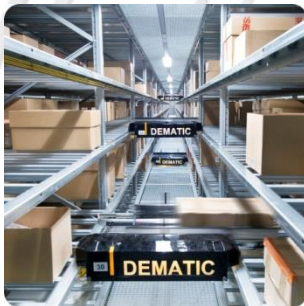


Dematic Visualization

User Manual



We **Optimize** Your Supply Chain

DEMATIC

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Dematic Corp.
507 Plymouth Avenue
Grand Rapids, MI 49505
616-913-6200
800-530-9153
www.dematic.us

Release Dates

| Version | Date | Description |
|---------|----------|--|
| 4.13 | 4/15/20 | Updated Client Install information |
| 4.12 | 7/23/18 | Revised for Visualization 4.6.4 |
| 4.11 | 2/28/17 | Added sub-system descriptions for DCA conveyors, and Multishuttle |
| 4.10 | 7/8/16 | Updated Color State chart to show flashing condition |
| 4.9 | 12/12/15 | Updated Viz log on and home page screen shots to reflect program revision 4.6.3.0002 |
| 4.8 | 10/15/15 | Changed color scheme for dark green energy management |
| 4.7 | 1/26/15 | Updated for GSMi 4.6.3 Customer Parts Portal |
| 4.6 | 4/17/13 | Integrated/Stand-alone visualization release |
| 4.5 | 9/07/12 | Updated screenshots and descriptions for new version release. |
| 3.6 | 1/26/11 | Changed color scheme - Amazon 2021 Viz colors |
| | | |

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1 Introduction

This document is intended to describe the controls and features of the Visualization System, such as navigation and alarm handling.

To use Visualization, operators should be familiar with typical Windows operations such as clicking and dragging with the mouse or selecting a pull-down menu. If you have questions about how to perform these operations, refer to Microsoft Windows™ documentation.

Operators should also be familiar with Internet Explorer and be able to enter specific website addresses.

A copy of the User Manual can be found in the Tree View located on the left pane of the Viz Home Page.

1.1 What is Visualization?

The web-based Visualization System provides a centralized organizational point for monitoring automated material handling systems.

The Visualization System uses ICONICS™ software to provide a real-time graphical display of the material handling system, including symbols and colors that show the MHE (material handling equipment) status. When problems occur, system alarms generate visual signals. Alarm logs and various diagnostic displays allow further investigation into the cause of a problem.

The Visualization receives data from the material handling system and continually displays the data at a client workstation. Visualization allows for the convenient monitoring of faults and alarms, the retrieval of alarm history data, and the creation and printing of alarm reports. Visualization is limited only by the configuration of the controls system and the hardware used within it.

The Visualization data are accessible from any PC connected to the Distribution Center network via Internet Explorer. No special equipment is needed to connect to the Visualization web site and receive system information.

2 Getting Started

2.1 Automatic Startup

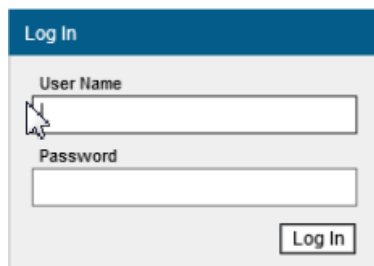
The Visualization server is configured so that when powered on, it automatically starts the visualization software and selected other applications required for communication between the server and the MHE controllers. During normal operations, Visualization runs as an Internet Explorer web application.

2.2 Client Login

Client connections are normally set to automatically open the Visualization home page when Internet Explorer is opened. If not, operators can Open Internet Explorer and browse to the web address of your Visualization system. The typical address is as follows (where “serverIP” is replaced with the IP address of the Visualization server computer):

`http://serverIP/GSMi/`

If a user tries to access a page that they do not have permission to view (not logged in), the user is redirected to the login page. Viewing the warehouse graphics page always requires a login.



Enter the user name and password provided by your supervisor.

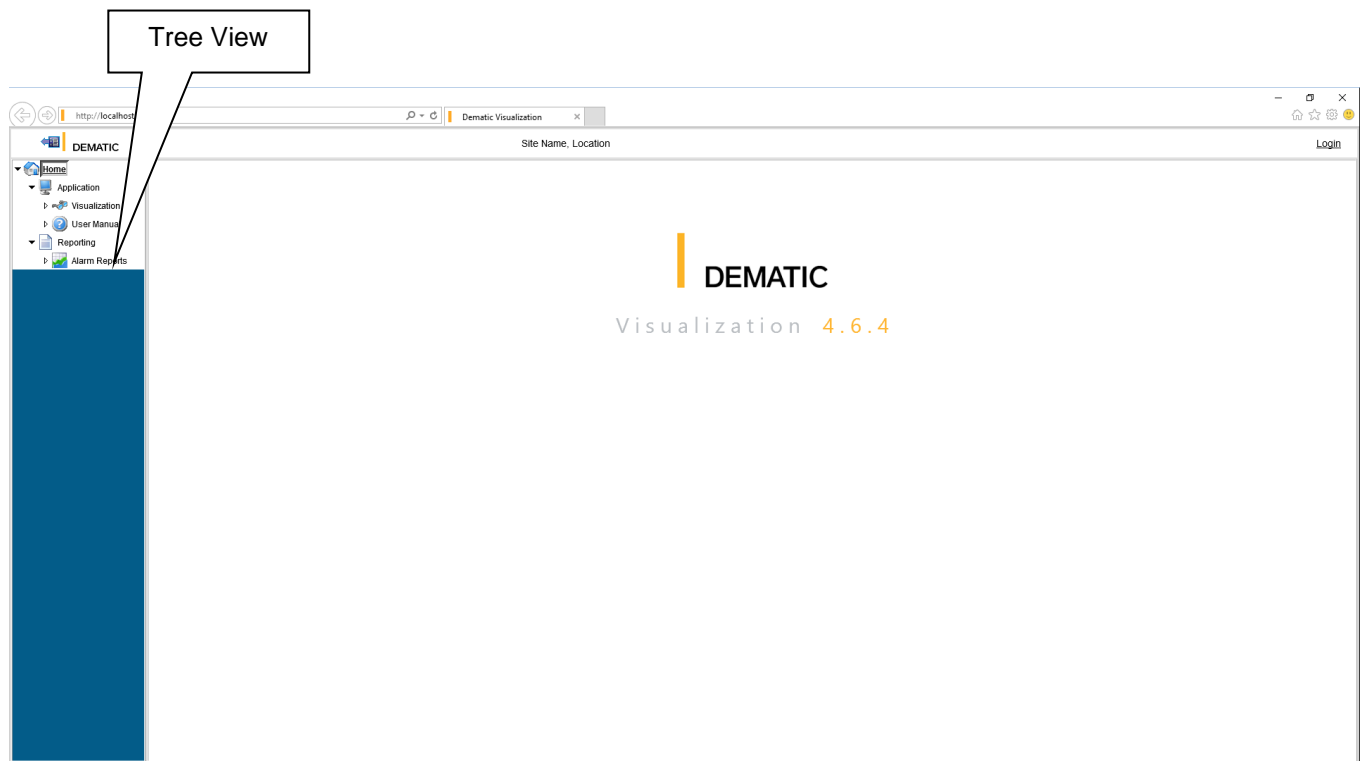
2.2.1 ActiveX Controls

ActiveX controls must be downloaded to client machines prior to using Visualization. This can be done by accessing the Client Download menu item on the Viz home page.

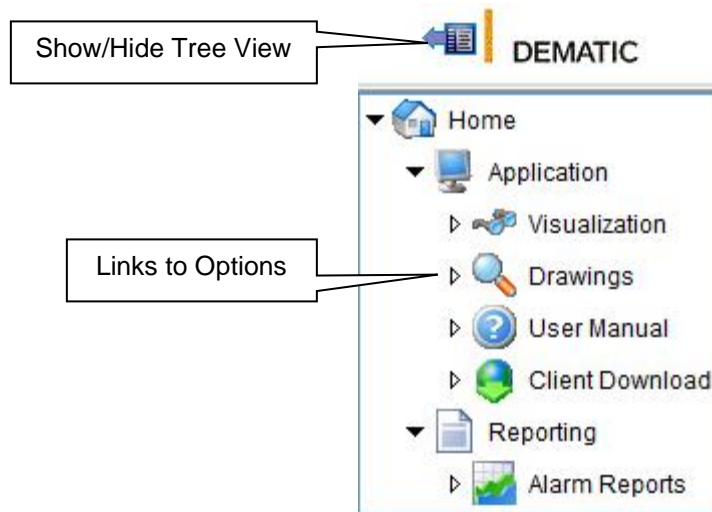
Refer to Paragraph 6.6, *Installing Client Software*, for additional information.

3 Home Page

After addressing the site in Internet Explorer, the Visualization home page appears. Shown below is a typical home page. This page has a tree view on the left side that links to the other pages.




3.1 Tree View



All detail screens, reports and optional features are listed in the Tree View, with access controlled by user permissions.

3.1.1 Show/Hide Tree View

Click the  icon in the upper left corner to show or hide the tree view. This helps maximize the content area of the application.

