TestManager CE

(Classic Edition)

Installation

Starting with MCD TestManager CE

Please follow the steps below to install the program.

1. Insert the MCD TestManager CE CD

- If the setup does not start automatically, you need to start it manually by opening the CD in Windows ® Explorer.

2. Follow the steps shown on your screen

- select .NET Framework install
- Click „TestManager CE" install
  (If any installation problems should occur, please read data file „Readme.txt on your CD)
- Select installation options and determine the installation directory

3. After installation is complete

- The passwort for Administrator is „Admin". You can change the password in Menu (Intern/Password).

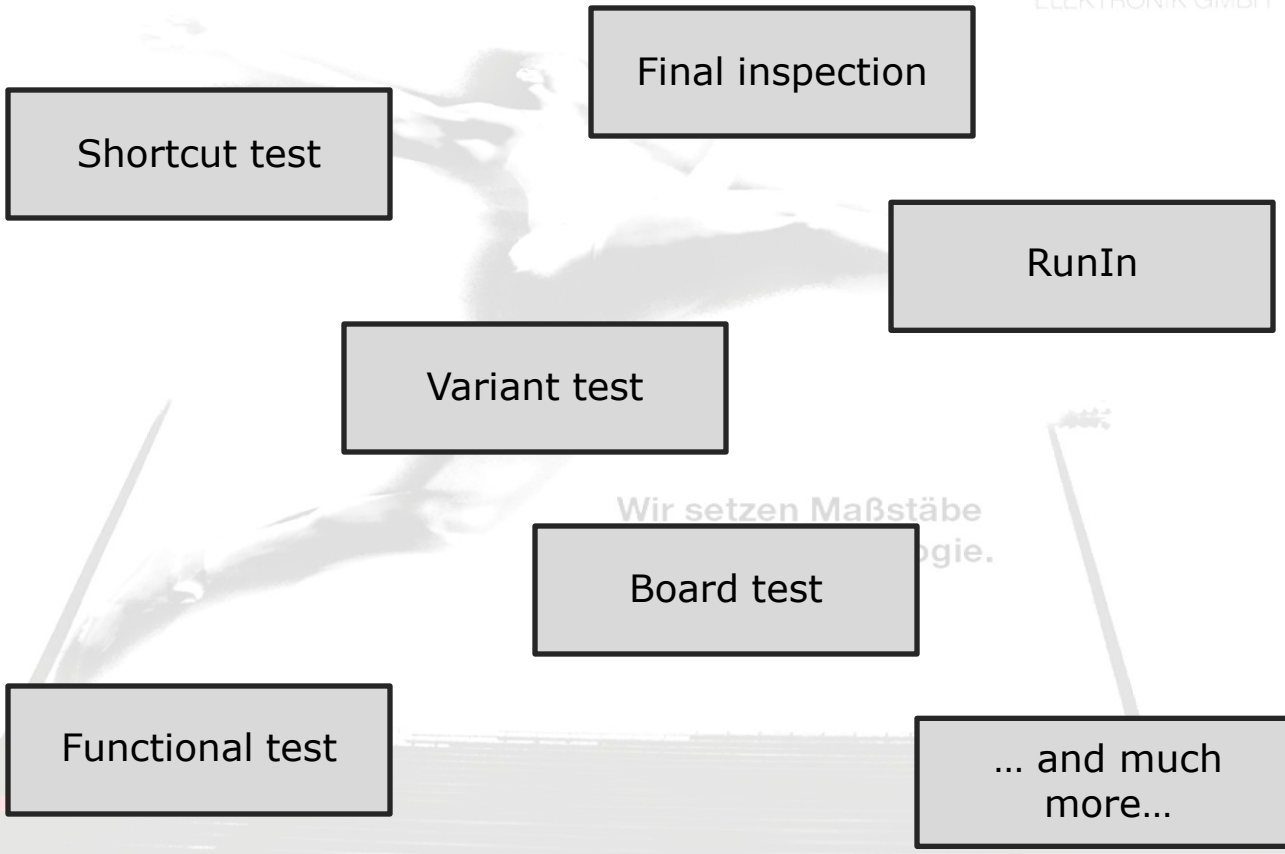
What is the TestManager?

The TestManager...

- is a software developing package for the design of application for the test systems.
- is used for endurance, board, final inspection, testing and process control.
- offer the generating of portable systems and sequences.
- contains a Graphical User Interface (GUI).
- includes a multiplicity of ports (IEEE-488, RS-232, TCP/IP,…).
- has an interpreter with connecting to: DLLs, COM, ActiveX, .NET assemblies.
- has a modular concept and supports new technologies (LINBus, .NET, …).
- runs on a PC with Windows ® 2000/XP.
- is upgradeable based on coustomer specific needs.

Application

The TestManager Software includes a flexible sequence control system with which you can prepare test programs for different domains. Even the test steps are easily to program.



Software platforms

The TestManager offers a variety of software platforms to the programmer.

TestManager CE

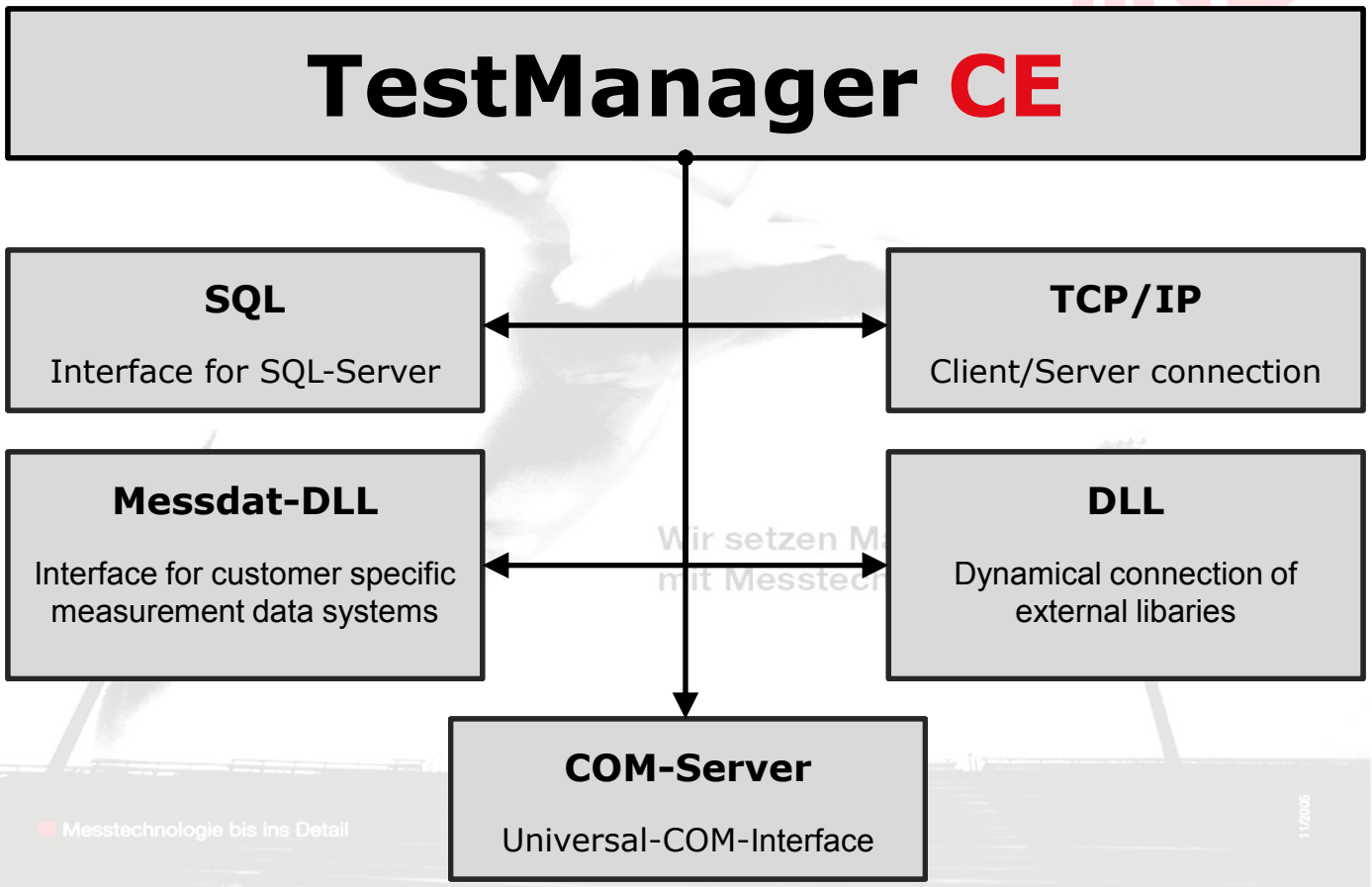
.Net
(C#,VB,J#)

MCD Interpreter

NI LabView ®

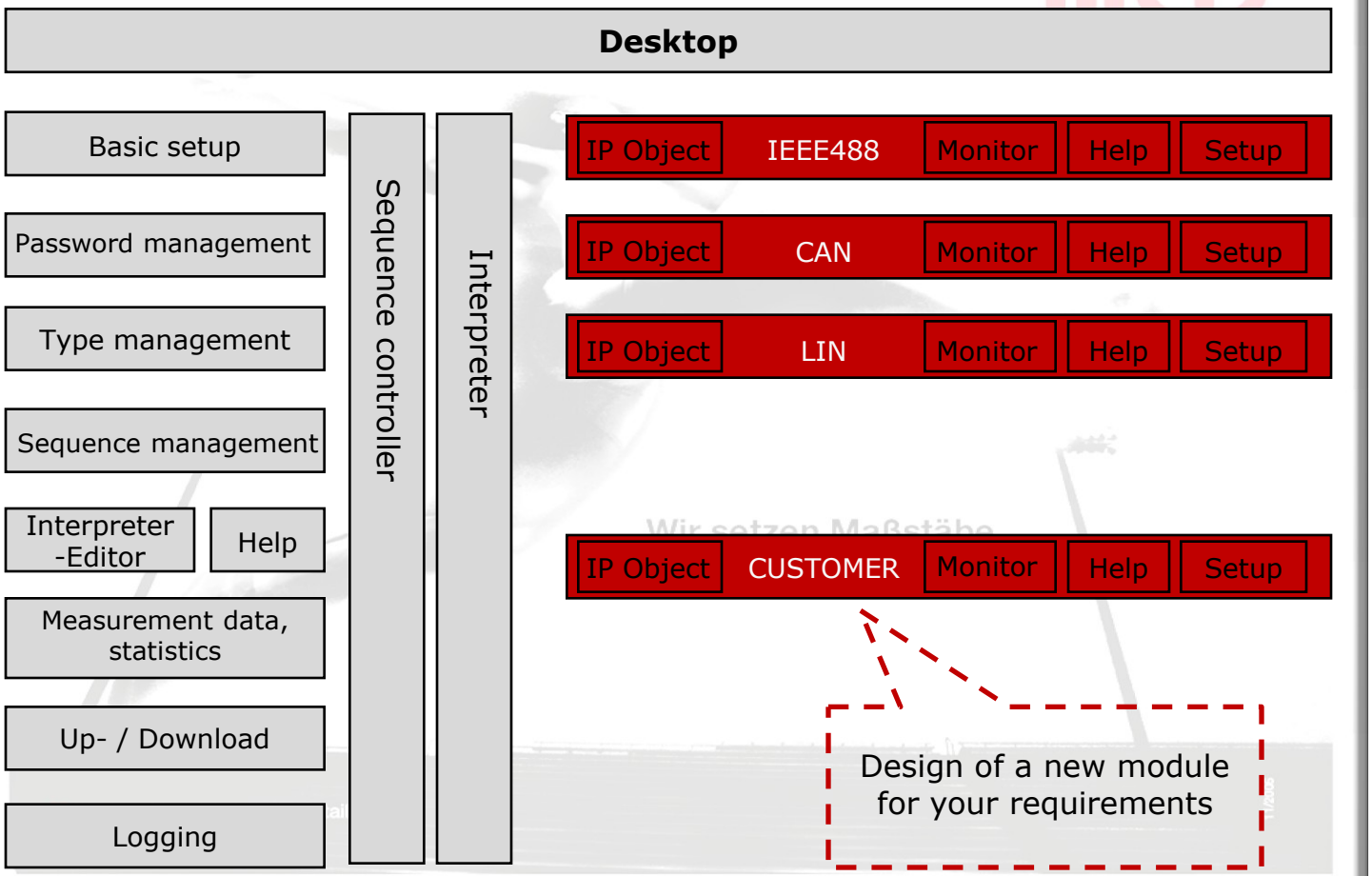
Modularity (external)

Diagram of the external module which can be connected easily with the TestManager.



