> <input type="text"/>	Name:	<input type="button" value="="/> <input type="text"/>
Cost Center Description:	<input type="button" value="="/> <input type="text"/>				

Found 4 Records.

Cost Center Details Key	Name	Cost Center Code	Cost Center Description
28	Work Center	WC01	Tooling
29	Work Center	WC02	Milling
30	Work Center	WC03	Drilling
31	Work Center	WC04	Threading

4. Create data table for the cost centers of 'Machine' header, as in the following table:

Table 2: Data for table TVL_COST_CENTER_DETAILS:

COST_CENTER_HEADER	COST_CENTER_CODE	COST_CENTER_VALUE
Machine	M01	INTEGREX 30
Machine	M02	INTEGREX 100
Machine	M03	INTEGREX 200
Machine	M04	INTEGREX 300
Machine	M05	MAC-TURN
Machine	M06	MAZAK6200 1
Machine	M07	MAZAK6200 2
Machine	M08	MAZAK6200 3
Machine	M09	MAZAK6200 4
Machine	M10	MAZAK6200 5
Machine	M11	NAKAMURA WT250 7
Machine	M12	NAKAMURA WT250 8
Machine	M13	OKUMA LT10 1
Machine	M14	OKUMA LT10 2
Machine	M15	OKUMA LT10 3

5. Create another import project for importing the cost centers of 'Machine' header and import the data similar to the previous import.

Cost centers of Machine header imported by the project:

Search Cost Center Details

Cost Center Details Key:	<input type="text"/> > <input type="text" value="27"/>	Cost Center Code:	<input type="text"/> = <input type="text"/>	Name:	<input type="text"/> = <input type="text"/>
Cost Center Description:	<input type="text"/>				
Found 19 Records.					
Cost Center Details Key	Name	Cost Center Code	Cost Center Description		
28	Work Center	WC01	Tooling		
29	Work Center	WC02	Milling		
30	Work Center	WC03	Drilling		
31	Work Center	WC04	Threading		
32	Machine	M01	INTEGREX 30		
33	Machine	M02	INTEGREX 100		
34	Machine	M03	INTEGREX 200		
35	Machine	M04	INTEGREX 300		
36	Machine	M05	MAC-TURN		
37	Machine	M06	MAZAK6200 1		
38	Machine	M07	MAZAK6200 2		
39	Machine	M08	MAZAK6200 3		
40	Machine	M09	MAZAK6200 4		
41	Machine	M10	MAZAK6200 5		
42	Machine	M11	NAKAMURA WT250 7		
43	Machine	M12	NAKAMURA WT250 8		
44	Machine	M13	OKUMA LT10 1		
45	Machine	M14	OKUMA LT10 2		
46	Machine	M15	OKUMA LT10 3		



6. Create data table for the links of cost centers of 'Machine' header to the cost centers of 'Work Center' header, as in the following table:

Table 3: Data for table TVL_COST_CENTER_LINKS:

COST_CENTER_CODE_CHILD	COST_CENTER_CODE_PARENT
M01	WC01
M02	WC01
M02	WC02
M03	WC02
M04	WC02
M04	WC03
M04	WC04
M05	WC02
M06	WC02
M07	WC02
M08	WC03
M09	WC03
M10	WC03
M11	WC01
M11	WC03
M11	WC04
M12	WC03
M13	WC03
M14	WC03
M15	WC03

Please note that in the table of links some of the Machine cost centers (marked in red) are linked to more than one Work Center.

7. Create import project for importing the links and import the data, as in the following screen:



Import project – adjusting columns between Excel and Project details

Import Data

Import Tables Properties

Table Name: TVL_COST_CENTER_LINKS

Field Name	Is Unique	Column Name	Sequence	In File	Default Value	Required
COST_CENTER_DTL_KEY	<input checked="" type="checkbox"/>	COST_CENTER_CODE_CHILD	1	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
COST_CENTER_FATHER_...	<input checked="" type="checkbox"/>	COST_CENTER_CODE_PARENT	2	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

Column Properties

Field Name: COST_CENTER_DTL_KEY In File:

Required: Yes Column Name: COST_CENTER_CODE_CH

Is Unique: Sequence: 1

Default Value:

Links between a cost center and its parent cost center imported by the project:

Cost Center Details Maintenance

Cost Center Name: Machine *

Cost Center Code: M04

Cost Center Description: INTEGREX 300 *

Cost Center Detail Parent:

Cost Center Detail Parent	
<input type="checkbox"/>	Tooling
<input checked="" type="checkbox"/>	Milling
<input checked="" type="checkbox"/>	Drilling
<input checked="" type="checkbox"/>	Threading



At this point the import of cost center is completed by importing cost centers to two headers and linking them. If you need to import cost center to more headers, make it in similar way.

22.1.6 Import Bins

This section describes Import of **Data for Bins** by table **ENT_BIN_MASTER**.

The purpose of this module is to import easily the **Items definitions** and **Bins properties** for a group of bins at once.

Please notice that this module will not import the bins themselves, therefore the bins must be created prior to the import and then exported to excel for editing the data for import.

Input Format	Field in the User Interface	Field Name
Bin Code as appears in the 'Bin Maintenance' screen	Bin Code	BIN_CODE (Required, Unique)
Item Code as appears in the 'Item Maintenance' screen	Item Code	ITEM_KEY defined as ITEM_CODE (Required)
Numerical	Capacity	CAPACITY (Required)
Numerical	Default Issue Quantity	DEFAULT_ISSUE_QTY (Required)
1 (Active) or 2 (Not Active)	Status	BIN_STATUS
0 (Unmarked) or 1 (Marked)	Allow Over Capacity	IS_OVER_CAPACITY_ALLO WED
0 (Unmarked) or 1 (Marked)	Consignment	IS_CONSIGNMENT
0 (Unmarked) or 1 (Marked)	Bin Stock Management	IS_CALC_LEVEL
0 (Unmarked) or 1 (Marked)	Reworked	IS_REWORK
0 (Unmarked) or 1 (Marked)	Used Item	IS_USED
0 (Unmarked) or 1 (Marked)	Automatic Order	IS_AUTO_ORDERING
0 (Unmarked) or 1 (Marked)	Do not Order	NO_ORDER
0 (Unmarked) or 1 (Marked)	Do not Issue	NO_ISSUE
Numerical	Issue Price	ISSUE_PRICE
	Remarks	REMARKS
These fields are not in the interface (or not editable) and not recommended for import.		LAST_COUNTED_DATE ERP_STATUS ISSUE_LEVEL_CODE BIN_TYPE_CODE LAST_ISSUE_DATE LAST_RECEIVE_DATE USER_CREATED DATE_CREATED USER_LAST_MODIFIED DATE_LAST_MODIFIED

Example for Excel format:

BIN_CODE	ITEM_CODE	CAPACITY	DEFAULT_ISSUE_QTY	BIN_STATUS	IS_OVER_CAPACITY_ALLOWED	IS_CONSIGNMENT
Demo1-01-01-01	5501822	20	10	Active	0	0
Demo1-01-01-02	5502097	20	1	Active	0	0
Demo1-01-01-03	5502128	20	1	Active	0	1
Demo1-01-01-04	5502149	30	10	Active	0	1
Demo1-01-01-05	5502149	30	10	Active	0	0
Demo1-01-01-06	5502154	30	10	Active	0	0
Demo1-01-01-07	5502161	20	10	Active	0	0
Demo1-01-01-08	5502161	30	10	Active	0	0
Demo1-01-01-09	5502203	40	10	Active	1	0

...continuation of the table

IS_CALC_LEVEL	IS_REWORK	IS_USED	IS_AUTO_ORDERING	NO_ORDER	NO_ISSUE	ISSUE_PRICE
0	0	0	0	0	0	
0	0	0	0	0	0	12,6
0	0	1	0	0	0	10,8
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	

22.1.7 Import Stock Management Data

This section describes Import of **Data for Stock Management** by table

V_IMPORT_STOCK_MANAGE_LEVEL.

The main purpose of this module is to import Minimum and Maximum quantities for any stock management level (Bin / Cabinet / Item) in order to allow automatic orders.

Input Format	Field in the User Interface	Field Name
Item Code as appears in the 'Item Maintenance' screen	Item Code	ITEM_KEY defined as ITEM_CODE (Required, Unique)
Cabinet Code as appears in the 'Cabinet Maintenance' screen. Not relevant for import on Item Level.	Cabinet Code	CABINET_KEY defined as CABINET_CODE (Required, Unique)



Bin Code as appears in the 'Bin Maintenance' screen. Not relevant for import on Item or Cabinet levels.	Bin Code	BIN_KEY defined as BIN_CODE (Required, Unique)
Bin or Item/Cabinet or Item	N/A	CALC_LEVEL (Required, Unique)
Numerical	Minimum Quantity	MIN_QTY_OV
Numerical	Maximum Quantity	MAX_QTY_OV
Numerical	Av. Monthly Usage	AV_USAGE_OV
Date until the Minimum and Maximum quantities are valid, for example 31/12/2008	Av. Monthly Usage Expire Date	AV_USAGE_EF_DATE
A / B / C / D / E / Z / N	Frequency Class	FREQUENCY_CLASS_OV
Date, for example 31/12/2008	Frequency Class Expire Date	FREQUENCY_CLASS_EF_DATE

Example for Excel format:

This is example for importing Minimum and Maximum quantities for the Item level which will be valid until 31/12/2008. The fields 'Cabinet Code' and 'Bin Code' are not relevant here and have no value; therefore they can be unchecked for 'In File' field in Import project (or removed, for fields which have the <Delete> button available).

ITEM_CODE	CABINET_CODE	BIN_CODE	CALC_LEVEL	MIN_QTY_OV	MAX_QTY_OV	AV_USAGE_EF_DATE
2300158			Item	10	20	31/12/2008
2300159			Item	10	20	31/12/2008
2300161			Item	30	40	31/12/2008
2300162			Item	10	15	31/12/2008
2300164			Item	20	30	31/12/2008
2300165			Item	15	20	31/12/2008
2300166			Item	15	20	31/12/2008

...continuation of the table

AV_USAGE_OV	FREQUENCY_CLASS_OV	FREQUENCY_CLASS_EF_DATE



22.1.8 Import Requests

This section describes Import of **IN / OUT Requests** by table **ENT_REQUESTS**.

This import is of '**Insert Only**' type, meaning that it will not be possible to update the existing requests – each import will add additional records to the list.

Input Format	Field in the User Interface	Field Name
Item Code as appears on the 'Item Maintenance' screen	Item Code	ITEM_KEY defined as ITEM_CODE (Required)
Interface Name as appears on the 'Interface Maintenance' screen	Interface Name	INTERFACE_HDR_KEY defined as INTERFACE_NAME (Required)
'In' for receive request or; 'Out' for issue request	Request Type	REQUEST_TYPE (Required)
Open / Partially / Done / Cancel	Status	REQUEST_STATUS (Required)
Numerical - Quantity that is requested for issue or receive.	Quantity	ORGINAL_QTY (Required)
Value for cost center, such as Machine	Reference 1	REQUEST_REF1
Value for cost center, such as Job Number	Reference 1	REQUEST_REF2
Numerical - Quantity that was already issued or received from the total requested.	Actual Quantity	ACTUAL_QTY
These fields are not on the interface (or not editable) and not recommended for import.		DOC_TYPE ALLOCATE_QTY USER_CREATED DATE_CREATED USER_LAST_MODIFIED DATE_LAST_MODIFIED

Example for Excel format:

ITEM_CODE	INTERFACE_NAME	REQUEST_TYPE	REQUEST_STATUS	ORGINAL_QTY	REQUEST_REF1	REQUEST_REF2
5605179	THINC interface	Out	Open	10	Grinding 11	47899
3101686	THINC interface	Out	Open	2	Grinding 11	56263
3101694	THINC interface	Out	Open	20	Grinding 11	565958
3102566	THINC interface	Out	Open	2	Honing 21	54588
3101745	THINC interface	Out	Open	5	Honing 21	213600
5605179	THINC interface	In	Open	5	Honing 21	55005
3101686	THINC interface	In	Open	6	Drilling 12	560565
3101694	THINC interface	In	Open	9	Drilling 12	89897

22.1.9 Import Texts

This section describes Import of **Texts** by table **TBL_TEXTS**.

This import is of '**Update/Insert**' type, meaning you can update existing texts translations or to add the missing translations (or instead of deleted).

Usually all the texts records are already exist; therefore there is no need to add records but only to update by importing updated translations.

Input Format	Field in the User Interface	Field Name
Text Root Key as appears on the 'Texts' search screen	Text Root Key	INT_TEXT_ROOT_KEY (Required, Unique)
Culture as appears on the 'Root Text Maintenance' screen – see the table below.	Culture	STR_CULTURE (Required, Unique)
Free Text	Text	STR_TEXT (Required)
These fields are not on the interface (or not editable) and not recommended for import.		USER_CREATED
		DATE_CREATED
		USER_LAST_MODIFIED
		DATE_LAST_MODIFIED

Code used for Culture (**STR_CULTURE**):

STR_CULTURE	CULTURE_NAME
en-US	English
de	German
ko	Korean
it	Italian
cz	Czech
ch	Chinese
he	Hebrew
fr	French
br	Portuguese (Brazil)
pl	Polish
sp	Spanish
sl	Slovenian
sv	Swedish
da-DK	Danish
jp	Japanese
ru	Russian
sk	Slovak
hu	Hungarian
nl	Dutch
fi	Finnish

ar	Arabic
Eu	Basque
nb	Norwegian
tr	Turkish
ro	Romanian

Example for Excel format:

INT_TEXT_ROOT_KEY	STR_CULTURE	STR_TEXT
401	fr	Qté de sortie plus grande que qté dans le casier.
402	fr	Code article
403	fr	Description article
404	fr	Clé article
405	fr	Description longue article
401	it	La quantità da prelevare è maggiore della quantità nello scomparto.
402	it	Codice articolo
403	it	Descrizione articolo
404	it	Chiave articolo
405	it	Descrizione supplementare

22.1.10 Import Item Links

This section describes Import of **Links** to items by table **V_IMPORT_ITEM_LINKS**.

The links are shown on the 'Item Maintenance' screen on the 'Links' tab.

Input Format	Field in the User Interface	Field Name
Item Code as appears on the 'Item Maintenance' screen	Item Code	ENTITY_KEY defined as ITEM_CODE (Required, Unique)
1		IDENTITY_KEY defined as CONSTANT (Required, Unique)
File name , as appears on the 'Item Maintenance' screen on the 'Links' tab.	Document Name	OBJ_NAME defined as LINK_NAME (Required)
File path, for example: C:\Catalog\	Path	LINK_PATH
Free text	Description	DESCRIPTION
These fields are not on the interface (or not editable) and not recommended for import.		USER_CREATED
		DATE_CREATED
		USER_LAST_MODIFIED
		DATE_LAST_MODIFIED



Example for Excel format:

ITEM_CODE	CONSTANT	LINK_NAME	LINK_PATH	DESCRIPTION
3101686	1	document.pdf	C:\Catalog\Special\	Full description documentation
3101686	1	image.jpg	C:\Catalog\Special\	Tool image
3101686	1	sketch.pdf	C:\Catalog\Special\	Sketch for assembling
3101686	1	kit.doc	C:\Catalog\Special\	Kit tools information

22.1.11 Import Transactions

Matrix-TM can import transactions from other systems or devices. If a user has a system that creates a stock transaction for an item that has been defined in Matrix – he can easily integrate them into the Matrix database.

22.1.11.1 Transactions import project

In order to import transactions, first an import project has to be created. The purpose of the import project is to let MATRIX-TM know how to read the file that includes the transactions for import.

The creation of the import project is done the same as any other import project.

The table for import is **V_INTERFACE_IMPORT_LOG**.

The fields for import are:

Field Name	Field in the User Interface	Input Format
EXTERNAL_KEY (Required, Unique)	External Key	External Key is the key of the transaction in the foreign system.
TRANSACTION_TYPE_KEY (Required)	N/A	The type of the transaction that is being imported (1/2/3/4): 1 – Adjust 2 – Issue 3 – Receive 4 – Return
ITEM_CODE (Required, Unique)	Item Code	Item Code as appears on the 'Item Maintenance' screen
BIN_CODE (Required, Unique)	Bin Code	Bin Code as appears on the 'Bin Maintenance' screen.
TRANSACTION_QTY (Required)	Transaction Quantity	
USER_CODE (Required)	User	The User Code of the user which created the transactions.
TRN_DATE	Date	YYYYMMDD (Example: 20101021)



(Required)		= 21/10/2010)
COST_CENTER_CODE1	Cost Center Code	Cost Center Code as appears on "Cost Center Detail Maintenance"
COST_CENTER_CODE2	Cost Center Code	Cost Center Code as appears on "Cost Center Detail Maintenance"



Important! Do not press the <Import> button in a transaction Import Project. The import of transactions should be done using an Interface.

22.1.11.2 Transactions import Interface

In order to import transactions an interface needs to be created:

1. In Manage, open Menu: Administration → Interfaces → Interfaces
2. Press the <Add> button. Fill in the following details:
 - Interface: FTP
 - Choose an Interface Name
3. Press <Save>
4. In the table fill:
 - Import Project: In the Value field, enter the **KEY** of the import project you have just created.
 - Cost Center: You can connect the interface to a specific Cost Center (All data imported with this interface will be added to this cost center).

Running the import process is possible by:

1. Pressing the <Run> button on the interface maintenance window.
2. By using the external executable (**MatrixImp.exe**):
 - The executable needs to be executed using the "Interface Key" as a parameter (the key can be found on the interface maintenance window).
 - For example, if the interface key is "3", then create in windows a shortcut to: "C:\Program Files\MATRIX-TM\Application\MatrixImp.exe" 3
 - Running MatrixImp.exe with the correct parameter will run the import process.

22.1.11.3 Import Log

All the transactions that have been imported can be viewed in the Import log. To access the "Import Log" open Menu: Tools → Import → Import Log.

The import log shows all the data that was imported. Each record can be accessed for more details. Right button click allows the opening of different maintenance screens related to it, including the real transaction that was created in the import process.

The record's Status field marks the status of the import of this specific transaction. It can be one of the following:

- Invalid Item: Item code incorrect
- Invalid Bin: Bin code incorrect
- Invalid User: User code incorrect.
- Invalid Quantity: Transaction with this quantity is impossible (Either there aren't enough items in the bin, or the quantity is invalid)
- Duplicate External Key: A record with the same External Key has already been imported.
- Wrong item in bin
- Imported



Important! Deleting a record from the Import Log will not remove the transaction from the system.

22.2 Tips for Preparing Input Data

This section provides tips for editing the import data. Please follow these tips and Chapter D: [Tables for Import](#) (section 22.1) to ensure successful import of all records.

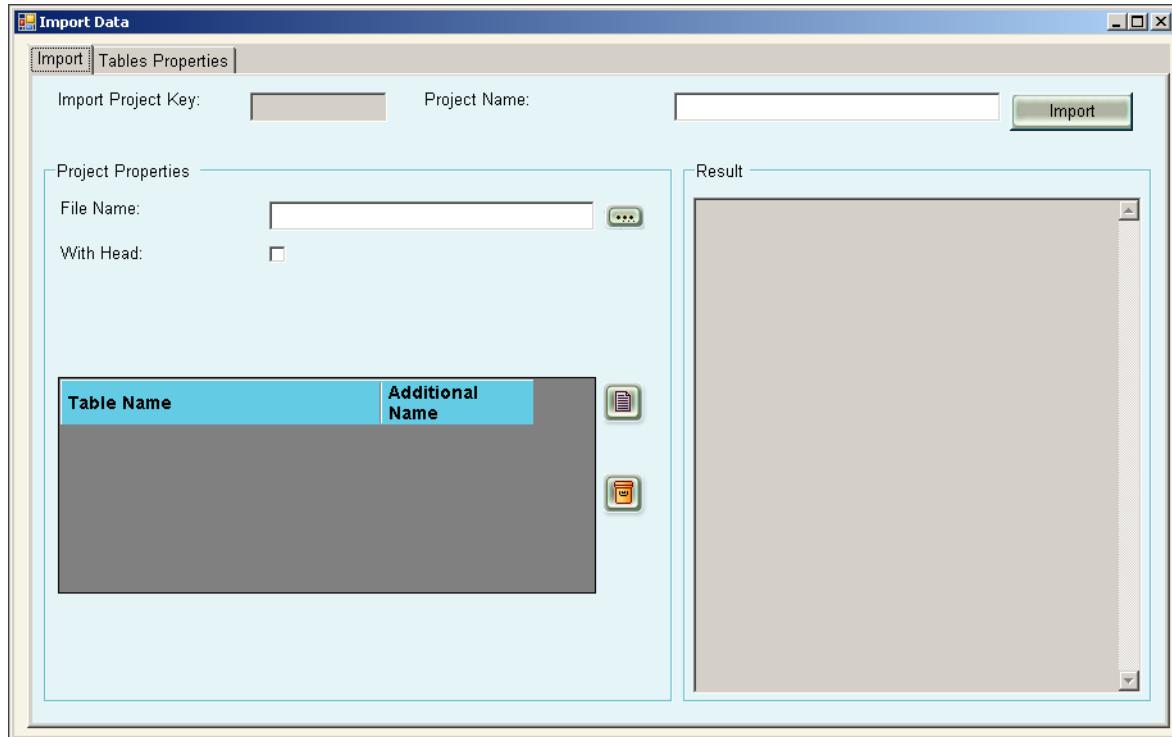
1. Use the top row for describing the column names (optional, recommended).
2. The tables in Chapter D: [Tables for Import](#) (section 22.1) describe the exact format for each field. Use them for preparing the data.
3. Remove all the empty rows and columns from the file. Especially blank rows can cause a failure in importing also normal records.
4. Change the format of all the cells in Excel to textual. In Excel select all the rows, click the right button and select 'Format Cells...' from the popup menu. In the 'Number' tab, select Text' option. Make sure that the numerical cells are formatted correctly.
5. It is recommended to set default values in the import project for all the fields you try to import, especially for those marked as 'Required'.
6. In Excel insert values for all the fields defined in the import project as 'Required'. You can define 'Default Value' for these fields in the import project and the import will use them for the records which miss this data in Excel. Otherwise it might import the records, but without displaying the imported records in the search screens.
7. Many fields in the 'Field Name' in the import project are called with '_KEY', but are actually '_CODE' value required. For example, for table ENT_BIN_MASTER for field ITEM_KEY, actually ITEM_CODE value is accepted.
8. Before using some values for import into '_CODE' fields, verify first that this value already exists in the database. For example, when importing items, verify that the 'Item Groups' (or Unit of Measure) that you use for import (in import file or in import project as a Default Value), is already exist in the database. If not, it must be added manually or imported beforehand.
9. Verify that there is no mismatch between the input type and the expected input type, such as avoiding importing alpha-numerical value when numeric value is expected.



22.3 Creating Import project

1. Follow the menu "Menu: Tools → Import → Import Data". A Search screen will be displayed enabling search for previously created import projects.
2. Click the **<Add>** button on the toolbar.

The following screen will then be displayed:

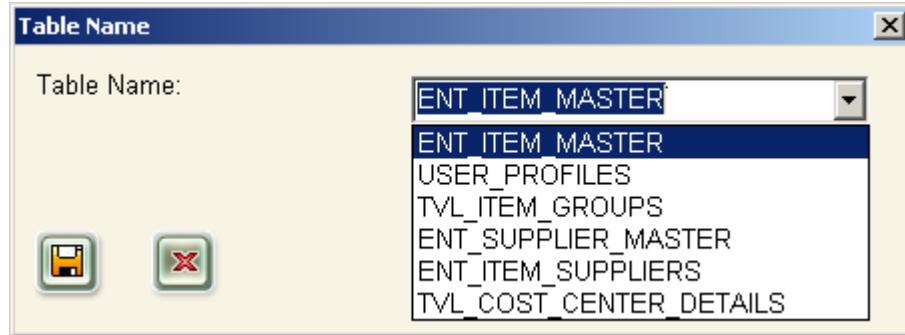


On the "Import" tab:

3. Insert in the field "Project Name" the name for the new project.
4. Select the import file (of *.xls or *.txt type) by clicking the browse **<...>** button.
 - If you have chosen Excel format, "**Sheet Name**" edit box will be displayed. Type the exact sheet name you want to import.
 - If you have chosen Text format, "**Separator**" combo box will be displayed. Select the same separator that is used in the file.
5. Check box "With Head" if your import file has a fields' heading as a first row
6. Click the **<Add>** button displayed next to grid at the bottom of the screen in order to add tables for import.



The following screen will be displayed listing all the available tables for import:



7. Select Table that you want to include in the import and click the **<Save>** button. The table will be added to the list of tables for import.
8. Click the **<Save>** button on the toolbar to save the project.

22.4 Adjusting data for import

9. Go to "**Table Properties**" tab. The combo box "Table Name" will display all the available tables for import.
10. For every table you want to import follow the next instructions:

Edit table and its existed fields:

Select from the combo box "Table Name" the table for import. The grid for table fields will be displayed including all the required fields described in the table above and sometimes some of the optional fields that were added by default.

Here you can add other available fields to the table and to set definitions for all the fields from the grid.

11. Select from the grid the field for editing and click the **<Update>** button on the right side of the grid.

Additional controls will be displayed to allow the data to adjust.

The following screen will then be displayed:



Import Data

Import Tables Properties |

Table Name: **USER_PROFILES**

Field Name	Is Unique	Column Name	Sequence	In File	Default Value	Required
USER_NAME	<input checked="" type="checkbox"/>	USER_NAME	1	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
USER_PASSWORD	<input type="checkbox"/>	USER_PASSWORD	2	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
USER_CAPTION	<input type="checkbox"/>	USER_CAPTION	4	<input checked="" type="checkbox"/>		<input type="checkbox"/>
STR_FIRST_NAME	<input type="checkbox"/>	FIRST_NAME	6	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
STR_LAST_NAME	<input type="checkbox"/>	LAST_NAME	7	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
BOOL_BITUL	<input type="checkbox"/>	BOOL_BITUL		<input checked="" type="checkbox"/>	0	<input type="checkbox"/>

Column Properties

Field Name:	STR_FIRST_NAME	In File:	<input checked="" type="checkbox"/>
Required:	Yes	Column Name:	<input checked="" type="radio"/> FIRST_NAME
Is Unique:	<input type="checkbox"/>	Sequence:	<input checked="" type="radio"/> 6
		Default Value:	<input type="text"/>

12. If there is no data in your import file for the field or you don't want to use it:
 - Un-check the box "In File".
 - Fill the "Default Value" using the appropriate value type (*Numeric, Text, Boolean or Date*) as described in the tables above.
13. If there is a data in your import file for the field:
 - Check the box "In File"
 - Select "Column Name" and fill the edit box with the exact name from the import file if you have a column title for it, or;
 - Select "Sequence" and fill the edit box with the column sequence in the import file (from 1 and on).
 - Fill the "Default Value" using the appropriate value type (*Numeric, Text, Boolean or Date*). This value will be used in case you have no data for the record in the import file.
14. Click the **<Save>** button on the toolbar.
15. Repeat the same actions for all the other fields that you want to edit



Important! All the records will be imported according to "Is Unique" value, meaning that if there is already a record in the database that has the same value for unique field as the record for import, then no row will be imported but only updated with other fields. Otherwise the record will be imported.

Add additional table fields:

Here you can add additional optional fields that were not added to the list by default and make definitions for them.

16. Click the  [**<Add>**](#) button on the right side of the fields' grid. A new row will be added to the grid listing all the additional available fields for import.
17. Select in the "**Field Name**" control the name of the field that you want to add and make the same definitions as for the existing fields.

Delete additional table fields:

In case there is a field which is not required (see "**Required**" column in the grid) and is optional, it can be removed from the list of import.

18. Select the row of the optional field. The button [**<Delete>**](#) is added to the right side of the field's grid.

19. Click the  [**<Delete>**](#) button and confirm the deletion. Now the row is removed from the grid.

22.5 Importing the data

After making all the adjustments between import file and Manage "Import Data" screen for all the fields in the table and saving the changes:

20. Go to "**Import**" tab.

21. Click the  [**<Save>**](#) button to save all the changes.

22. Click the [**<Import>**](#) button.

You will be notified about import operation on the message control below.

In case of successful import, the message will describe the number of updated rows and number of imported rows.

In case of failure, the message will describe the reason for failure.

22.6 Loading Import project

Once you have created Import Project, it is saved in the list. You can load the project, edit the data and run the import again.

23. Follow the menu "Menu: Tools → Import Data". A Search screen will be displayed enabling search for previously created import projects.
24. In the "Search Import Data" screen, search for the saved projects (use the fields) by clicking the  [<Search>](#) button on the toolbar. Select the project from the list and click the  [<Update>](#) button on the toolbar or double click on the line. The selected project with its parameters will be loaded into "Import Data" screen.

Please notice that you can also delete an unwanted project by selecting the

project line in the search screen and clicking the  [<Delete>](#) button on the toolbar.