3.1.2 Visualization Screen

Click on this link to view the facility overview visualization screen. The layout is zoomed to fit the content area of the application.

3.1.3 Client Download

Prior to using Visualization for the first time, administrators can use this link to assist with downloading ActiveX controls to client workstations.

3.1.4 Reports

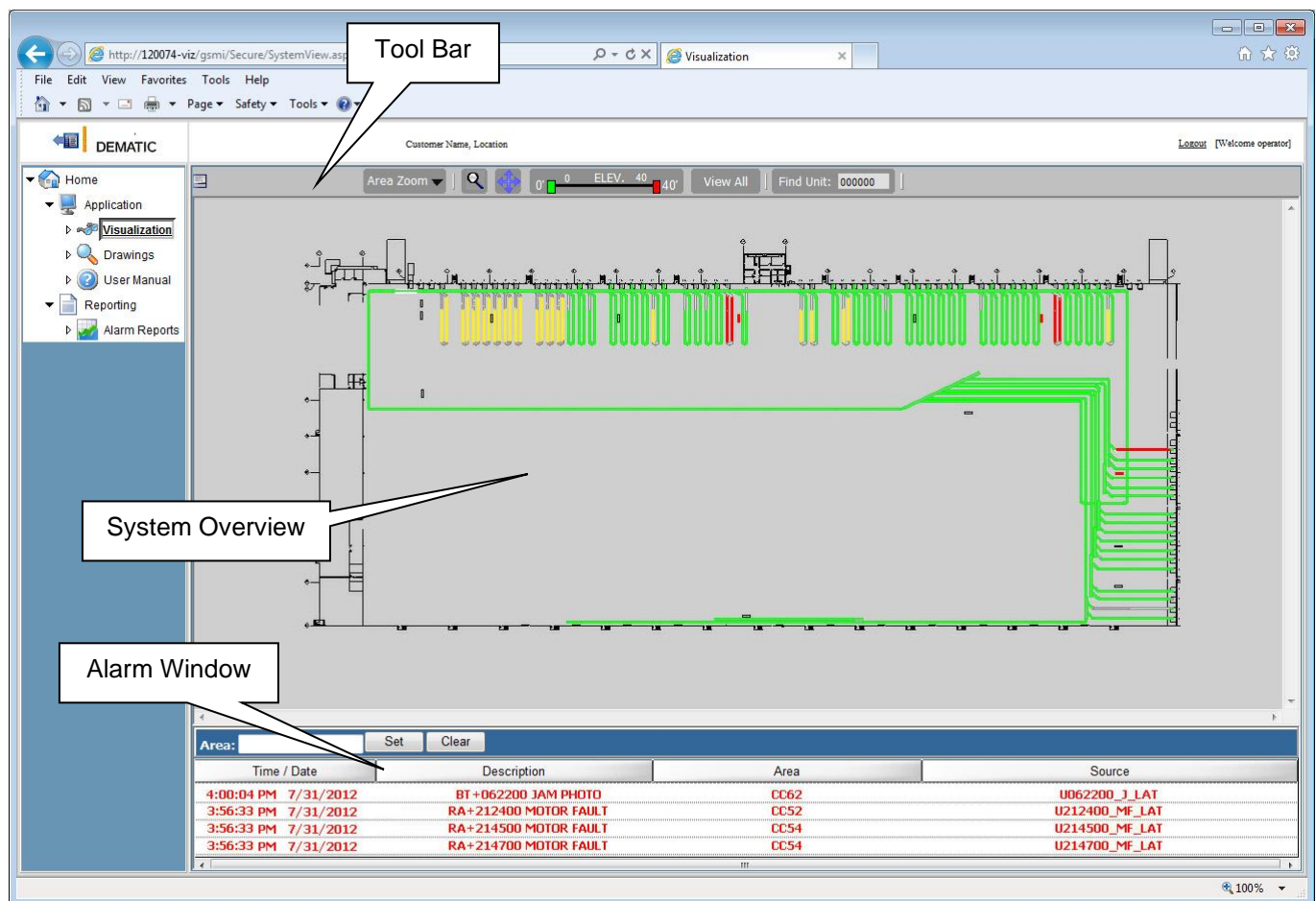
These links open a new internet explorer window containing the reports for the system. The Alarm Reports are provided with each system. Additional reports may be included with sub-systems such as Dematic Multi-shuttle or as options.

3.2 Content Area

The Content area is the display area for the pages that are selected in the Tree View. The Visualization graphical layout screen is displayed in the content area.

4 Visualization Screen

Click on the "Visualization" Tree View item under the Application sub-menu. This loads the Visualization application in the content window. Shown below is a typical Visualization screen. There are three primary areas: Tool Bar, System Overview, and Alarm Window. This animated display, along with the keyboard and mouse, provides the primary operator interface to Visualization.



The system overview occupies the largest area of the Visualization screen. At startup, the system overview shows the entire material handling system. All conveyors and devices on all levels within the facility are shown simultaneously to provide a single view status of the entire system at a glance.

The operational status of conveyors and devices is depicted using color indicators. System fault and event symbols appear within this window, in a position corresponding to the actual event location in the facility.

Navigating this composite image to obtain more detailed information or enlarged views is easily accomplished using mouse or keyboard commands.

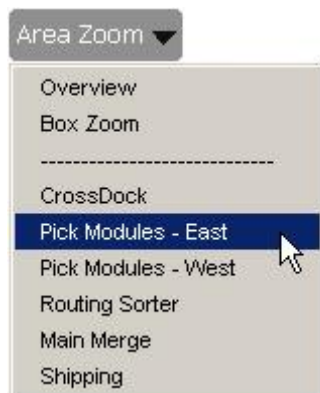
4.1 Tool Bar

The Tool Bar, located at the top of the screen, contains buttons and controls that provide navigation to common functions and graphic layout views. Typical buttons include dropdown menus or links or to the overview layout, zoom control, elevation control, and unit finder. Additional tool bar items may include links to camera views, and a pop-up color legend or other optional features.





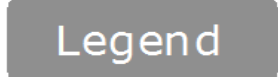


4.1.1 Area Zoom Commands

The Area Zoom drop-down menu provides commands to view a sub-system or other specific area within the overall system. Area definitions are specific to each project and customer.



4.1.2 Toolbar Functions

| | | |
|---|---------------|---|
|  | Box Zoom | This button will zoom to a box. By holding the left mouse button and dragging, you can zoom in to a specific area. |
|  | Overview Zoom | This button will zoom out to show the entire material handling system. |
|  | Elevation Bar | The Elevation Bar is used as a filter to show only conveyors within a specified elevation range. "Stacked" equipment may be viewed separately by limiting the conveyor elevations that are displayed. The lower elevation value is set by the green slider and the upper elevation limit is set by the red slider. The "View All" button resets the upper and lower limits to the full range available. |
|  | Find Unit | The Find Unit function helps users locate a particular conveyor or other unit in the system layout screen. Enter the desired unit number and press ENTER. The graphics will zoom to the location of the unit. |
|  | | The Legend button provides a quick reference of the colors used for system status. Clicking the button causes a pop-up window to appear in the system layout. |

4.2 Navigation

4.2.1 Navigating With the Keyboard

While the focus is on the System Layout Screen, Keyboard commands can be used to zoom and pan around the layout. The following commands are available for navigation.

| Key | Command |
|-------------|-----------|
| Up-Arrow | Pan Up |
| Down-Arrow | Pan Down |
| Right-Arrow | Pan Right |
| Left-Arrow | Pan Left |

4.2.2 Navigating With the Mouse

System View navigation may also be accomplished using keyboard commands along with the mouse:



To Pan around the layout:
Hold the Alt key and Click and Drag using the Left Mouse button.









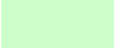

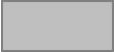
To Zoom:
Hold the Alt key and spin the Mouse wheel.


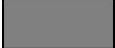

4.3 Material Handling Equipment (MHE)

Each MHE unit has a single color that indicates its operational state. If more than one state is true at any moment, the software displays the higher priority color as defined in Visualization.