Modularity (internal)

Diagram of the internal module of the TestManager and the extensibility made available if needed for your requirements.

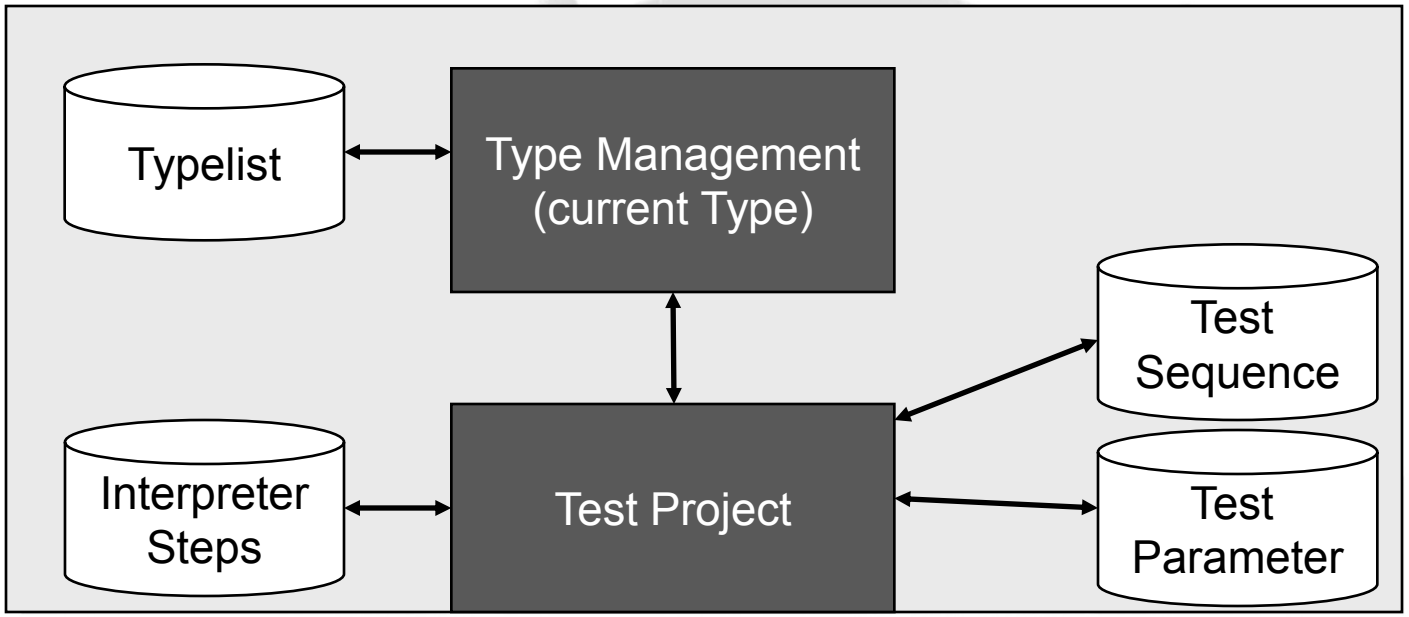


Application development system

Project

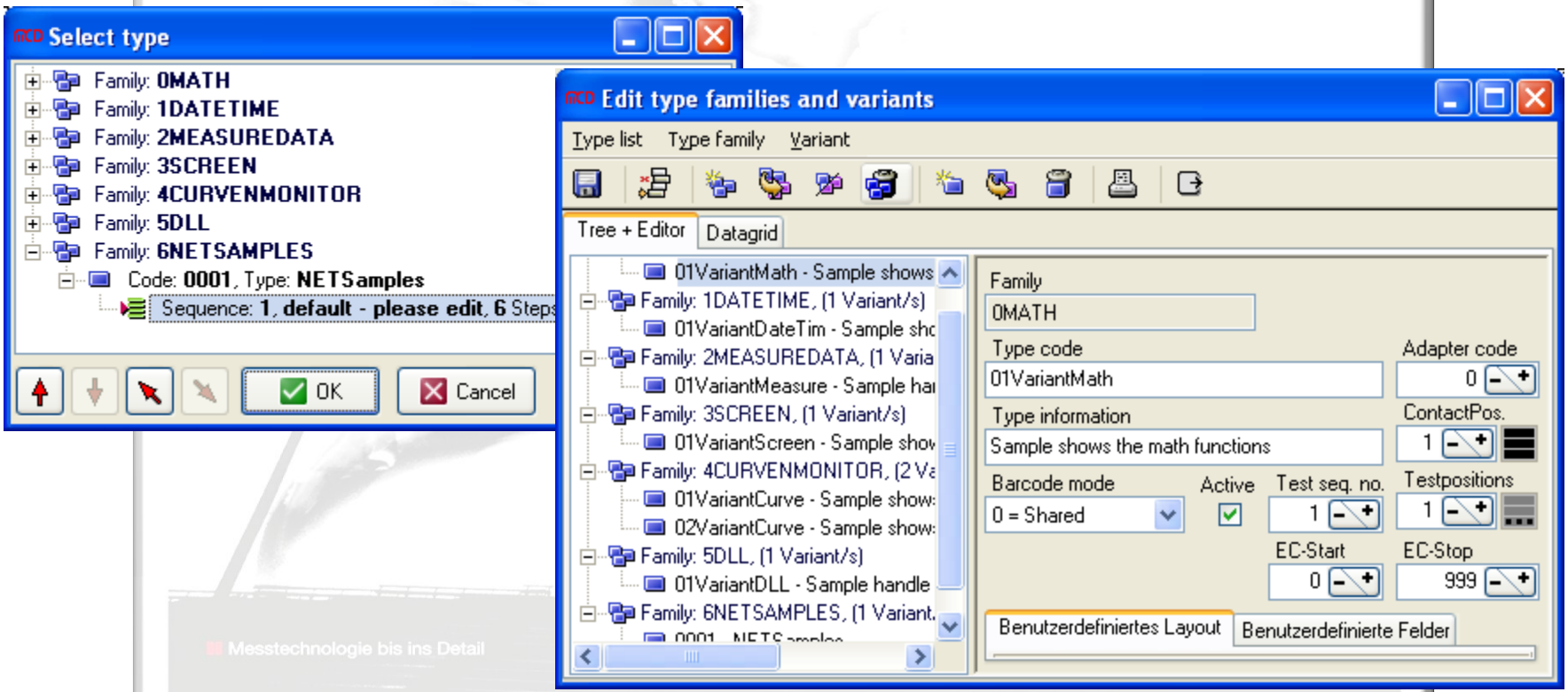
Specifying a Test project and its data:

- The Type-Management manages data for the selected test item type.
- The different types are managed in the type menu
- During the test the order and branching of the to be performed test steps is defined
- The test parameter includes the settings (Threshold, Units,...) of every test step.
- The interpreter steps are single test steps, which are stored in their own editable data.



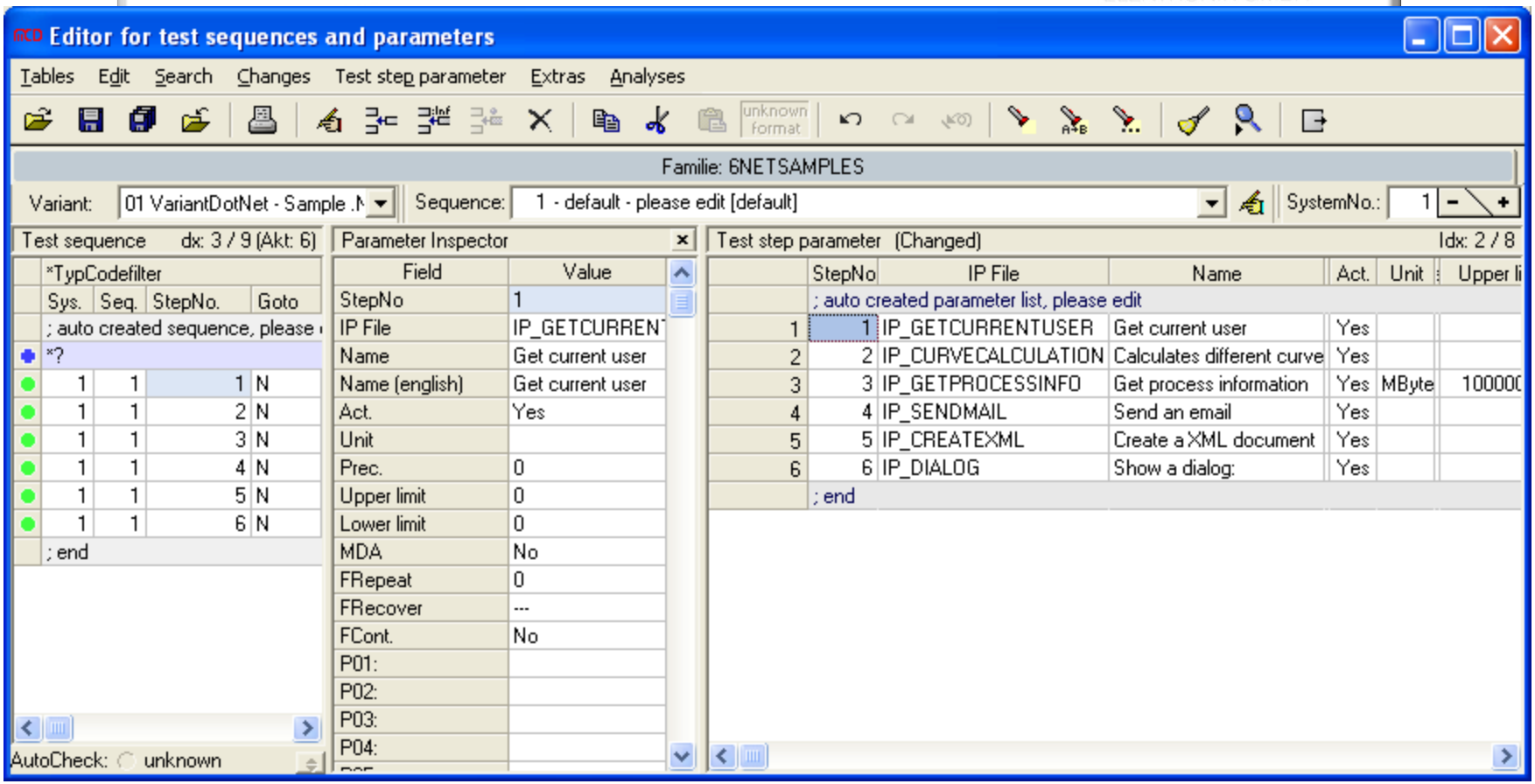
Project - Administration

In the project administration tool single types of test items can be created and parameterized. Should the number of types be to great, they can be summarized to type families within the same type of testing. With this the administration tool work steps can be reduced to a minimum.