22.7 Tables

#	TABLE	Version	Type
1	ENT_ITEM_MASTER		Update/Insert
2	USER_PROFILES		Update/Insert
3	TVL_ITEM_GROUPS		Update/Insert
4	ENT_SUPPLIER_MASTER		Update/Insert
5	ENT_ITEM_SUPPLIERS		Update/Insert
6	TVL_COST_CENTER_DETAILS		Update/Insert
7	ENT_BIN_MASTER	Added for V3.8	Update Only
8	TVL_COST_CENTER_LINKS	Added for V4.0	Update/Insert
10	TVL_CURRENCY	Added for V4.2	Update/Insert
12	TVL_ITEM_CHARACTERISTIC	Added for V4.2	Update/Insert
13	TVL_UNITS_OF_MEASURE	Added for V4.2	Update/Insert
14	V_IMPORT_STOCK_MANAGE_LEVEL	Added for V4.2	Update Only
15	ENT_ITEM_COST_CENTER	Added for V4.5	Update/Insert
16	ENT_ITEM_KIT	Added for V4.5	Update/Insert
17	V_IMPORT_ITEM_ADDITIONAL_FIELDS	Added for V4.5	Update/Insert
18	V_IMPORT_BIN_ADDITIONAL_FIELDS	Added for V4.5	Update/Insert



19	ENT_CATALOG_APPLICATION	Added for V4.5	Update/Insert
20	ENT_CATALOG_MAIN_FAMILY	Added for V4.5	Update/Insert
21	ENT_CATALOG_SUB_FAMILY	Added for V4.5	Update/Insert
22	ENT_REQUESTS	Added for V4.5	Insert Only
23	TBL_TEXTS	Added for V4.5	Update/Insert
24	V_IMPORT_ITEM_LINKS	Added for V4.5	Update/Insert
25	V_IMPORT_SERIALS	Added for V4.7	Update/Insert
26	ENT_ITEM_GUAGE	Added for V4.7	Update/Insert
27	V_INTERFACE_IMPORT_LOG	Added for V4.7	Update/Insert
28	ENT_ITEM_ALTERNATIVE	Added for V4.7	Update/Insert
29	TVL_USER_COST_CENTERS	Added for V4.7	Update/Insert



23 Report Scheduler

The Report Scheduler allows the user to create reports by pre-defined parameters and to send them automatically at scheduled times by email.

23.1 Define the reports

In order to schedule reports, you must priorly to create advanced reports and save its definitions as described in Chapter B: [Reports](#) (section 9).

1. Open "Menu: Tools → Scheduling Reports".
2. Click the <Add> button on the toolbar.

The following screen will appear:

The screenshot shows the 'Scheduled Report Maintenance' dialog box. It contains the following fields:

- User Name: admin * Email Address: liorar@email.com
- Description: Issue transactions of Last month * Destination: E-mail *
- File Name: (empty) File Type: xls *
- CC E-mail: (empty)
- Schedule:
 - Schedule Day: Daily * Schedule Time: 06:00 *
 - Date Last Run: 23/07/2012 00:00:00 Active:
- Do not send/save if empty:
- Remarks: (empty)
- Run button
- Update section:
 - Create User: admin creator Update User: admin creator
 - Create Date: 06/06/2012 Update Date: 23/07/2012

3. Fill-in the data for the required fields:



<u>User name:</u>	Select the user to whom you want to send the report by Email. Make sure that the selected user has an email defined on his 'User Maintenance' screen.
<u>Email Address:</u>	The email address of the selected user name automatically loaded. If the email does not appear, edit this user record.
<u>Query Name:</u>	Select an advanced report that was previously defined and saved.
<u>File Name:</u>	Insert a file name or full path for the created report. If this value is empty, the system will use the Query Name as File Name. If you define only a file name or a full path which is identical to the path defined in system option 401 , then the file will be created temporarily. This system option points to temporary folder and its content is automatically removed when loading/closing Manage application. The default folder will be "...\\MatrixTempDir\\Reports" inside the installation folder. Therefore if you need to keep the copy of the report as a file on the hard drive, it is recommended to insert a full and different path in order to override the path in the system option 401.
<u>CC E-mail:</u>	The email addresses to which the copy of the report will be sent, separated by comma or ':'.
<u>Destination:</u>	Select a destination for sending the report (E-mail / File). E-mail – the created report will be sent to the user selected in the 'User Name' field by his email address. Make sure that the selected user has an email defined on his 'User Maintenance' screen. File – the created report will remain on the hard drive by location defined in field 'File Name'.
<u>File Type:</u>	Select a file type for the report (XLS / XML / TXT / PDF).
<u>Separator:</u>	Separator sign used for separating fields in TXT files.
<u>Schedule Day:</u>	Select a permanent day for running the report.
<u>Schedule Time:</u>	Select a permanent hour for running the report.
<u>Date Last Run:</u>	Updated by the system with the date when the last check for automatic reports was done. Please notice that the report will not be created at the day that was defined in this field, therefore it is recommended to keep this field initially empty or with a past date.



Active: Option to activate or deactivate the automatic running of the report.

4. Click the **<Save>** button.

The record will be added to the list of scheduled reports. At the defined time, the report will run and will automatically create the report file. The file will be sent by email or will remain on the hard drive, accordingly to your selection. For using a periodic report that will run every day or week be sure that the date range in the report also matches the periodic selections like yesterday, last week or last month.

23.2 Activate the reports

In order to enable the reports to run fully automatically, there should a job **[DBName]ReportsEngine** for Reports on the **server**. This job is activated by the operating system.

To create the job:

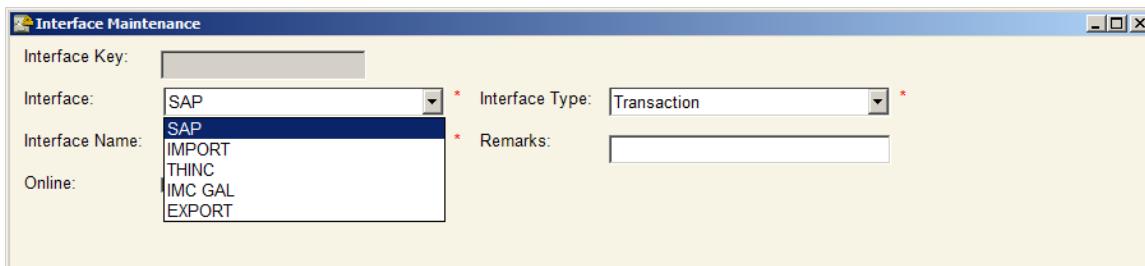
1. Set the system option 209 to YES to create the job (if it is already YES, then change to NO and back to YES).
2. Login to the 'Database Administration' and check the existence of the job by the 'Activate Jobs' option. The job will run automatically by the operating system **at the scheduled time**,

You should also verify that the SQL Server Services are started. See more details regarding Jobs and SQL Server Services in Chapter E: [Activate Jobs](#) (section 28.3).

24 Interfaces

This section describes how to create interfaces with other systems:

1. SAP Interface (Transaction & Stock Transfer) with SAP ERP system.
2. IMPORT Interface (Transaction) to import transactions from an external system.
3. THINC Interface (Request Store) with production floor machines & devices OKUMA and ZOLLER.
4. IMC GAL Interface (All) to send data by email to the IMC Company.
5. EXPORT Interface (Transaction) for exporting transactions into a file.



Besides built-in interfaces, MATRIX-TM has general features that can be used for interface between MATRIX and other systems (see Chapter D: [General options for Interfaces](#) (section 24.3).

24.1 SAP Interface

This section describes how to define interface with SAP in the Manage. This must be done after ZMSI (Matrix SAP Interface) was installed.

Please refer to the relevant documentation regarding supported SAP versions and ZMSI installation.

Scope: The interface supports data transfer from MATRIX to SAP only. It is usually set to transfer all the transaction types, but actually only the '**'Issue'** and '**'Receive'**' transactions will be processed in the MATRIX SAP interface program (ZMSI).

24.1.1 Creating SAP Interface

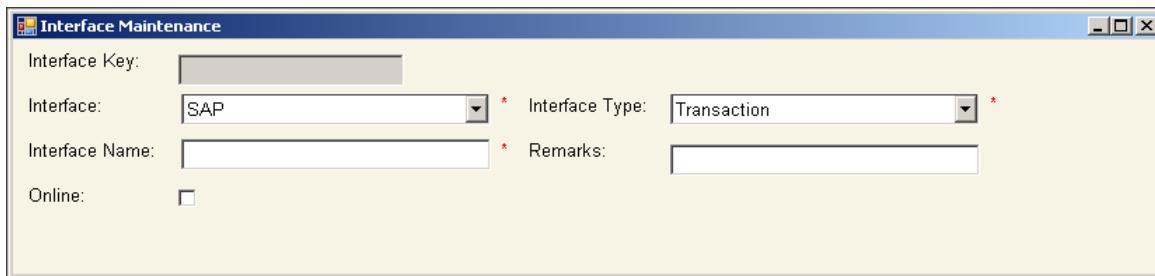
1. Set system options 111 and 112 to display reference fields.

For more details see Chapter D: [Using Reference fields for Receive](#) (section 24.3.1).

2. Open "Menu: Administration → Interfaces → Interfaces".

3. Add new interface by clicking the  <Add> button on the toolbar.

The following screen will be displayed:



Fields Description:

Interface: Select interface name - SAP.

(THINC Interface is described in the following chapters)

Interface Type: The 'Transaction' interface type will transfer the Matrix transactions to the interface. The 'Stock Transfer' type will send the stock quantities to SAP in order to be compared with the SAP stock.

Interface Name: Insert name for the interface.

Remarks: Free text.

Online: Check if you wish to transfer the transactions online. Otherwise it can be transferred manually or by scheduler - for this, continue to the next paragraphs.

4. Click the  <Save> button on the toolbar.

The following screen will be displayed:



Interface Maintenance

Interface Key:	1
Interface:	SAP
Interface Name:	Interface to SAP
Online:	<input type="checkbox"/>

* Interface Type: Transaction * Remarks:

Field Code	Field Name	Value	Remarks
01	Server Name	iscarexch	
02	User	admin	
03	Password	*****	
04	Client		
15	Where	TRANSACTION_TYPE_KEY:number:3:5	
06	Cost Center code	Department	
05	System Number		
07	Logical System	Matrix	

Run

Value: TRANSACTION_TYPE_KEY:number:3:5

Remarks:

This screen enables you to set the connection definitions between Matrix and Interface.

By selecting a field line in the grid, the 'Value' and 'Remarks' fields will be displayed according to the input type (textual, list, search by browse).

5. Select line by line to set the values for fields.

Select the '**Where**' field to set the conditions for transactions that need to be transferred.

Click the browse button to open the following screen:

Update Where Conditional

Field Name	Value
TRANSACTION_TYPE_KEY	<> 5

TRANSACTION_TYPE_KEY 5

RANSACN_TYPE_KEY
TRANSACTION_TYPE_KEY
TRANSACTION_TYPE_NAM
TRN_DATE
TRN_REF1
TRN_REF2
TRN_REF3

The combo list displays all the relevant fields regarding transactions.

 [**<Add>**](#) button on the right side of the grid to add a new condition and set a condition value for it or update / delete the existing lines ( [**<Update>**](#)  [**<Delete>**](#)).

Click the  button to change its sign.

Save all the conditions by clicking the  [**<Save>**](#) button.



Note: The following table describes the transaction types and their key. The Matrix to SAP interface type is usually set to transfer all the transaction types, but actually only the 'Issue' and 'Receive' transactions will be processed in the MATRIX SAP interface program (MSI).

Transaction Key	Transaction Name
-----------------	------------------



1	Adjust Bin Quantity
2	Issue
3	Receive
4	Return To Cabinet
5	Transfer
6	Zero Issue
7	Stock Count
9	Send To Rework

Run

6. Click the [**<Run>**](#) button to transmit the transactions now or continue to the instructions in Chapter D: [Create Interface Scheduler](#) (section 24.4) in order to create scheduler for transmission.

24.1.2 Interface Report

The report displays all the transactions that were transmitted or that were attempted to be transmitted.

Open "[Menu: Reports → Interface → Interface Report](#)".

The following screen will be displayed:



Interface Report

Transaction Key: Transaction Date: 20/10/2007 Transaction Types:

Found 61 Records.

Transac Key	Transac tion Date	Transac tion Types	Cabinet Name	Item Code	Quantity	Status	User Name	Consig	Interface Status
1461	22/10/2007 11:10	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1462	22/10/2007 11:14	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1463	22/10/2007 11:16	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1464	22/10/2007 11:25	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1465	23/10/2007 08:55	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1466	23/10/2007 08:55	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1467	23/10/2007 09:29	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1468	23/10/2007 09:29	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1469	23/10/2007 09:33	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1470	23/10/2007 09:38	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1471	23/10/2007 09:39	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1472	23/10/2007 09:59	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1473	23/10/2007 09:59	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1474	23/10/2007 10:05	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Transmitted
1475	23/10/2007 10:05	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Transmitted
1476	23/10/2007 10:58	Issue	DEMO1	1127	2.00	0	admin creator	No	Transmitted
1477	23/10/2007 11:01	Issue	DEMO1	1127	1.00	0	admin creator	No	Transmitted
1478	23/10/2007 11:09	Receive	DEMO1	DPC1002	2.00	0	admin creator	No	Transmitted
1479	23/10/2007 11:11	Receive	DEMO1	DPC1002	2.00	0	admin creator	No	Transmitted
1480	23/10/2007 12:01	Issue	DEMO1	1127	1.00	0	admin creator	No	Transmitted
1481	28/10/2007 06:56	Receive	DEMO1	5502097	7.00	0	admin creator	No	Transmitted
1482	28/10/2007 06:58	Receive	DEMO1	5530123	4.00	0	admin creator	No	Transmitted

Interface Statuses:

Error in Transmitted (E): The transaction attempted to transmit, but failed. Check the interface connection definitions.

Transmitted (C): The transaction was successfully transmitted or assigned as transmitted by update of database *.

Not Transmitted (N): The transaction was not yet transmitted or will not be transmitted at all.



Note: When the Matrix Database is updated to MATRIX-TM version 4, all the existing transactions are updated to status '**Transmitted**' in order not to transmit all the old transactions.



24.2 IMPORT Interface

IMPORT Interface handles the import of transactions from an external system (like another ATD or handheld device).

For instructions how to use the interface together with the "Import Data" module, please follow Chapter D: [Import Transactions](#) (section 22.1.11).

The screenshot shows the 'Interface Maintenance' window with the following details:

- Interface Key:** 10000002
- Interface:** IMPORT
- Interface Type:** Transaction
- Interface Name:** tt
- Remarks:** (empty)
- Online:**

A table displays the following data:

Field Code	Field Name	Value	Remarks
01	Import Project	7	
02	Cost Center code1	Main	
03	Cost Center code2	Building	

At the bottom, there is a 'Run' button and a section for modifying values and remarks:

- Value:** Building
- Remarks:** (empty)

See:

Menu: Administration → Interfaces → Interfaces
New features for Interfaces → Import Transactions.

24.3 THINC Interface - IN / OUT Requests

This section describes how to define interface with other machines, like OKUMA, ZOLLER, etc.

THINC – Interface created and named by OKUMA company. The interface connects between the production floor machines and vending machines, such as connection



between OKUMA and MATRIX, ZOLLER and MATRIX etc. It is installed on the OKUMA controller.

OKUMA – Manufacture machine that needs toolset in order to manufacture parts.

ZOLLER – Presetting and measuring device (Pre-setter).

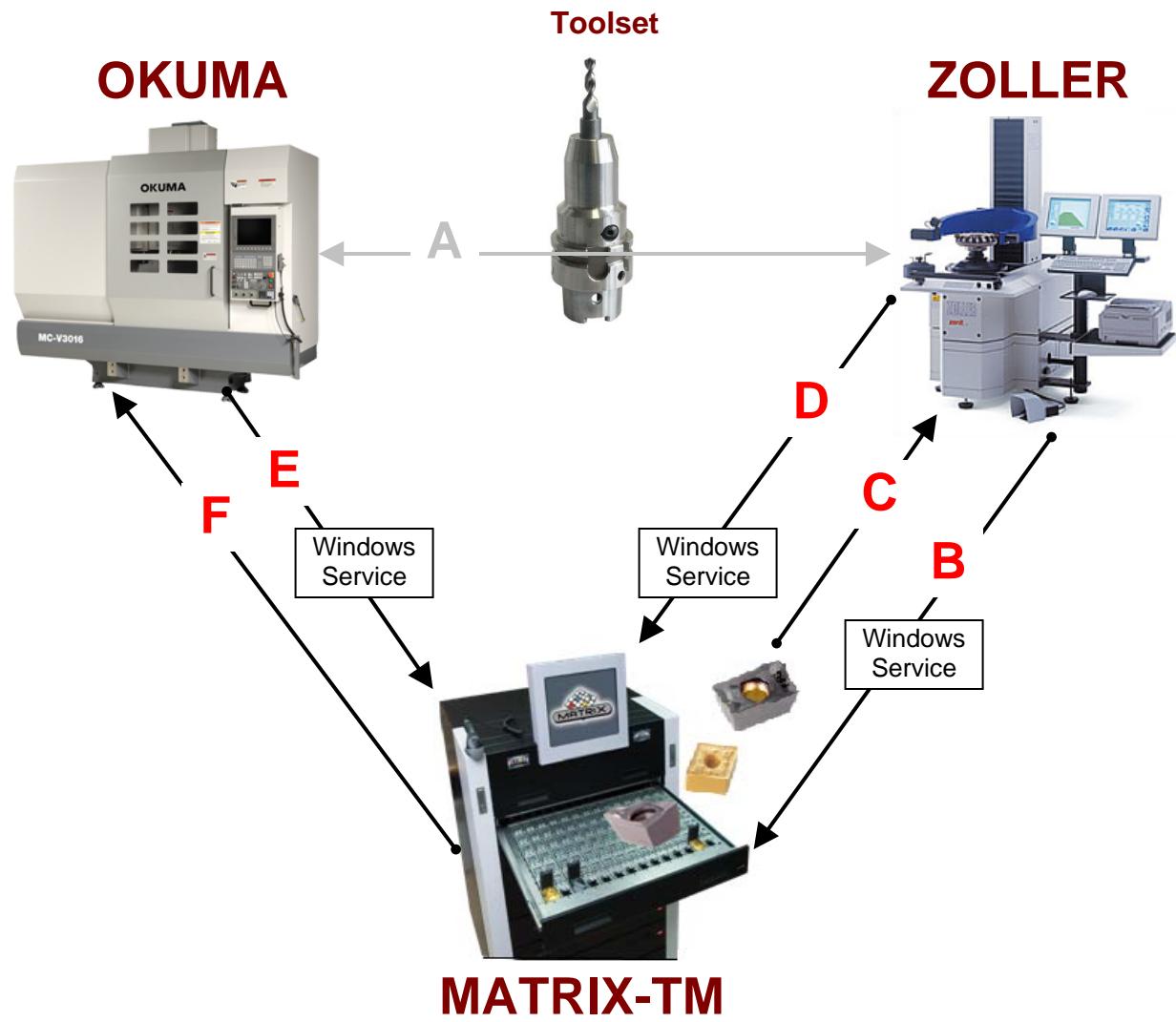
Toolset – Complex of components (items) assembled into one toolset. This toolset, which is manually assembled, goes through preset and measuring by ZOLLER and used for manufacturing on the OKUMA machine. The toolset must be defined as item in Manage (as a regular item or an assembled kit) in order to be able to receive and issue it by 'IN / OUT Requests' module.

MATRIX-TM – Used as a server that "listens" to requests from ZOLLER / OKUMA and creates IN / OUT Requests (OUT for issue and IN for receive) in MATRIX-TM. This requires definition and activation of THINC Interface in Manage & MatrixTM Service in Windows.

MatrixTM Windows Service – Service that opens connection to MATRIX and enables MATRIX to receive data requests from OKUMA/ZOLLER. This service is created after we define and start the THINC Interface, as by the following instructions.

Files:

File name	Source	Description
Okuma.ToolDataSystem.ToolInventorySystem.DLL	Developed and supplied by OKUMA	Template for storing parameters. When defining THINC interface, we mention its name (IExternalStockRequest) in 'Application Name' parameter.
WSInterface.exe	Developed and supplied by MATRIX	Executed by MatrixTM Service.
clZoller.DLL	Developed and supplied by MATRIX	Interface program used by WSInterface.exe.



A – This relation between OKUMA and ZOLLER is not a part of MATRIX-THINC interface and it is not managed in MATRIX-TM modules. Conceptually, OKUMA sends to ZOLLER the Machine Number and Job Number and requests a Toolset.

B – ZOLLER, according to the required Toolset, creates a list of components (items) required. ZOLLER sends to MATRIX-TM the Machine Number, Job Number and list of components. MATRIX-TM creates OUT Requests to issue these items, attaching to it the



cost centers input. Note: If there is no such item exists in MATRIX or if the item has zero stock, the request will be denied.

C – An operator issues the items from MATRIX cabinet via the IN/OUT Request button on TOUCH, assembles them into a toolset and loads the toolset on ZOLLER.

D – ZOLLER presets, measures and numerates the toolset. ZOLLER requests MATRIX to store the toolset. MATRIX creates an IN Request for receiving the Toolset as an item. The operator receives the Toolset into MATRIX via the IN/OUT Request button on TOUCH and the Toolset is stored ready for later use.

E – OKUMA sends to MATRIX the Toolset number and MATRIX creates an OUT Request for issuing the Toolset. Note: If there is zero stock for the toolset, the request will be denied.

F - An operator issues the Toolset from MATRIX cabinet and puts the toolset on OKUMA. OKUMA adjusts itself according to the Toolset measures received from ZOLLER and prepares itself for the manufacturing process.

24.3.1 Creating THINC Interface

To use MATRIX-TM as a server that "listens" to requests from ZOLLER / OKUMA and creates IN / OUT Requests, you need to create interface of THINC type and to activate MATRIX-TM Service in Windows.

Create THINC interface:

Run MATRIX-TM on the PC where the service should run and follow the instructions:

1. Open "Menu: Administration → Interfaces → Interfaces".

2. Add new interface by clicking the <Add> button on the toolbar.

The following screen will be displayed:

The screenshot shows the 'Interface Maintenance' dialog box. It contains the following fields:

- Interface Key: [Text box]
- Interface: THINC [Dropdown menu]
- Interface Name: Example for THINC interface [Text box]
- Interface Type: Request Store [Dropdown menu]
- Remarks: [Text box]
- Online:

**Fields Description:**

- Interface: Select THINC interface.
- Interface Type: The 'Request Store' interface type will create requests records into Matrix to the 'IN / OUT Requests' module.
- Interface Name: Insert name for the interface.
- Remarks: Free text.
- Online: Check to transfer the requests online or create scheduler for transmission (see Chapter D: [Creating Interface Scheduler](#) (section 24.4).

3. Click the [**<Save>**](#) button on the toolbar.

The following screen will be displayed:

The screenshot shows the 'Interface Maintenance' window. At the top, there are input fields for 'Interface Key' (1), 'Interface' (THINC), 'Interface Type' (Request Store), 'Interface Name' (Example for THINC interface), and 'Remarks'. A checked checkbox labeled 'Online' is also present. Below this is a grid table with columns 'Field Code', 'Field Name', 'Value', and 'Remarks'. The grid contains the following data:

Field Code	Field Name	Value	Remarks
01	Channel Type FTP	Yes	
02	Server Name or IP	10.10.4.106	
03	Port	1234	
04	Application Name	IExternalStockRequest	
05	Number of day to keep request	10	
06	Reference 1	Machine	
07	Reference 2	Job Number	

To the right of the grid, a message says 'Service status: None Installed yet.' and a 'Install' button is available. At the bottom, there are additional input fields for 'Value' (checked) and 'Remarks'.

This screen enables to set the connection definitions for the Interface between MATRIX and THINC. By selecting a field line on the grid, the 'Value' and 'Remarks' fields will be displayed according to the input type (check box, textual, list).

**Fields Description:**

- Channel type FTP: Set to YES.
- Server Name or IP: The server to which OKUMA will connect. Set to the local Host name or IP address (the computer that will run MatrixTM Service).
- Port: Decide on a port on the computer that will run MatrixTM Service and inform the partners (OKUMA and ZOLLER).
- Application Name: Enter string **IExternalStockRequest**. This is a constant value and it is important to write exactly this text.
- Number of days to keep request: Set to 10 (recommended for now).
- Reference 1 & 2: For 1 select Machine, for 2 select Job number. These references must be coordinated with your cost center headers.

4. Enter values and click the **<Save>** button on the toolbar to save the interface.

The **<Install>** button will create local **MatrixTM** Windows Service.

The **<Uninstall>** button will remove the service.

To start the interface, click the **<Start>** button.

To stop the interface, click the **<Stop>** button.



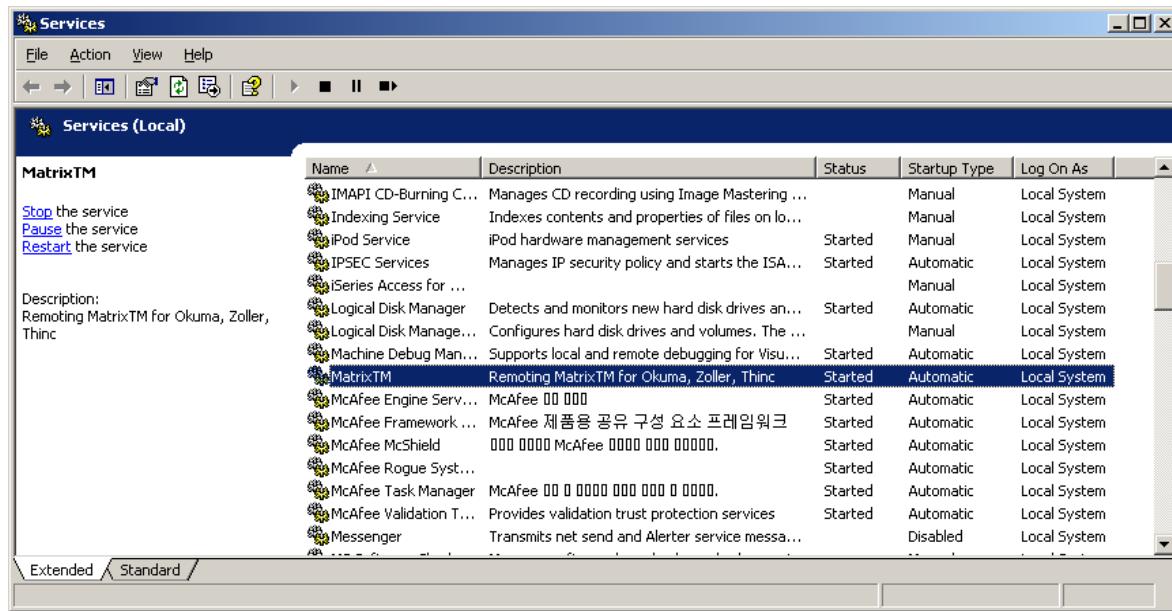
Important! Changing service status by these buttons will be possible only on the PC defined by interface parameters and where the service is running. If the parameters point to another PC, you will be notified with error message.

**Activate MATRIX-TM Service:**

1. Go to Start → Control Panel → Administrative Tools → Services.

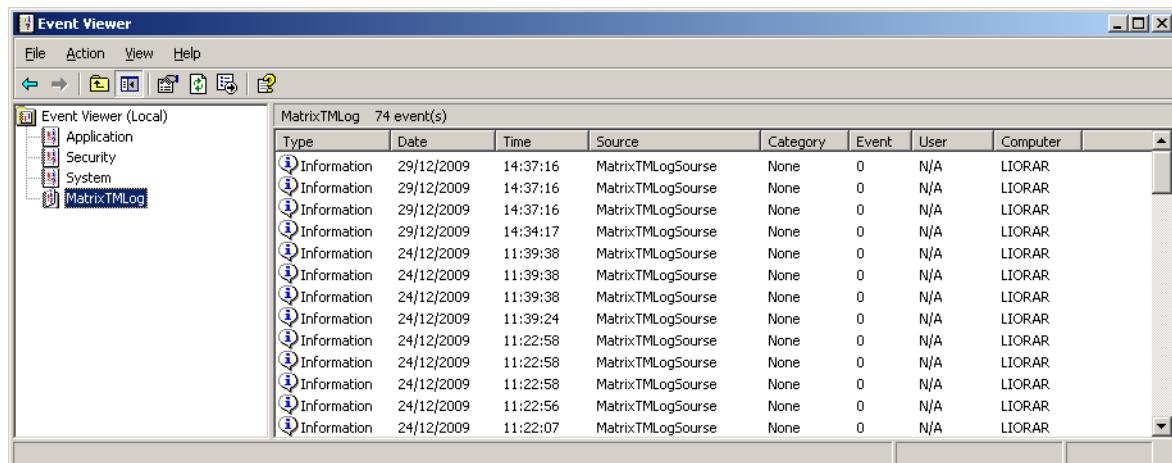
See the status of the **Matrix-TM** service and its details.

If the service is not started, you can start it from here.



2. Go to Start → Control Panel → Administrative Tools → Event Viewer.

See the status of the **Matrix-TMLog** event.





24.3.2 Viewing THINC Requests

To view the requests received by THINC interface, open "Menu: Administration → Interfaces → Requests".

By this screen you can edit the existing requests or simulate receiving requests by creating them manually.

In/Out Requests

Request Key:	Request Type:	Item Key:	Item Code:	Item Description:	Quantity	Actual Quantity:	Reference 1:	Reference 2:	Request Status:
1	Out	6	5605180	Demo APKT 1003PDR ...	30		ref1	ref2	Open
2	Out	7	3101749	Demo HM90 E90A-D1....	34				Open
3	Out	2	3101686	Demo HM90 E90A-D20...	2	0	111	222	Open
4	Out	2	3101686	Demo HM90 E90A-D20...	10	0	111	222	Cancel
5	Out	2	3101686	Demo HM90 E90A-D20...	90	0	111	222	Open
6	Out	2	3101686	Demo HM90 E90A-D20...	15	2	111	222	Partially
7	In	2	3101686	Demo HM90 E90A-D20...	12	7	111	222	Partially
8	Out	3	3101694	Demo HM90 E90A-D32...	10		4545	56655	Open

In/Out Request Maintenance

Request Key:	6	Interface Name:	
Request Type:	Out	Status:	Partially
Item Code:	3101686	Item Description:	Demo HM90 E90A-D20-3-W20-
Reference 1:	111	Reference 2:	222
Quantity:	15	Actual Quantity:	2
Create User: [] Update User: []			
Create Date: 24/12/2009 Update Date: 30/12/2009			

24.3.3 THINC Interface on Touch

Login to Touch and select the <Requests> module.