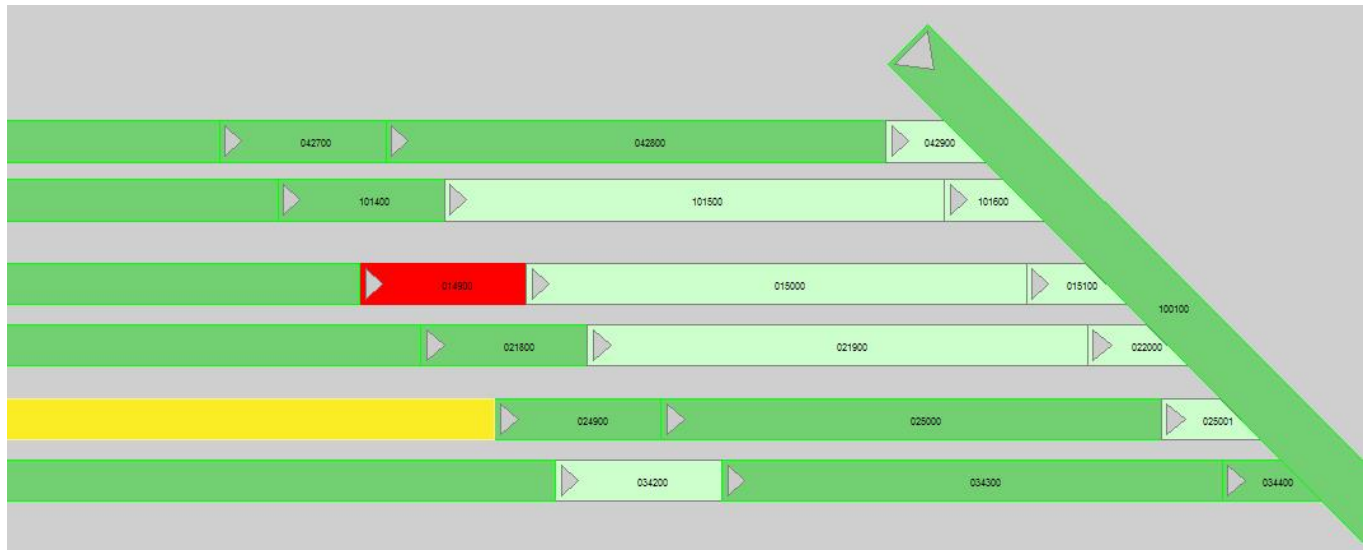
NOTE Some states are specific to particular systems and may not apply.

Amazon 2021 Color Legend

| State | Color | Additional Description |
|--------------------------|---|---|
| E-Stop / Fault /Gridlock | Red Flashing  | E-Stop activated, Motor Faults, VFD error, PPI faults etc. |
| Jam | Orange Flashing  | Jams, Package Present Jams, Update Photo Jams |
| Anti-Gridlock Mode | Purple  | |
| 100% Full | Blue  | Full of anything: empty totes, boxes etc. |
| 75%,50%,25% Full | Yellow  | |
| Running / On | Green  | |
| Enabled, Not Running | Light Green  | Unit is enabled or started, but not running due to flow control (ie, downstream is not ready) |
| Energy Management | Light Sky Blue  | Powered off automatically due to lack of product present. |
| Off / Inactive | Light Gray  | Units not started or enabled |

| | | |
|------------------------------------|--|---|
| Manual/Maintenance | Brown  | Units in manual or maintenance mode |
| Invalid / Unavailable /Bad Quality | Dark Gray  | Communication problem. Power and/or network connections may be the cause. |
| Gravity/Non-motorized Equipment | White  | Forced Status used for Gravity Conveyors/Chutes |

Below is an example of some conveyor color states on a system layout.



4.4 Alarms

4.4.1 Alarm Window

The Alarm Window shows all active alarms. Alarms are viewable in the Alarm Window as long as the fault remains active (when set to auto-acknowledge). It is possible to filter the alarms by control area.

| Area: <input type="text"/> Set Clear | | | |
|--------------------------------------|-----------------------|------|----------------|
| Time / Date | Description | Area | Source |
| 4:00:04 PM 7/31/2012 | BT+062200 JAM PHOTO | CC62 | U062200_J_LAT |
| 3:56:33 PM 7/31/2012 | RA+212400 MOTOR FAULT | CC52 | U212400_MF_LAT |
| 3:56:33 PM 7/31/2012 | RA+214500 MOTOR FAULT | CC54 | U214500_MF_LAT |
| 3:56:33 PM 7/31/2012 | RA+214700 MOTOR FAULT | CC54 | U214700_MF_LAT |

4.4.1.1 Alarm Text Colors

Active alarms are annunciated using red text on a white background. The following chart defines the color scheme for the alarm window.

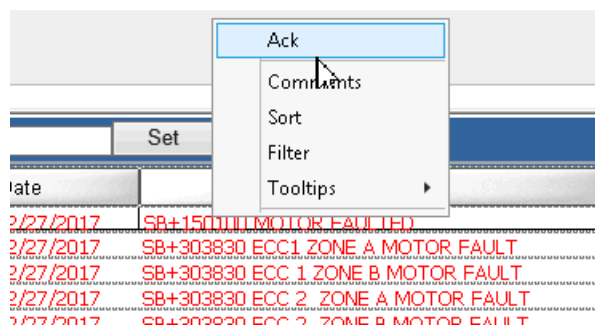
| Type | Alarm Source | Acknowledged | Text Color |
|--------|--------------|--------------|------------|
| Alarms | Active | No | Red |
| | Active | Yes | Blue |
| | Inactive | No | Orange |

4.4.1.2 Alarm Acknowledgment

By default, alarms are automatically acknowledged. When alarms are configured to be automatically acknowledged, the alarms are removed from the Alarm Window when the fault condition is cleared.

Optionally, the visualization system may be configured for alarms to be manually acknowledged by the operator. Alarms are acknowledged by clicking on the Acknowledge All button provided on the Alarm Window. The Acknowledge All button acknowledges all active filtered alarms. The alarms can also be acknowledged individually by a right mouse click on the alarm description.

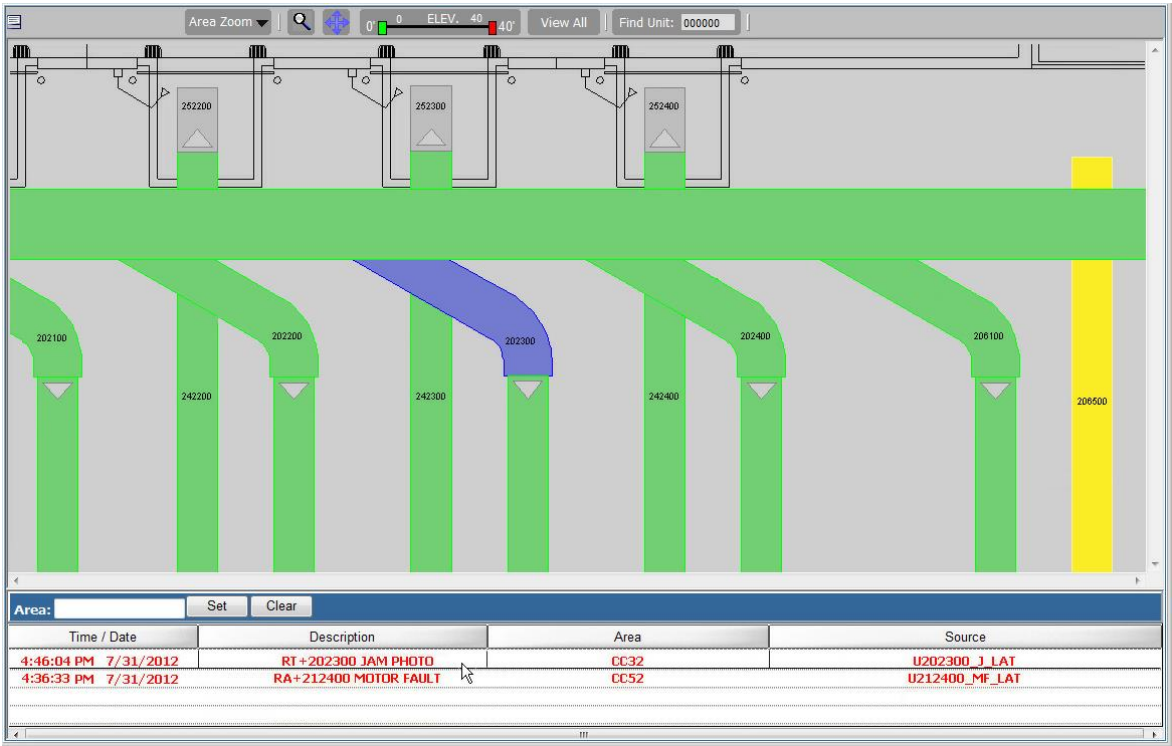
| Acknowledge All <input type="text" value="Area:"/> <input type="button" value="Set"/> <input type="button" value="Clear"/> | | | |
|--|-----------------------|------|----------------|
| Time / Date | Description | Area | Source |
| 4:00:04 PM 7/31/2012 | BT+062200 JAM PHOTO | CC62 | U062200_J_LAT |
| 3:56:33 PM 7/31/2012 | RA+212400 MOTOR FAULT | CC52 | U212400_MF_LAT |
| 3:56:33 PM 7/31/2012 | RA+214500 MOTOR FAULT | CC54 | U214500_MF_LAT |
| 3:56:33 PM 7/31/2012 | RA+214700 MOTOR FAULT | CC54 | U214700_MF_LAT |



The alarms can also be acknowledged individually by a right mouse click on the alarm description.

Optional configurations for the Alarm Window alarm text include custom colors and filtering.