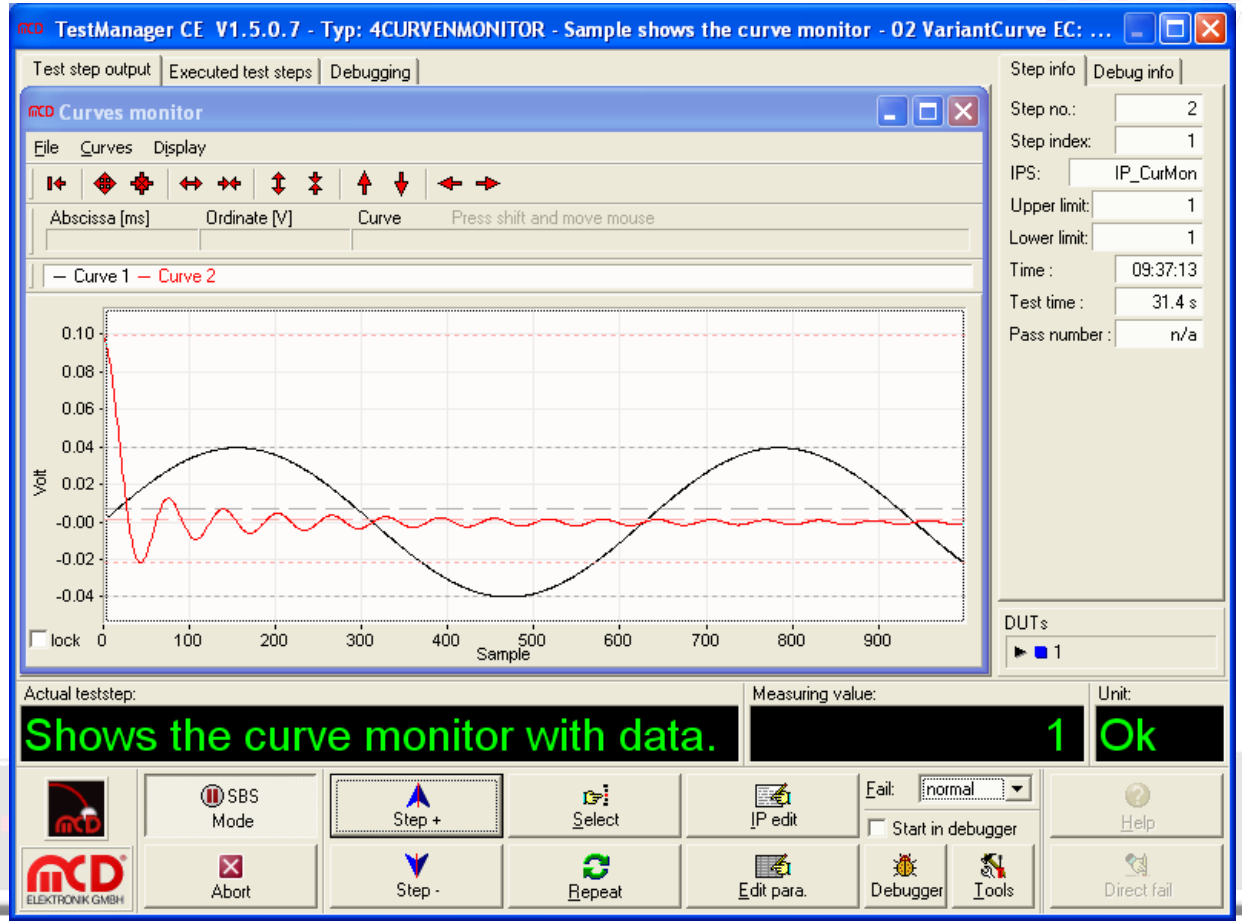
Project - Editors

The Project editors allow for a comfortable design and administration of the test development and its parameters. All data is available in an open data format and can be conveyed over to different projects.



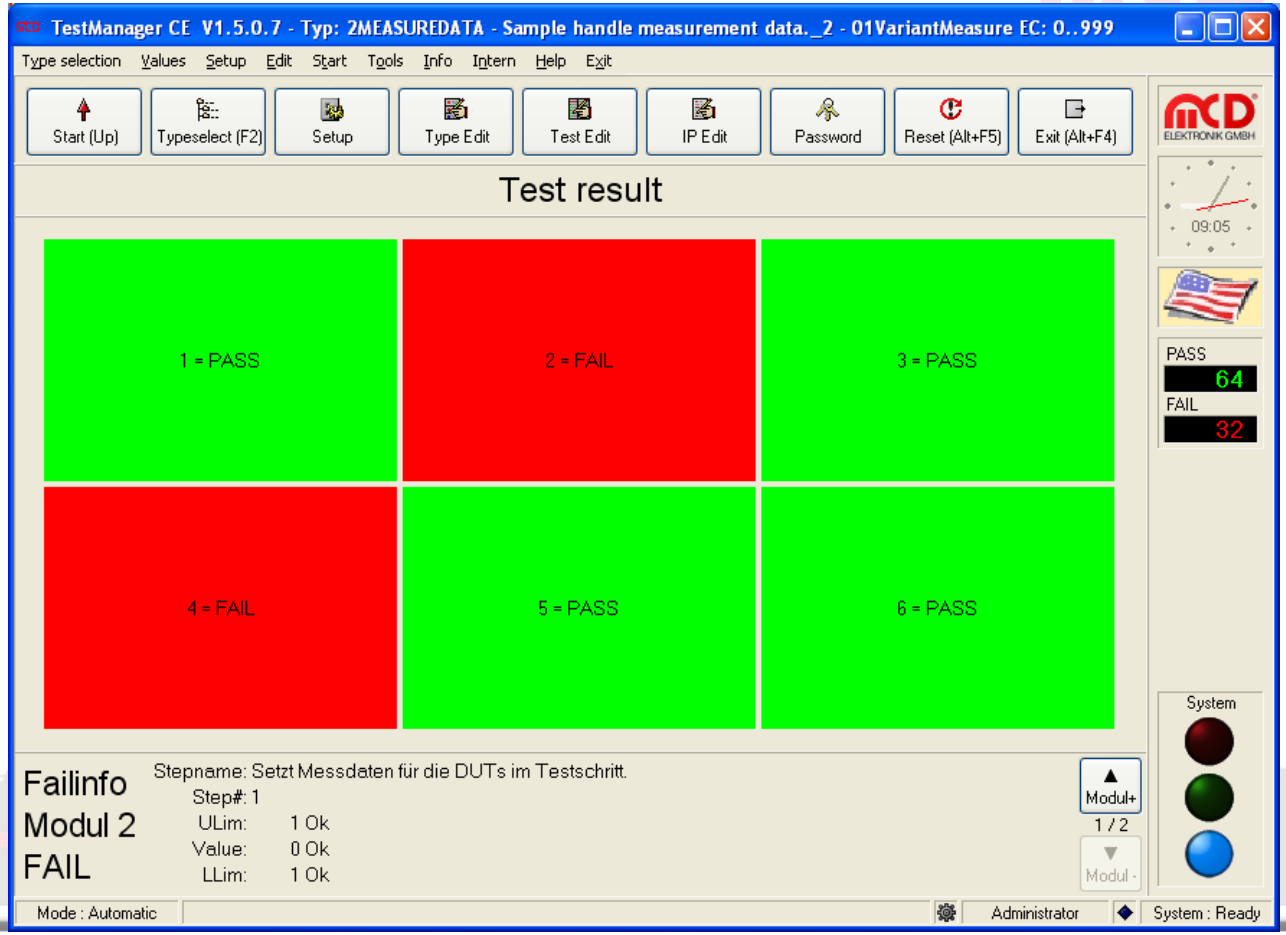
Test Window

The test window controls and displays test developments. From here every test step can be modified and be tested. The measurement results and all parameters of the test steps are displayed on the window.



Display of test results

The test results are displayed automatically on the desk top window. More information can be displayed for all modules if needed.



Interpreter Specification

The interpreter carries out the interpreter steps. Interpreter steps is text data which can be designed and edited by the user. From the interpreter steps you can have access to the entire system. The following list contains a short summary of the interpreter features:

Interpreter

- Developing test steps
- Special steps for the development control
- Integrated syntax testing with error indicator
- Parameter for threshold, units, ...
- Modification of test steps during development
- Integrated debugger
- Simple programming language
- Extensive object library

Editor for test steps

- Cut - Copy - Paste - Delete
- Development of own libraries
- Syntax-help
- Context-Help for syntax
- Example for all Objects

Control structures

- If - Else
- Select - Case
- For - Next
- Repeat - Until
- Do - While
- Exit

Date types

- Double, String
- Variants, Arrays, Vectors

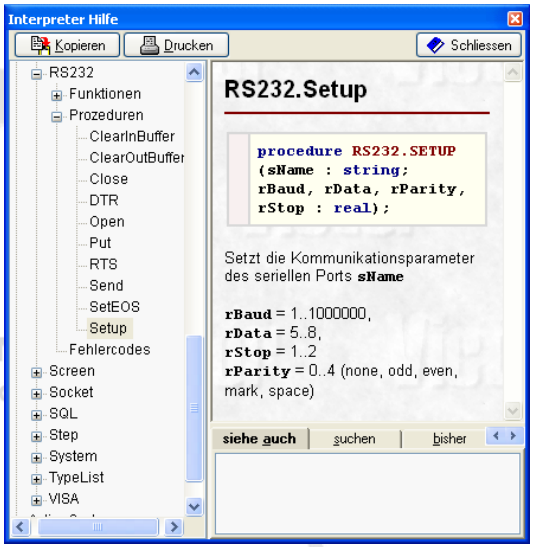
Source Level Debugging

- Step Into/Over/Out (Single step)
- Breakpoints
- Modification of variables and parameters
- Reset
- Abort