A list of requests will be displayed. Select relevant request and continue.

Request Item										
admin: ITMDemo		04/01/2010								CTMS
Please select an item										
Item Code	Item Description	Type	Quantity	Stock	Refere 1	Refere 2	Status	Create Date	For	
3101686	Demo HM90 E90...	OUT	13	70.00	111	222	PARTIALLY	24/12/2009 11:56		
3101686	Demo HM90 E90...	IN	5	70.00	111	222	PARTIALLY	24/12/2009 11:57		
3101694	Demo HM90 E90...	OUT	9	122.00	4545	56655	PARTIALLY	30/12/2009 14:58		
3101749	Demo HM90 E90...	OUT	34	233.00			OPEN	22/12/2009 10:26		

Note: If currently there is no stock for OUT request item, user will not be able to select the request.

If **OUT Request** was selected, the reference fields from the request will be filled into cost centers 'Machine' and 'Job Number', as defined for the interface. Then the process will continue as a regular Issue process.



Cost Centers

admin: ITMDemo	04/01/2010			
Please input the following data				
Department	Drilling			
Work Center	WC Drilling1			
Machine	4545			
Job Number	56655			

If IN Request was selected, then the process will continue as a regular Receive process.

24.3.4 THINC Requests Report

The report displays all the requests that were activated for Issue or Receive.

Open "Menu: Reports → Interface → In/Out Requests Report".

The following screen will be displayed:

In/Out Requests Report

Transaction Key:	<input type="text"/>	Request Key:	<input type="text"/>	Reference 1:	<input type="text"/>
Reference 2:	<input type="text"/>	Request Type:	<input type="text"/>	Transaction Date:	<input type="text"/>
Item Code:	<input type="text"/>	Item Description:	<input type="text"/>	Transaction Types:	<input type="text"/>
Interface Status:	<input type="text"/>				

... Found 3 Records. Row: 2

Transac Key	Reques Key	Request Type	Request Status	Quantity	Actual Quantity	Reference 1	Reference 2	Transaction Date	Item Code	Item Description
1418	6	Out	Partially	15	2	111	222	30/12/2009 1...	3101686	Demo HM90...
1419	7	In	Partially	12	7	444	222	30/12/2009 1...	3101686	Demo HM90...
1420	7	In	Partially	12		Item Maintenance		30/12/2009 1...	3101686	Demo HM90...

24.4 IMC GAL Interface

Gal interface can be configured, so a file containing new orders, consignment issues and current stock levels can be sent by email to the IMC Company. This file can be manually loaded to Gal 6.

* At the time this document was written the Gal function to import such a file is not yet ready. Please confirm with support team if this function is operational.

The Gal interface is only working with Gal6. There are 13 parameters to fill:

1. Branch code – 2 characters IMC branch code in Gal.
2. WHS code – 2 characters customer warehouse code in Gal.
3. Customer number – Customer number in Gal.
4. Item Code – Indicates if the IMC item number is stored in the “Item Code” field of Manage, or the “Additional Item Code”.
5. Cost Center code 1 – Only two cost centers can be reported to Gal with the consignment issue transactions. This is the first. You can leave this empty.
6. Cost Center code 2 – Only two cost centers can be reported to Gal with the consignment issue transactions. This is the Second. You can leave this empty.
7. Send Cancel Issues – Should the interface send Gal the negative issues when users reverse their issues?
8. From – The interface will only send data starting this day.
9. Send Transactions – Should it send consignment issues, consignment issues cancelation and receive transactions?
10. Send Orders – Should the interface send orders to Gal (consignment or not)?
11. Send Stock – Should the interface report the current stock levels to Gal?
12. Save to file – Yes: Save to the file of parameter 13; No: Send the file by email to the address of parameter 13.
13. E-mail / Path – The email address to send the interface file to, or file to save it to.

After setting the parameters you should also add it a schedule.

See Manage menu:

Administration → Interfaces → Interface Scheduler



Interface Maintenance

Interface Key:	g		
Interface:	IMC GAL	Interface Type:	All
Interface Name:	Gal interface	Remarks:	
Online:	<input type="checkbox"/>		

Field Code	Field Name	Value	Remarks
01	Branch Code		
02	WHS Code		
03	Customer Number		
04	Item Code		
05	Cost Center code1		
06	Cost Center code2		
07	Send Cancel Issues	Yes	
08	From		
09	Send Transaction	Yes	
10	Send Orders	Yes	
11	Send Stock	Yes	

Run

Value: *

Remarks:

24.5 EXPORT Interface

New type of interface allows exporting transactions into a file according to predefined conditions.

This interface can be Scheduled or defined to run Online.

See Manage menu:

Administration → Interfaces → Interfaces

Administration → Interfaces → Interface Scheduler

1. Open Manage menu: Administration → Interfaces and add a new interface of EXPORT type.
2. Check the 'Online' field if you want it to be activated immediately when transaction is created, or keep it clear if a schedule is preferred.
3. Save first time to get the list of parameters:



Interface Maintenance

Interface Key:	5		
Interface:	EXPORT	Interface Type:	Transaction
Interface Name:	EXPORT Interface	Remarks:	EXPORT Remarks
Online:	<input checked="" type="checkbox"/>		

Field Code	Field Name	Value	Remarks
01	Path	C:\Program Files\MATRIX-TM 4.7\MatrixTemp...	
02	Where	SYSTEM_TYPE:text:1:1	
03	File Separator	,	
04	Field List	TRANSACTION_KEY TRN_DATE LINE_SYSTE...	
05	File Name	exportinterface.txt	
06	Encoding	Unicode	

Run

Value: C:\Program Files\MATRIX-TM 4.7\MatrixTemp... *

Remarks:

- o Path – The folder where the file of the exported data will be written to.
 - o Where – List of conditions to filter what transactions will be exported. Use the three dots button near the 'Value' field to enter the conditions.
 - o File Separator – Choose the preferred character as required by the system that should read and process the file.
 - o Field List – List what fields should be exported and in what order. Use the three dots button near the 'Value' field to select.
 - o File Name – Keeping this empty causes Matrix to write a new file for each transaction with long unique numeric name. If you enter a file name, records would be appended to it as transactions are created.
 - o Encoding – The exported text file encoding as required by the system that should read and process the file.
4. If the “Online” option was not selected, a schedule for this interface should also be created in Manage → Administration → Interface Scheduler.

The transactions export feature is only writing the transactions to files. Once the file was processed by the target system, it should be deleted by it.



24.6 General options for Interfaces

Besides built-in interface capabilities (such as SAP and THINC), MATRIX has features that can be used for interfacing between MATRIX and other systems:

- Using reference fields for orders
- Using outputs of reports

24.6.1 Using Reference fields for Receive

We can add reference fields (from 0 to 4) to the receive process to enter data regarding the origin of a received item. These fields will be displayed on the '**Receive**' process, on the '

' process and the entered data will be recorded into 'Receive' transactions.

For example: If customer is using his own ERP system for creating purchase orders, during receive process he can enter data into reference fields regarding the PO in ERP system, thus creating relation between the order in the ERP system and 'Receive' transaction in Matrix. This is also the way the reference fields are used for SAP interface.

Setting System Options:

To display reference fields when receiving items:

1. Open "[Menu: Administration → System Options](#)".
2. Set the following parameters:

System Option 111 - Number of reference fields to use on Receive

Number of reference fields to use on Receive for Interfaces. If none or 0, in TOUCH the reference fields' screen will be skipped.

Reference 1 – For SAP, PO Number. Otherwise, any data.

Reference 2 – For SAP, Line No. Otherwise, any data.

Reference 3 and 4 – For SAP, for future use. Otherwise, any data.

System Option 112 - Type of Reference fields

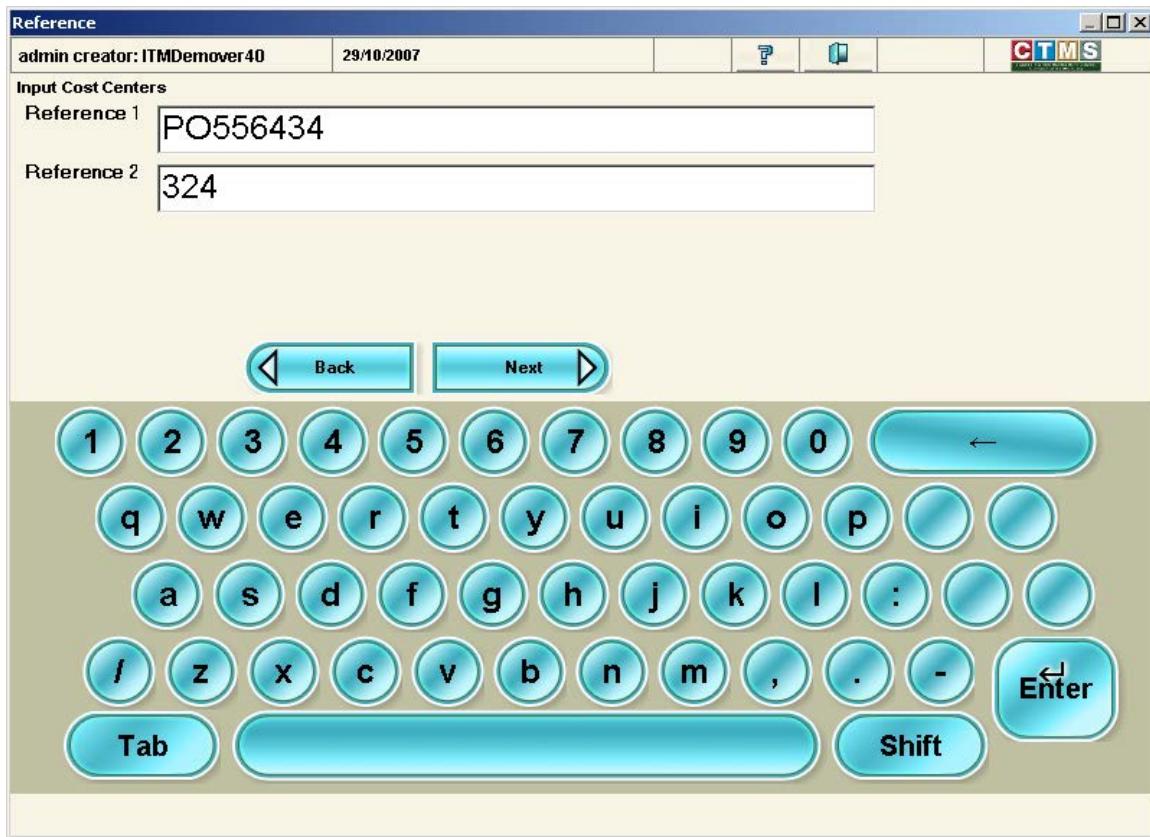
Type of Reference fields for Interfaces: Numeric or Text.



Viewing changes in Manage and Touch:

This section describes the screens that display reference fields:

1. In Touch, the '**Receive**' and the '**Receive without Order**' processes will show the following screen after the user selects the item to receive and before selecting the received quantities. This screen will appear only if system option **111** is set to display reference fields.



2. In Manage, the '**Receive**' and the '**Receive without Order**' processes will add the reference fields to the regular receive screen according to system option **111**.



Receive Order

PO Number:	278	Line:	6
Item Code:	test-dur	Item Description:	test-dur
Supplier Code:	00		
Cabinet:	Kardex	Bin:	Kardex-01-2-5
Quantity:	12.00	Capacity:	50
Received:	2.00	Items in Bin:	48.00
On Route:	2.00	Allow Over Capacity:	<input checked="" type="checkbox"/>
New Received:		Used Item:	<input type="checkbox"/>
Remarks:			
Reference			
Reference 1:			
Reference 2:			

Receive Order **Cancel**

3. In Manage, the 'Transaction Maintenance' screen will always display four additional reference fields with the recorded data.

Transaction Maintenance

Transaction Key:	4922	Item Code:	test-dur	Item Description:	test-dur
Transaction Type:	Receive	Bin Code:	Matrix-07-01-08	Cabinet:	Matrix Matrix
Update					
Create User:	admin creator	Update User:	admin creator		
Create Date:	29/10/2007	Update Date:	29/10/2007	Status:	Active
General Costs					
PO and Costs					
PO Number:	279	Line No.:	4		
Reference 1:		Reference 3:			
Reference 2:		Reference 4:			
Transaction Value:	9.000	* United States Dollar			
Trans. value in System currency:	38.250	System Curr = NIS			
<input type="checkbox"/> Consignment					



24.6.2 Using Outputs of Reports

MATRIX has basic reports (manually exported to MS-Excel) and Advanced reports (can be scheduled and exported automatically with different file formats). Besides the regular use, these reports can be used for interface purposes.

For example: If customer is using an ERP system for stock management and wishes to include Matrix stock data in the ERP system, it can use Matrix reports to transfer this data into the ERP. For this, the customer will probably need to develop a program that is able to read the data from output file and convert it to a format that the ERP system is able to accept.

By this example, see how the interface can be implemented:

1. Get current Matrix stock into report:
 - a) by exporting Stock report to MS-Excel **or**;
 - b) by making Stock Count and exporting Transactions report (filtered by 'Count Bins' transactions **at** 31/12/2009) **or**;
 - c) by exporting Transactions report with all the transactions created **until** 31/12/2009
2. Convert current Matrix stock to readable format and Initialize ERP stock.
3. Get Transactions Report with transactions created **after** 31/12/2009.
4. Convert the Transactions Report to readable format and Update ERP stock.
5. Repeat 3-4 by schedule.

24.7 Creating Interface Scheduler

You can define scheduler for data transmission for SAP and THINC interfaces.

1. Set system option **209 (Create Scheduled Reports)** to YES.
Additionally to the scheduled reports, this option is also responsible for activating scheduled interfaces and scheduled import.
2. Open "[Menu: Administration → Interfaces → Interface Scheduler](#)".
3. Add new interface by clicking the [**<Add>**](#) button on the toolbar.

The following screen will be displayed:



Interface Scheduler

User Name:	admin		
Interface Name	Example for SAP interface		
Schedule			
Schedule Day:	Every Sunday	Schedule Time:	01:00
Date Last Run:		Active:	<input checked="" type="checkbox"/>
Update			
Create User:	admin creator	Update User:	admin creator
Create Date:	30/12/2009	Update Date:	30/12/2009
<input type="button" value="Run"/>			

Fields Description:

- User Name: Set to any user.
- Interface Name: Select from the list the previously created interface.
- Schedule Day: Select the day the interface will be activated to transmit.
- Schedule Time: Select the time the interface will be activated to transmit.
- Active: Check the box to activate this schedule.
- Date Last Updated: This field is automatically updated with the date of the last run scheduler.

4. Click the **<Save>** button on the toolbar.



Note: To ensure that the scheduler will be activated, verify that System Option **209** is set to YES and that the **[DBName]ReportsEngine** job exists.



25 Alerts

Different alerts can be sent by email or by file to remind a user or a group of users to perform a specific task or pay attention to critical information. You can schedule an alert to be sent at different times.

25.1 Create Alerts

1. Set the System Option **406** (Path for Alerts reports) to correct template file.
2. Open “[Menu: Tools → Alerts → Alerts Scheduler](#)”.
3. Click the [**<Add>**](#) button and the screen as following will appear:

The screenshot shows the 'Alerts Scheduler' dialog box. It contains the following fields:

- User Name: Liora Banchik (dropdown)
- Email Address: liorar@iscar.com
- Alert Type: Critical Quantity Alert (dropdown)
- Destination: E-mail (dropdown)
- File Name: Critical Quantity Alert
- File Type: pdf (dropdown)
- CC E-mail: (text input field)
- Priority: High (dropdown)
- Schedule Day: Daily (dropdown)
- Schedule Time: 06:00 (dropdown)
- Date Last Run: 19/07/2012 (dropdown)
- Active:
- Source File: (dropdown)
- Do not send/save if empty:
- Remarks: (text area)
- Run: (button)
- Update section:
 - Create User: Liora Banchik
 - Update User: admin creator
 - Create Date: 08/06/2012
 - Update Date: 19/07/2012

Fields description:

User Name: The user who will receive the report.



<u>Alert Type</u> *:	Select the relevant alert type. The alert types are detailed in the next section.
<u>Destination</u> *:	Select if this alert needs to be received as file or sent by email.
<u>Email Address</u> :	This field is shown only if the “Destination” field is set to “Email” option. When this field is displayed, make sure that user defined for “User Name” field has email defined in his user record.
<u>CC E-mail</u> :	This field is shown only if the “Destination” field is set to “Email” option. List email addresses of persons who should receive email copy, separated by comma. You can select them also by <Browse> button.
<u>File Name</u> :	Keep it empty or set only file name or the full path. If the value is empty or only file name, the file will be created into folder defined in system Option 401 (Path for Reports).
<u>File Type</u> *:	Select the output file format: xls (html), xml, rtf, pdf, xls.
<u>Priority</u> :	Select one of the followings: <i>High</i> , <i>Medium</i> , <i>Low</i> . This will appear in the title of the output report.
<u>Schedule Day</u> *:	Set the day to schedule the alert.
<u>Schedule Time</u> *:	Set the time to schedule the alert.
<u>Date Last Run</u> :	The date the last time this alert run, updated automatically after alert run. For some alert types, the data received in the report will be filtered from this data and on. If you need the alert to run automatically again or to cancel the filter, clear this field.
<u>Active</u> :	Check this field to activate this alert for automatic run.
<u>Source File</u> :	Keep this field empty to add new results to existing file from previous results or set to one of the followings: <i>Delete Old File</i> – replaces old file with new file. <i>Rename Old File</i> – renames old file and creates a new one with defined name.
<u>Do not send/save if empty</u> :	If this option is checked, the alert will be sent only if it has a returned data. If unchecked, the alert will be sent even if it will have only header. To check this option helps to prevent overloading of email box with empty files.
<u>Remarks</u> :	Free text.



5. Fill in the data and click the <Save> button.
6. Wait for the schedule time for the output report or click the Run button to immediately run the alert.
7. To view the log recording to all the alerts that were sent open “Menu: Tools → Alerts → Alert log”.

<Run>

25.2 Alert types

There are 9 available alerts:

1. **Check database structural integrity**: The alert runs *CheckDBCC* procedure on the database and the result is printed into report. In case of database corruption, user can try to restore database from backup before the backup gets also corrupted.

A	B	C	D	E	F
1	22.06.2012 12:12				
2	Alert Type	Check database structural integrity			
3	Priority	High			
4	Message				
5	2021608	CHECKDB found 0 allocation errors and 0 consistency errors in database 'Demo2012'.			
6					
7					

2. **Check Stock Balance**: The alert runs *RECalculate_STOCK_MANAGE_LEVEL* procedure. If there any problem is found with the stock balance, the output will detail the item, cabinet and bin having the misbalance. The misbalance found can be fixed by the "Stock Balance" option available at the Database Administration program.
3. **Critical Quantity Alert**: The alert compares the stock to the 'Critical Minimum' value (not the 'Minimum Quantity' field) (defined for Item on the "Item Maintenance" screen → "Stock Management Level" tab and for Bin on the "Bin Maintenance" screen → "Stock Management Level" tab) and lists all the levels with critical shortage, as shown



below. This alert gives the opportunity to be proactive and make sure the needed items are available before they are requested by operator.

A	B	C	D	E	F
1	15/06/2012 10:00				
2	Alert Type	Critical Quantity Alert			
3	Priority	High			
4	Message				
5	Bin: Bin: 52-02-01-06, Item Code: 3600600 Stock= 1.00 ,Critical= 2.00		Item Code	Cabinet Code	Bin Code
6	Item/Cabinet: Item Code: 3600600, Cabinet Code: 52 Stock= 1.00 ,Critical= 2.00		3600600	52	52-02-01-06
7			3600600	52	
8					
9					

4. **Filter's Cleaning Reminder:** This alert is used to send a reminder to maintain the filter, mostly used for Matrix Master cabinets. Schedule it according to the environment conditions to avoid overheat of the system.

5. **Last Item's Issue:** The alert scans all the Issue transactions since the "Date Last Run". If the Issue transaction caused to zero stock (the last item piece was issued from bin), this bin will be listed as a bin with last issue.

A	B	C	D	E	F
1	22.06.2012 12:28				
2	Alert Type	Last Item Issue			
3	Priority	High			
4	Message		Item Code	Cabinet Code	Bin Code
5	Item Code: 2301392 ,Bin Code: 01-09D5		2301392	01	01-09D5
6	Item Code: 2301394 ,Bin Code: 11-08-02-03		2301394	11	11-08-02-03
7	Item Code: 2301538 ,Bin Code: 71-08-05-06		2301538	71	71-08-05-06
8	Item Code: 2301629 ,Bin Code: 52-02-04-01		2301629	52	52-02-04-01
9	Item Code: 2301629 ,Bin Code: 71-06-06-01		2301629	71	71-06-06-01
10	Item Code: 2301878 ,Bin Code: 52-02-10-04		2301878	52	52-02-10-04

6. **Manual alert:** User defined alert, mostly will be used as reminder.

7. **Matrix Recycle Alert:** The alert checks if Matrix Recycle exceeded its maximal weight, defined on the "Cabinet Maintenance" screen → "Max Weight" field.

8. **Overdue Orders:** The alert lists overdue orders i.e. orders that have passed their Promised Date.



9. **Send Gauges to Calibration Reminder:** The alert lists all the serials that are in stock (statuses In Stock / Inactive / Out of Stock / Issued) that reached their calibration, whether by time period or by number of issues.

Message	Item Code	Serial Number	Bin Code
Item code: 4604211 , Serial Number: 4604211_05 , Bin Code: MA 4604211	4604211_05	MAXITOUC-01	
Item code: 4604434 , Serial Number: 4604434_03 , Bin Code: MA 4604434	4604434_03	MAXIPOD-03-06	
Item code: 4604211 , Serial Number: 4604211_04 , Bin Code: MA 4604211	4604211_04	MAXIPOD-02-06	

26 Item/Bin Location Planning

This module saves time connecting items to bins, usually for an initial set-up of a cabinet.

The process uses the following data:

1. Item Pack type: the type of pack in which the item is stored.
This data is currently supplied for ISCAR brand inserts in the installed folder.
See C:\Program Files\MATRIX-TM\Application\ImportFiles\ITEM_PKG_TYPE.xls
2. Bin type: each type of bin has a code and inner dimensions (HxWxD).
3. The connection between bin type and pack type – how many packs of each type can be put inside each bin type. Matrix makes this calculation automatically in the way described below.
4. Items to be placed - a list of items and quantities that we want to put in the new bins in the cabinet. It is good to also add the frequency of an item.

26.1 Prepare a list of pack types

This chapter describes the pack types in the system and setting pack type for each item that we would like to include in the “Item Location Planning” process.

1. Open “Menu: Tools → Item/Bin Location Planning → Pack Type”.

A screen as following will be displayed:



Pack Type

Pack Type Key	Pack Type Code	Pack Type Description	Height	Length	Width
1	Type A	Type A: 98.1 X 40.2	12.50	98.10	40.20
2	Type B	Type B: 98.1 X 40.2	15.90	98.10	40.20
3	Type C	Type C: 138.3 X 56.2	14.70	138.30	56.20
4	Type D	Type D: 138.4 X 56.3	19.30	138.40	56.30
5	Type E	Type E: 98.7 X 66.1	19.80	98.70	66.10
6	Type G	Type G: 180 X 160	12.50	180.00	160.00
7	Type H	Type H: 139 X 56	15.00	139.00	56.00
8	Type I	Type I: 230 X 180	20.00	230.00	180.00
9	Type J	Type J: 98.1 X 41.2	12.50	98.10	41.20
10	Type K	Type K: 138 X 56	8.20	138.00	56.00
11	Type L	Type L: 139 X 55	17.00	139.00	55.00
12	Type M	Type M: 139 X 55	12.80	139.00	55.00
13	Type N	Type N: 139 X 25.5	25.50	139.00	25.50

This screen has a built-in list of pack types and their dimensions in mm.

This list represents the most popular packs used for inserts. It is possible to edit existing records, deleting and also adding new pack types as required.

- To update pack type details, select row and click the [<Update>](#) button.

To add new pack type, click the [<New>](#) button.

The following screen will be displayed:

Pack Type Maintenance

Pack Type Key:	4	Pack Type Code:	Type D *
Pack Type Description:	Type D: 138.4 X 56.3		
Length:	138.40	Height:	19.30
		Width:	56.30

Fields Description:

Pack Type Code *: pack type code.

Pack Type Description: pack type description.

Height / Length / Width: pack type dimensions.



3. Edit the data and click the <Save> button.
4. Make sure that all the items that you would like to setup by this process are set with pack type on the “Search Item” screen → ‘Pack Type’ column or as shown below:
The “Item Maintenance” screen → “General” tab → ‘Pack Type’ field.

The screenshot shows the 'Item Maintenance' window with the 'General' tab selected. The 'Pack Type' dropdown menu is open, displaying a list of options: Type A, Type B, Type C, Type D, Type E, Type F, Type G, and Type H. The option 'Type H' is highlighted with a red border. Other fields visible include Item Key (1057), Item Code (2301346), Item Description (DGFHL 26T23-3), Item Type (Durable), Additional Item Code (0301524), Item Long Description (MAXITOUC), Barcode (02301346), Item Auth Group, Unit of Measure (General Units), Item Group (Tools), Category (Groove - Part), Pack Size (1), Pack Type (checkboxes for Item Management Level, Consignment, Serial, Special), and Default Issue Quantity.

After installing Matrix software, you can find the following file:

C:\Program Files\MATRIX-TM\Application\ImportFiles\ITEM_PKG_TYPE.xls

This file contains a list of ISCAR brand inserts and their pack types.

When importing items to the database, you can import the Pack Type as well for:

Table: ENT_ITEM_MASTER, field: PKG_TYPE_KEY.

26.2 Prepare a list of bin types

This chapter describes the bin types in the system and how to set possible pack types for each bin type that we would like to include in the “Item Location Planning” process.

5. Open “Menu: Tools → Item/Bin Location Planning → Bin Type”.

A screen as following will be displayed:



Bin Type

Bin Type Key [] Bin Type Code [] Bin Type Description []
 Height [] Depth [] Width []

... Found 36 Records. Row: 3

Bin Type Key	Bin Type Code	Bin Type Description	Height	Depth	Width
28	100A	1 X 1	100.00	39.00	42.00
29	100J	3 X 3	100.00	139.00	142.00
30	100K	4 X 3	100.00	189.00	142.00
19	50A	1 X 1	50.00	39.00	42.00
20	50B	1 X 2	50.00	39.00	92.00
21	50C	1 X 3	50.00	39.00	142.00
22	50D	1 X 4	50.00	39.00	192.00

This screen has a built-in list of bin types for all Matrix series, with their dimensions.

It is possible to edit existing records, deleting and also adding new bin types.

6. Select bin type and click the [<Update>](#) button on the toolbar.

In the “[Bin Type Maintenance](#)” screen you can set dimensions of the bin type, set which pack types can be stored in this bin type and the quantity.

Bin Type Maintenance

Bin Type Key:	Bin Type Code:	Description:
30	100K	* 4 X 3
Height:	100.00	
Depth:	189.00	
Width:	142.00	

Pack Type Maintenance

Recommend

Pack Type Key	Pack Type Code	Store Quantity	Max Store	Width	Height	Length
1	Type A	45		40.20	12.50	98.10
2	Type B	33		40.20	15.90	98.10
3	Type C	18		56.20	14.70	138.30
4	Type D	15		56.30	19.30	138.40
5	Type E	18		66.10	19.80	98.70
7	Type H	18		56.00	15.00	139.00
9	Type J	45		41.20	12.50	98.10
10	Type K	36		56.00	8.20	138.00
11	Type L	15		55.00	17.00	139.00
12	Type M	21		55.00	12.80	139.00
13	Type N	21		25.50	25.50	139.00

Pack Type Code: Type A Store Quantity: 45 Max Store:
 Updated Create User: Update User: admin creator
 Create Date: Update Date: 24.07.2012

Fields Description:

Bin Type Code *: A bin type code.

Description: A bin type description.

Height / Depth / Width: A bin type dimensions in mm.

Pack Type Code: A pack type code of the selected row.

Store Quantity: Set a quantity of packs that you would like to actually store of this pack type in this bin type.