4.4.1.2 Alarm Acknowledgment (Cont'd)

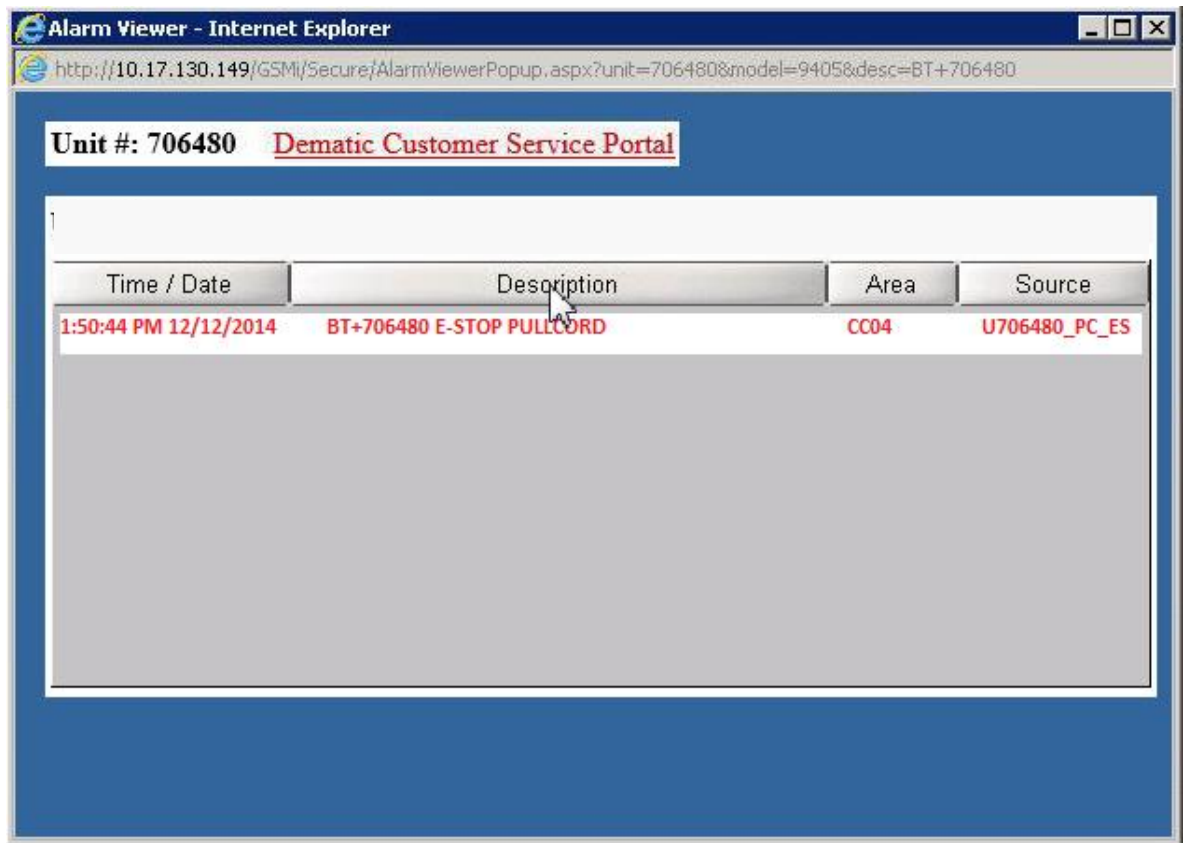


Most alarms (jams, motor faults, E-stops, etc.) display a corresponding color state in the graphics on the screen; others may only display text messages in the Alarm Window. To locate an alarm on the system view, double click the mouse cursor on the alarm text. The visualization system positions the view so the unit with the alarm is centered, enlarged, and visible, as shown above.

4.4.2 Unit Alarm Viewer

Double-clicking on a conveyor unit in the graphics layout launches the unit alarm viewer as shown below. Alarms are filtered in this view to show only active alarms associated with the selected conveyor.

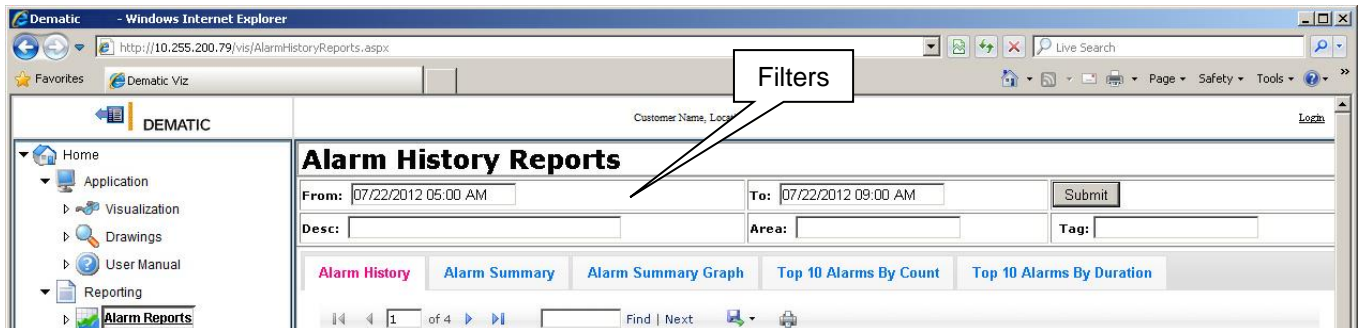
Optionally, The Unit Alarm Viewer also provides access to the Dematic Customer Service Portal link, where spare parts, service manuals and drawings specific to the referenced unit may be found. Refer to Paragraph 6.2, *Dematic Customer Service Portal*, for additional information.



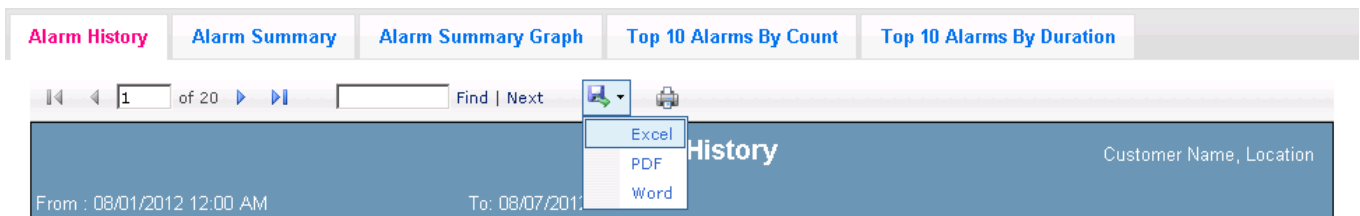
This image shows the optional Dematic Customer Service Portal link.

5 Alarm Reports

Clicking on the Alarm Reports item under the Reporting sub-menu of the Tree View will launch the Visualization Alarm Reports screen in a new window. By default, the Alarm History Reports tab is displayed first.



1. Select the **filter** criteria based on the data desired to report. (If filters are not selected, all data in the Alarm Log is displayed for the current day.) Data may be filtered by Alarm Description, Area, Tag name, or date range.
2. To view the other available alarm reports select the different tab heading beneath the filter (such as “Alarm History”, “Alarm Summary”, etc.).
3. To change the filters, edit the desired filters and then click the submit button. Once submitted, the menu will return to the “Alarm History” tab with the new filter entries. All other tabs will be updated as well. Clear out the filter data fields to view all alarms.
4. To **export/save** a report or graph, select the preferred file format under the export/save icon. File options include Excel Spreadsheet (.xls), PDF (.pdf), or Word Document (.doc). Selecting a file format launches the dialog box allowing the operator to change the file name and location for the file to be saved.



5.1 Alarm History

The Alarm History is a report of individual alarm events. The information includes the Time/Date the alarm became active, the duration of the Alarm, the Description of the alarm condition, the Area, and the Source of the OPC Input.

The screenshot shows the 'Alarm History Reports' page in a web browser. The interface includes a sidebar with navigation links (Home, Application, Visualization, Drawings, User Manual, Reporting, Alarm Reports) and a main content area. The main area has a title 'Alarm History Reports' and a search filter section with fields for 'From' (07/22/2012 05:00 AM), 'To' (07/22/2012 09:00 AM), 'Desc', 'Area', and 'Tag'. Below the search section are tabs for 'Alarm History', 'Alarm Summary', 'Alarm Summary Graph', 'Top 10 Alarms By Count', and 'Top 10 Alarms By Duration'. The 'Alarm History' tab is active, displaying a table of alarm events. The table has columns for 'Active Time', 'Duration (min)', 'Description', 'Area', and 'Tag'. The data shows various alarm events such as 'E-STOP PULLCORD #2', 'E-STOP PULLCORD', 'JAM PHOTO', 'RELAY FAULT', 'MOTOR FAULT', and 'JAM PHOTO' with their respective durations and areas.

| Active Time | Duration (min) | Description | Area | Tag |
|----------------------|----------------|------------------------------|------|------------------------|
| 7/22/2012 8:57:31 AM | 0.47 | RA+409400 E-STOP PULLCORD #2 | CC11 | U409400_PC_ES2 |
| 7/22/2012 8:55:53 AM | 0.05 | BT+300400 E-STOP PULLCORD | CC02 | U300400_PC_ES |
| 7/22/2012 8:54:45 AM | 3.52 | RT+300520 JAM PHOTO | CC21 | U300520_I_LAT |
| 7/22/2012 8:53:57 AM | 1.93 | BT+300000 JAM PHOTO | CC22 | U300000_I_LAT |
| 7/22/2012 8:51:27 AM | 0.08 | SS+500500 JAM PHOTO | CC32 | U500500_I_LAT |
| 7/22/2012 8:50:10 AM | 3.17 | CC11 E-STOP RELAY FAULT | CC11 | CC11_ESTOP_RELAY_FAULT |
| 7/22/2012 8:47:52 AM | 3.58 | RA+380500 MOTOR FAULT | CC13 | U380500_MF_LAT |
| 7/22/2012 8:46:59 AM | 0.78 | BT+300000 JAM PHOTO | CC22 | U300000_I_LAT |
| 7/22/2012 8:46:34 AM | 0.75 | RT+300520 JAM PHOTO | CC21 | U300520_I_LAT |
| 7/22/2012 8:46:00 AM | 0.38 | BT+300400 E-STOP PULLCORD | CC02 | U300400_PC_ES |
| 7/22/2012 8:42:28 AM | 7.6 | BM+063305 MOTOR FAULT | CC15 | U063305_MF_LAT |

5.2 Alarm Summary

The Alarm Summary report tallies alarms within a category (i.e., jams or motor faults). This report counts the number of occurrences for every alarm that matches the filter criteria. It also computes the total duration of the alarm.