IP Objects

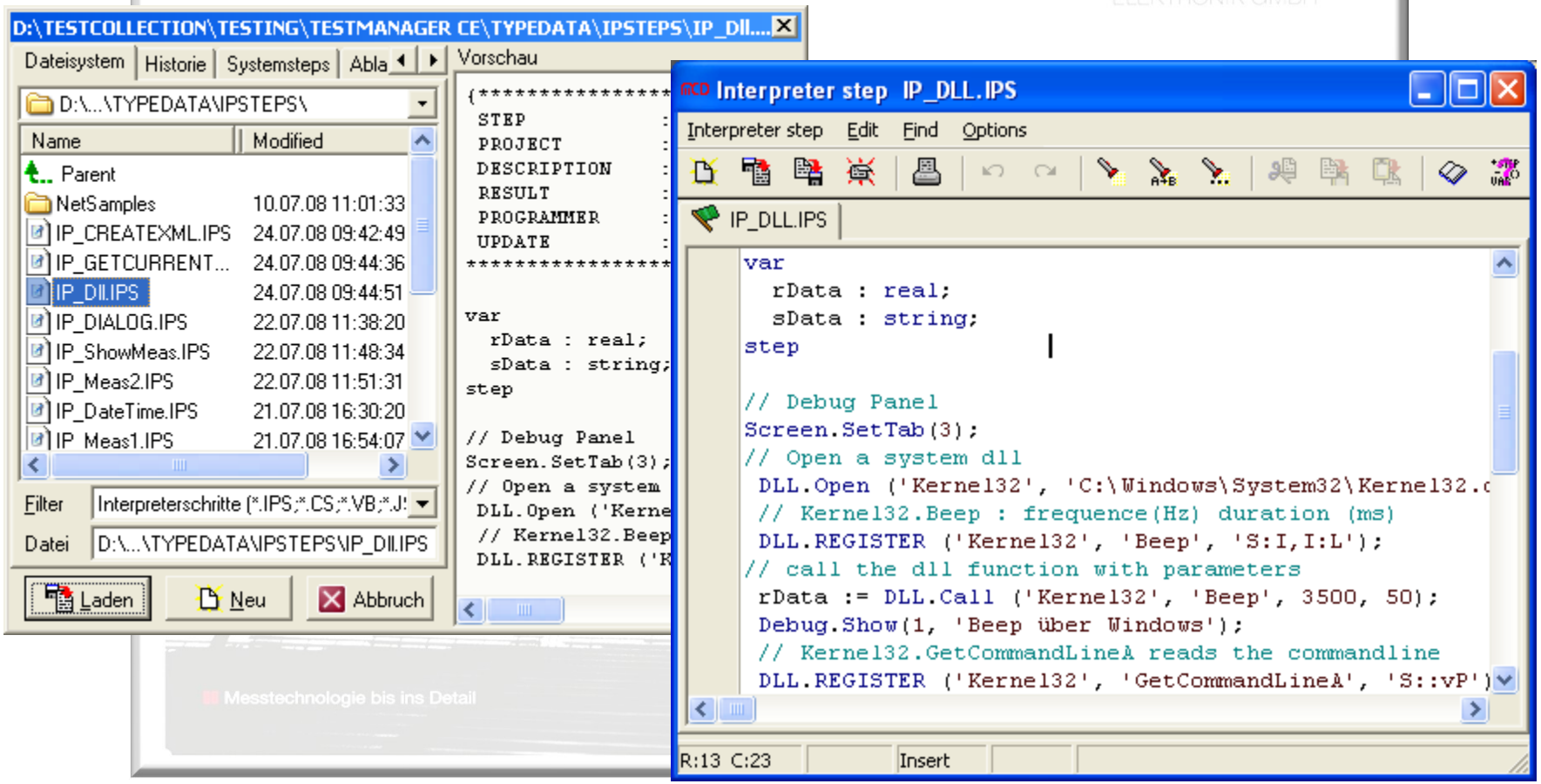
The Interpreter Objects tool contains an extensive collection of functions, classified by range of application. With every program update the number of functions and objects increases. Detailed help with applicable examples simplifies using the Interpreter.

Domain	Object
System, Test, Calibration	AutoRun, Calibartion, ContactUnit, RegForm, Step, System, TypeList
Hardware	DigIn, DigOut, ExacqDA, IMEAS, PIOCard, MUX, NFGen, ADC, PCF8574, RCMeas, RNet, DAC,
Communication	CAN, I2C, IEEE488, KW2000, LIN, RS232, SerIO, Sockets
General	Math, DateTime, GlobalVar, Strings
File access	File, HexFile, IniFile
Input	Keyboard, KeyScanner, RegForm
Output	Screen, Printer
Debug, Logging	Debug, Log
Measuement data, data base	MeasData, SQL
Curve analyse	Curve
DLL,COM-Access	DLL, COM
Shortcut test	ShortCircuit



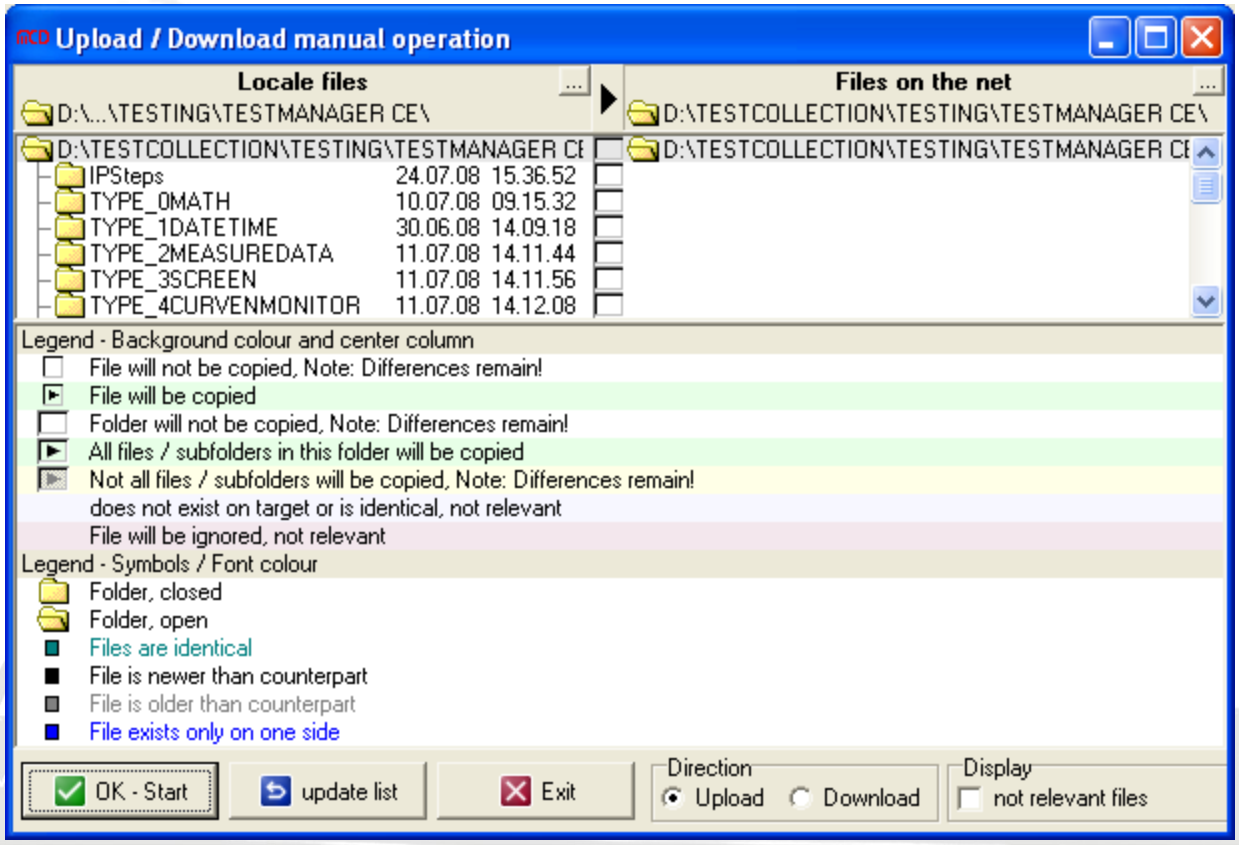
IP Editor

The steps can be easily generated, arranged, and tested with the Interpreter Editor. A large variety of tools (Syntax control, Search functions, ...) are available. All data is stored in text format.



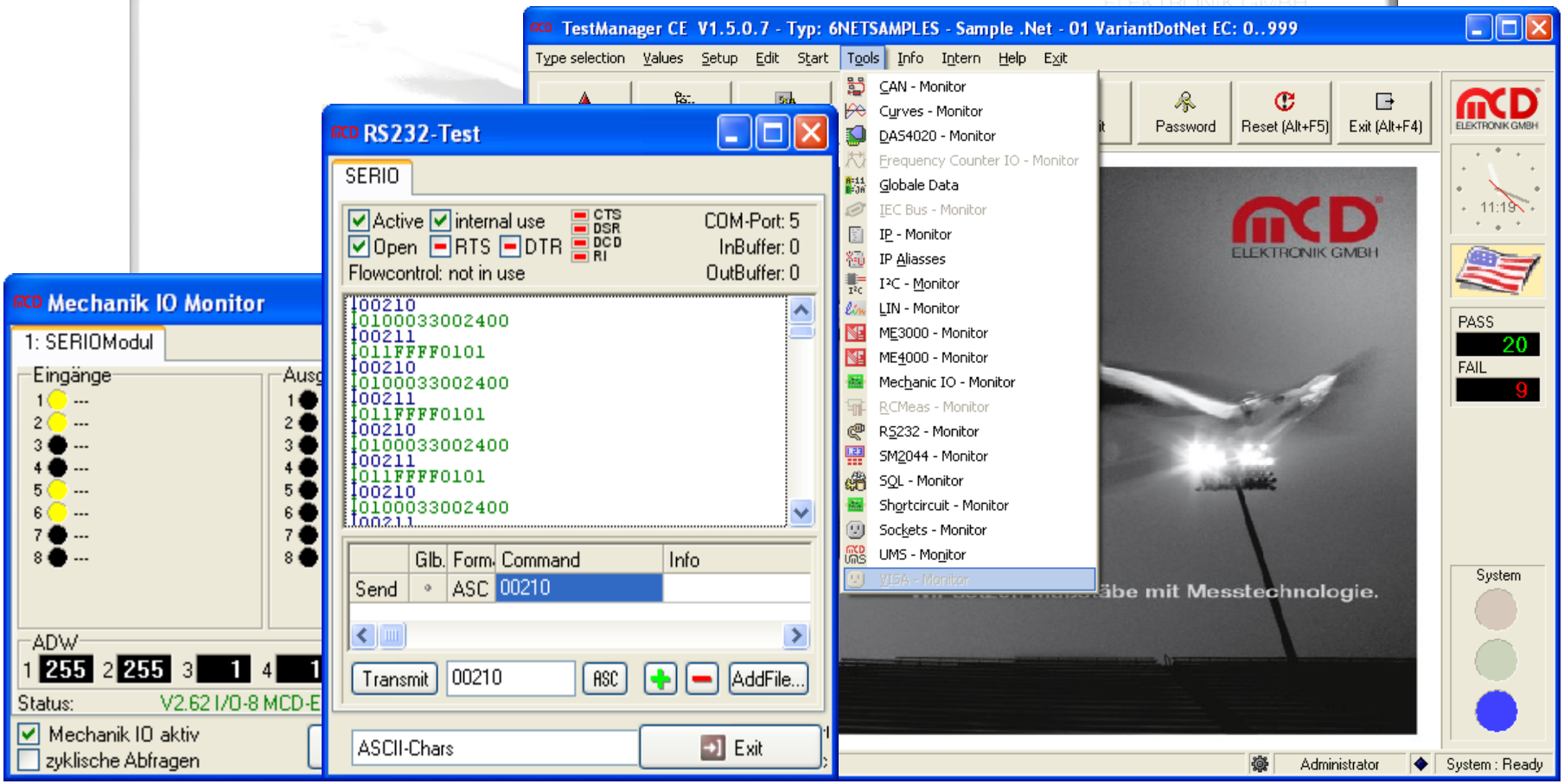
Upload / Download

The Upload/Download module assures that the same test data is used on multiple test stations. All test stations are matching up the type data and compare it to a set of type data located in a central reference file on the network. Several setting options are available in order to match your specific processing needs.