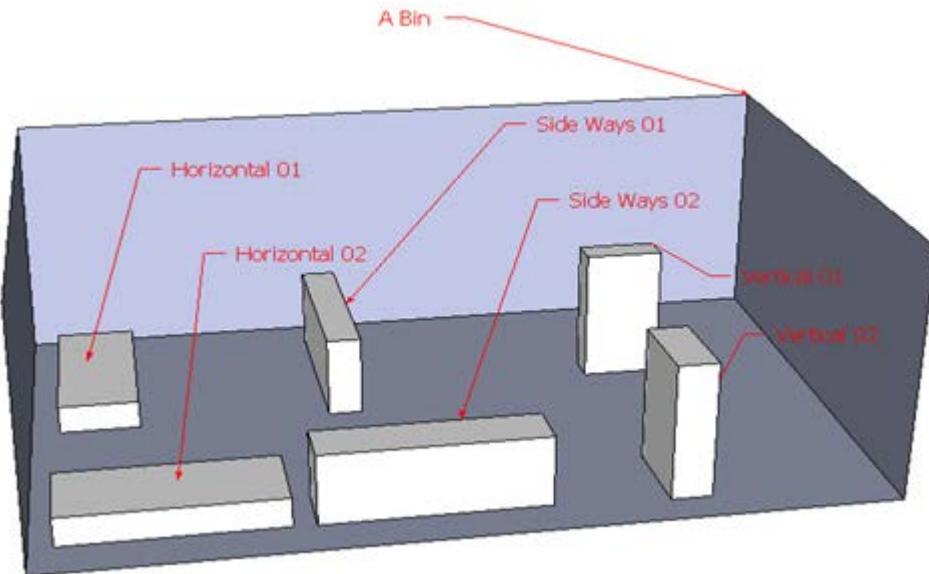
Max Store: The maximum quantity of packs that can be stored of this pack type in this bin type.



The    Add / Update / Delete buttons to manually manage pack types and quantities for this bin type.

Recommend

By clicking the **Recommend** button the system will automatically calculate the recommended pack types and quantities that can fit in each bin type. The pack placing algorithm checks 6 different optional positions of a pack (as shown below) to maximize the number of packs per bin.



7. To automatically add pack types that fit in this bin type, click the **<Recommend>** button or follow the points below to add pack types manually:



- Click the <Add> button on the right side of the grid.
A search screen for selecting pack types will be displayed.
 - Select one pack or use **CTRL** for multiple select and click <Select>. The selected pack type/s will be added to the grid on the “Bin Type Maintenance” screen.
 - To edit the quantity of packs to be stored in this bin type, select pack row on the grid and click the <Update> button on the right side of the grid.
 - Edit the ‘Store Quantity’ and ‘Max Store’.
8. Click the <Save> button on the toolbar.
9. Repeat steps 6-8 for each bin type relevant for this “Item Location Planning” process.
10. Make sure that all the bins that you would like to setup by this process are set with a bin type on the “Search Bin” screen → ‘Bin Type’ column or as shown below:
The “Bin Maintenance” screen → “Bin Units” tab → ‘Bin Type’ field.

The screenshot shows the 'Bin Maintenance' application window. At the top, there are fields for 'Bin Key' (42000609), 'Bin Code' (MAXITOUCH-01-01-04), 'Cabinet Code' (MAXITOUCH), and 'Item Code'. Below these are tabs: General, Stock Management, Additional Fields, Usage, Transactions, Orders, Bin Units (which is selected and highlighted in orange), and Authorizations. A message 'IMPORTANT! Changes here should be done with extreme care.' is displayed. On the left, there is a small table:

Y	Z	X	Sent
1	1	4	YES

Below this is a large grid representing a bin structure, labeled X and Z. The grid has 10 columns and 10 rows, with a blue square indicating a selected cell. At the bottom of the grid, there are input fields for 'X' (containing '1'), 'Z' (containing '1'), and 'Bin Code' (containing 'MAXITOUCH-01-01-04'). A dropdown menu labeled 'Bin type:' shows options: 50A (selected), 50B, 50C, 50D, 50E, 75B, 75C, and 75G.



Explanation:

When adding drawers to cabinets of any Matrix series, the bin type is set automatically for all the bins. In case bins were added before V5.0 and you would like to setup a bin by this process, this field should be set manually or by import data.

To update the Bin Type for bins by import project use:

Table: ENT_BIN_MASTER, field: BIN_TYPE_KEY.

26.3 Prepare a list of items to be placed

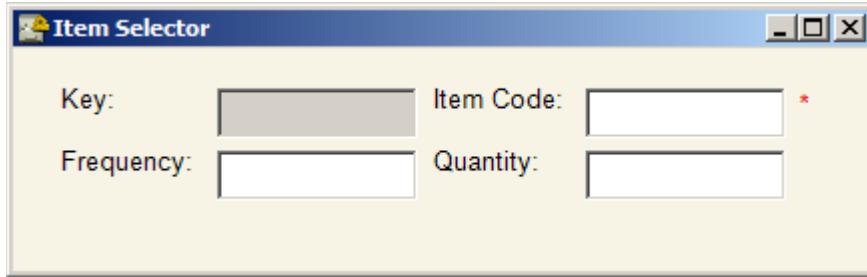
This chapter describes how to add items to the “Item Location Planning” process.

This can be done manually for each item or massively for a group of items using import data (recommended). No matter which method is used, the items must exist in the system and be viewable in the standard “Search Item” screen.

To add items manually:

1. Open “Menu: Tools → Item/Bin Location Planning → Item Selector”.
2. Click the <Add> button on the toolbar.

The following screen will be displayed:



Fields Description:

Item Code *: The item code of an item to be located manually. This item should already exist in the system.

Frequency: Average of number of times this item is issued per month. The value must be integer number - no letters, negative numbers or decimal. This value will influence the accessibility of this item in the cabinet, meaning that the most frequently issued items will be located in hot zones.



Quantity: Quantity of pieces to be stored of this item.

3. Enter the data and click the <Save> button on the toolbar.
4. Repeat the steps 2-3 for all items that need to be stored.

To add items by import:

This import is similar to any other import, therefore it is only briefly described below.

Prepare an Excel worksheet with the items to be stored, as per the example below.

	A	D	H	K
1	Item Key	ITEM_CODE	ITEM_FREQ	STORE_QTY
2	1	201242001	1	5
3	2	201242002	8	5
4	4	201242004	2	5
5	5	201242005	9	5
6	6	201242006	13	5
7	7	201242007	3	5
8	8	201242008	13	5

1. Create a standard import project and add the ENT_ITEM_STORE table.

The screenshot shows the 'Import Data' dialog box with the 'Import' tab selected. The 'Table Name:' dropdown is set to 'ENT_ITEM_STORE'. Below it, a grid lists the fields and their mappings:

Field Name	Is Unique	Column Name	Sequence	In File	Default Value	Required
ITEM_CODE	<input checked="" type="checkbox"/>	ITEM_CODE	1	<input checked="" type="checkbox"/>		<input type="checkbox"/>
ITEM_FREQ	<input type="checkbox"/>	ITEM_FREQ	2	<input checked="" type="checkbox"/>		<input type="checkbox"/>
STORE_QTY	<input type="checkbox"/>	STORE_QTY	3	<input checked="" type="checkbox"/>		<input type="checkbox"/>

ITEM_CODE – Item Code, as described on the manual add.

ITEM_FREQ – Frequency, as described on the manual add.

STORE_QTY – Quantity, as described on the manual add.

2. Adjust the data between import project field names and excel column heading and click <Import>.



To see the items you just imported, open “[Menu: Tools → Item/Bin Location Planning → Item Selector](#)”.

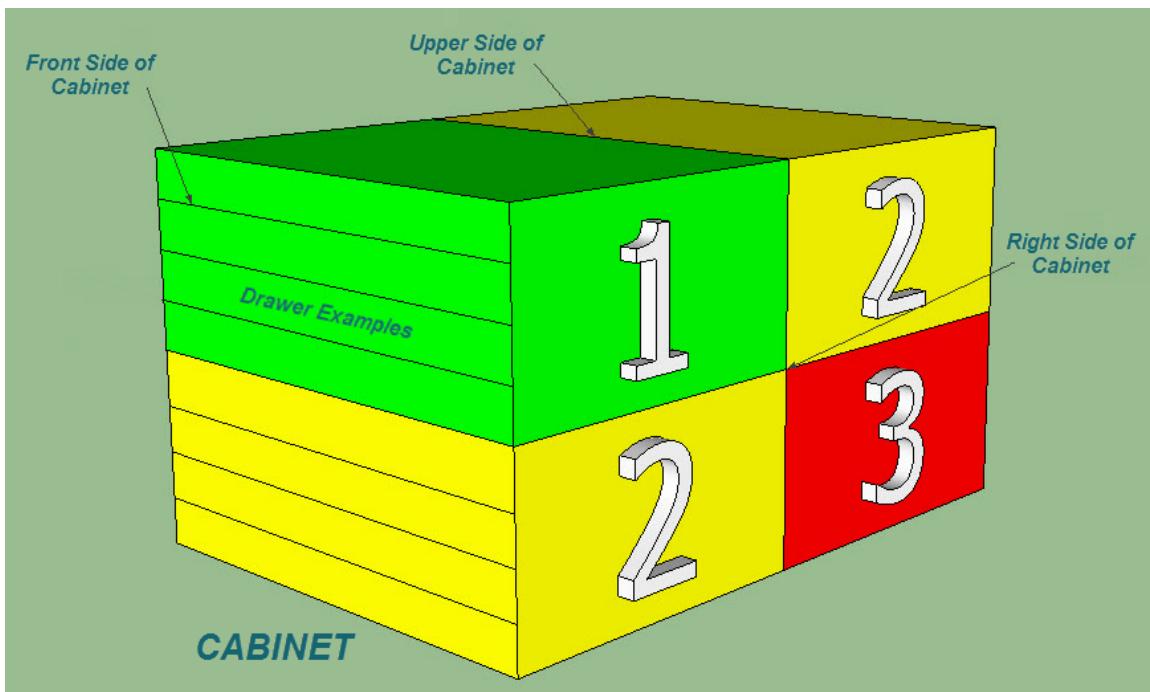
Key	Item Type	Item Code	Item Description	Frequen	Quantity	Maximum Quantity	Actual Quantity	Pack Type Code	Pack Type Description	Pack Size
209	Expendable	5605179	Demo APKT 1003PDR HM9...	1	1	1	0	Type A	Type A: 98...	10
210	Durable	3101686	Demo HM90 E90A-D20-3-W...	1	1	1	0	Type B	Type B: 9...	1
211	Durable	3101694	Demo HM90 E90A-D32-4-W...	1	1	1	0	Type C	Type C: 1...	1
212	Durable	3102566	Demo HM90 E90A-D 62-2-C...	1	1	1	0	Type D	Type D: 1...	1
213	Durable	3101745	Demo HM90 E90A-D 75-3...	1	1	1	1	Type E	Type E: 9...	1
214	Durable	5605180	Demo APKT 1003PDR HM9...	1	1	1	0	Type G	Type G: 1...	10
215	Durable	3101749	Demo HM90 E90A-D1 25-3...	1	1	1	0	Type H	Type H: 1...	1
216	Expendable	5600048	Demo APKT 1003PDR-HM ...	1	1	1	0	Type I	Type I: 23...	1
217	Expendable	5601196	Demo APKT 1003PDR-76 ...	1	1	1	0	Type J	Type J: 98...	1
218	Expendable	5502097	Demo TPGB 2-1 IC20...	1	1	1	0	Type K	Type K: 1...	1
219	Expendable	5502128	Demo TPGB 322-60 IC...	1	1	1	0	Type L	Type L: 13...	1
220	Expendable	5502149	Demo TPGH 2-1-XL IC7...	1	1	1	0	Type M	Type M: 1...	10
221	Expendable	5501822	Demo TNMS 431-12 IC...	1	1	1	0	Type N	Type N: 1...	10
222	Expendable	5502154	Demo TPGH 2-2-L IC7...	1	1	1	0	Type A	Type A: 98...	10
223	Expendable	5502161	Demo TPGH 321-R IC7...	1	1	1	0	Type B	Type B: 9...	10
224	Expendable	5502203	Demo TPMT 321 IC7...	1	1	1	0	Type C	Type C: 1...	10
225	Expendable	5502222	Demo TPMR 221 IC7...	1	1	1	0	Type D	Type D: 1...	1
226	Expendable	5502252	Demo TPMR 322 IC6...	1	1	1	1	Type E	Type E: 9...	1
227	Expendable	5502282	Demo TPU 221 IC20...	1	1	1	0	Type G	Type G: 1...	10
228	Expendable	3220370	Demo HSD 020-024-020 AM...	1	1	1	0	Type H	Type H: 1...	1
229	Reworkable	5530123	Demo PICCO L-MFT60 6-4 ...	1	1	1	0	Type I	Type I: 23...	1
230	Expendable	5505421	Demo IDI 0295-SG IC90...	1	1	1	0	Type J	Type J: 98...	5
231	Durable	4509194	Demo DIN9871 40 ER32 S...	1	1	1	0	Type K	Type K: 1...	1
232	Expendable	5900235	Demo 11ER 0.35 ISO IC5...	1	1	1	0	Type L	Type L: 13...	10
233	Expendable	5900329	Demo 16ELA 55 IC5...	1	1	1	0	Type M	Type M: 1...	10
234	Expendable	5900515	Demo 16ERAG 55 IC5...	1	1	1	0	Type N	Type N: 1...	10
235	Expendable	6402110	Demo GIMY 304 IC20...	1	1	1	0	Type A	Type A: 98...	20
236	Expendable	6401879	Demo GIMY 315 IC20...	1	1	1	0	Type B	Type B: 9...	20
237	Expendable	6401990	Demo GIMY 315 IC20...	1	1	1	0	Type C	Type C: 1...	20
238	Expendable	6402508	Demo GIMY 315 IC50...	1	1	1	0	Type D	Type D: 1...	10
239	Expendable	5598308	Demo QNMG 432-NF * I...	1	1	1	1	Type E	Type E: 9...	1
240	Expendable	5504734	Demo QNMG 433-TF IC...	1	1	1	0	Type G	Type G: 1...	1

26.4 The location process

This chapter describes how the “Item Location Planning” process makes the recommendations for storing items in the bins.

It takes all the data supplied in the previous steps and creates an optimal location plan, where the most frequently used items are placed in the areas which are mostly accessible in the cabinet.

The program calculates the priority of the item usage (according to the item frequency class), and locates it according to the diagram below:

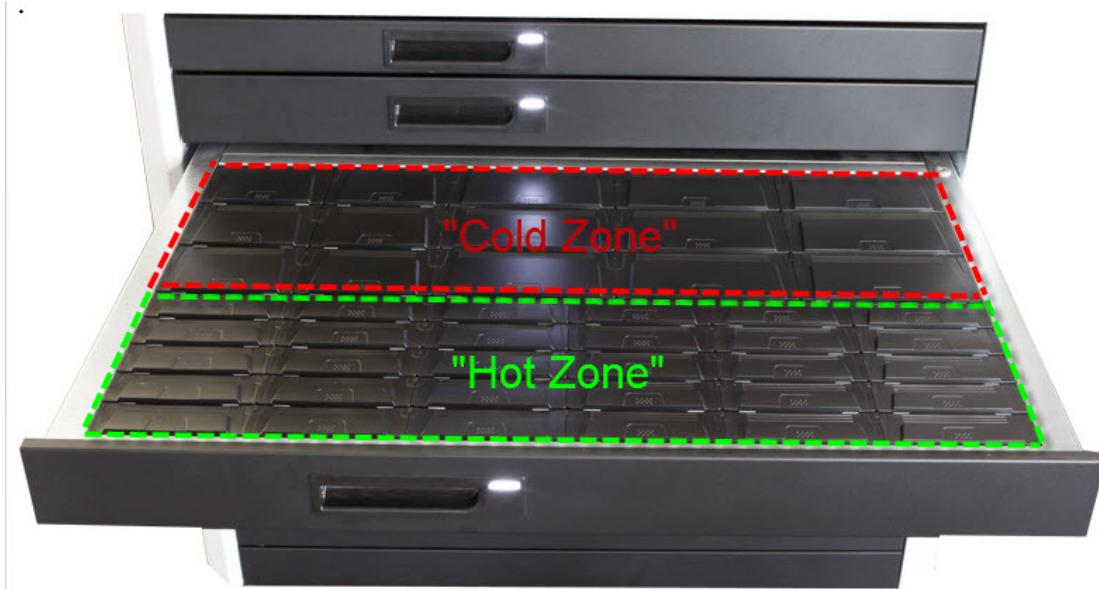


Area 1: Hot spot, which is easy to access. It will be used for items that are used often.

Area 2: Warm spots, which are easy to access but less than Area 1. It will be used for items that are used moderately.

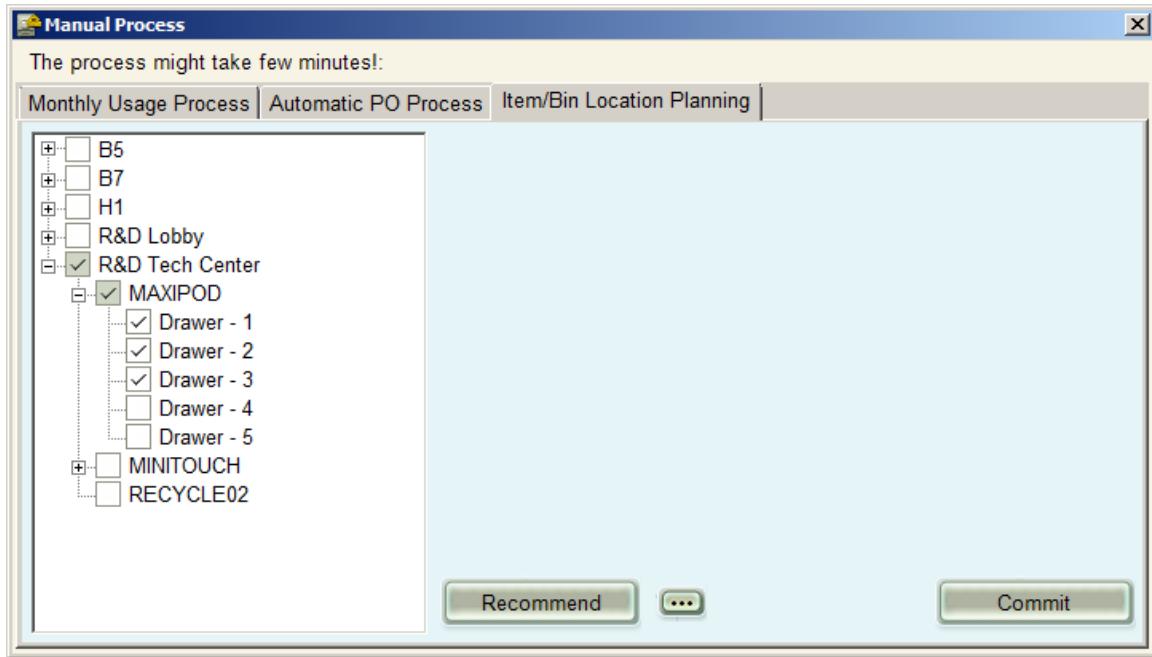
Area 3: Cold spot, which is less accessible than the others. It will be used for items that are used less frequently.

The division zones of the drawer:



To activate recommendation:

1. Open “Menu: Manual Process”.
2. Select the “Item/Bin Location Planning” tab:



3. Select the site and the cabinets/drawers that you would like to include in the location

process and click the **Recommend** button (this process could take a while, depends on the amount of items to locate).

4. To see the recommended results, click the **...** button and the “Bin Selector” screen will be displayed.

This screen can be also opened from “Menu: Tools → Item/Bin Location Planning → Bin Selector”.



Bin Selector

Key	Bin Key	Bin Code	Item Key	Item Code	Priority	Quantity	Fill Quantity	Maximum Quantity	Pack Type Code	Bin Type Code	Committed
1	42001585	MAXIPOD-05-04-04	1095	5503660	0	10	10	450	Type A	100K	Yes
2	42001583	MAXIPOD-05-04-02	1057	2301346	0	10	10	33	Type B	100K	Yes
3	42001582	MAXIPOD-05-04-01	1058	2301348	0	10	10	18	Type C	100K	Yes
4	42001586	MAXIPOD-05-04-05	1059	2301394	0	10	10	15	Type D	100K	Yes
5	42001593	MAXIPOD-05-08-06	1060	2301399	3	100	10	15	Type D	100K	No
5	42001587	MAXIPOD-05-04-06	1060	2301399	2	100	15	15	Type D	100K	Yes
5	42001588	MAXIPOD-05-08-01	1060	2301399	3	100	15	15	Type D	100K	Yes
5	42001589	MAXIPOD-05-08-02	1060	2301399	3	100	15	15	Type D	100K	Yes
5	42001590	MAXIPOD-05-08-03	1060	2301399	3	100	15	15	Type D	100K	Yes
5	42001591	MAXIPOD-05-08-04	1060	2301399	3	100	15	15	Type D	100K	Yes
5	42001592	MAXIPOD-05-08-05	1060	2301399	3	100	15	15	Type D	100K	Yes

This screen displays all the items and their recommended bins.

Quantity: Quantity requested to be stored.

Fill Quantity: Quantity that will be stored in the recommended bin.

Maximum Quantity: Maximum quantity of pieces that can be stored in the recommended bin, considering also the pack size (for example, 10 pieces per pack).

This value will be copied to 'Capacity' of the bin.

Committed: The value is 'No'. After committing the recommendations, the value will be set to 'Yes'.

Example: Item requested to be stored with Quantity = 100 pieces.

The system recommended to store:

15 pieces (Fill Quantity) in 6 bins of type D = 90 pieces and another;

10 pieces (Fill Quantity) in 1 bin of type D = 10 pieces

In total = 100 pieces

Maximum Quantity = Capacity = 15

- To implement the recommendations, click the **Commit** button. The items will be connected to the recommended bins and these bins will be ready for updating stock or any other updates.



27 CPU – Tool Life

The “CPU & Tool Life” module is used to track the cost of tools used per production units and their tool life, including the option to report deviations from a benchmark CPU.

CPU – Cost Per Unit, meaning the value of tools issued for producing parts (combination of cost centers – usually part and machine).

Tool Life – list of tools issued for producing parts and the number of parts that are produced by one tool.

Using this module requires importing a list of parts (combination of cost centers) and quantities produced. This data is usually taken from an ERP system.

See:

[Menu: Tools → CPU - Tool Life → Production Cost List](#)

[Menu: Tools → CPU - Tool Life → CPU](#)

[Menu: Tools → CPU - Tool Life → Tool Life](#)

[Menu: Reports → CPU – Tool Life → Advanced CPU Report by Line](#)

[Menu: Reports → CPU – Tool Life → Advanced Tool Life by Line](#)

[Menu: Reports → CPU – Tool Life → Advanced CPU Report](#)

System option 306 (CPU Deviation)

27.1 Production Cost List

This chapter describes how to add the number of production units produced / part count per cost center.

This should be done massively for a group of production cost centers using import data (recommended), but also can be done manually. For this module to operate, the cost centers (example: part + machine) must exist in the system and be seen in the standard “Search Cost Center Details” screen.

To add/edit production cost data manually:

1. Open [“Menu: Tools → CPU - Tool Life → Production Cost List”](#).
2. Click the [`<Add>`](#) button on the toolbar.

The following screen will be displayed:



Production Cost Maintenance

Key:	<input type="text" value="1"/>	Parts Count:	<input type="text" value="42000"/>
Cost Center Header 1:	<input type="text" value="Machine"/>	Cost Center Code 1:	<input type="text" value="349"/>
Cost Center Header 2:	<input type="text" value="Part"/>	Cost Center Code 2:	<input type="text" value="3500164"/>
Begin Date:	<input type="text" value="2012-03-04"/>	End Date:	<input type="text" value="2012-03-10"/>
Benchmark:	<input type="text" value="0,08"/>		

Fields Description:

Cost Center Header 1-2: Select the cost center headers for which the production costs will be entered and measured, usually machine and part.

Cost Center Code 1-2: Type manually the particular cost center codes, existing in the system.

Parts Count: Quantity of parts produced – final product that was processed on these cost centers and accepted from the production.

Begin Date: The date when these parts started being processed.

End Date: The date when these parts finished being processed.

Benchmark: The target cost for all tools used to produce one unit of the processed part. This value will be used to measure the deviation of the calculated CPU from the benchmark / target cost. You only need to enter this value once for a record with the same combination of cost centers. After that this value will be used for all the records with the same combination.

3. Enter the data and click the <Save> button on the toolbar.
4. Repeat the steps 2-3 for all production costs that need to be measured.

To add production costs by import:

This import is similar to import of any other data.

1. Prepare Excel list with items to be imported, like the example below.



Machine Code	Part Code	Begin Date	End Date	Parts Count	Benchmark
349	3500164	2012-03-04	2012-03-10	42000	0.08
349	3500164	2012-03-11	2012-03-17	44000	
349	3500164	2012-03-18	2012-03-24	46000	
349	3500164	2012-03-25	2012-03-31	45000	
348	3500162	2012-03-04	2012-03-10	44000	0.06
348	3500162	2012-03-11	2012-03-17	43000	
348	3500162	2012-03-18	2012-03-24	45200	
348	3500162	2012-03-25	2012-03-31	45500	
719	2702703	2012-03-04	2012-03-10	800	5.50
719	2702703	2012-03-11	2012-03-17	700	
719	2702703	2012-03-18	2012-03-24	680	
719	2702703	2012-03-25	2012-03-31	750	
716	3002188	2012-03-04	2012-03-10	2750	0.70
716	3002188	2012-03-11	2012-03-17	2900	
716	3002188	2012-03-18	2012-03-24	2850	
716	3002188	2012-03-25	2012-03-31	2800	

2. Create standard import project and add the **ENT_CPU_COST** table.

The screenshot shows the 'Import Data' dialog box with the 'Import' tab selected. The 'Table Name:' dropdown is set to 'ENT_CPU_COST'. The main area displays a grid of fields with the following data:

Field Name	Is Unique	Column Name	Sequence	In File	Default Value	Required
COST_CENTER_KEY1	<input checked="" type="checkbox"/>	COST_CENTER_KEY1	1	<input type="checkbox"/>	6000002	<input type="checkbox"/>
UNIT_VALUE1	<input checked="" type="checkbox"/>	Machine Code	2	<input checked="" type="checkbox"/>		<input type="checkbox"/>
COST_CENTER_KEY2	<input checked="" type="checkbox"/>	COST_CENTER_KEY2	3	<input type="checkbox"/>	6000001	<input type="checkbox"/>
UNIT_VALUE2	<input checked="" type="checkbox"/>	Part Code	4	<input checked="" type="checkbox"/>		<input type="checkbox"/>
DATE_START	<input checked="" type="checkbox"/>	Begin Date	9	<input checked="" type="checkbox"/>		<input type="checkbox"/>
DATE_END	<input checked="" type="checkbox"/>	End Date	10	<input checked="" type="checkbox"/>		<input type="checkbox"/>
UNIT_QTY	<input type="checkbox"/>	Parts Count	11	<input checked="" type="checkbox"/>		<input type="checkbox"/>
CPU_TARGET	<input type="checkbox"/>	Benchmark		<input checked="" type="checkbox"/>		<input type="checkbox"/>

COST_CENTER_KEY1 -2: The key of cost center header 1-2 records, as displayed in "Search Cost Center Header" screen. No need to import it from file, but to set it as default value.



3. Adjust the data between import project field names and excel column heading and click <Import>.

To see the production costs you just imported, open “[Menu: Tools → CPU - Tool Life → Production Cost List](#)”.

The screenshot shows a software window titled "Production Cost List". At the top, there are three search fields: "Cost Center Header 1" (dropdown), "Cost Center Code 1" (dropdown), and "Begin Date" (dropdown). Below them are two more fields: "Cost Center Header 2" (dropdown) and "Cost Center Code 2" (dropdown), followed by "End Date" (dropdown). A "Benchmark" field is also present. A message at the top right says "... Found 48 Records. Row: 1". The main area is a grid table with 16 rows of data. The columns are labeled: Key, Cost Center Header 1, Cost Center Code 1, Cost Center Header 2, Cost Center Code 2, Begin Date, End Date, Parts Count, and Benchmark. The data includes various machine types and their usage details.

Key	Cost Center Header 1	Cost Center Code 1	Cost Center Header 2	Cost Center Code 2	Begin Date	End Date	Parts Count	Benchmark
1	Machine	349	Part	3500164	2012-03-04	2012-03-10	42000	0,08
2	Machine	349	Part	3500164	2012-03-11	2012-03-17	44000	
3	Machine	349	Part	3500164	2012-03-18	2012-03-24	46000	
4	Machine	349	Part	3500164	2012-03-25	2012-03-31	45000	
5	Machine	348	Part	3500162	2012-03-04	2012-03-10	44000	0,06
6	Machine	348	Part	3500162	2012-03-11	2012-03-17	43000	
7	Machine	348	Part	3500162	2012-03-18	2012-03-24	45200	
8	Machine	348	Part	3500162	2012-03-25	2012-03-31	45500	
9	Machine	719	Part	2702703	2012-03-04	2012-03-10	800	5,50
10	Machine	719	Part	2702703	2012-03-11	2012-03-17	700	
11	Machine	719	Part	2702703	2012-03-18	2012-03-24	680	
12	Machine	719	Part	2702703	2012-03-25	2012-03-31	750	
13	Machine	716	Part	3002188	2012-03-04	2012-03-10	2750	0,70
14	Machine	716	Part	3002188	2012-03-11	2012-03-17	2900	
15	Machine	716	Part	3002188	2012-03-18	2012-03-24	2850	
16	Machine	716	Part	3002188	2012-03-25	2012-03-31	2800	

27.2 CPU – Cost Per Unit

This chapter describes how the CPU is calculated based on tools usage from MATRIX and the production unit counts imported into the Production Cost List.

Basic CPU Report:

This report calculates the CPU and Deviation separately per each production cost record.

Open “[Menu: Tools → CPU - Tool Life → CPU](#)”.