Alarm History Reports

From: 07/22/2012 05:00 AM To: 07/22/2012 09:00 AM Submit

Desc: Area: Tag:

Alarm History Alarm Summary Alarm Summary Graph Top 10 Alarms By Count Top 10 Alarms By Duration

1 of 1 Find | Next

Alarms Summary

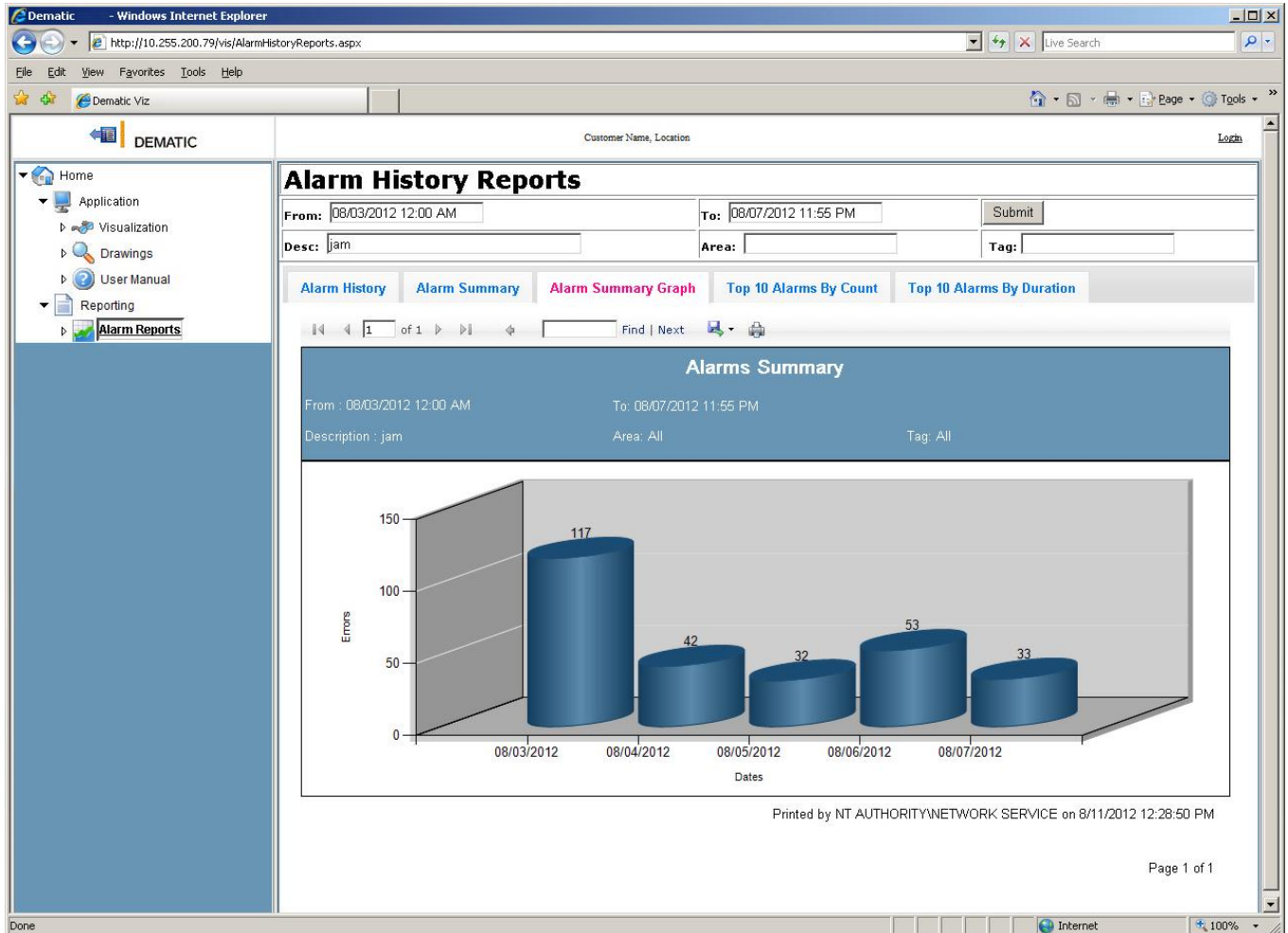
From : 07/22/2012 05:00 AM To: 07/22/2012 09:00 AM

Description: All Area: All Tag: All

| Alarm Count | Duration (min) | Description | Area | Tag |
|-------------|----------------|------------------------------|------|------------------------|
| 11 | 39.27 | RT+300520 JAM PHOTO | CC21 | U300520_J_LAT |
| 9 | 50.05 | BT+300400 E-STOP PULLCORD | CC02 | U300400_PC_ES |
| 4 | 6.48 | RA+300510 E-STOP PULLCORD #1 | CC21 | U300510_PC_ES1 |
| 4 | 1.37 | BT+350500 JAM PHOTO | CC02 | U350500_J_LAT |
| 2 | 160.22 | RA+409400 E-STOP PULLCORD #2 | CC11 | U409400_PC_ES2 |
| 2 | 2.71 | BT+300000 JAM PHOTO | CC22 | U300000_J_LAT |
| 1 | 7.6 | BM+063305 MOTOR FAULT | CC15 | U063305_MF_LAT |
| 1 | 0.07 | BT+070200 JAM PHOTO | CC02 | U070200_J_LAT |
| 1 | 3.58 | RA+380500 MOTOR FAULT | CC13 | U380500_MF_LAT |
| 1 | 3.17 | CC11 E-STOP RELAY FAULT | CC11 | CC11_ESTOP_RELAY_FAULT |
| 1 | 0.08 | SS+500500 JAM PHOTO | CC32 | U500500_J_LAT |

5.3 Alarm Summary Graph

The Alarm Summary Graph is a count of all of the alarms that match the filter criteria grouped by day. By clicking on a specific bar, the number of alarms per hour for the selected day will be displayed. Further, clicking a specific hour displays the alarms per minute.



5.4 Top 10 Alarms by Count

The Top Ten Alarms by Count report lists the Top 10 alarms by number of occurrences that match the filter criteria.

The screenshot displays the Dematic Alarm History Reports interface within a Windows Internet Explorer browser window. The browser address bar shows the URL `http://10.255.200.79/vis/AlarmHistoryReports.aspx`. The interface includes a left-hand navigation menu with options like Home, Application, Visualization, Drawings, User Manual, Reporting, and Alarm Reports. The main content area is titled "Alarm History Reports" and features a search filter section with fields for "From" (08/03/2012 12:00 AM), "To" (08/07/2012 11:55 PM), "Desc:", "Area:", and "Tag:". Below the search filters, there are tabs for "Alarm History", "Alarm Summary", "Alarm Summary Graph", "Top 10 Alarms By Count" (which is selected), and "Top 10 Alarms By Duration". The "Top 10 Alarms By Count" tab displays a table with the following data:

| Alarm Count | Duration (min) | Description | Area | Tag |
|-------------|----------------|------------------------------|------|----------------|
| 22 | 21.27 | RT+300520 JAM PHOTO | CC21 | U300520_J_LAT |
| 14 | 45.18 | BM+060405 JAM PHOTO | CC12 | U060405_J_LAT |
| 12 | 16.85 | RA+300510 E-STOP PULLCORD #1 | CC21 | U300510_PC_ES1 |
| 12 | 18.6 | BT+300000 JAM PHOTO | CC22 | U300000_J_LAT |
| 11 | 31.83 | RA+409400 E-STOP PULLCORD #2 | CC11 | U409400_PC_ES2 |
| 10 | 87.93 | BT+300400 E-STOP PULLCORD | CC02 | U300400_PC_ES |
| 8 | 14.28 | SS+500500 JAM PHOTO | CC32 | U500500_J_LAT |
| 8 | 27.75 | BT+070200 JAM PHOTO | CC02 | U070200_J_LAT |
| 7 | 66.6 | BM+063305 MOTOR FAULT | CC15 | U063305_MF_LAT |
| 7 | 6.47 | BT+350500 JAM PHOTO | CC02 | U350500_J_LAT |

Below the table, it states "Printed by NT AUTHORITY\NETWORK SERVICE on 8/11/2012 12:28:50 PM". The Dematic logo is visible in the bottom left corner of the interface, and the page number "Page 1 of 1" is shown in the bottom right corner.