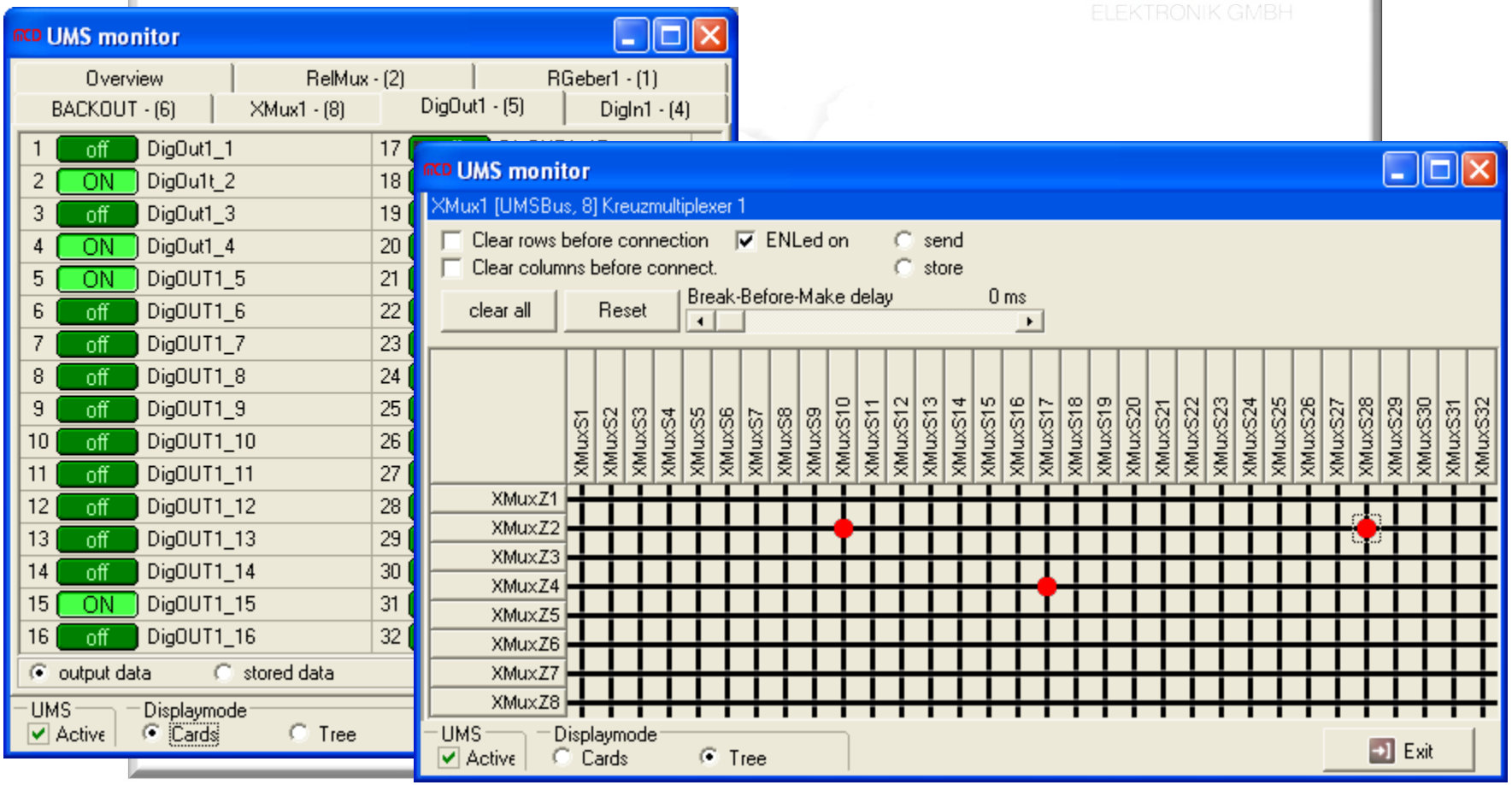
Tool Monitor

The Tool Monitor fades in an additional window for every module activated in “Set Up”. These windows display specific settings in a clearly arranged graphic format. The parameters can be modified immediately for testing purposes and optimization.



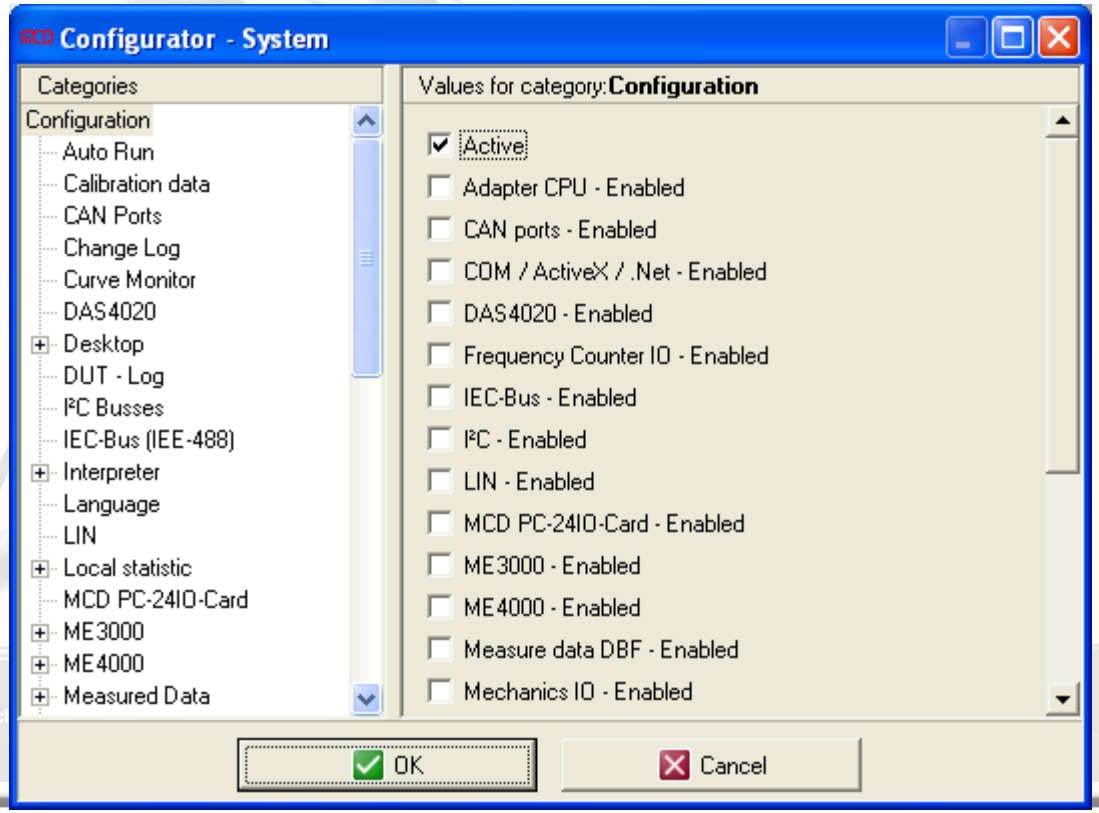
UMS Monitor

The UMS Monitor fades in a new window for each card defined in the system. These windows display specific settings in a clearly arranged graphic format. The parameter can be modified immediately for testing purposes and optimization.



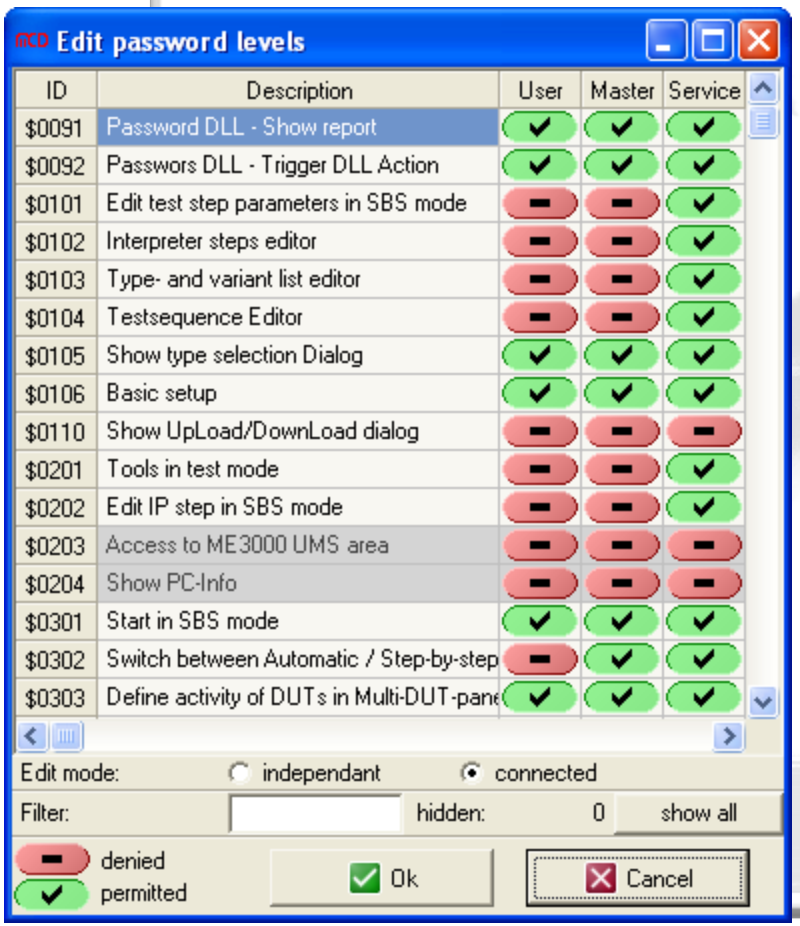
Configuration

With the help of basic settings the entire TestManager system can be parameterized. On the left side of the window shows the single components displayed in the directory. On the right side shows the adjustable data for the on the left window selected nodes. Form and range of the directory to the left side depends on the form and amount of the modules installed. The arrangement on the right side of the window is defined through the module.



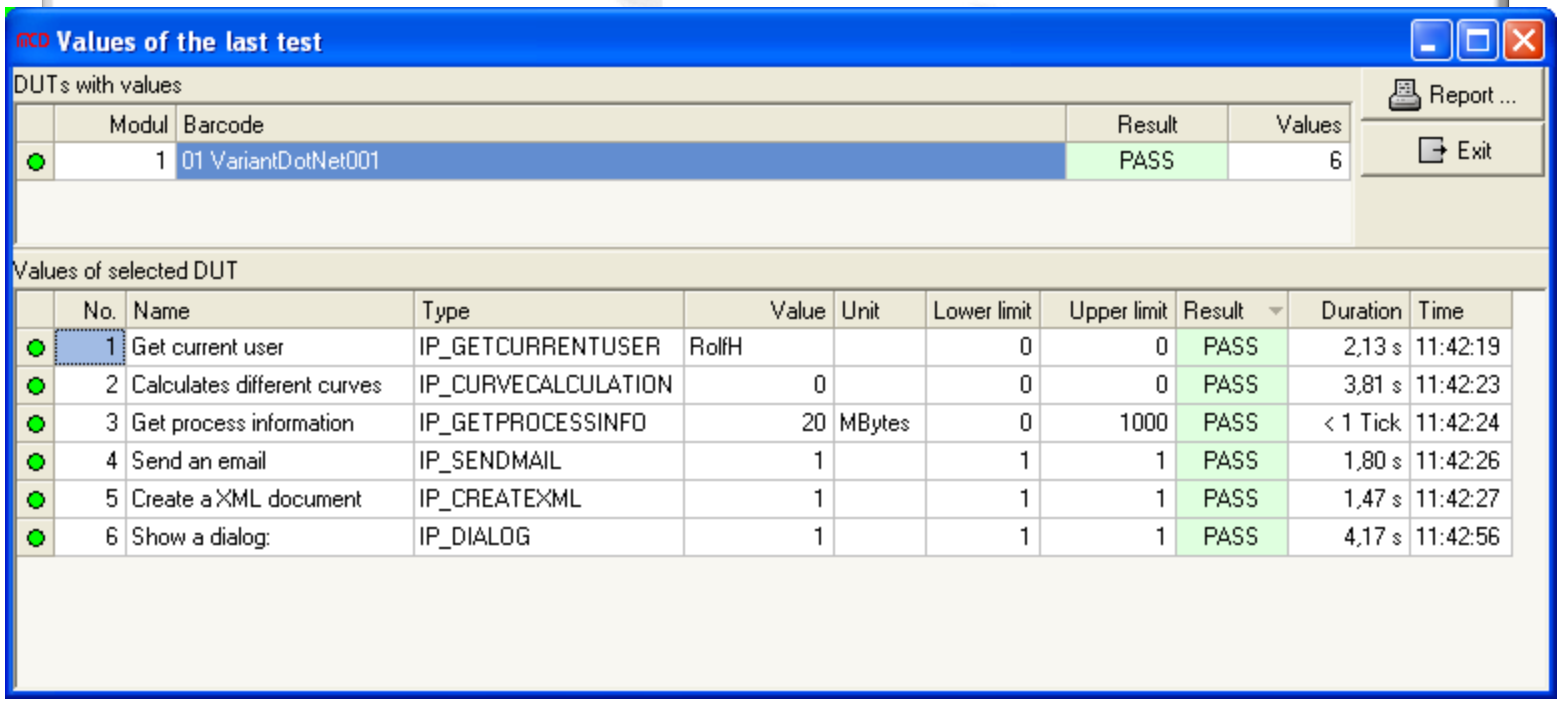
User Management

The user management contains a list of all program actions performed which require different level of passwords. For every action the administrator can specify which user groups are authorized to make adjustments.