CPU																								
Cost Center Header 1			Cost Center Code 1			Cost Center Header 2			Cost Center Code 2			Begin Date		End Date										
Deviation %			CPU																					
Found 39 Records.																								
Key Cost Center Header 1 Cost Center Code 1 Cost Center Description 1 Cost Center Header 2 Cost Center Code 2 Cost Center Description 2 Usage Quantity Usage Value Parts Count CPU Benchmark Deviation % Begin Date End Date																								
1	Machine	349	INDEX MS/32/...	Part	3500164	761L SS 3/8	63,00	3711,80	42000	0,09	0,08	10,47	2012-03-04	2012-03-10										
2	Machine	349	INDEX MS/32/...	Part	3500164	761L SS 3/8	54,00	3461,80	44000	0,08	0,08	-1,65	2012-03-11	2012-03-17										
3	Machine	349	INDEX MS/32/...	Part	3500164	761L SS 3/8	56,00	3553,60	46000	0,08	0,08	-3,44	2012-03-18	2012-03-24										
4	Machine	349	INDEX MS/32/...	Part	3500164	761L SS 3/8	75,00	4211,20	45000	0,09	0,08	16,98	2012-03-25	2012-03-31										
5	Machine	348	INDEX MS/32/...	Part	3500162	761L SS 1/4	20,00	2233,70	44000	0,05	0,06	-15,39	2012-03-04	2012-03-10										
6	Machine	348	INDEX MS/32/...	Part	3500162	761L SS 1/4	94,00	5344,10	43000	0,12	0,06	107,13	2012-03-11	2012-03-17										
7	Machine	348	INDEX MS/32/...	Part	3500162	761L SS 1/4	57,00	2734,20	45200	0,06	0,06	0,82	2012-03-18	2012-03-24										
8	Machine	348	INDEX MS/32/...	Part	3500162	761L SS 1/4	50,00	2822,50	45500	0,06	0,06	3,39	2012-03-25	2012-03-31										
9	Machine	719	NT 1000JH01...	Part	2702703	Z-2LNS4-CM...	66,00	4627,60	800	5,78	5,50	5,17	2012-03-04	2012-03-10										
10	Machine	719	NT 1000JH01...	Part	2702703	Z-2LNS4-CM...	39,00	2602,00	700	3,72	5,50	-32,41	2012-03-11	2012-03-17										
11	Machine	719	NT 1000JH01...	Part	2702703	Z-2LNS4-CM...	27,00	1576,60	680	2,32	5,50	-57,85	2012-03-18	2012-03-24										
12	Machine	719	NT 1000JH01...	Part	2702703	Z-2LNS4-CM...	51,00	5544,20	750	7,39	5,50	34,41	2012-03-25	2012-03-31										
13	Machine	716	DOOSAN-PU...	Part	3002188	769L SS 3/8...	6,00	210,30	2750	0,08	0,70	-89,08	2012-03-04	2012-03-10										
14	Machine	716	DOOSAN-PU...	Part	3002188	769L SS 3/8...	15,00	1030,20	2900	0,36	0,70	-49,25	2012-03-11	2012-03-17										
15	Machine	716	DOOSAN-PU...	Part	3002188	769L SS 3/8...	32,00	2272,00	2850	0,80	0,70	13,88	2012-03-18	2012-03-24										
16	Machine	716	DOOSAN-PU...	Part	3002188	769L SS 3/8...	23,00	2054,60	2800	0,73	0,70	4,83	2012-03-25	2012-03-31										
17	Machine	133	OKUMA LCC	Part	3002188	760L SS 3/8	17,00	457,67	1390	0,33	0,60	-45,12	2012-03-04	2012-03-10										

Key:

The key of production cost maintenance record on which this calculation was based.

Cost Center Header 1-2:

The cost center header from the production cost record.

Cost Center Code 1-2:

The cost center code from the production cost record.

Cost Center Description 1-2:

The cost center description pulled out by the cost center code entered to production cost record.

Usage Quantity:

Total quantity of tools (from different items) that were issued for this combination of cost centers in the period limited by 'Begin Date' and 'End Date', i.e. Issue transactions filtered by cost centers and dates.

Usage Value:

Total value of tools (from different items) that were issued for this combination of cost centers in the period limited by 'Begin Date' and 'End Date', i.e. Issue transactions filtered by cost centers and dates.

Parts Count:

Quantity of parts (final product) as entered into production cost maintenance record.

CPU:

The calculated cost of tools used per one unit of final product, according to the particular production cost record.

The calculation is Usage Value / Parts Count, rounded to two digits after the decimal point.



<u>Benchmark:</u>	The target cost for one unit of final product, as was entered into production cost maintenance record.
<u>Deviation %:</u>	The deviation (difference) in % between the calculated CPU and target CPU (Benchmark). If the deviation is negative, it means that the cost per unit is less than the target cost. Respectively, if the deviation is positive, the cost per unit is above target cost. The calculation is $(CPU - Benchmark) / Benchmark * 100$.
<u>Begin Date:</u>	The begin date from the production cost maintenance record.
<u>End Date:</u>	The end date from the production cost maintenance record.

27.3 Tool Life

This chapter describes how the Tool Life is measured based on tools usage in MATRIX and the entered production costs.

Basic Tool Life Report:

This report lists all the items used for each production cost record and calculates the Tool Life separately per item. Tool Life is how many parts of final products are produced by one piece of item used.

Open “[Menu: Tools → CPU - Tool Life → Tool Life](#)”.



Tool Life																							
Cost Center Header 1		Cost Center Header 2		Item Code		Item Description		Tool Life															
Key		Item Type		Cost Center Header 1		Cost Center Code 1		Cost Center Description 1		Cost Center Header 2		Cost Center Code 2		Cost Center Description 2		Usage Quantity	Usage Value	Parts Count	Tool Life	CPU	Begin Date	End Date	# of Corners
1	Expe...	5504369	WBM...	Machine	349	INDEX ...	Part	3500...	761L ...	15,00	265,50	42000	2800,00	0,01	2012-03-04	2012-03-10							
1	Expe...	5601249	SOMT...	Machine	349	INDEX ...	Part	3500...	761L ...	1,00	24,37	42000	42000,00	0,00	2012-03-04	2012-03-10							
1	Expe...	9802005	LCMX...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	290,00	42000	4200,00	0,01	2012-03-04	2012-03-10							
1	Expe...	9802031	LCMX...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	290,00	42000	4200,00	0,01	2012-03-04	2012-03-10							
1	Expe...	9802236	MTR8...	Machine	349	INDEX ...	Part	3500...	761L ...	4,00	336,00	42000	10500,00	0,01	2012-03-04	2012-03-10							
1	Expe...	9802453	9/16...	Machine	349	INDEX ...	Part	3500...	761L ...	11,00	1965,37	42000	3818,18	0,05	2012-03-04	2012-03-10							
1	Expe...	7002773	SR 16...	Machine	349	INDEX ...	Part	3500...	761L ...	2,00	24,04	42000	21000,00	0,00	2012-03-04	2012-03-10							
1	Expe...	5505577	WCG...	Machine	349	INDEX ...	Part	3500...	761L ...	1,00	37,58	42000	42000,00	0,00	2012-03-04	2012-03-10							
1	Expe...	7001893	SR 17...	Machine	349	INDEX ...	Part	3500...	761L ...	1,00	13,40	42000	42000,00	0,00	2012-03-04	2012-03-10							
1	Expe...	9802871	A4G0...	Machine	349	INDEX ...	Part	3500...	761L ...	5,00	203,00	42000	8400,00	0,01	2012-03-04	2012-03-10							
1	Expe...	6003130	PENT...	Machine	349	INDEX ...	Part	3500...	761L ...	3,00	262,50	42000	4666,67	0,01	2012-03-04	2012-03-10	3						
2	Expe...	5504369	WBM...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	177,00	44000	44000,00	0,00	2012-03-11	2012-03-17							
2	Expe...	5601249	SOMT...	Machine	349	INDEX ...	Part	3500...	761L ...	2,00	48,74	44000	22000,00	0,00	2012-03-11	2012-03-17							
2	Expe...	9802005	LCMX...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	290,00	44000	44000,00	0,01	2012-03-11	2012-03-17							
2	Expe...	9802031	LCMX...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	290,00	44000	4400,00	0,01	2012-03-11	2012-03-17							
2	Expe...	9802453	9/16...	Machine	349	INDEX ...	Part	3500...	761L ...	10,00	1786,70	44000	4400,00	0,04	2012-03-11	2012-03-17							
2	Expe...	5505577	WCC...	Machine	340	INDEX ...	Part	3500...	761L ...	2,00	75,16	44000	20000,00	0,00	2012-03-11	2012-03-17							

Key:

The key of production cost maintenance record based on which this calculation was done.

Item Code:

The item that was issued for the combination of cost centers and time period, as defined in the production cost record.

Item Description:

Item description pulled out from item record.

Item Type:

Item type pulled out from item record.

of Corners:

Number of corners of item, pulled out from item record (see '*Item Maintenance*' screen → '*Technical*' tab).

It is used to measure the tool life of each corner, usually defined for inserts. If no value is entered, the default is 1.

Cost Center Header 1-2:

The cost center header from the production cost record.

Cost Center Code 1-2:

The cost center code from the production cost record.

Cost Center Description 1-2:

The cost center description pulled out by the cost center code entered to production cost record.

Usage Quantity:

Total quantity of this item that was issued for this combination of cost centers in the period limited by 'Begin Date' and 'End Date', i.e. Issue transactions filtered by cost centers, dates and item code.



<u>Usage Value:</u>	Total value of this item that was issued for this combination of cost centers in the period limited by 'Begin Date' and 'End Date', i.e. Issue transactions filtered by cost centers, dates and item code.
<u>Parts Count:</u>	Quantity of parts (final product) as entered into production cost maintenance record.
<u>Tool Life:</u>	The calculated tool life of a particular item for this combination of cost centers and time period. The calculation is <u>Parts Count / Usage Quantity / # of Corners</u> . For example: Item Code = 5504369, Parts Count = 42000, Usage Quantity = 15 pieces. The tool life of this item is 2800. In order to produce 42000 of final product it is required to use 15 pieces of this item or; one piece of this item is capable of producing 2800 parts of the final product
<u>CPU:</u>	The calculated cost per one unit of final product contributed by this item only. The calculation is <u>Usage Value of item / Parts Count</u> , rounded to two digits after decimal.
<u>Begin Date:</u>	The begin date from the production cost maintenance record.
<u>End Date:</u>	The end date from the production cost maintenance record.



CHAPTER E: DATABASE ADMINISTRATION

28 Database Administration

MATRIX-TM Database Administration is a very powerful yet easy to use tool that lets you do different activities on your database.

We strongly recommend that this option will be used only by the system administrator who has a good knowledge of MATRIX-TM and this application as well as an understanding about databases.

Following are the activities you can perform with Database Administration:

- Backup your Database to a file or send it via e-mail
- Restore a Database Previously backed up
- Activate a job which is stored on the server
- Change the Server Password or create a Server Password
- Run stock balance procedures which reconcile all stock levels
- Restore Database defaults from the last version installed
- Reset Admin Password
- Send or Delete Logs
- Create replications with all needed parameters
- Run important Utilities
- Run SQL scripts
- Display the process history which was recently run



Entering Database Administration:

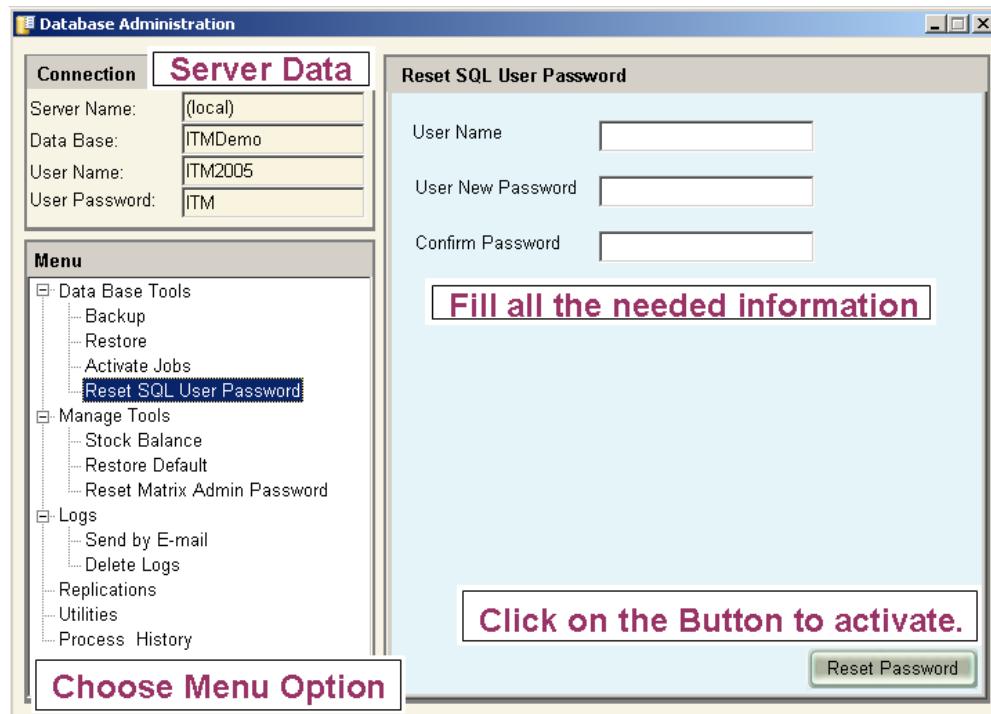
Go to: Start Menu → MATRIX-TM → MATRIX-TM Tools → Database Administration



Once you get to the User and Password screen, insert the same password and user code you received for downloading MATRIX-TM from the web.

Activating a command:

- Click the mouse on the desired option in the menu
- In the Option parameter area fill the missing data
- Activate the option button to activate the option



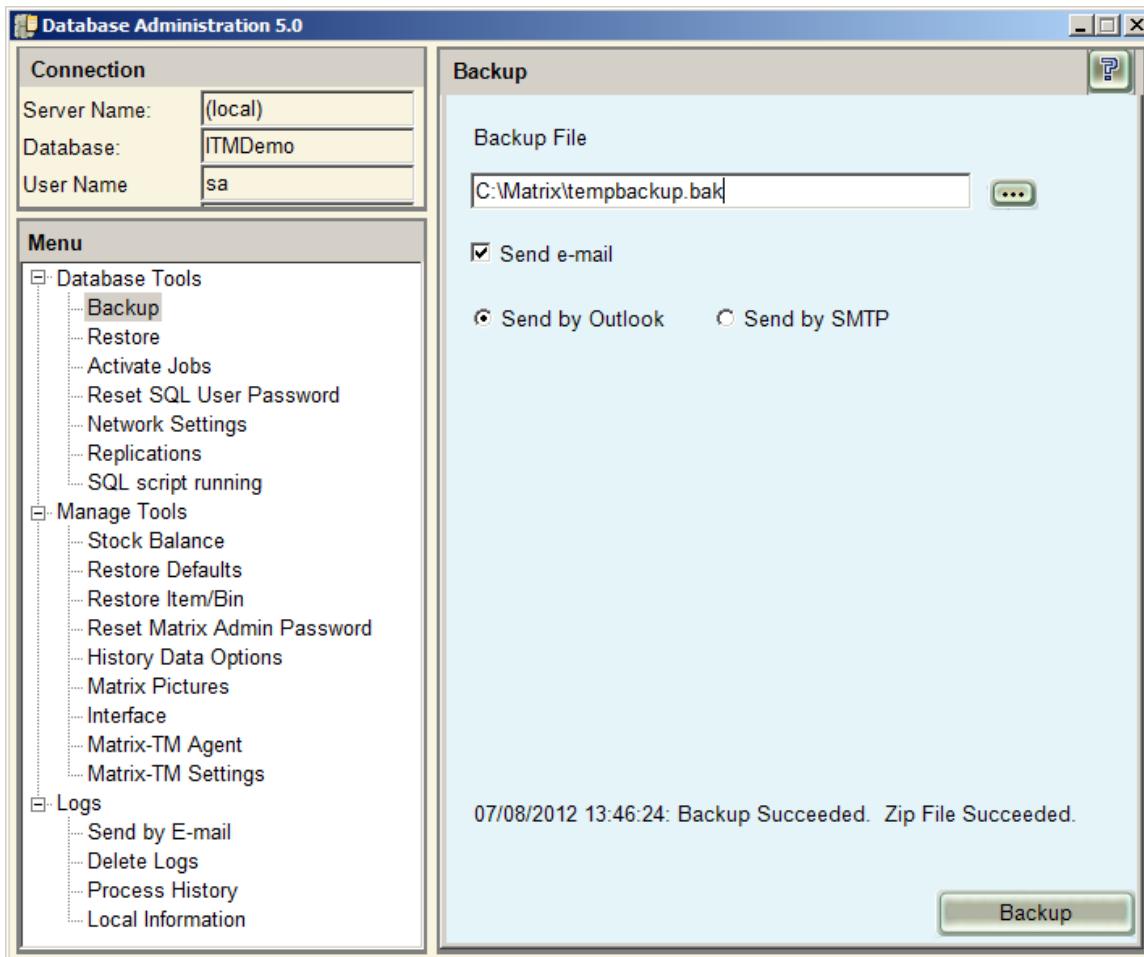
28.1 Backup of the Database

This option lets you backup your Database to a file on the disk and to attach it to a mail.

Use the email option when you are asked to send the copy of database to support.



If you want to backup the database to a file, you need to choose the file name.



Note: The Database which will be backed-up is the database selected in the "Setting" program. A backup will also create a transaction which you can track in the Process History option.

Use the **<Backup>** button to activate the command.

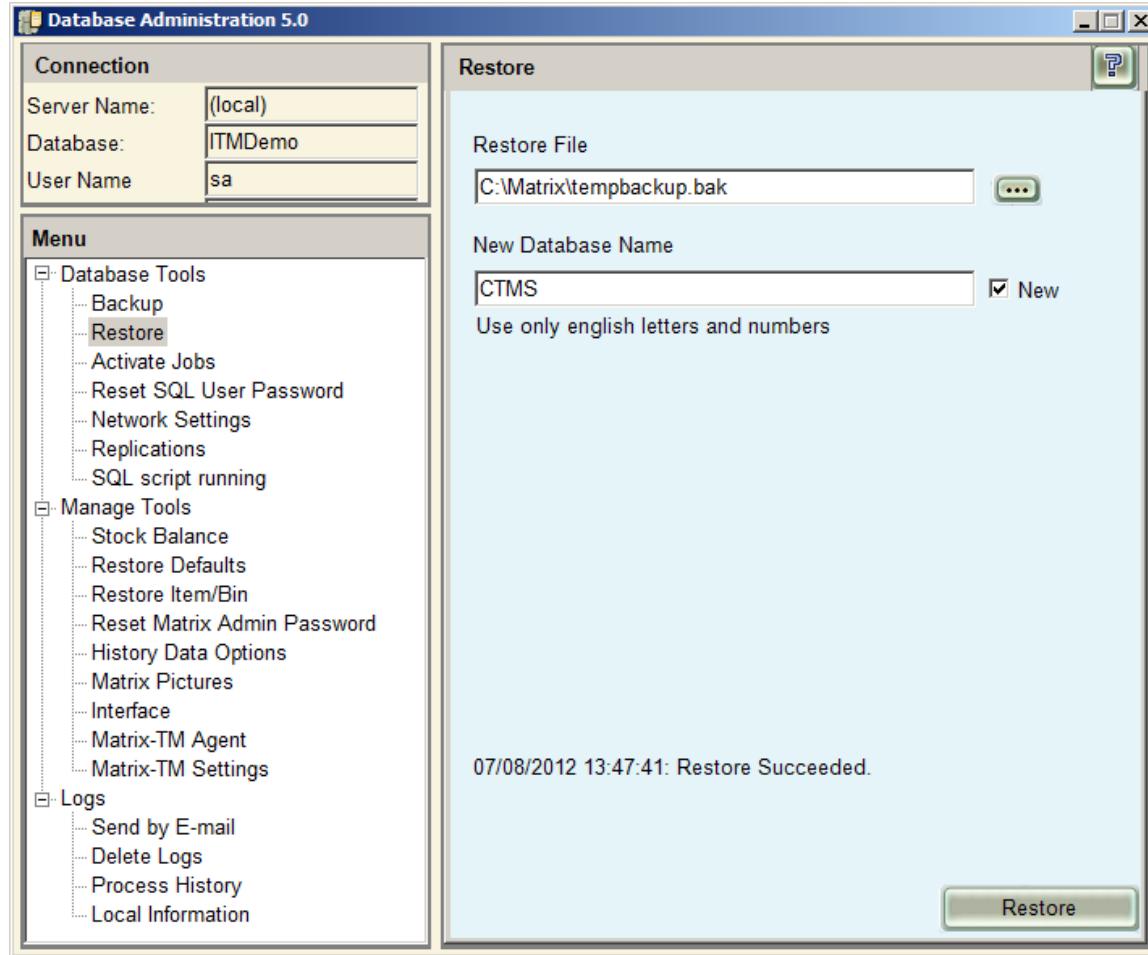
28.2 Restoring the Database

The 'Restore' option lets you to restore a database from backup file (*.bak).

Use this option when there is a need:

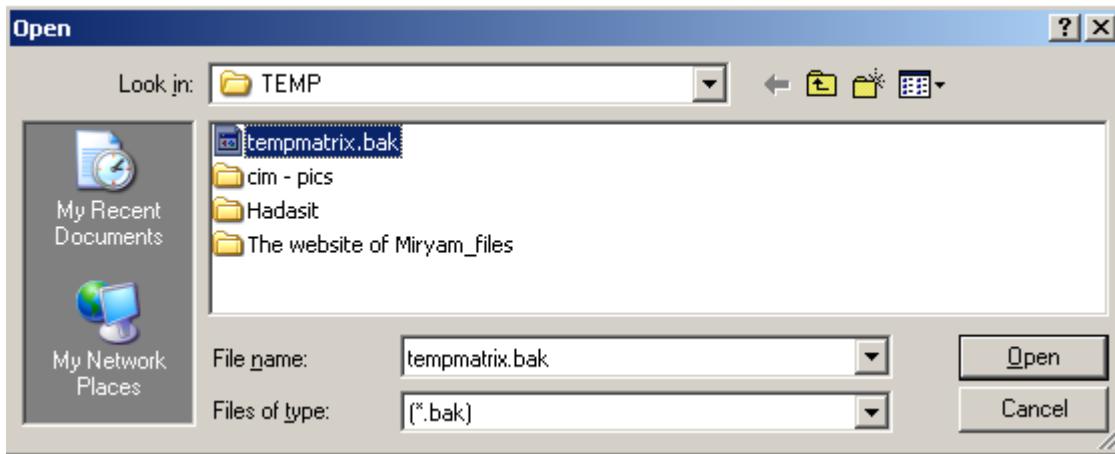


- To create a new and empty MATRIX-TM database.
- To restore a database that was previously backed up into a new or existing database.



To restore database:

1. Select 'Restore' option from the Menu.
2. Click the button to open windows browser.



3. To create a new and empty MATRIX-TM database, select the following file:

"...MATRIX Installation folder\ServerSetup\DB\ITM.bak"

Otherwise select any other database backup file (*.bak) from which to restore the data.

4. The data from the backup file will be restored into the database displayed in the 'Connection' details (as selected in the "Settings" program).
If you want to restore the file into a different database, check the "**New**" box and insert a new name into "**New Database name**" field.
5. Click the **<Restore>** button to activate the restore.

If you selected to restore the data into existing database, the following message will be displayed:



Carefully select if to overwrite the database or to restore it to another database.

At this point, the database will be restored and notify about the restore status.



Important! The Restore operation will also create jobs according to the definitions in the restored database. Please take it into account when restoring temporary databases – it might send emails with orders and reports if the jobs are set to create them. It is strongly recommended to delete the unnecessary jobs as described in Chapter E: [Activate Jobs](#) (section 28.3).



Note: A restore will also create a transaction which you can track in the 'Process History' option.

To check the restored database, set the **Settings** program to the created database and login to the **Manage** module.

28.3 Activate Jobs

A job is a series of commands designed to do a certain task. Jobs are stored on a **server level** and usually activated **automatically** by the operating system.

28.3.1 Jobs in MATRIX-TM

MATRIX-TM software creates five different types of jobs in order to enable automatic processes, such as creating automatic purchase orders, sending reports etc. The jobs are **automatically** activated while being created and they will normally be run automatically by the operating system at the scheduled time.

The 'Activate Jobs' option in the 'Database Administration' tool enables activating a job **manually** or deleting it from the server. Please use this option carefully!

The five types of jobs are:

1) [DBName]EndOfMonthProcess:

This job is responsible for the automatic running of the **Monthly Process**.

The job is created by changing system options **304 / 305** in the Manage module and activated automatically at the time scheduled in these system options.

See more in Chapter D: [Monthly Process](#) (section 21.1).

2) [DBName]ReportsEngine:

This job is responsible for the automatic running of the **Scheduled Reports and Interfaces**.



The job is created by changing system option **209** in the Manage module and activated automatically every hour.

See more in Chapter D: [Report Scheduler](#) (section 23) and Chapter D: [Interfaces](#) (section 24).

3) [DBName]AutoPOService:

This job is responsible for the automatic running of the **Automatic Orders** process.

The job is created by changing system options **807 / 209** in the Manage module and activated automatically every hour.

See more in Chapter D: [Automatic PO Process](#) (section 21.2).

4) [DBName]AutoBackup

This job is responsible for the **Automatic Backup** of the database.

The job is created by changing system option **600** in the Manage module and activated automatically at the time scheduled in system options **603 / 605**.

5) Replication Job:

This job is responsible for the automatic update of changes activating replication. The job name is a combination of two communicating databases and servers details. The job is created by this 'Database Administration' tool and its activation depends on the schedule definition in the Replication definitions.

See more in Chapter E: [Replications](#) (section 28.6).

28.3.2 SQL Server Service Manager

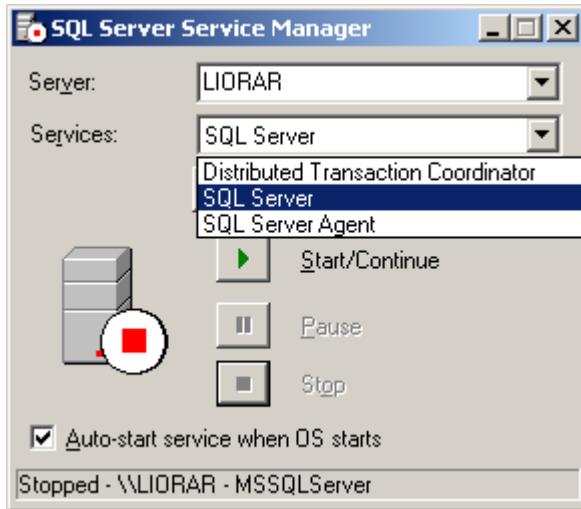
In order to be able to run the jobs automatically or activating them manually, the 'SQL Server Service Manager' program must run and be active **on the server** where the database is located. This program is installed as a part of SQL Server installation or MSDE installation.

Follow the next steps on the server to ensure jobs activation:

1. Double-click the icon located on the Windows Taskbar as marked on the image.



The screen as following will be displayed:



2. Select the server name in 'Server' field.
3. Check the box 'Auto-start service when OS starts' to ensure that jobs will continue to be active also if the server is restarted.

This should locate the link to 'Service Manager' in the Windows Startup menu as on the following screen:



4. In the 'Services' field select '**SQL Server**'. If the service was not activated yet, click on the 'Start/Continue' arrow to activate the service and wait until it is ready.
5. In the 'Services' field select '**SQL Server Agent**'. If the service was not yet activated, click on the 'Start/Continue' arrow to activate the service and wait until it is ready.
6. Close the program. The icon of the services on the Taskbar will have a green arrow. If so, the services will be active and the jobs will automatically run.

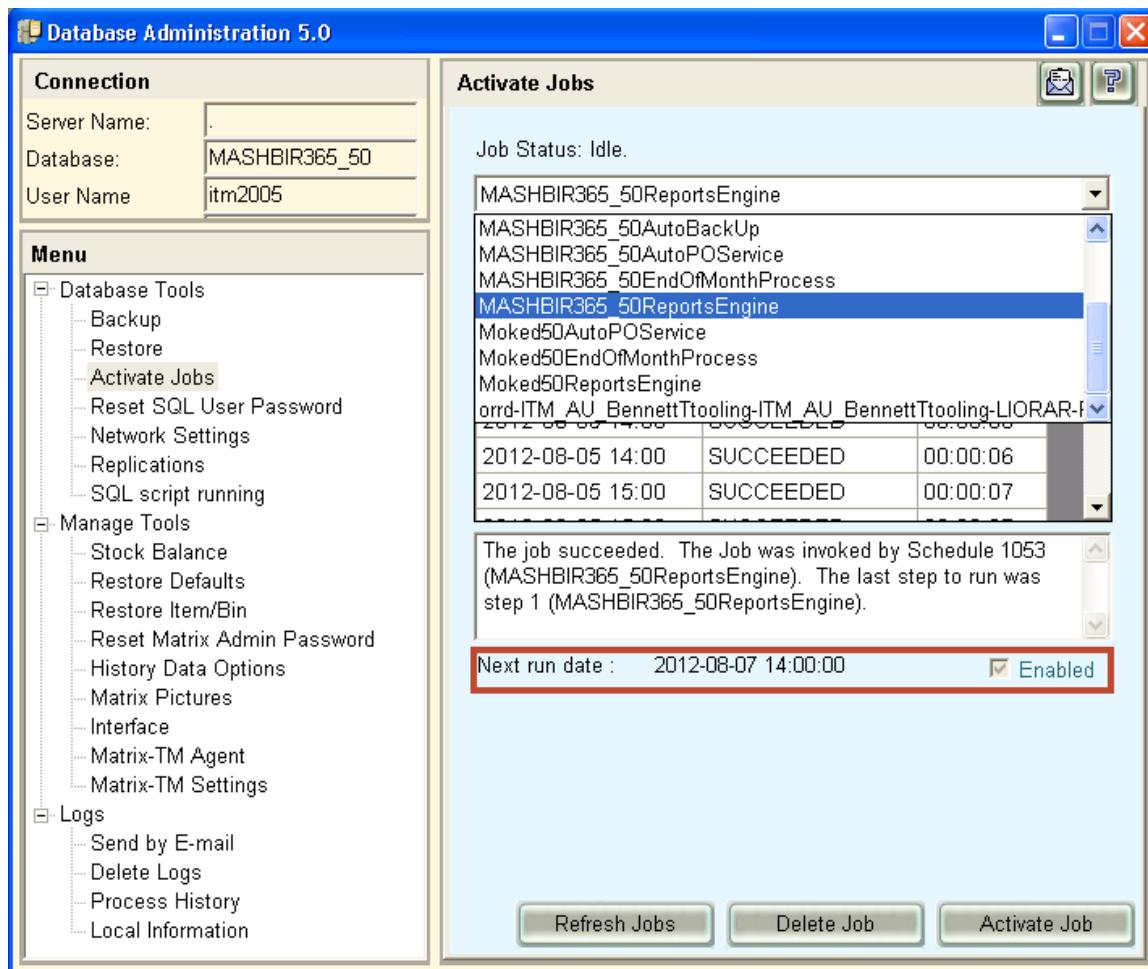


28.3.3 Viewing and Activating Job

MATRIX-TM shows the jobs in the following screen.