5.5 Top 10 Alarms by Duration

The Top Ten Alarms by Duration report lists the top 10 alarms by duration in minutes that match the filter criteria.

The screenshot shows a web browser window titled "Dematic" with the URL "http://10.255.200.79/vis/AlarmHistoryReports.aspx". The interface includes a sidebar with navigation links: Home, Application, Visualization, Drawings, User Manual, Reporting, and Alarm Reports. The main content area is titled "Alarm History Reports" and contains a search form with fields for "From" (08/03/2012 12:00 AM), "To" (08/07/2012 11:55 PM), "Desc:", "Area:", and "Tag:". Below the search form are tabs for "Alarm History", "Alarm Summary", "Alarm Summary Graph", "Top 10 Alarms By Count", and "Top 10 Alarms By Duration". The "Top 10 Alarms By Duration" tab is selected, displaying a table of the top 10 alarms by duration. The table has columns for Duration (min), Alarm Count, Description, Area, and Tag. The data is sorted by duration in descending order. At the bottom of the page, there is a footer with the Dematic logo, the text "Printed by NT AUTHORITY\NETWORK SERVICE on 8/11/2012 12:28:51 PM", and "Page 1 of 1".

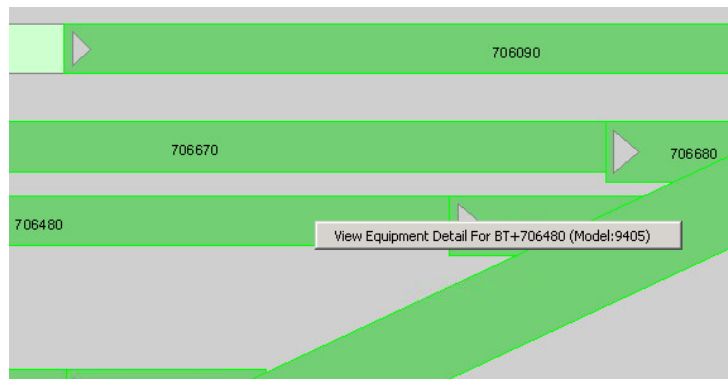
| Duration (min) | Alarm Count | Description | Area | Tag |
|----------------|-------------|------------------------------|------|----------------|
| 256.37 | 2 | RA+600500 E-STOP PULLCORD #1 | CC05 | U600500_PC_ES1 |
| 180.07 | 6 | BT+730000 JAM PHOTO | CC04 | U730000_J_LAT |
| 87.93 | 10 | BT+300400 E-STOP PULLCORD | CC02 | U300400_PC_ES |
| 73.02 | 4 | BT+635000 JAM PHOTO | CC03 | U635000_J_LAT |
| 66.6 | 7 | BM+063305 MOTOR FAULT | CC15 | U063305_MF_LAT |
| 60.07 | 1 | BT+303300 MOTOR FAULT | CC04 | U303300_MF_LAT |
| 48.88 | 2 | RT+203000 JAM PHOTO | CC21 | U203000_J_LAT |
| 45.18 | 14 | BM+060405 JAM PHOTO | CC12 | U060405_J_LAT |
| 31.83 | 11 | RA+409400 E-STOP PULLCORD #2 | CC11 | U409400_PC_ES2 |
| 31.33 | 6 | BM+060600 JAM PHOTO | CC12 | U060600_J_LAT |

6 OPTION: Online Documents

The visualization system has an option to include links to spare parts lists, service manuals, drawings and other documents specific to the conveyors in the system. These documents are accessed from the Unit Alarm Viewer via the visualization screen. Refer to Paragraph 4.4.2, *Unit Alarm Viewer*, for additional information.

6.1 Unit Detail Menu

Specific equipment details can be viewed by clicking on a conveyor in the visualization screen. Right-clicking the conveyor will display the unit number and model type. Double-clicking the conveyor will open the Unit Alarm Viewer, from which the Dematic Customer Service Portal may be accessed.



6.2 Dematic Customer Service Portal

NOTE Use of the Dematic Customer Service Portal requires internet access.

The Dematic Customer Service Portal (CS Portal) provides a convenient link to spare parts, service manuals and other information. Clicking on the link in the Unit Alarm Viewer launches the service portal spare parts web page for the specific unit selected.

6.3 Spare Parts

The parts list includes direct links to drawings associated with the filtered unit, and capability to search for other information pertinent to the selected unit or other units by entering different unit numbers or keywords into the search field.

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You're logged in as: Visualization User
Site: [Saved Lists](#) | [Quick Order](#) | [Order History](#) | [Shopping Cart \(0\)](#) | [Your Account](#)

Home | Motors/Reducers | Rollers | Belts | Other Categories | Manufacturer Brand | Model/System Type

Search: 706480 1-800-530-9153

1 - 19 of 19 Search Results for 706480

Enter a unit # or keyword Search within these results

Results/Page 10 20 40

Refine Your Search
Unit ID: 706480 (19)

| QTY | Rec | UOM | Part Number | Part Description | Assembly ID | Assembly Description | Project | Project Date | Original Part Number | Drawing Number | Model Number | Unit ID | List# |
|-----|-----|-----|-------------|--|--------------|--|---------|--------------|----------------------|----------------|--------------|---------|-------|
| 0 | 1 | EA | 000009C00C | REDUCER, COUPLED, 5 HP, SIZE A350, 5:1 RATIO, 350R | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 000009C00C | J028110 | | 706480 | 04 |
| 0 | 2 | EA | 0483716240 | BUSHING, TAPERLOCK, 1-1/2" ID, 2012 | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0483716240 | J028110 | | 706480 | 04 |
| 0 | 2 | EA | 0483717190 | BUSHING, TAPERLOCK, 1-3/16" ID, 2517 | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0483717190 | J028110 | | 706480 | 04 |
| 0 | 1 | EA | 0485808647 | TIMING PULLEY, P44-8M-50-2012 (sprocket) | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0485808647 | J028110 | | 706480 | 04 |
| 0 | 1 | EA | 0485808651 | TIMING PULLEY, P72-8M-50-2517 (sprocket) | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0485808651 | J028110 | | 706480 | 04 |
| 0 | 3 | EA | 0489025160 | TIMING DRIVE BELT, 1280MM LONG X 8MM PITCH X 50MM | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0489025160 | J028110 | | 706480 | 04 |
| 0 | 2 | EA | 0493152000 | BEARING, 1-7/16" ID, SEAL FOR LIFE, PILLOW BLOCK, 2HOLE | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 0493152000 | J028110 | | 706480 | 04 |
| 0 | 3 | EA | 9742A00000 | MOTOR, 5 HP, 1800RPM, 208-230/460 3ph 60Hz, TE 15 | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | 9742A00000 | J028110 | | 706480 | 04 |
| 0 | 1 | EA | J012752WBC | PULLEY, IDLER, 8" OD, 21SHL, 2-7/16 ID, 28-5/16SFT, STEP | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | J012752WBC | J028110 | | 706480 | 04 |
| 0 | 1 | EA | J023325BAC | PULLEY, 4" DIA X 19-3/4 LG CROWNED DBL RO | ASY260596698 | 522 CD 2420 RH WLD S-SCR WLD-TU 480FPM | 125486 | 04/22/2014 | J023325BAC | J028110 | | 706480 | 04 |
| 0 | 199 | FT | 0445177180 | BELT, PRL2-90 SMF LR x BB 16IN WIDE | B771800909 | BELT PRL2-90 SMF LR x BB 18" x 909" | 125486 | 04/22/2014 | 0445177180 | | | 706480 | 04 |
| 0 | 5 | EA | 0493411250 | BEARING (HQ) 6203ZZ C3 ABEC-1, .689 ID X 1.575 ODU | K040501FEB98 | USE G0050 | 125486 | 04/22/2014 | 0493411250 | K040501 | | 706480 | 04 |

6.4 Service Manuals

A service manual for each conveyor model number can also be found through the CS Portal described above.