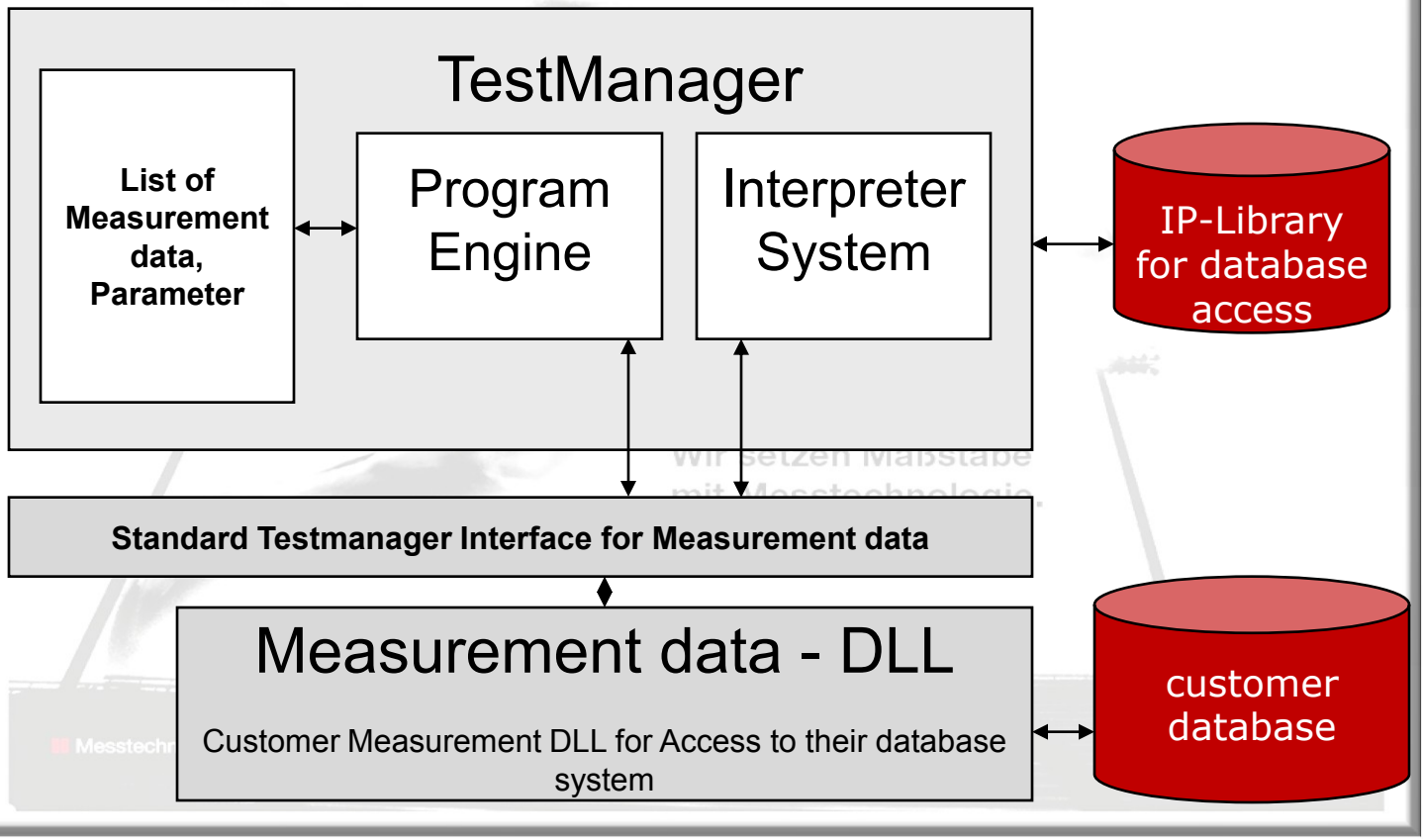
Measurement Values

A list displays the measurement values of test items recently tested. The list displays test steps outside the threshold, as well as test steps needing to be stored after each adjustment. Next to the measurement values, additional data (Barcode, test time, time stamp) is present.
The list can be directly transformed and be printed as a report.



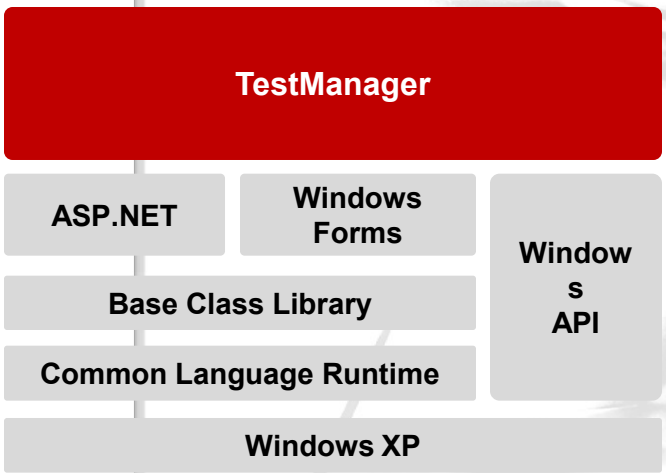
Customer measurement database

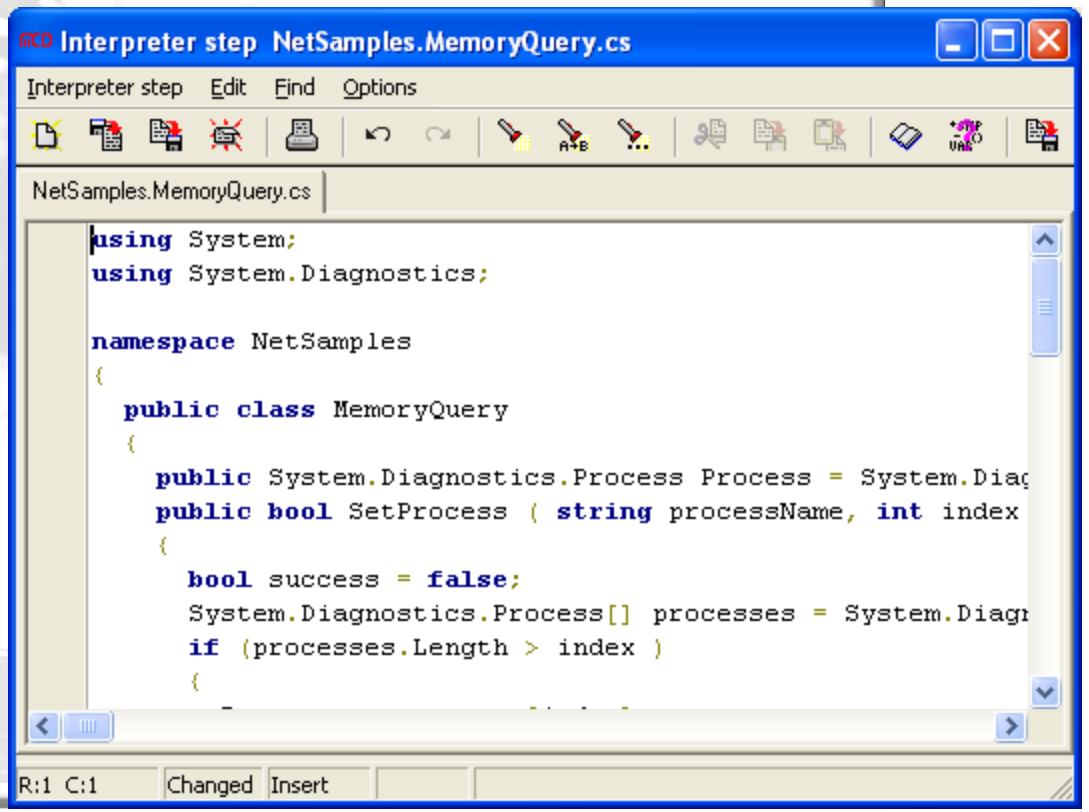
The available measuring data can be transfered to a user specific Data bank system. Through the standardized Interface the measuring data values can be retrieved using the Measuring Data-DLL. When all data in the DLL is available, they may be transfered to your own system with your own software. No further upgrades of the TestManager through MCD are necessary.



.NET Integration

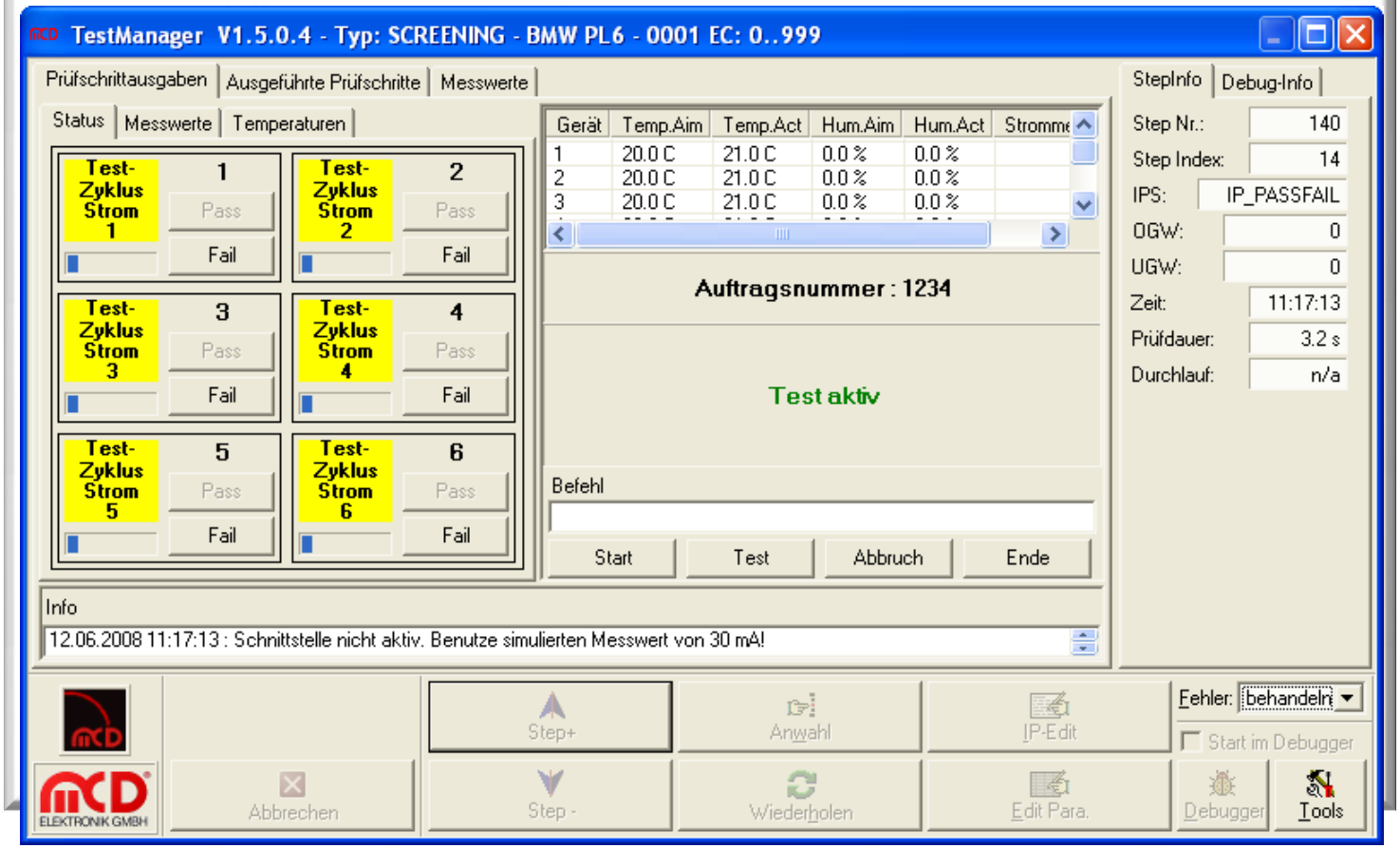
- Integration of Microsoft ® .Net-Framework
- Direct Implementation of C#, VisualBasic und VisualJava for .Net Source code and Components
- Dynamic translation and developement for assemblies without additional developement tools