Be sure that you understand exactly what the functions of a job are prior to running it.

1. Select the 'Activate Jobs' option from the Menu. The combo box above the grid will display all the existing jobs. If you do not find the expected job, you can create the job by following the instructions above about the job types and then clicking the <Refresh Jobs> button to refresh the list.



2. Select the desired job from the list. This will display in the grid a list of steps of job run progress and under the grid it will display if this job is currently enabled and the date/time of the next run. Clicking on step will display detailed results below the grid.



Database Administration 5.0

Connection

Server Name: .
Database: MASHBIR365_50
User Name: itm2005

Menu

- Database Tools
 - Backup
 - Restore
 - Activate Jobs
 - Reset SQL User Password
 - Network Settings
 - Replications
 - SQL script running
- Manage Tools
 - Stock Balance
 - Restore Defaults
 - Restore Item/Bin
 - Reset Matrix Admin Password
 - History Data Options
 - Matrix Pictures
 - Interface
 - Matrix-TM Agent
 - Matrix-TM Settings
- Logs
 - Send by E-mail
 - Delete Logs
 - Process History
 - Local Information

Activate Jobs

Job Status: Idle.

MASHBIR365_50ReportsEngine

Run At	Result	Duration
2012-08-05 13:00	SUCCEEDED	00:00:07
2012-08-05 13:00	SUCCEEDED	00:00:07
2012-08-05 14:00	SUCCEEDED	00:00:06
2012-08-05 14:00	SUCCEEDED	00:00:06
2012-08-05 15:00	SUCCEEDED	00:00:07
2012-08-05 15:00	SUCCEEDED	00:00:07
2012-08-05 16:00	SUCCEEDED	00:00:07

Date last run= 2012-08-05 05:00:20Date last run= 2012-08-05 05:00:21Date last run= 2012-08-05 05:00:23Date last run= 2012-08-05 05:00:24Date last run= 2012-08-05 05:00:48Date

Next run date : 2012-08-07 15:00:00 Enabled

Refresh Jobs Delete Job Activate Job

You can delete the selected job by clicking [Delete Job](#) button and recreating it, if needed. Please use this option carefully!

3. Since the jobs are automatically activated while being created and they will mostly run automatically by the operating system **at the scheduled time**, there is no need to activate them manually. If you still need to run the job manually at a specific time, click the [Activate Job](#) button.

You can email the detailed results of each step by clicking on the email  button. This will concentrate all the results into one text and will transfer it to the screen that enables sending email (as described in Chapter E: [Send Logs by Email](#) (section 28.17). Use this option when you are asked to send the results to support.

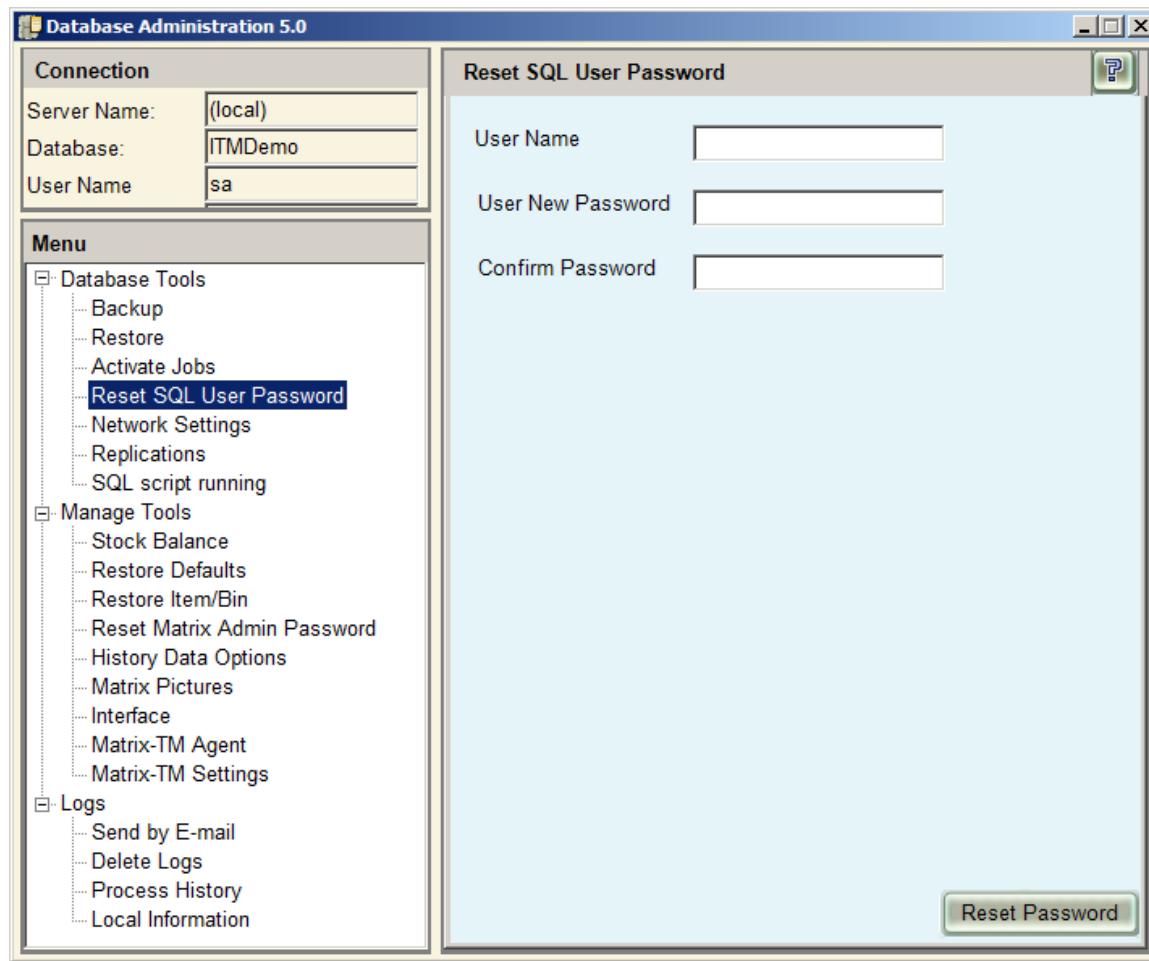




Important! It is strongly recommended to delete the unnecessary jobs – it might send emails with orders and reports if the jobs are set to create them.

28.4 Reset SQL User Password

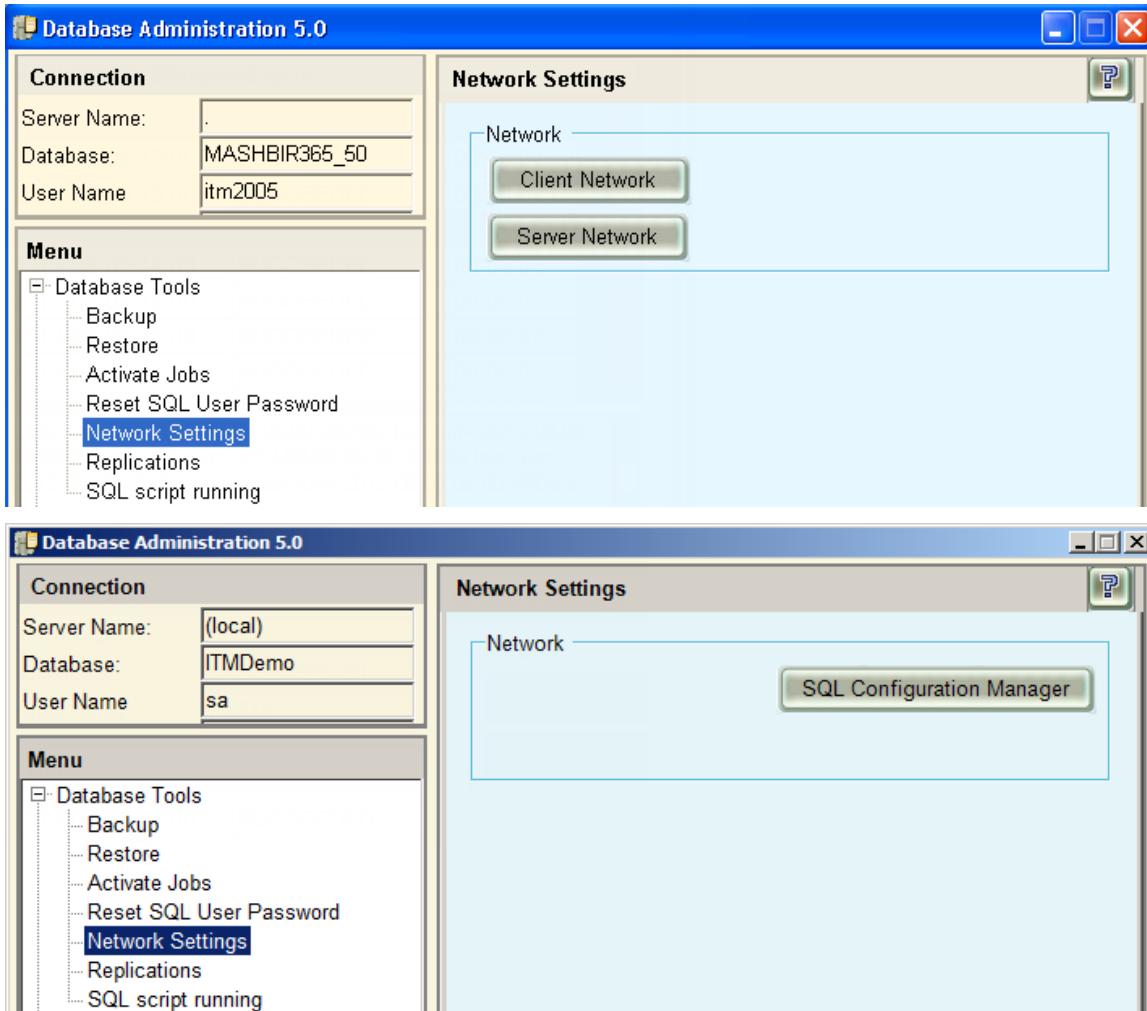
Use this option in order to Change the Server Password or create a Server User and Password. This user is used to access the server for installation.



Use the **<Reset Password>** button to activate the command.



28.5 Network Settings



Network:

These utilities are used in order to define the ports used for client and server. For the creation of replication the client network program is needed.

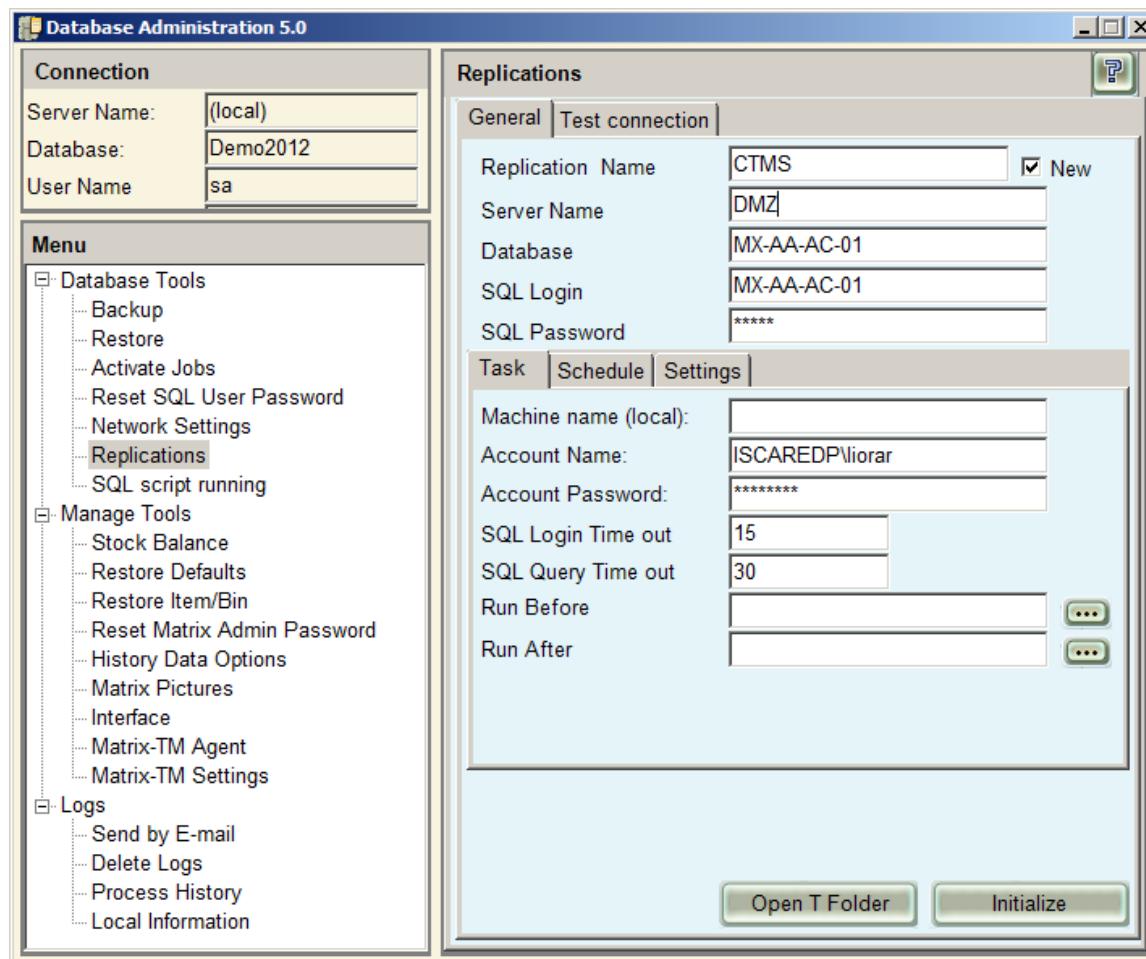
These utilities will be needed only in special cases.

If unclear, consult support regarding when these utilities are needed.

28.6 Replications

A Database replication is an active copy between two or more Databases. That means that any change in one Database will cause the same change in the other replicated Database. This option lets you prepare the parameters for creating a replication. We suggest that you contact support prior to activating a replication.

Replication supports SQL Servers 2005 and 2008 (SQL 2000 is no longer supported for replication). The regular replication synchronization is using the secured HTTPS protocol, instead of regular SQL Server connection. Each synchronization will run using the Windows Tasks Scheduler, to compensate the lack of SQL Server Agent in the SQL Server Express editions.



**Fields description:**

New (check box): Mark this to create a new replicated database. If a database with the same name already exists, it will be replaced.

Replication Name: Local replicated database whose replication options are edited.
Create a new database name (not ITMDemo, Master, MSDB, Model and tempdb).

Server Name: Publisher/Distributor (remote) server.

Database: The published database on the Publisher/Distributor to replicate.

SQL Login: Login name for the published database.

SQL Password: Login password for the published database.

Machine name: Keep it blank to generate the task on the local PC.

Account name: Under what user account to run the task. Default is the current user, but you may change it. By Windows default, this account must have a password.

Account password: The password of the above account.

SQL Login Timeout: The number of seconds before the login times out (the default is 15 seconds). Do not change this unless you are getting repeated errors replicating.

SQL Query Timeout: The number of seconds before the query times out (the default is 30 seconds). Do not change this unless you are getting repeated errors replicating.

Run Before: Select a program to run before the replication sync starts.
This is an optional value.

Run After: Select a program to run after the replication sync is completed.
This is an optional value.

Duration Minutes: Repeat replication for this time.

Interval Minutes: Every how many minutes the replication starts (how frequent the sync occurs).

Max Run Time Limited:

Days Interval: 1=Replicate daily. 2=Replicate every other day...

On Minute: The minute in each hour that the sync begins. Default is random number between 0 and 59 (to distribute the load of the publisher) but you can also set your own value.



Parameters: Replication scheduled task's parameters.

Service Path: Path to REPLMERG.BAT that runs the sync.

Comment: Replication scheduled task's description.



Note: Once replication is saved, it is impossible to change the Replication Name, Server Name and published Database. To do so, you will need to create a new subscription, overwriting the current one.

The [**<Open T Folder>**](#) button opens Windows Scheduled Tasks.

Use the [**<Initialize>**](#) button to start the replication.

- Switch to the "Activate Jobs" section
- Find a new job containing the new database name and activate it.
- When the job ends, run the [Settings](#) program and set it to the new database

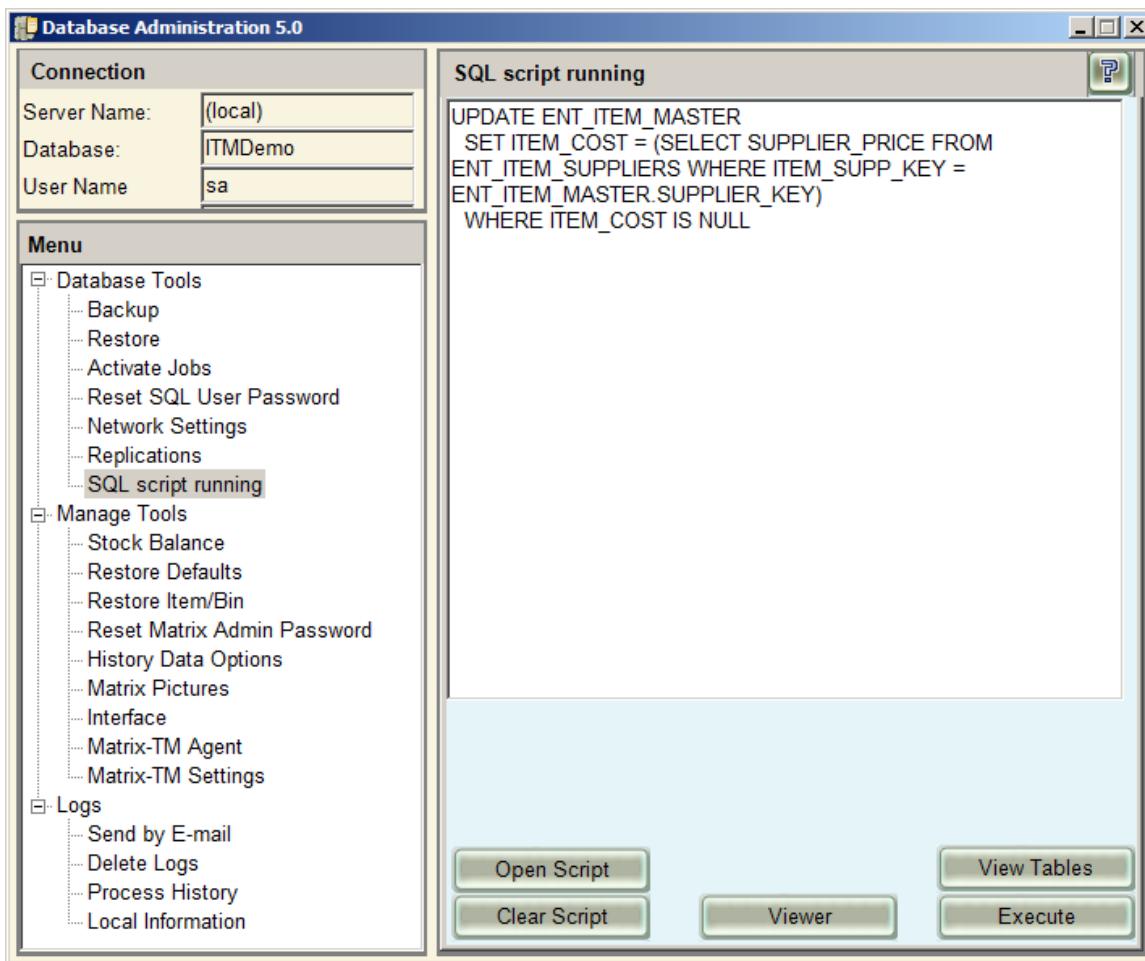
Now you are ready to run the Matrix-TM applications.

28.7 SQL Script Running

The 'SQL script running' option enables editing SQL commands in order to execute them on the databases. Use this command to run SQL script.

By clicking the [**<Open Script>**](#) button, you can find script files installed together with the software or browse for any other script.

Please use this command carefully as it might massively change the database.



Use the **<Execute>** button to activate the command.

28.8 Stock Balance

The 'Stock Balance' option is a special error handling and it should be used only after you get advice from system support.



Important! After running this option, the changes will be irreversible.

Activate this option only in special cases, where there was a problem detected with stock or an update for stock levels is required. This procedure will reconcile all stock levels, starting from the Bin, summing up to Item-Cabinet and then to the Item level for the database displayed in the 'Connection' details (as selected in the "Settings" program).



Use the <**Stock Balance**> button to activate the command.

28.9 Restore Defaults

The 'Restore Defaults' option makes the following:

Restores defaults:

Restore defaults as following:

- To restore texts for all the languages supported.
- To restore default settings to the objects, for example search screen definitions (sorting and replaced columns), etc.

Updates database:

Update database from old version in order to make it compatible with the latest version of the MATRIX-TM software. The updates are done according to:

- Changes in Data structures, such as fields and tables
- Changes in System options
- Changes in Views and Stored procedures
- More definitions which reside in the database

If the database version (the value of **System Option 0** (Database Version)) is the same as the version of the current installation, then this option will only restore the defaults.

Otherwise, this option will run a full update of the database including restore of defaults.



Important! This command **will not** change any of your data like items, bins, users etc.



Note: This update is identical to the Update process during server installation.



Important! After running the 'Restore Defaults' option, the changes will be irreversible. It is strongly recommended to backup the database before using this option.





Important! The 'Restore Defaults' option restores the default values from the **ITMDemo** database to the database displayed in the 'Connection' details. Therefore for successful restore, you must have the **ITMDemo** database on the same server.

(This database is installed automatically when selecting 'Server' option in the installation process).

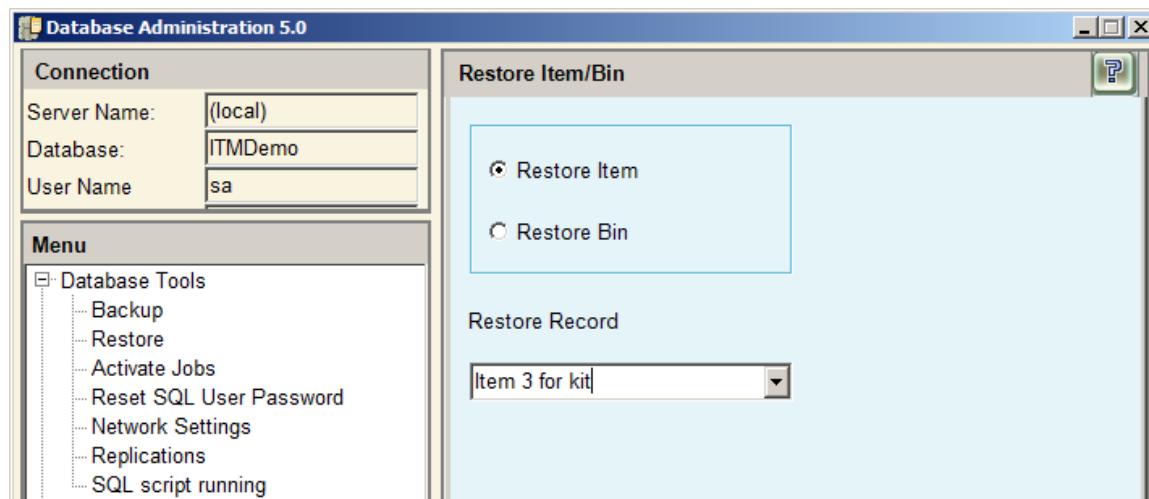


Note: The restore to **ITMDemo** database and **Replicated** databases is blocked in order to avoid undesired changes and information loss.

After reading carefully the explanations above, ensure that the desired database is displayed in the 'Connection' details and use the **<Default Restore>** button to activate the command.

28.10 Restore Item/Bin

This option enables restoring an Item or Bin that was previously removed by Manage module.



Use the **<Restore>** button to restore the record.



28.11 Reset MATRIX Admin Password

This option resets the password of user **admin** to the initial password.

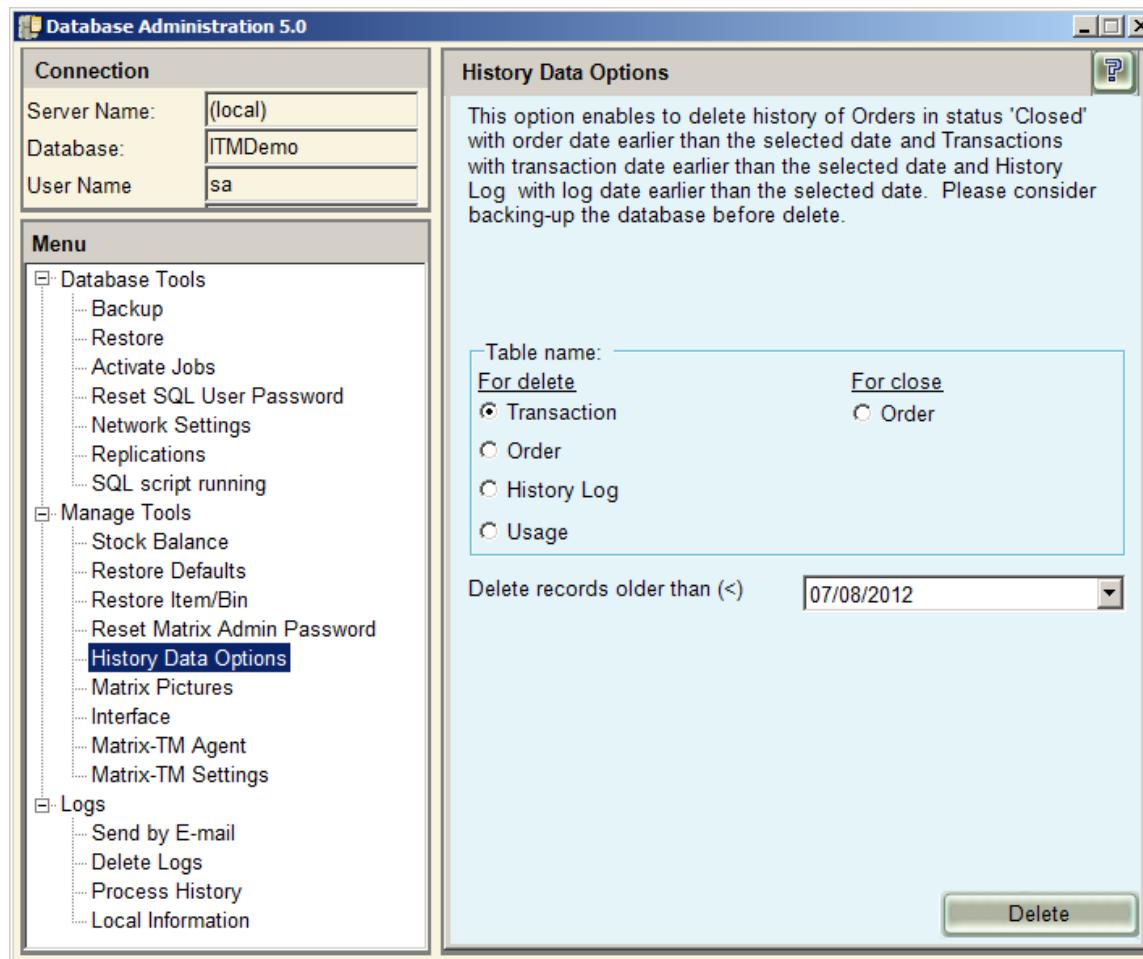
If no such user will be found in the database displayed in 'Connection' details, no reset will be done.

Use the [Reset Password](#) button to activate the command.

28.12 History Data Options

This option enables to delete history of data recorded earlier than the selected date.