After the CS Portal has been opened to the spare parts listing for a specific unit, navigate to the *Facility Docs & Reports* section of the portal by clicking the link as shown below.

| | | | | | | | | | | | |
|---|--------|------------|--|--------------|---|--------|------------|------------|----------------------------|--------|----|
| 0 | 1 EA | JU2332DBAL | PULLEY, 4" DIA X 19-3/4 LG CROWNED DBL RO | AST200596096 | 522 CU 242U RM WLD 3-SUR WLD-TU 480FPM | 125486 | 04/22/2014 | JU2332DBAL | JU2332DBAL | 706480 | 04 |
| 0 | 199 FT | 0445177180 | BELT, PRL2-90 SMF LR x BB 18IN WIDE | B771800909 | BELT PRL2-90 SMF LR x BB 18" x 90' | 125486 | 04/22/2014 | 0445177180 | | 706480 | 04 |
| 0 | 5 EA | 0493411250 | BEARING (HQ) 6203ZZ C3 ABEC-1, 869 ID X 1.575 ODU | K040501FEB98 | USE G0050 | 125486 | 04/22/2014 | 0493411250 | K040501 | 706480 | 04 |
| 0 | 5 EA | S348119660 | RLR 1.9G16HQ PAX DGRV 19- 1/16, 20-3/4 | K040501FEB98 | USE G0050 | 125486 | 04/22/2014 | S348119660 | K040501 | 706480 | 04 |
| 0 | 5 EA | 0163100109 | MOUNTING BLOCK, SNUBBER PULLEY | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | 0163100109 | K040507 | 706480 | 04 |
| 0 | 10 EA | 0274524300 | RETAINING RING, 2 7/16 INTERNAL | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | 0274524300 | K040507 | 706480 | 04 |
| 0 | 10 EA | 0274611850 | RING RETAINING 1 3/16" EXTERNAL TRUARC #5100-118 | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | 0274611850 | K040507 | 706480 | 04 |
| 0 | 10 EA | 0493419392 | BEARING, 1.181" INNER DIAMETER, SEALED DOUBLE ROW, | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | 0493419392 | K040507 | 706480 | 04 |
| 0 | 3 EA | K014869ABE | END PULLEY 16.83"L SHL, 1- 11/16X19.92"SFT | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | K014869ABE | K040507 | 706480 | 04 |
| 0 | 1 EA | K01487102E | PULLEY AXLE, 19.920" | K040507AEA | RMCS 4" IDLER PULLEY ASM - 25.00 (HSP) | 125486 | 04/22/2014 | K01487102E | K040507 | 706480 | 04 |

For emergency service call: 1-800-530-9153 | partorders-us@dematic.com

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Continuing the **Kapitan** Tradition

Dematic Version 1.7

The Facility Documents and Reports section of the CS Portal organizes documents by Dematic Project Number, within which are links to service manuals, preventive maintenance instructions, repair guides, and troubleshooting guides. Reference the example, below.

6.4 Service Manuals (Cont'd)

113930 Project - Conveyor

- Control Drawings (1993)
- Descriptions of Operations (29)
- Equipment Lists
- Mechanical Drawings (144)
- Parts (3)
 - Assemblies (218)
- PM Logs (28)
- Safety
- Service Manuals (40)
- Unit Mark Summary Report
- Vendor Manuals
 - Advance Lifts (4)
 - AmbaFlex (9)
 - Dodge-Rockwell (5)
 - Flexible Material Handling
 - Kaeser (3)
 - Mettler Toledo (3)
 - Panther Industries (2)
 - SICK (3)
 - Transnorm (2)
 - United Sortation Solutions (9)
- Warranty

113930 Project - Crossbelt

- Control Drawings (77)
 - PDFs (11)
- Mechanical Drawings
- Perle Systems LTD (4)
- Safety
- Service Manuals (2)

113930 Project - Multishuttle

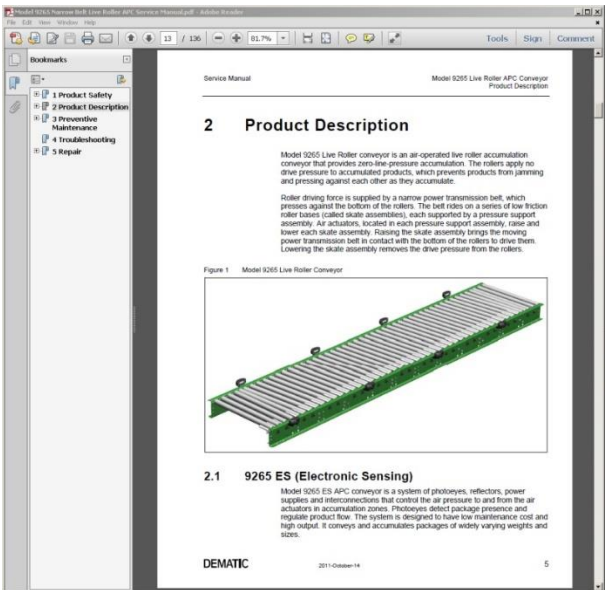
- Control Drawings (547)
- Electrical Drawings- Germany (3)
- Mechanical Drawings (46)
- Parts (25)
- PM Logs (3)
- Service Manuals
 - Test Books (26)
- Vendor Manuals
 - Other (6)
 - SICK (5)

Documents for third party equipment, when available, may also be loaded into the Customer Service Portal for easy user access.

6.4.1 Service Manual Description

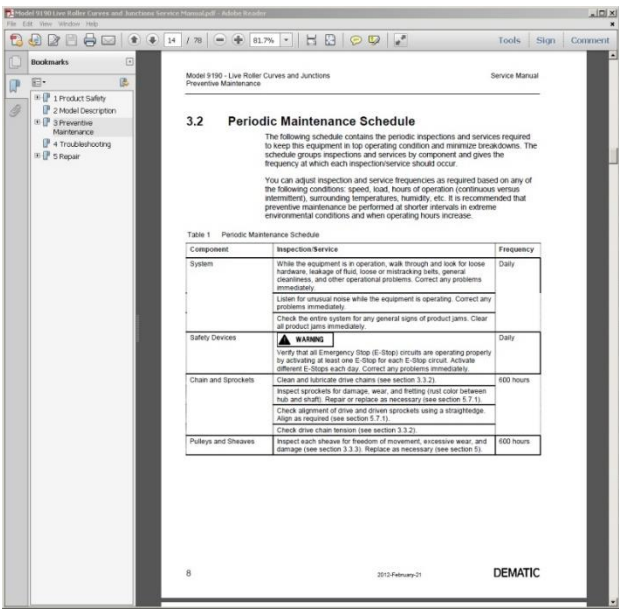
6.4.1.1 Model Description

The model description section describes conveyor components and operation.



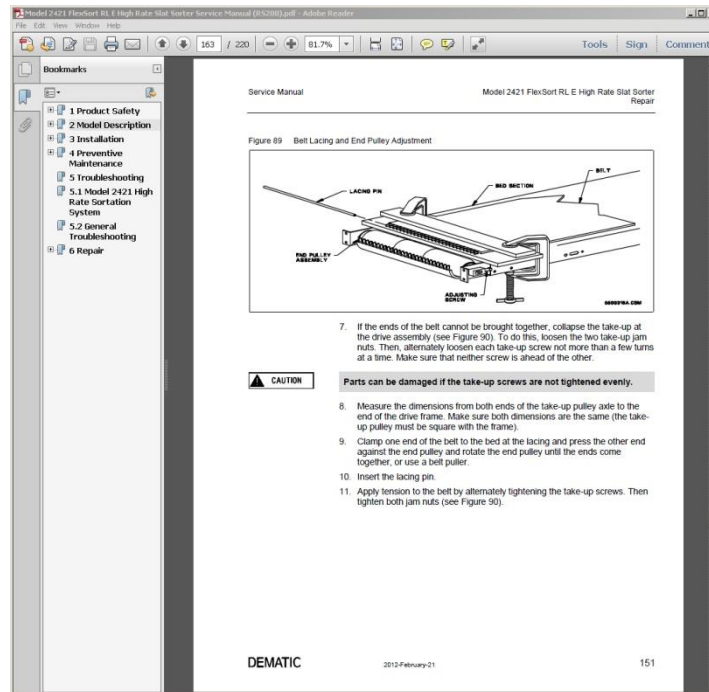
6.4.1.2 Preventive Maintenance

The preventive maintenance section describes periodic inspections and services required to keep the conveyor system in top operating condition and minimize downtime.



6.4.1.3 Repair Guide

The service manual provides a repair guide to aid maintenance personnel with the repairing of the faulted equipment. The repair guide provides step-by-step procedures to fix equipment problems in the system.



6.4.1.4 Troubleshooting Guide

The service manual provides a troubleshooting guide to help maintenance personnel troubleshoot the problems in the system. The guide provides a list of symptoms, their possible causes, and resolution.

6.4.1.4 Troubleshooting Guide (Cont'd)

Model 9265 Narrow Belt Live Roller APC Service Manual.pdf - Adobe Reader

File Edit View Window Help

57 / 136 81.7%

Tools Sign Comment

Bookmarks

- 1 Product Safety
- 2 Product Description
- 3 Preventive Maintenance
- 4 Troubleshooting
- 5 Repair

Service Manual

Model 9265 Live Roller APC Conveyor Troubleshooting

4 Troubleshooting

The following troubleshooting table is provided to assist you in diagnosing and resolving symptoms that might occur during the normal operation of this conveyor system.

INFO See individual manufacturer's product literature for more information.

To use a troubleshooting table:

1. Identify the symptom in the left-most column in the table.
2. Identify the most likely possible cause in the center column.
3. Apply the solution outlined in the far right column.