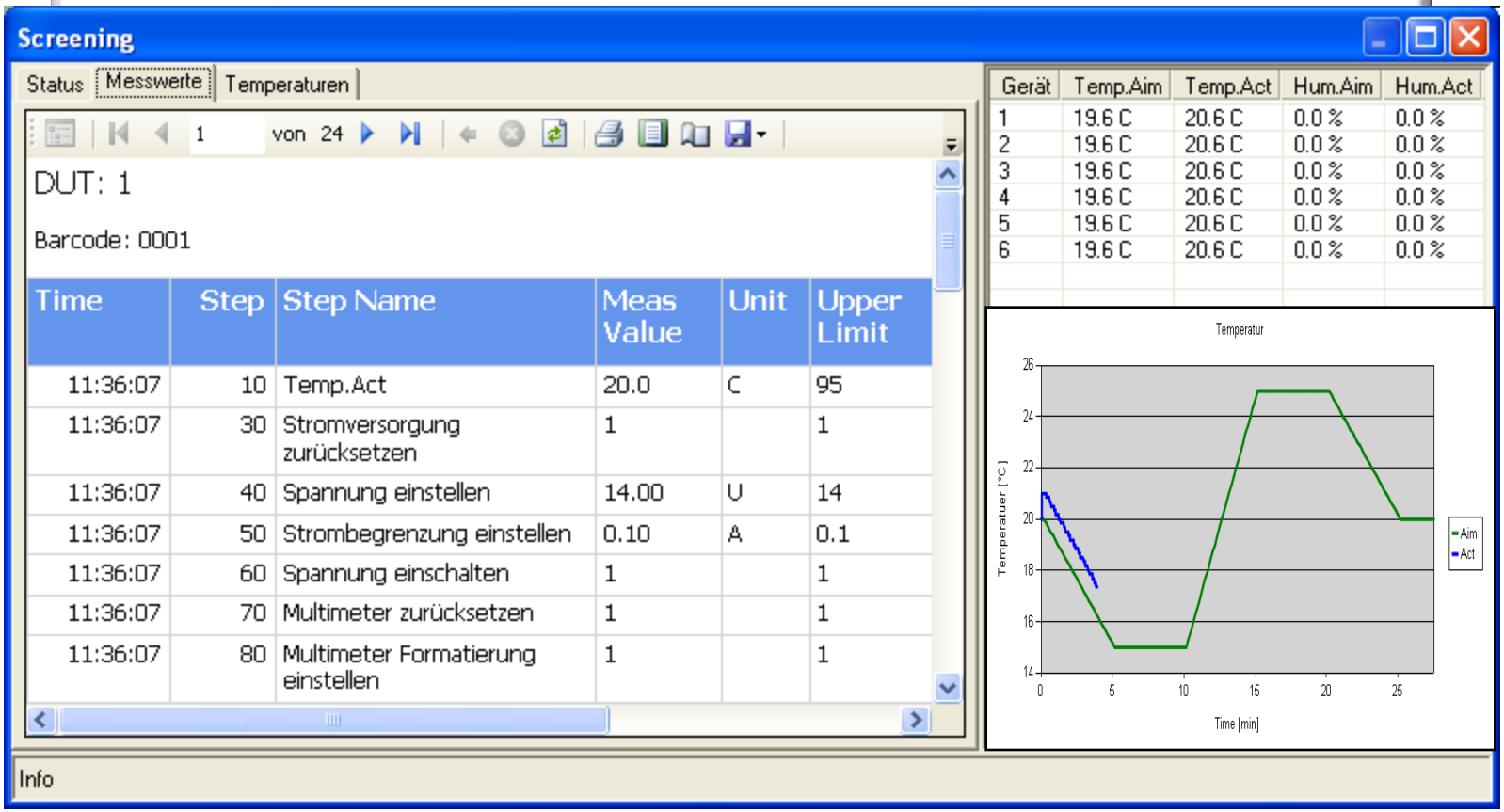
.NET Formula Manager

- Comprehensive and effective display of the process status
- Use of the integrated formula design for the developing of any user interface Import/Export functions
- Design and integration of individual formulated dialogs and formulas



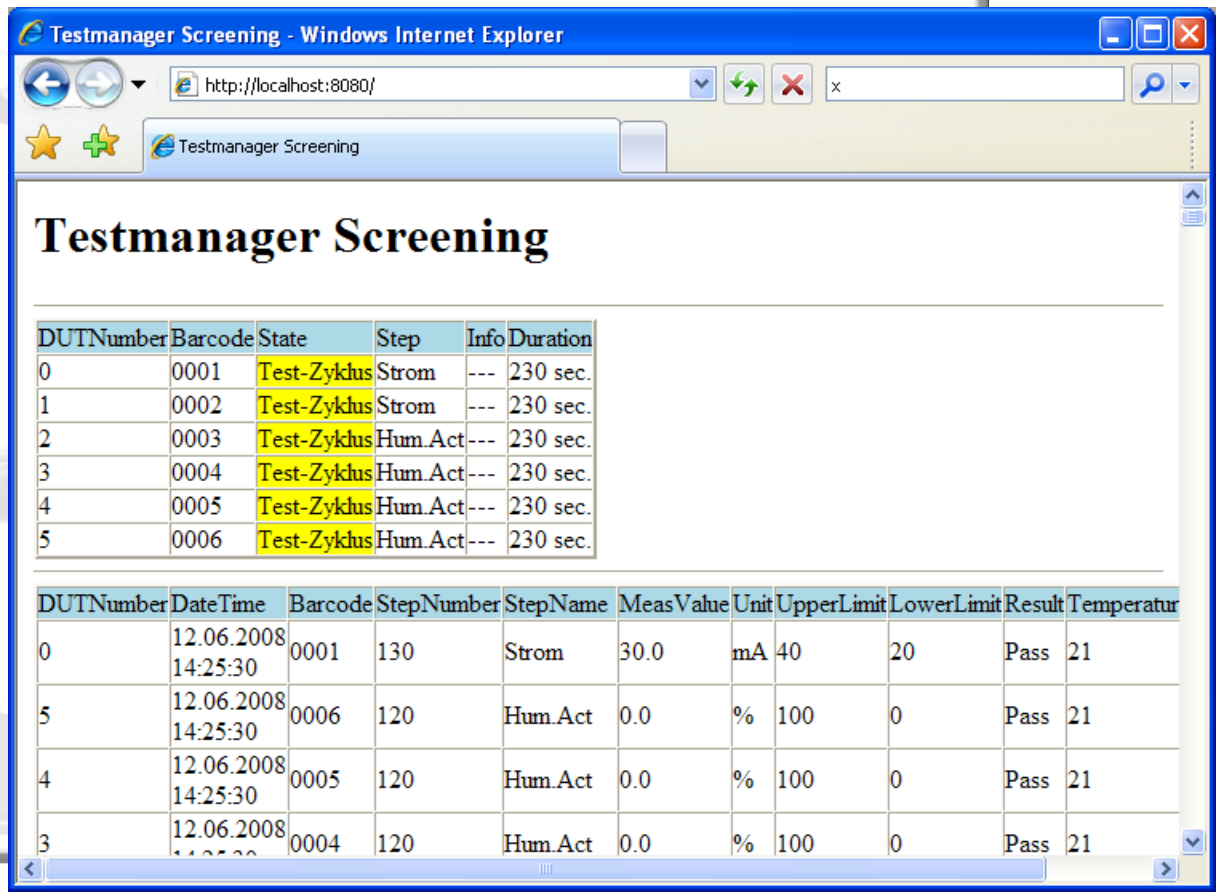
.NET Report Manager

- Definition and integration of freely definable reports
- Table and graphic display of measuring values, configuration, and Test development
- Export to Excel, PDF and more



.NET / Web Server

- WEB-Interface for remote monitoring in Intranet with displays and operations of selected functions
- Because of the integrated WEB-Server, no additional components are necessary
- User definable layouts for the display on Internet Explorer
- IP-Filter and Password