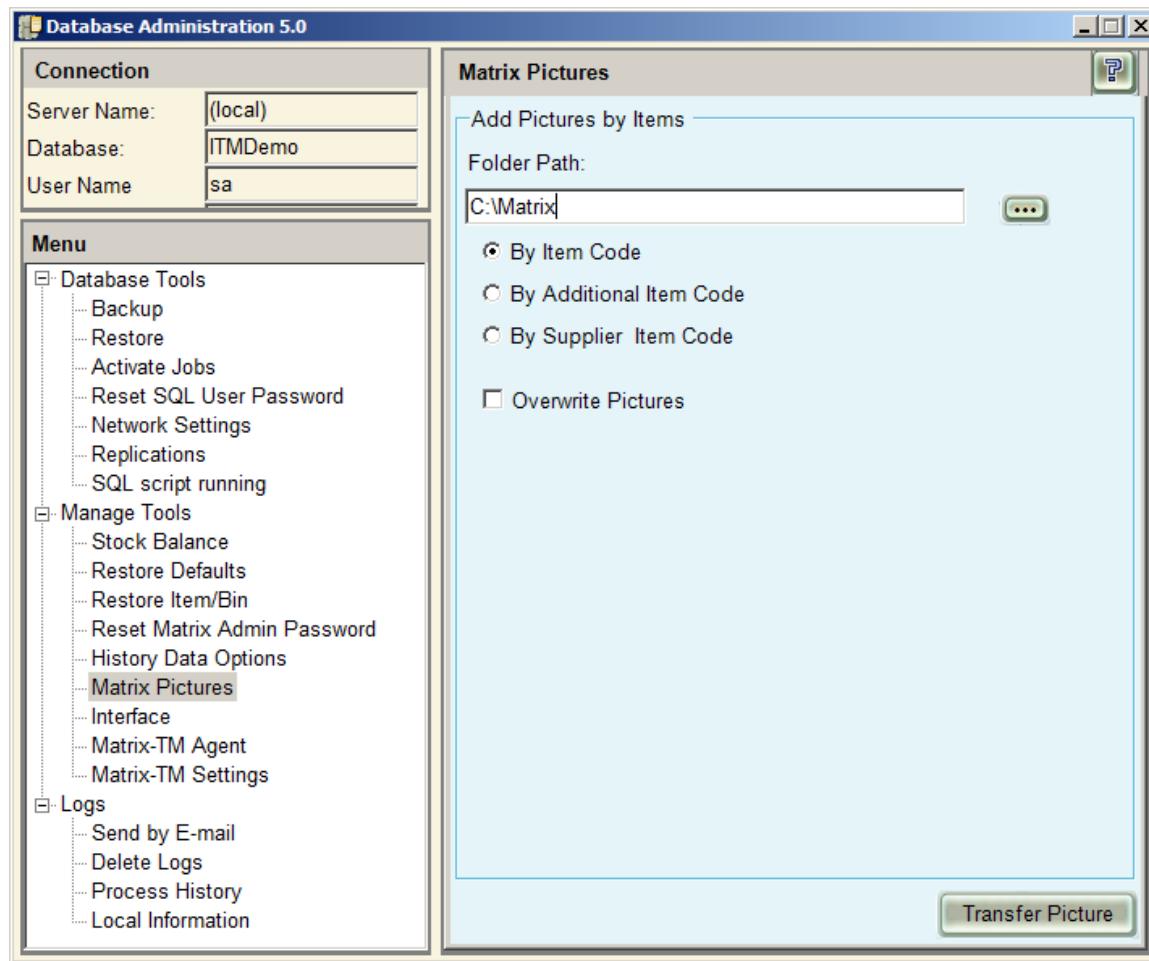
Please consider backing-up the database before delete – this is irreversible operation!





Use the <Delete> button to delete the records.

28.13 Matrix Pictures



Add Pictures by Items:

Another utility available is to load image files of the items, in order to make them available for display in the **Manage** and **Touch** modules. To load the files properly, all the files must be named exactly as **Item Code** or as **Additional Item Code** or as primary **Supplier Item Code** with the extension defined in the Manage module (system option **204**).

To transfer the image files:

1. In the Manage module set the System Option **400** (Item Pictures path) to the folder that should contain item image files.



2. Verify that all the files that you wish to transfer are named by **Item Code** or by **Additional Item Code** or by **Supplier Item Code** and with extension as defined in System Option **204** (Picture File Type).
3. In the 'Folder Path' select the folder that contains all the image files.
4. Select one of the three options by which the files are named. For example, if the files are named by 'Additional Item Code', then select this option.
5. Check the 'Overwrite Pictures' option to overwrite the files on the destined folder, if they exist.
6. Click the [**<Transfer Picture>**](#) button to execute the transfer.

The program will scan the info of each item from the database defined in 'Connection' details and will search for a compatible image file in the folder defined in 'Folder Path'. If a match was found, the file will be copied to the folder defined in system option 400 and respectively renamed by **Item Code** (in order to display the image in Manage and Touch modules, the system uses Item Codes only).

For example: If you selected the 'Additional Item Code' option, then the program will take the Additional Item Code of item and will search for an image file with the compatible name. If a match was found, the file will be copied and respectively renamed by **Item Code** of that item.



28.14 Interface

The screenshot shows the 'Database Administration 5.0' application window. On the left, a sidebar titled 'Connection' displays 'Server Name: (local)', 'Database: Demo2012', and 'User Name: sa'. Below this is a 'Menu' section with three main categories: 'Database Tools', 'Manage Tools', and 'Logs'. Under 'Database Tools', options include Backup, Restore, Activate Jobs, Reset SQL User Password, Network Settings, Replications, and SQL script running. Under 'Manage Tools', options include Stock Balance, Restore Defaults, Restore Item/Bin, Reset Matrix Admin Password, History Data Options, Matrix Pictures, Interface (which is selected), Matrix-TM Agent, and Matrix-TM Settings. Under 'Logs', options include Send by E-mail, Delete Logs, Process History, and Local Information. On the right, the 'Interface' tab is active, containing a message: 'Activate this option only in special cases. Therefore please use this command with care!'. Below this is a table with columns 'Interface Name', 'Service Name', and 'Status'. At the bottom, there are fields for 'Type', 'Server Name', 'Port', and 'App name', each with a corresponding button. At the very bottom are 'Refresh' and 'Start' buttons.



28.15 MATRIX-TM Agent

28.15.1 Foreword

The automatic processes in Matrix-TM (like automatic orders, etc) usually run by jobs we create by setting appropriate system options. These jobs are managed and executed by **SQL Server Agent** that is a part of **MSDE**. In **SQL Express 2005 / 2008** the Agent was removed by Microsoft, therefore when using SQL Express 2005 / 2008 database, arose the need for a solution as to how to run automatic processes without using jobs. MATRIX-TM Agent is an interface tool that uses the ability of Windows scheduled tasks to create Windows scheduled task that will be responsible for running the automatic processes. Thus when using SQL Express 2005 / 2008 database, no more jobs will be used for running automatic processes, but a Windows scheduled task.

With MSDE:

Set system options →

This creates jobs for SQL Server Agent and the agent responsible to execute jobs that run the automatic processes.

With SQL Express 2005 / 2008:

Set system options → define Matrix-TM Agent →

This creates a Windows scheduled task and the task runs the automatic processes.

Selecting Database SQL Server program:

Selecting which program to use for database depends on the Windows operating system.

See the tables below to find about compatibility between SQL Server program and OS.

SQL Server	Agent and jobs	Compatibility with Operating System
Express edition:	It has built-in SQL Server Agent, therefore no need in	Windows XP
MSDE (2000 Express)		Windows 2003 32bit



Freeware supplied by Microsoft and available together with Matrix software.	Matrix-TM Agent.	
Express edition: SQL Express 2005 / 2008 Freeware supplied by Microsoft and need to be downloaded.	SQL Server Agent was removed by Microsoft, therefore Matrix-TM Agent must be used to run automatic processes.	All Windows
Full SQL edition: SQL Server Standard / Enterprise 2000 / 2005 / 2008 Licensed Microsoft software.	It has built-in SQL Server Agent, therefore no need in Matrix-TM Agent.	According to the table below

SQL Server Windows	MSDE Has Agent	2000 Standard Has Agent	2000 Enterprise Has Agent	2005/2008 Express Does not have Agent	2005/2008 Standard Has Agent	2005/2008 Enterprise Has Agent
XP	✓	N/A	N/A	✓	N/A	N/A
2003 32bit	✓	✓	✓	✓	✓	✓
2003 64bit	N/A	✓	✓	✓	✓	✓
Vista	N/A	N/A	N/A	✓	N/A	N/A



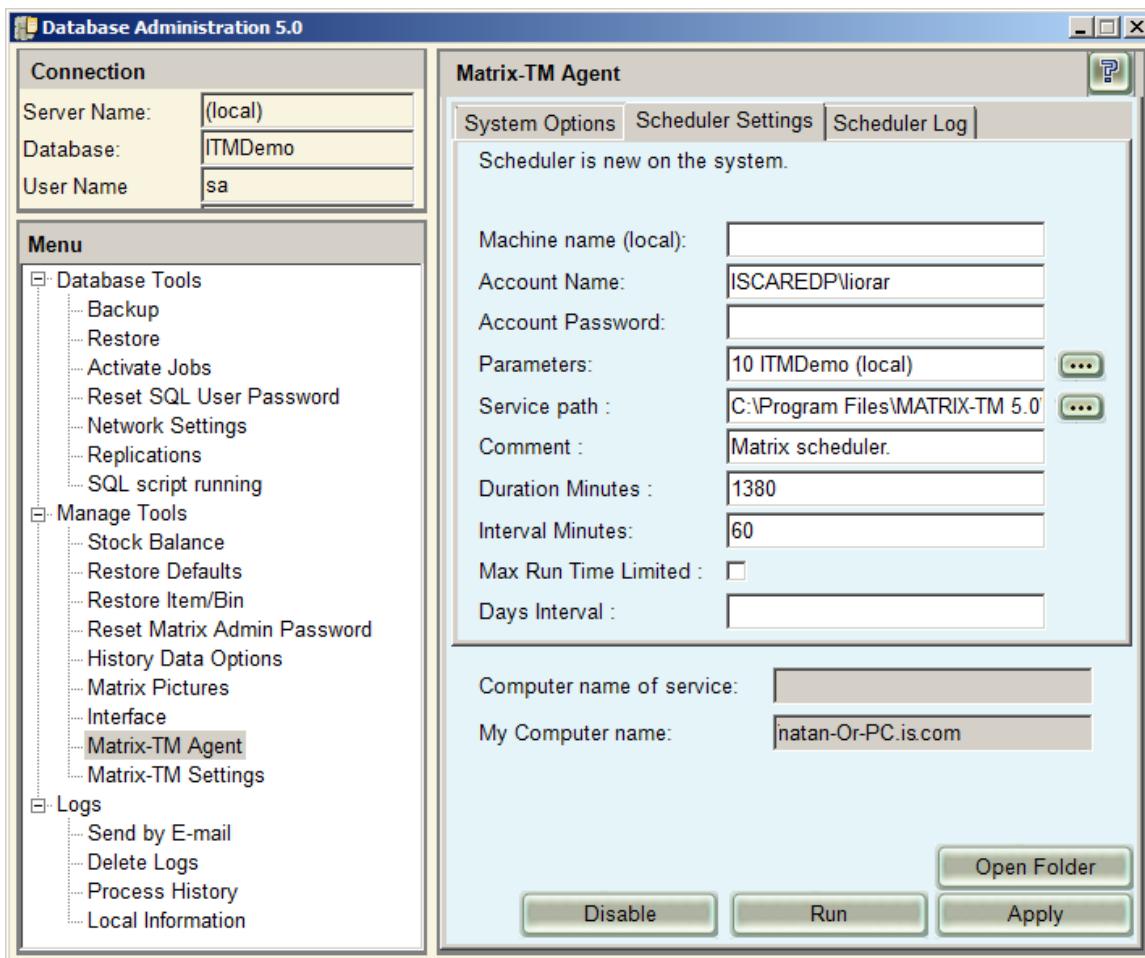
Vista Server	N/A			✓	✓	✓
Win 7	N/A	N/A	N/A	✓	N/A	N/A
Win 7 Server	N/A			✓	✓	✓

28.15.2 Using MATRIX-TM Agent

The purpose of the Matrix-TM Agent is replacing the jobs that run by the SQL Server Agent. You normally need it in one of the following cases:

- Database is **SQL Server Express 2005 / 2008**. Microsoft removed the SQL Server Agent from those versions. (SQL Server Standard & Enterprise 2005 / 2008 have the SQL Server Agent).
- The customer prefers running the Matrix-TM database on his server but doesn't want to install the Matrix-TM program on it.

Matrix-TM Agent uses Windows Task Scheduler instead of the SQL Server Agent. It is creating one scheduled task that runs every hour and does all needed tasks, except the database backup. The agent is configured from Database Administration on the local PC normally from the following window:



- Machine name: Keep it blank to generate the task on the local PC.
- Account name: Under what user account to run the task. Default is the current user, but you may change it. By Windows default, this account must have a password.
- Account password: The password of the above account.
- Parameters: The first parameter **10** is for doing all tasks (default is 9. For V4.5 change it to 10).
Next parameters are: *Database name*, *Server name*, *Authentication type* (0 – SQL Authentication (default); 1- Windows Authentication), *User name* (default- ITM2005), *Password* (Default-ITM).
- Run at: Path and file name to *ScheduleServices.exe*. Default is normally ok.
- Duration minutes: Specifies for how long the agent runs repeatedly. Default is 1380 minutes (repeat the task during all day).



Interval minutes: How often the agent is repeated. Default is 60 minutes (repeat the agent every hour).

Max Run Time Limited:

Days interval: How often the agent runs, starting at the day it was created. Default is 1 day (start the job every day).

Computer name of service: The computer name where the Matrix-TM Agent runs. When blank, it means that the agent is not running on any PC and that the jobs are used instead. This value is saved in system option 2.

My Computer name: Name of the current computer. When it is the same as “Computer name of service” it indicates that the Agent Task is configured on the current PC.

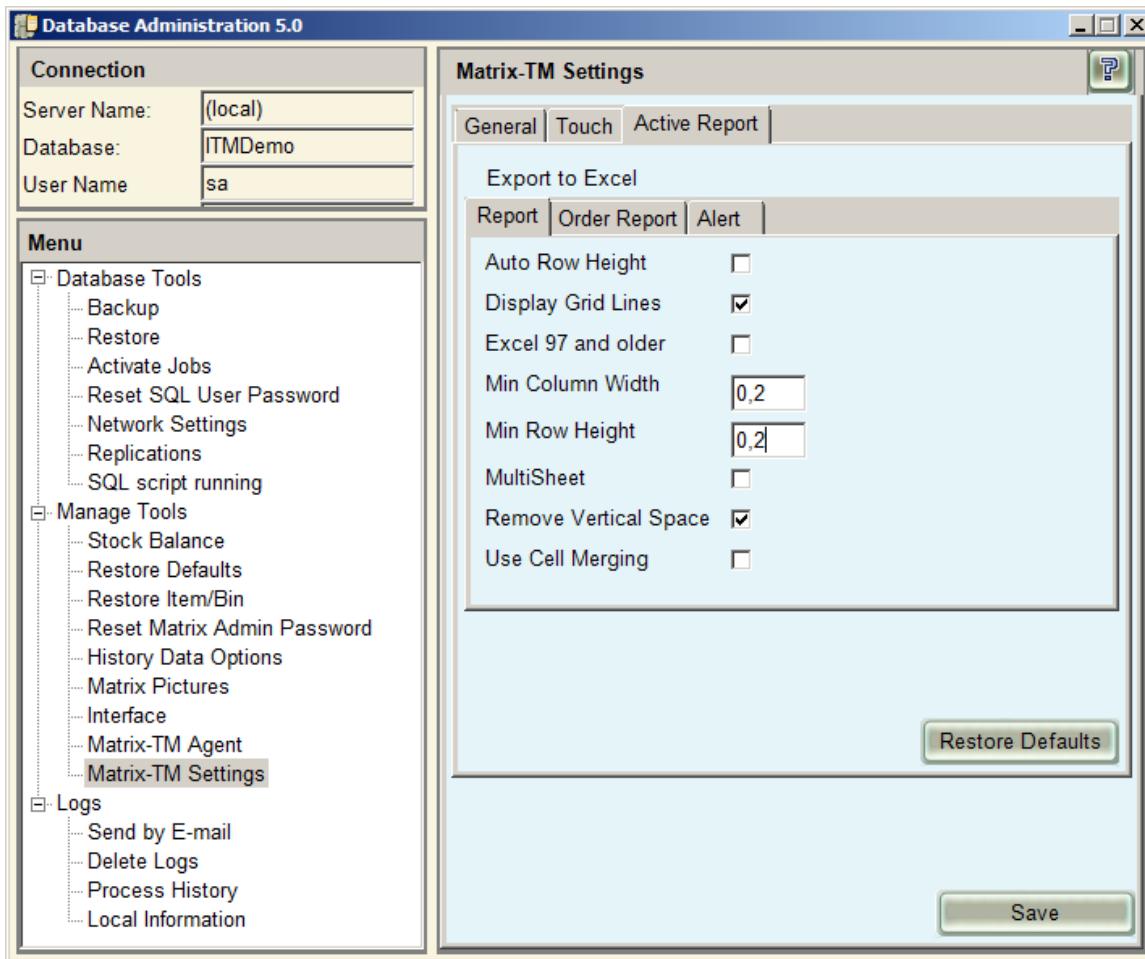
The buttons:

- <Disable> Disables the agent by clearing the “Computer name of service” field and deleting the agent task.
- <Run> Runs the agent when configured on the current PC.
- <Apply> Saves all changes, updates the “Computer name of service” field with “My computer name” and creates the task (Control Panel → Scheduled tasks).

28.16 Matrix-TM Settings

The Matrix-TM uses “Active Reports”

This screen enables to set definitions for Matrix output files into Excel, such as reports, orders and alerts.



28.17 Send Logs by Email

Sometimes you need to send the system logs to support. This option will attach the logs to an email and send them.

The following fields should be filled-in:

Server: SMTP server which sends the email.

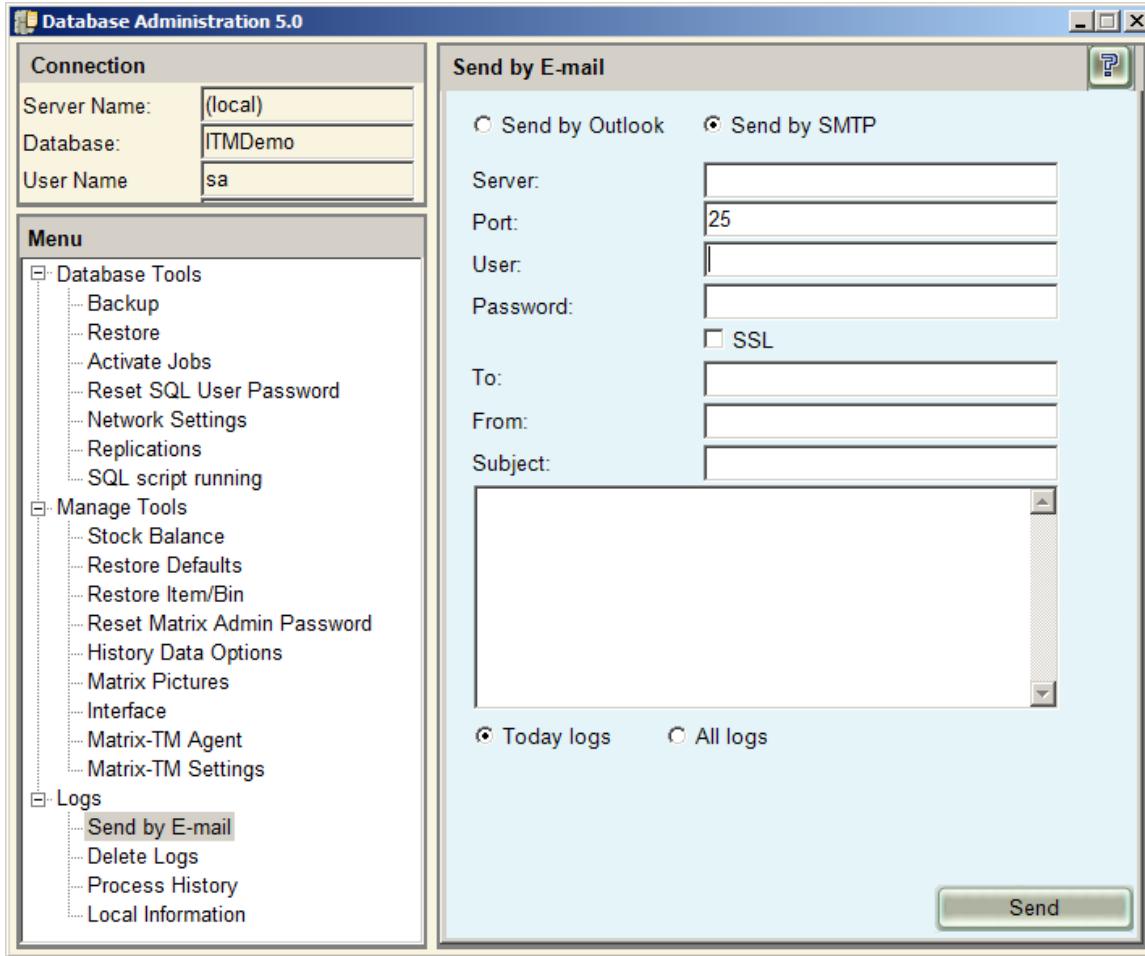
Port: Used port for SMTP, usually 25.

To: To whom you want to send the email.

From: Who is sending the logs.

Subject: Subject of email.

Message body: Free text



Use the **<Send>** button to activate the command.

28.18 Delete Logs

Use this command to clear all the logs.

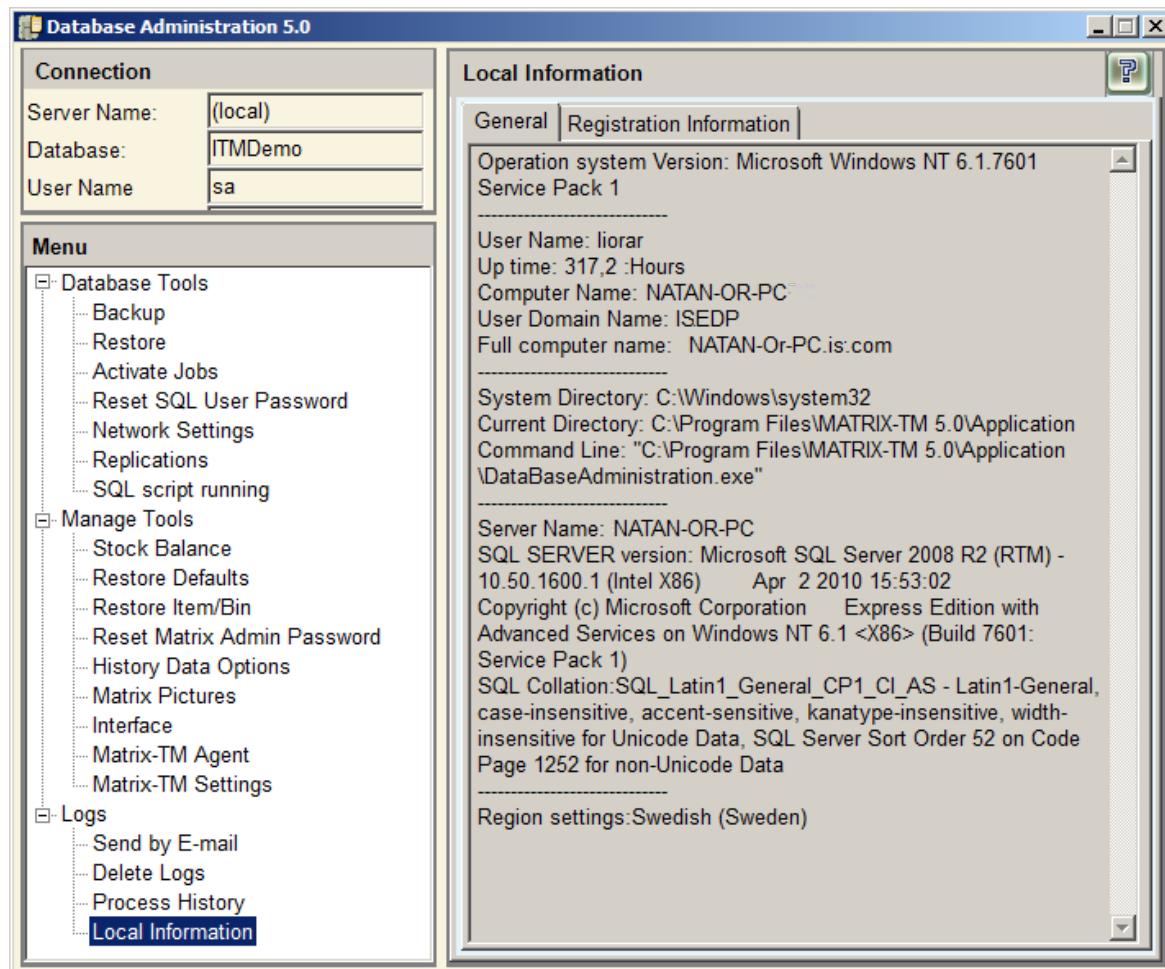
Use the **<Delete Logs>** button to activate the command.

28.19 Process History

Process History will show you all the transactions which were done by Database administration, creating a log of activities, letting you track when the last backup or restore were made etc.

28.20 Local Information

This window displays general information regarding the local PC and the server to which the Connection is defined.





CHAPTER F: Summaries

This chapter describes workflows for few common processes, troubleshooting in the MATRIX-TM system and general instructions for their resolution with references to the full description in this user guide.

29 Common Processes

To be ready to operate a Matrix cabinet it usually requires creating a new and empty database and then creating the initial data, such as cabinet configuration, items, users etc. This section describes a few standard steps that need to be carried out and references to the full descriptions.

29.1 How to Create New Database

This section describes how to create a new and empty database.

If you have already installed the Matrix software:

1. Login to the 'Database Administration' program
2. Select 'Restore' option and create a new empty database under new database name by restoring from the following file:
"...MATRIX Installation folder\ServerSetup\DB\ITM.bak"

For more details read the Chapter E: [Restoring the Database](#) (section 28.2).

If you have not installed the Matrix software yet:

1. Install the required software components before installing Matrix software:
 - Microsoft .Net Framework 4.0 and;
 - SQL Express 2008 R2 as described in Chapter A: [Install SQL Express 2008 R2](#) (section 2.3)
2. Install full Matrix-TM software (Server, Manage and Touch modules) as described in Chapter A: [Install MATRIX-TM Setup](#) (section 2.4) and at the step of installing database, select the option 'New Database' and insert the database name.

29.2 How to Create Initial Data in the Database

This section describes the steps for creating the initial data for the new database (such as cabinet configuration, items, users) in order to be ready to operate the Matrix cabinet.

On the workstation for building the database:

1. In the **Settings** program set the software to the previously created database.
Read more in Chapter A: [Connect to the Database](#) (section 3.1).
2. Load Manage module and login to the database.
Read more in Chapter A: [Login to MANAGE module](#) (section 3.2.1).
3. Create a cabinet/s with compatible configuration.
Read more in Chapter A: [Cabinet](#) (section 5.2)
4. Create manually the following data:
 - User Groups (follow Chapter D: [Group of Users](#) (section 18.1))
 - Cost Center Headers (follow Chapter D: [Add Cost Center Header](#) (section 19.1))
5. Import data into the database by following the Chapter D: [Import Data](#) (section 22).
 - Import Users
 - Import Suppliers
 - Import Item Groups
 - Import Items
 - Import Cost Center Details
 - Import Bins



Note: It is not mandatory to import at this stage all the data described above. You can import this data later or add it manually. Therefore consider this as a recommendation only.

6. Back up the database into file to prepare for restore on the destined server.
Read more in Chapter E: [Backup of the Database](#) (section 28.1).



29.3 How to Operate the Database

This section describes all the required software components and definitions in order to operate Matrix cabinet.

On the destination server:

1. Install Matrix-TM software.
Read more in Chapter A: [Install MATRIX-TM Setup](#) (section 2.4).
2. Restore the Database from the previously backed-up file using 'Database Administration'.
Read more in Chapter E: [Restoring the Database](#) (section 28.2).
3. On the **Settings** program set the software to the previously restored database.
Read more in Chapter A: [Connect to the Database](#) (section 3.1).
4. Create TOUCH definitions using Manage module.
Read more in Chapter A: [Set TOUCH Definitions](#) (section 3.2.6).
5. Create the required jobs using Manage and remove all the unnecessary jobs using 'Database Administration'.
Read more in Chapter E: [Activate Jobs](#) (section 28.3).
6. Verify that the Installation Path defined in the System Option 1 in restored database meets with the folder containing the MATRIX-TM files. If not, update the system option, in spite of the comment not to change it.
7. Make sure that the access to the server is available by Firewall settings in order to allow other Matrix workstations to use the database.
Firewall settings: Open Control Panel → Windows Firewall → on the 'General' tab switch OFF the firewall or; switch ON and add port number 1433 on the 'Exceptions' tab.
8. If you use a cabinet PC as a server, you are ready to load TOUCH.
If you run Database and Touch on different computers, then on the cabinet PC install all the required software as well, connect to the database server by making definitions on the **Settings** program and load the TOUCH module.

Extra settings:



9. If you have image files for the Items and Item Groups, set the system option **400** (Item Pictures path) and the system option **404** (Group Pictures path) and locate respectively the image files. Read more in:
 - Chapter B: [Add Images to Items](#) (section 5.4.5)
 - Chapter D: [Add Images to Item Groups](#) (section 16.3.1)
 - Chapter E: [Matrix Pictures](#) (section 28.13)

29.4 How to Upgrade the Software and Database

When there is a new Matrix version released, you may want to upgrade the software with the new version. To do this, follow the instructions below:

On the computer with the Server installation (with the database):

Note down the Database Name that you are working with for the steps after installation. You can check the database name by opening the 'Settings' program from **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → Matrix-TM Settings** (as also described in Chapter A: [Connect to the Database](#) (section 3.1)).