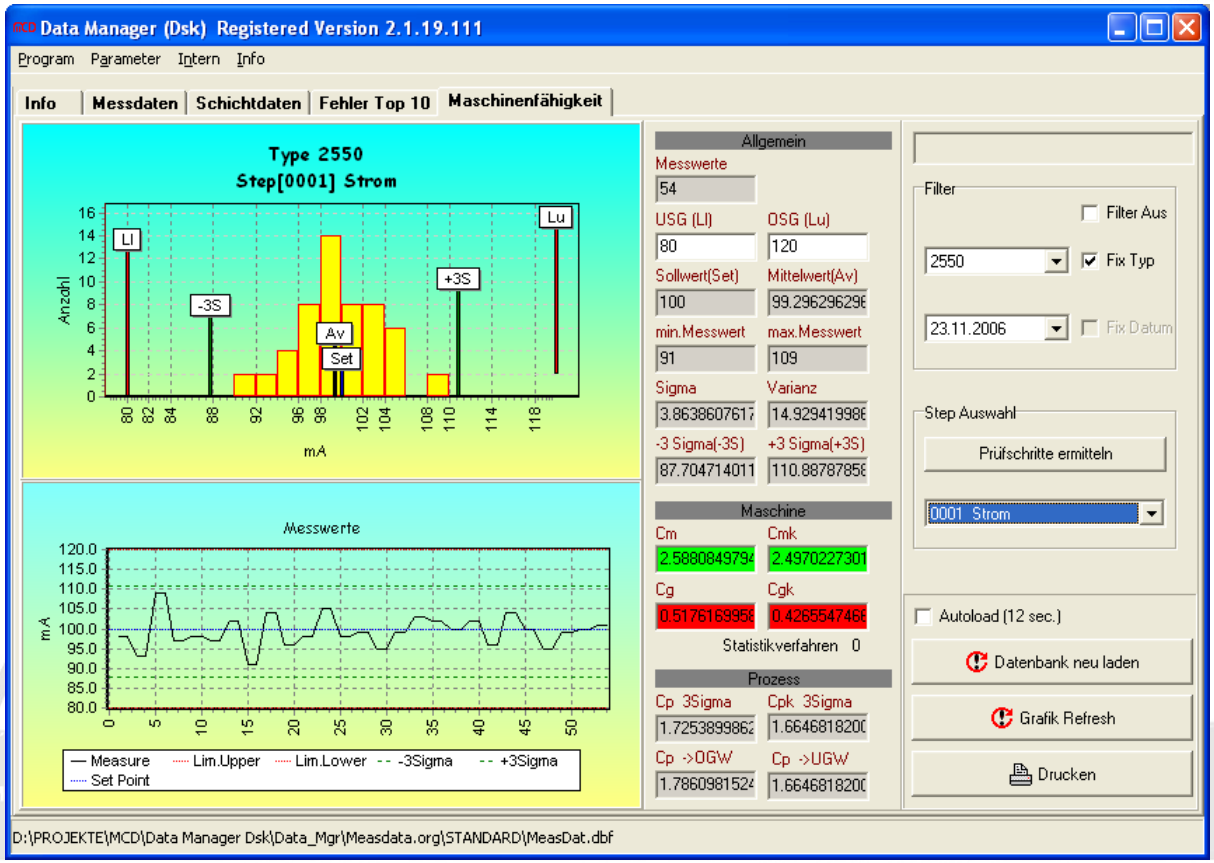


DUTNumber	Barcode	State	Step	Info	Duration
0	0001	Test-Zyklus	Strom	---	230 sec.
1	0002	Test-Zyklus	Strom	---	230 sec.
2	0003	Test-Zyklus	Hum.Act	---	230 sec.
3	0004	Test-Zyklus	Hum.Act	---	230 sec.
4	0005	Test-Zyklus	Hum.Act	---	230 sec.
5	0006	Test-Zyklus	Hum.Act	---	230 sec.

DUTNumber	DateTime	Barcode	StepNumber	StepName	MeasValue	Unit	UpperLimit	LowerLimit	Result	Temperatur
0	12.06.2008 14:25:30	0001	130	Strom	30.0	mA	40	20	Pass	21
5	12.06.2008 14:25:30	0006	120	Hum.Act	0.0	%	100	0	Pass	21
4	12.06.2008 14:25:30	0005	120	Hum.Act	0.0	%	100	0	Pass	21
3	12.06.2008	0004	120	Hum.Act	0.0	%	100	0	Pass	21

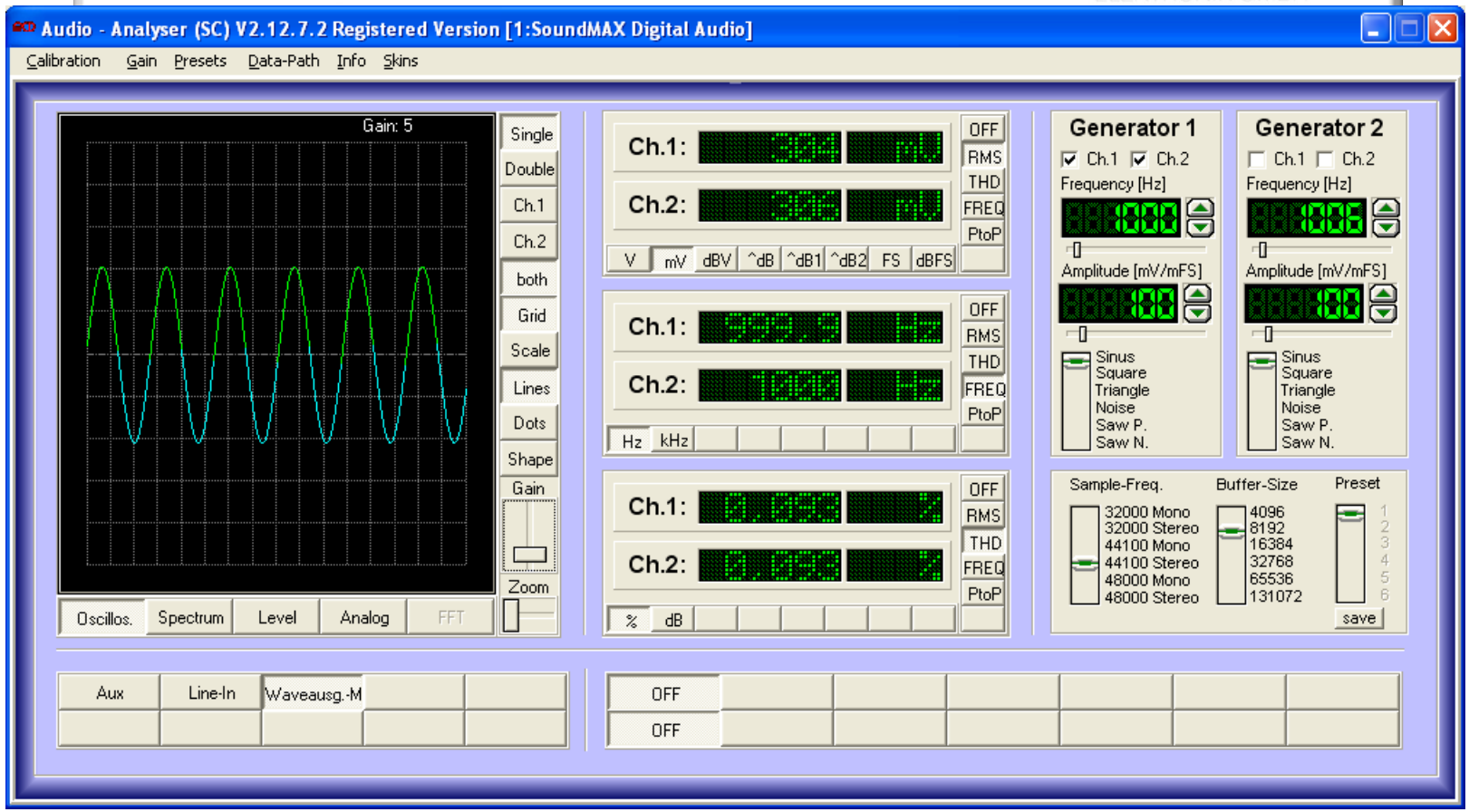
Data Manager

The measuring data helps to carry out assemblies with little downtime. Because of a meaningful statistic data, weak points can be identified and eliminated on line. Thereby commissioning and maintaining equipments can be done easy and fast. The statistic components of MCD manage preparing your production and installation data.



Audio Analyzer

The audio analyzer is software based solution for analyzing and producing of analogs and digital signals in the audio field. For the hardware a sound card in your system-PC is required. The following measurements can be done: Frequency and signal power, distortion factor and FFT-Spectrum.



Specification

General

- Includes a system for Test Application and Tool control
- 32-bit Integrated developer area for Windows ® NT 4.0, 2000, XP
- All test steps can be developed and edited
- An internal Interpreter carries out the test steps.
- All project data is in an Open Data Format and can be modified with external tools.
- Projects can be version-controlled through internal systems.
- Developing of adjustable reports
- Multi Level user Passwords
- Wizard for the Developing of applications

Field of Application

- Functional testing, final testing
- Screening System
- Run-In (Endurance testing)
- Board test
- Short circuit testing

Type Administration

- Type administration for different test types and test items
- Type selection through user or Interpreter control
- Editor for preparing and editing the type data

Measurement Data

- Automatic definable Data Spreadsheet
- Local Statistics (Pass-, Fail-, Tally,...)

Debugging

- Service mode for single step use
- Comprehensive Debug Window
- Monitor for Comunication buses
- Log-Data

Consideration of Customer Request

- Adjustable by command
- Menu System upgradeable
- Tools Menu
- Graphs and objects for user entries
- Support for language switch over

Specification

Help and Documentation

- Programming hand book (Interpreter)
- User hand book
- HTML-based Help with index and search
- Context sensitive Help for Interpreter
- Runable Demo Applications

Interfaces

- IEEE488: Keithley,CEC, NI cards
- RS232: Windows compatible serial port
- Files: Textfile, INI-File
- WinSocket: Client/Server (TCP Protocoll)
- Port I/O
- I²C
- ActiveX (COM)
- ODBC Connection SQL Server
- VXI: National Instruments
- CAN
- LIN

Versions Management

- Check In/Out Dateien
- Dateien zum Projekt hinzufügen
- Upload von Dateien zum Server
- Download von Dateien vom Server
- Vergleich von Versionsständen
- Statusanzeige der Dateien
- Hinzufügen von Bookmarks

Verschiedenes

- DLLs (CDecl, StdCall, Pascal). Dynamischer Funktionsaufruf per Prozedurname.
- Passwort Verwaltung für Benutzer
- Aufruf von LabView ® VIs, Display LLB/VI files
- Zugriff auf .NET Framework über mehrere Programmiersprachen (C#,VB,J#)

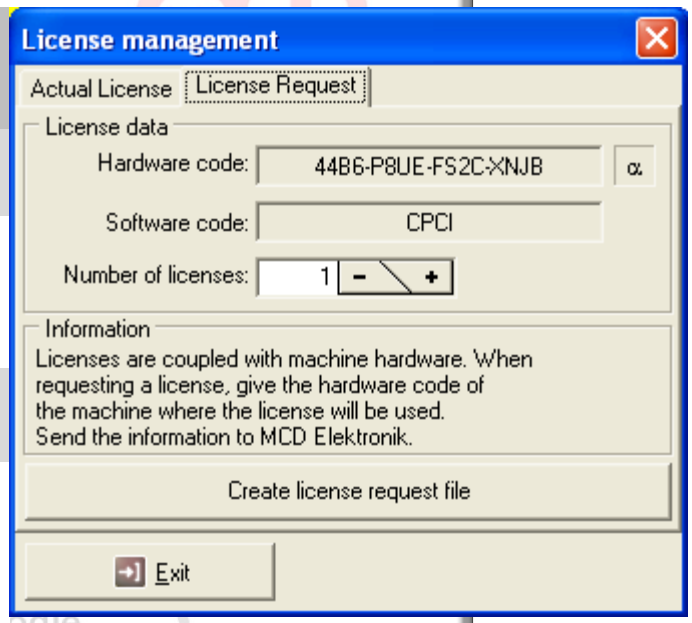
Logging

- Alle Programmaktionen (Start, Fehler,…) werden in eine Datei gespeichert

Ordering/Licensing

Product: TestManager CE (Classic Edition)

License	Explanation
Freeware	
Runtime Functionality License	• unlimited • no hardware, no Measuring data • none
Single-License	
Runtime Functionality License	• unlimited • full, single mode • License data with one license, PC bound
Multi-License	
Runtime Functionality License	• unlimited • full, Simultaneous mode • License data with one license, PC bound



System requirements

Produkt: TestManager CE (Classic Edition)

- Pentium® PC or compatible
- 256 MB RAM or more
- VGA Monitor (starting at 800x600 pixel)
- Windows ® NT, 2000 or XP
- 25 MB free storage space on the hard drive

- Optional:
  - installed network if needed
  - Windows ® .NET Framework

The program itself can not set up data outside of its program directory.

Wir setzen Maßstäbe
mit Messtechnologie.

Demo Mode:

The test program and its appropriate application can be ported from your system (Production) onto an office PC or laptop and can also be edited. Thereby from your basic settings you can turn off the unavailable hardware.

Contact

Product: TestManager CE (Classic Edition)

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