1. Login to the 'Database Administration' program and Backup the database into file as described in Chapter E: [Backup of the Database](#) (section 28.1). This will guarantee the data is saved before making changes and in case any problem happens during the upgrade, you can always go back to the previous version by restoring the database from the backed-up file until finding a solution for the failure.
2. Remove the existing Matrix software installation by selecting **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → Matrix-TM Uninstall** and following the instructions.
3. Install full Matrix-TM software (Server, Manage and Touch modules) as described in Chapter A: [Install MATRIX-TM Setup](#) (section 2.4).



Important! At the step of installing database (window 'Server Setup' with title 'Select Installation Database Name'), set the 'Database Name' of your database and select option 'Update Database'.



4. Open the 'Settings' program and set the connection to the database as also described in Chapter A: [Connect to the Database](#) (section 3.1).



Note: If running the program causes the installation program to run, cancel the step and run it again.

Now you are ready to run a new version of Matrix-TM software with an upgraded database.

Continue with the installation on the Manage stations.

On the Manage workstations:

1. Remove the existing Matrix software installation.
2. Install the Matrix-TM software as described in Chapter A: [Install MATRIX-TM Setup](#) (section 2.4) with only Manage module.
3. Open the 'Settings' program and set the connection to the database as also described in Chapter A: [Connect to the Database](#) (section 3.1).

29.5 How to Upgrade the Database to the currently installed software

If you have installed a new software version, but the database was not upgraded, you will be notified with an error message when trying to run the Manage or Touch software.

To upgrade the database, follow the next steps:

1. Make sure that you have installed the new and relevant software version.
2. Make sure that the **ITMDemo** database is compatible with the software version.
If you can successfully run 'Manage' program with this database and login, then the database is compatible to the software. You can also check the System Option 0 (Database Version).
3. Open the 'Settings' program and set the connection to the database that you need to upgrade, as also described in Chapter A: [Connect to the Database](#) (section 3.1).
4. Login to the 'Database Administration' program and check that the 'Connection' details point to the correct database.



5. Backup the database into file as described in Chapter E: [Backup of the Database](#) (section 28.1). This will guarantee the data is saved before making changes and in case any problem happens during the upgrade, you can always go back to the previous version by restoring the database from the backed-up file until finding a solution for failure.
6. Select 'Restore Defaults' option to upgrade the database as also described in Chapter E: [Restore Defaults](#) (section 28.9).

Now you are ready to run the Manage and Touch software.



Note: It is not possible to adjust the database to the earlier versions, but only restoring the database from backed-up file which will include changes done until the time of backup.

29.6 How to Add a cabinet other than MATRIX

MATRIX-TM software supports working with Kardex and Non-Automatic warehouses as well as with the MATRIX cabinet. To build these types of cabinets:

1. Follow Chapter B: [Adding Drawer Types](#) (section 5.2.3) for adding customized drawer configurations.
2. Follow Chapter B: [Adding a Cabinet](#) (section 5.2.1) for adding a warehouse of the desired type, and by 'Cabinet Units' tab and the 'Build Drawer' option to add drawers of the previously customized configurations.

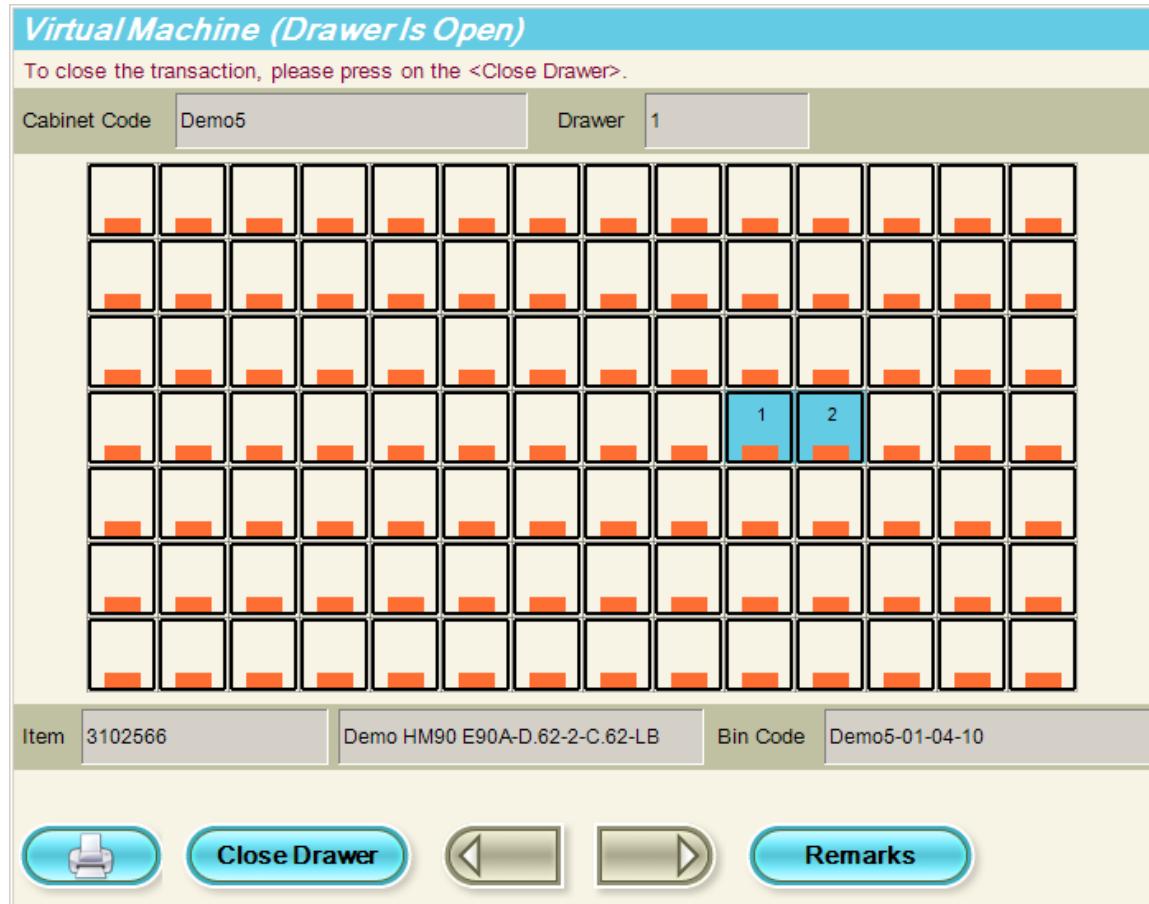
All the rest of the definitions, such as connecting items to bins etc, will be identical to the definitions with a MATRIX cabinet. The difference will be in the TOUCH module when activating a command for opening bins, depending on the cabinet type:

Kardex – The command will be sent to Kardex controller and will automatically bring the tray forward without the need to request it on the Kardex control panel. When finished, the user presses the button for closing the tray on the Touch interface and the shelf returns automatically to its original position.

Non-Automatic – Instead of sending a command for opening bins, the same command will be executed virtually, simulating the open and close of a bin.



For Kardex and Non-Automatic, the popup window will display the drawer mapping to easily locate the desired bin, as on the screenshot below.



29.7 How to Add Images for Items and Item Groups

The Matrix software supports displaying images of items and item groups.

The system option **204** (Picture File Type), **400** (Item Pictures path) and **404** (Group Pictures path) are responsible for displaying the images on the Manage and Touch modules. Follow the instructions that are in:

- Chapter B: [Add Images to Items](#) (section 5.4.5)
- Chapter D: [Add Images to Item Groups](#) (section 16.3.1)
- Chapter E: [Matrix Pictures](#) (section 28.13)



29.8 How to Set Authorizations for TOUCH Users

Each module on the Touch can be controlled by authorizations given per User Group.

To enable / disable / hide modules on the Main Menu (like Issue, Return etc) make the following steps:

1. In MANAGE open Authorization Manager by "[Menu: Administration → Users and Authorizations → Authorization Manager](#)".
2. Select the user group for which you want to set the authorizations and select the "[Controls Authorization](#)" tab.
3. Expand the option "*** TOUCH SYSTEM ***" and click "Main Menu". This will list all the modules in TOUCH including <Exit> button that exits the user to the operating system.
4. Make the changes and save them.

For more details about '[Authorization Manager](#)' screen read the Chapter D: [Controls Authorization](#) (section 18.3.2).

30 Troubleshooting

30.1 Troubleshoot - Jobs of Automatic Processes

The system supports five types of jobs which are responsible for the automatic processes: [DBName]**EndOfMonthProcess**, [DBName]**ReportsEngine**, [DBName]**AutoPOService**, [DBName]**AutoBackup** and Replication Job.

This section describes potential problems working with automatic processes and jobs and the way to deal with them. If none of the solutions helps to solve the problem or the problem does not appear here, please contact support.

It is also recommended to read the instructions described in Chapter E: [Activate Jobs](#) (section 28.3) as a part of troubleshooting.

GE1001: None of the Automatic processes are running

Problem: None of the automatic processes are running.

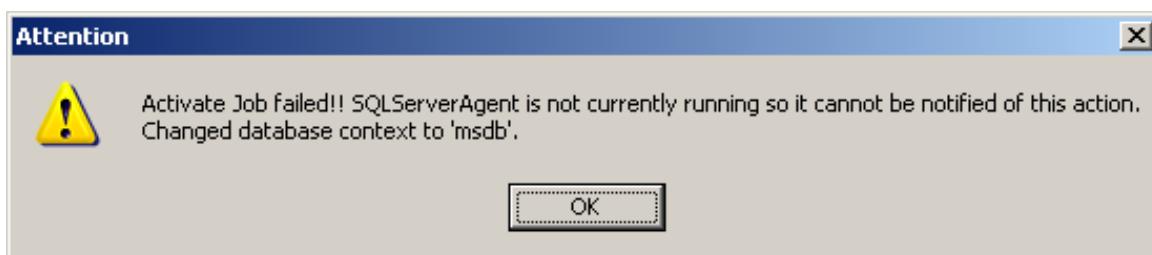
Possible reason: The SQL Server or SQL Server Agent is not running.

Solution: Follow the instructions in Chapter E: [SQL Server Service Manager](#) (section 28.3.2).

GE1002: Error message when trying to activate jobs in Database Administration

Problem: The following message is displayed when trying to activate any job:

"Activate Job failed!! SQLServerAgent is not currently running....."



Possible reason: The SQL Server or SQL Server Agent is not running.

Solution: Follow the instructions in Chapter E: [SQL Server Service Manager](#) (section 28.3.2).

GE1003: Cannot run jobs from workstation

Problem: General failure in running jobs on the client workstation.

Possible reason: The installation of 'Server' module creates folder ServerSetup as following: ...\\Matrix Installation folder\\ServerSetup. If this folder does not exist, the jobs that use file **ScheduleServices.exe** from that folder cannot run.

Solution: Run the jobs on the server where the database is located or;
Set the system option 1 (Installation Path) to the path of the Matrix installation on the server using server name, for example: **server-name**\\program files\\matrix-tm\\ServerSetup.

GE1004: Cannot run Automatic Backup of the Database

Problem: The job **[DBName]AutoBackup** failed to run.

Possible reason: Perhaps the folder defined for the backup does not exist.

Solution: Check the system option **602** for Database Auto-Backup folder.

GE1005: Cannot delete jobs by Database Administration

Problem: When trying to delete jobs by Database Administration, general error message is displayed or message that jobs cannot be deleted because there is more than one job with the same name.

Possible reason: The jobs are created per computer name. Perhaps the computer name was changed while there were jobs existing under a previous computer name and now it cannot delete/update them.

Solution: Select the option 'SQL script running' in the Database Administration tool and run the script from the installation folder:

...\\Matrix Installation folder\\DBAdmin\\SqlScript**DelltmJobs.sql**.

This script will force the removal of all the MATRIX-TM jobs (not including the replication job).

 **Recommendation:** If the computer name was indeed changed, in order to avoid this problem in the future, it is recommended to remove the existing jobs prior to changing the computer name.

GE1006: Cannot update system options of automatic processes in Manage



Problem: The Manage does not save changes for the system options that are responsible for the creation of the jobs for automatic processes. [Also I cannot delete/update the jobs.]

Possible reason: By changing these system options in Manage, jobs should be created for automatic processes. Perhaps there are already jobs with wrong definitions and when Manage fails to update the existing jobs, it fails to save the system options' values as well. See also reason of GE1005.

Solution: See solution for GE1005.

GE1007: The scheduled reports are not created

Problem: The job **[DBName]ReportsEngine** does not create scheduled reports.

Possible reason: See reasons of GE1001, GE1003.

Solution: See solutions for GE1001 and GE1003. If they do not help solve the problem, try to delete and create the job again. Also check the 'Date Last Updated' field on the Report Scheduler.

GE1008: The scheduled reports are not created as a File

Problem: The scheduled reports are not created as a File.

Possible reason: The files are created in a folder defined in system option **401**, which is used for temporary files and the files which are removed from there automatically.

Solution: Check that the 'File Name' on the Report Scheduler is defined to full path and different than the path defined in system option 401.

GE1009: The scheduled reports are not received by Email

Problem: The scheduled reports are not received by Email.

Possible reason: The system options from Email group for sending emails are not set properly or; there is no email defined for the user that is supposed to receive the email.

Solution: Check the system options (701-703, 705, 707). Check that the user who is defined in the 'User Name' field on the Report Scheduler has an email address defined in his 'User Maintenance' screen.

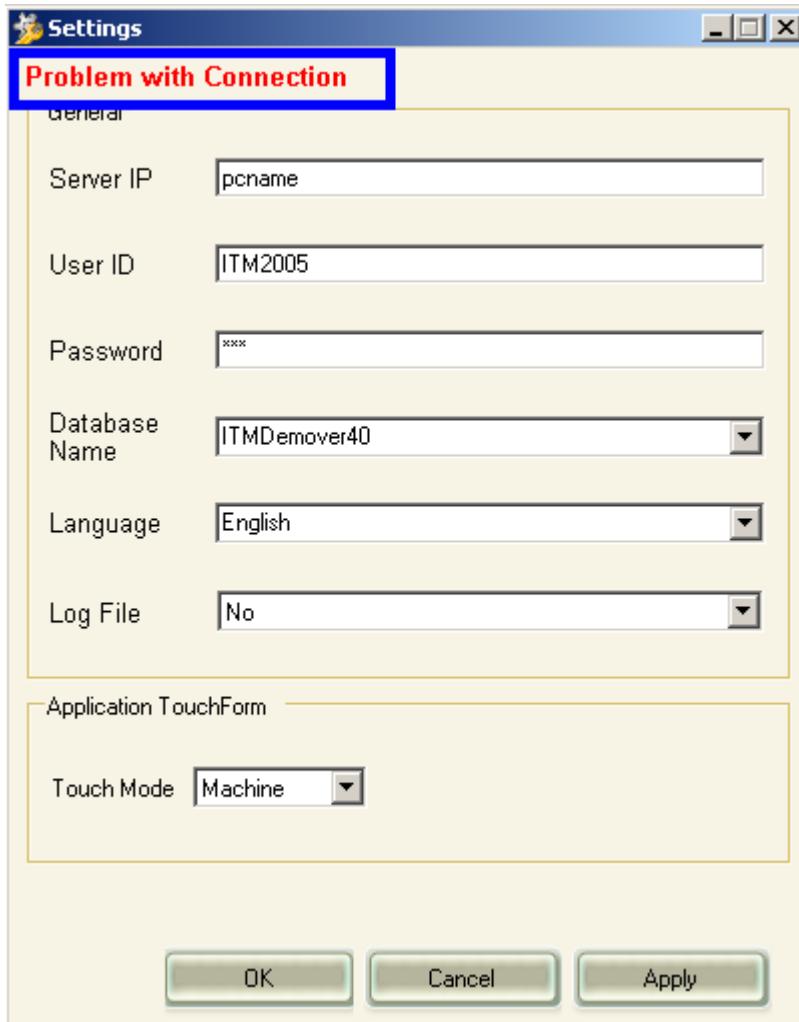


30.2 Troubleshoot - Load of the Software

This section describes problems that might occur in loading MATRIX-TM Software.

GE2001: Error message when trying to load Manage

Problem: When trying to load Manage, I get the Settings program with the error message 'Problem with Connection' on the top, as on the attached screenshot.



Possible reason: The connection to the database was lost or the connection details are not correct.

Solution: Follow the instructions in Chapter E: [SQL Server Service Manager](#) (section 28.3.2) to reestablish connection to the database. Check the setting as described in Chapter A: [Connect to the Database](#) (section 3.1).

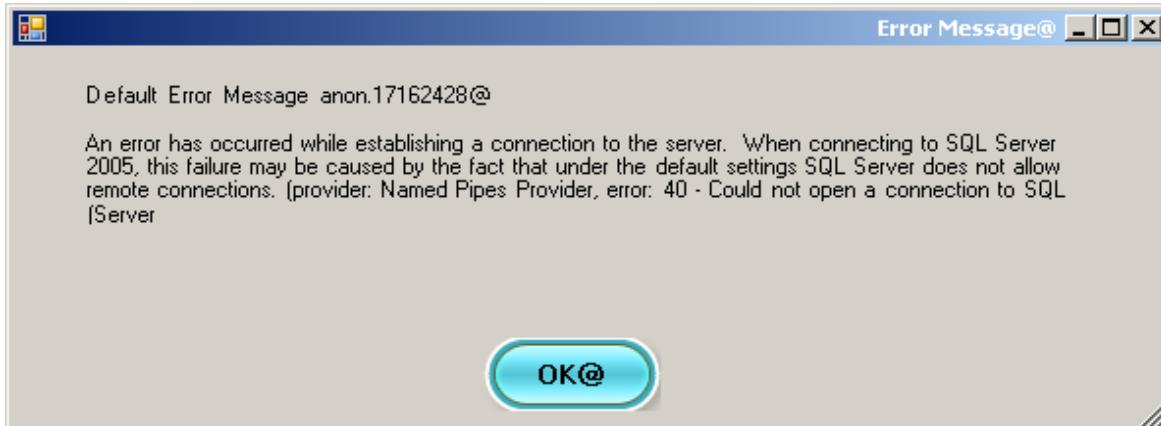


Apply for System Administrator assistance, if the database is located on the network and not on the local PC.

GE2002: Error message when trying to load Touch

Problem: When trying to load Touch, I get the following error message:

"An error has occurred while establishing a connection to the server. When connecting...".



Possible reason: The connection to the database was lost or the connection details are not correct.

Solution: Follow the instructions in Chapter E: [SQL Server Service Manager](#) (section 28.3.2) to reestablish connection to the database. Check the setting as described in Chapter A: [Connect to the Database](#) (section 3.1).

Apply for System Administrator assistance, if the database is located on the network and not on the local PC.

GE2003: Database error message when trying to load Manage or Touch

Problem: When trying to load Manage or Touch, I get the following error message:
"The Database version is different from the application version!"



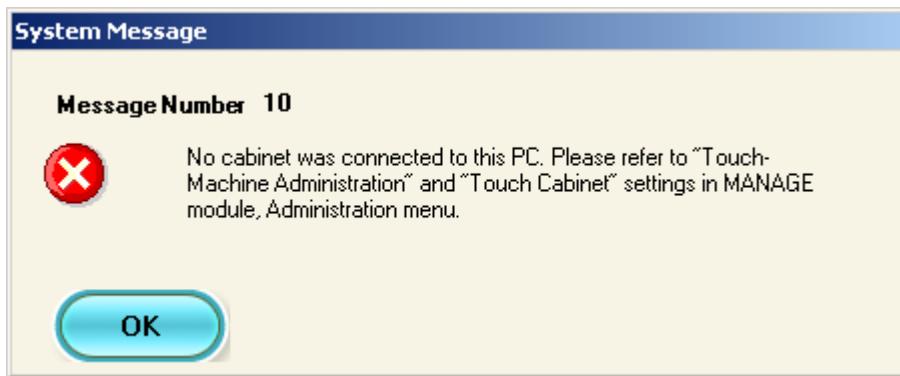


Possible reason: You tried to load a newer Matrix software version with database from older version.

Solution: Upgrade the database so that it is compatible to the newer version of the software. Please follow Chapter F: [How to Upgrade the Database to the currently installed software](#) (section 29.5). Otherwise use the older software version with the current database (not recommended).

GE2004: Error message #10 when trying to load Touch

Problem: When trying to load Touch, I get the following error message (number 10): "No cabinet was connected to this PC. Please refer to....".



Possible reason: The PC from which you are trying to run Touch was not defined in the database or no cabinets are connected to the PC name.

Solution: Set the touch definitions as described in Chapter A: [Set TOUCH definitions](#) (section 3.2.6).

30.3 Troubleshoot - Access to the Cabinet Hardware

This section describes problems that might occur in accessing cabinet / drawers / bins through the Touch module, and the software solutions for them.



For hardware solutions, please refer to MATRIX support.

GE3001: Error message #90005 - Command is already in queue - Device is busy

Problem: When trying to open a bin, I got the error message #90005.

Possible reason: Perhaps you tried to open a bin before the previous transaction was completed. For example: If the drawer was not closed.

Solution: Make sure that the drawers are closed. Reload Touch.

GE3002: Error message #90006 - Unable to open compartment

Problem: When trying to open a bin, I got the error message #90006.

Possible reason: Perhaps you tried to open a bin that has wrong coordinates definitions.

Solution: Check the bin units of this bin in the Manage → Cabinet Maintenance → Cabinet Units (Y / Z / X coordinates).

GE3003: Error message #90007 - No Connection to Cabinet / Drawer

Problem: When trying to open a bin, I got the error message #90007.

Possible reason: Perhaps the problem is with the **COM Port cable** that connects the PC to cabinet control system: **1)** The cable is not connected properly or; **2)** The cable is connected to the wrong port (there are usually 2 entries).

Solution: Verify that the cable is connected to the correct COM Port and tighten the connection.

GE3004: Error message #90008 - Problem with connection

Problem: I got the error message #90008.

Possible reason: Usually this message is displayed on the top of 'Setting' editor when trying to load software with faulty settings after which the Settings editor is opened.

Solution: Check that the settings to the database are correct and check that the SQL Server and Agent are running. See also solution for GE2001.

GE3005: Error message #90009 - Port Is Not Open

Problem: I got the error message #90009.

Possible reason: The **COM Port** defined in the Manage 'Cabinet Maintenance' screen **1)** Does not exist at all or; **2)** Is used by another device (like On-screen keyboard).

Solution: Check the 'COM Port' field in the 'Cabinet Maintenance' screen.

GE3006: Error message #90010 - No Answer from remote connection

Problem: I got the error message #90010.

Possible reason: The COM Port defined in the 'Cabinet Maintenance' screen exists, but there is no access to it (not available, busy with something else or disconnected).

Solution: Check the cable connections.

GE3007: Error message #90013 - Port is not available

Problem: I got the error message #90013.

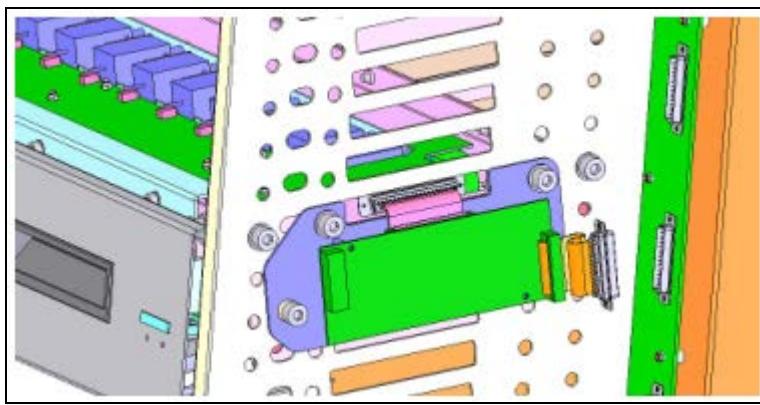
Possible reason: The port defined in Manage in the 'COM Port' field in the 'Cabinet Maintenance' screen does not exist.

Solution: Correct the port definition in Manage.

GE3008: The cabinet opens wrong drawer

Problem: When trying to open a bin, the system sends open command to wrong drawer.

Possible reason: Perhaps the controller plug-in height definition (the controllers relative plug-in position on the side board connections) is not correct.



Solution: Check the 'Y' position on the 'Cabinet Maintenance' screen → tab 'Cabinet Units' as also described in Chapter B: [Tab: Cabinet Units](#) (section 5.2.1.2).



30.4 Troubleshoot - Import of Data

GE4001: Error from 'Microsoft Jet database engine' when trying to import data

Problem: When I click the <Import> button on the import project, I get the following message: "The Microsoft Jet database engine cannot open the file ". It is already opened exclusively by another user, or you need permission to view its data."

Possible reason: The import file is not available for import.

Solution: Close the import file and run <Import> again.

GE4002: Error import result: "Column 'BIN_CODE' does not belong to table Table".

Problem: After the import is completed, in the result screen I get an error message that the column does not belong to table Table, for example: "Column 'BIN_CODE' does not belong to table Table."

Possible reason: The 'Column Name' that was defined in the import project was not found in the input file.

Solution: Verify that the column appears in the Excel file with the exact name, even if it is empty.

GE4003: Error import result: Error - Cannot perform '=' operation on System.Int32 and System.String

Problem: After the import is completed, I get the following error message in the result screen: "Error - Cannot perform '=' operation on System.Int32 and System.String".

Possible reason: You tried to import alpha-numerical data into field of numerical type or the opposite.

Solution: Use the matching input type. Follow the tables that describe the field types in Chapter D: [Import Data](#) (section 22).

GE4004: Error import result: 'Conversion from type 'DBNull' to type 'Integer' is not valid



Problem: After the import is completed, I get the following error message in the result screen: "Conversion from type 'DBNull' to type 'Integer' is not valid".

Possible reason: You tried to import an empty value into a field of numerical type.

Solution: Use the matching input type. Follow the tables that describe the field types in Chapter D: [Import Data](#) (section 22).

GE4005: Result message notifies about success, but no data seems to be imported

Problem: I get result message that the import data succeeded, but I see no data records when opening Search screens.

Possible reason: Perhaps there was input missing for mandatory fields (marked as 'Required' in the import project). The records were actually imported, but they cannot be displayed because of missing data.

Solution: In Chapter D: [Import Data](#) (section 22) follow the section which describes the format of input file.

GE4006: General import errors

Problem: Different errors in importing data.

Possible reason: Probably the format used for input does not match the accepted format.

Solution: Follow the Chapter D: [Tables for Import](#) (section 22.1) and the Chapter D: [Tips for Preparing Input Data](#) (section 22.2) to verify that you used the correct format in the input file.

30.5 Troubleshoot - Access to Data in TOUCH

GE5001: Expected item is not displayed on the Search screens

Problem: When opening a search screen on Touch, I could not find an item I expected to find.

Possible reason: Perhaps **1)** This item was not assigned to any bin or; **2)** This item was assigned to the bin of a cabinet which is not connected to this Touch station **3)** The bin to which the item was assigned does not have bin units.



Solution: **1)** Assign the item to a bin **2)** Check the touch definitions as described in Chapter A: [Set TOUCH definitions](#) (section 3.2.6). **3)** In MANAGE check if the bins containing this item have bin units (by 'Cabinet Maintenance' screen → 'Cabinet Units' tab or by 'Bin Maintenance' screen → 'Bin Units' tab or by 'Bin Units Report'). If not, add the bin units as described in Chapter B: [Tab: Cabinet Units](#) (section 5.2.1.2) and check the results on the TOUCH module.

GE5002: No bins are displayed or the expected bin does not appear

Problem: When I select an item to perform an operation on Touch, no bins are displayed or the expected bin is not displayed.

Possible reason: It may happen if...

- 1)** The definitions of the bin do not fit with the operation you have tried to perform.
- 2)** The bin does not have bin units.
- 3)** There is no free space to store the item.
- 4)** The system options 904/905 block access to bins New/Used/Reworked.

Solution:

- 1)** Check the following fields on the '**Bin Maintenance**' screen:

Consignment: Will influence on Receive and Return processes.

Used Item and Reworked: Will influence on many processes together with the system options **109 / 904 / 905**.

Status: Should be usually Active.

Do not Issue: Should be usually unchecked.

- 2)** Check if the bin units exist.
- 3)** Check the 'Capacity' of the bin, the items stored in it and the 'Allow over Capacity' field.
- 4)** Check with fields 'Used Item' and 'Reworked'.

GE5003: The bin does not accept the quantity that I am trying to insert

Problem: I try to set the bin quantity without success.

Possible reason: It may happen if you have tried to fill a bin over its defined capacity.

Solution: Check the 'Capacity' and 'Allow Over Capacity' mark on the 'Bin Maintenance' screen.



30.6 Troubleshoot - General Issues

GE6001: Cannot export reports to Excel

Problem: Using Manage, I try to export basic and advanced reports to Excel, without success.

Possible reason: If Excel is not installed, it will export the list to the web browser.

Otherwise, this may happen if the folder defined for the reports does not exist or does not have writing permissions.

Solution: Check if the folder defined in system option **401** (Report Path) exists on the PC. If yes, check the writing permissions with the System Administrator.

GE6002: No images of the Items and/or Groups are displayed on TOUCH

Problem: No images of the Items and/or Groups are displayed on Touch.

Possible reason: This may happen if the system options for the image files are not properly defined or the current user does not have reading permissions.

Solution: Check if the folders defined in system options **404** and **404** contain images. If yes, check the writing permissions with the System Administrator.