Table 4. General Troubleshooting

| Symptom | Possible Cause | Solution |
|---|--|--|
| Motor | | |
| Motor will not start. | No line voltage | Check fuses and wiring for open circuit. |
| INFO Work done on motor or reducer by persons unauthorized by manufacturer will void warranty of motor and reducer. Use these recommendations only beyond warranty period. | | Check thermal overload protection device and reset. |
| | | Check limit switches, starter, and relays for faulty contacts or mechanical fault. |
| | | Check for voltage at source. |
| | Low line voltage | Check for low resistance short in line. |
| | Overloaded or jammed conveyor | Remove overload from conveyor manually. |
| | | Check for foreign material in drive belt or sprockets. |
| | | Check for foreign material between belts, chains, sprockets and pulleys. |
| | | Check belt and/or chain tensions. |
| | Burned out or shorted stator windings | Replace motor with spare and send defective motor to authorized repair station. |
| | | See the appropriate manufacturer's repair procedure. |
| Motor runs but conveyor does not move. | Shaft does not rotate due to worn worm gear in reducer | Replace reducer with spare, and send reducer to an authorized repair station. |
| | | Refer to the appropriate reducer manufacturer's repair instructions. |
| | Broken or disconnected drive belt (or chain) | Replace drive belt (or chain). |
| | Broken or slipping belt | Replace the belt. |
| | | Reset belt tension. |

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2011-October-14

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Client Connections

6.5 Client Requirements

| Visualization Client (workstation) Hardware – <i>recommended</i> |
|--|
| 1.5 GB free on hard drive, 2 GB RAM |
| 1 GB Network Interface connection |

| Visualization Client (workstation) Software – <i>recommended</i> |
|--|
| Windows7 or Windows10 |
| Microsoft® Internet Explorer , v8, v9, v11 |
| ActiveX controls |

6.6 Installing Client Software

Installing the client software is accomplished by connecting to the Visualization web server. The initial user must have **Administrator** level permissions and the Internet Explorer settings must allow ActiveX downloads.

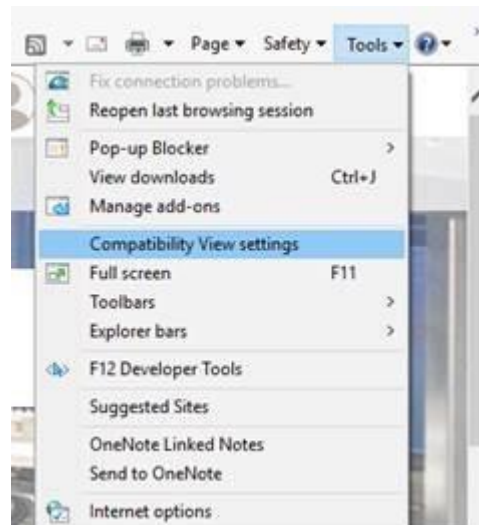
It is not recommended that users attempt this over a wireless connection. Be patient when the controls are downloading. It may take several minutes depending on the network connection.

NOTE DO NOT CLICK ON THE VISUALIZATION LINK ON THE LEFT SIDE OF THE WEB PAGE UNTIL THE STEPS BELOW HAVE BEEN COMPLETED.

6.6.1 Compatibility Mode

1. Open Internet Explorer and browse to the Dematic Visualization welcome screen ([HTTP://ServerIP/GSMi](http://ServerIP/GSMi)).

2. Navigate to the Tools drop down menu and select Compatibility View settings.



3. Type the IP address of the Viz server and click Add.



4. Click Close.

6.6.2 Trusted Site Security Settings for ActiveX Download

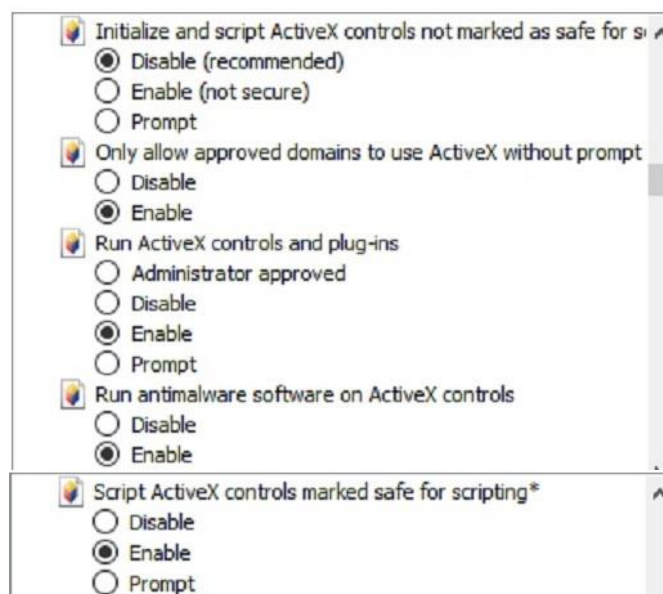
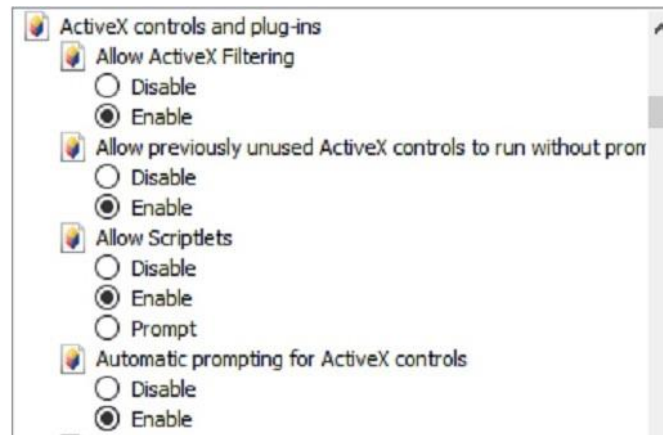
The following steps should be performed to allow ActiveX controls to download properly. Please consult your IT department if you have any concerns performing the following steps.

NOTE You may not have permission to add the visualization IP to Trusted Sites. If not, contact your IT person for assistance before continuing to the next steps.

1. Navigate to the Tools drop down menu and select Internet Options. Select the Security tab and click Trusted Sites.



2. Click on Custom Level... and check to see that the following ActiveX settings are configured.

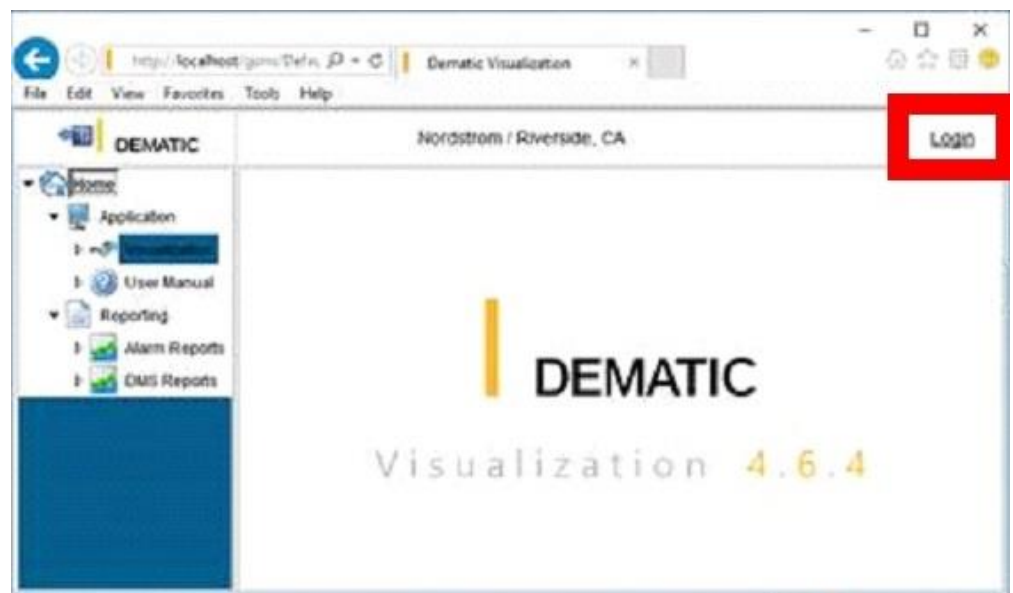


3. Click “OK” to close Security Settings and “OK” again to exit Internet Options
4. Close Internet Options.

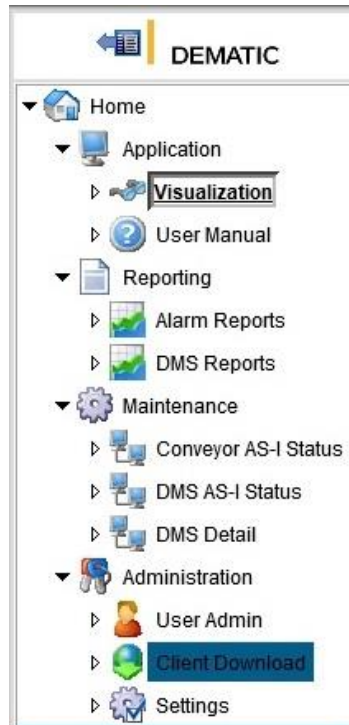
6.6.3 Installing Active-X components

Once the settings in Sections 7.21 and 7.22 are complete, the client computer is ready to install the Active-X components needed for the web page to display properly.

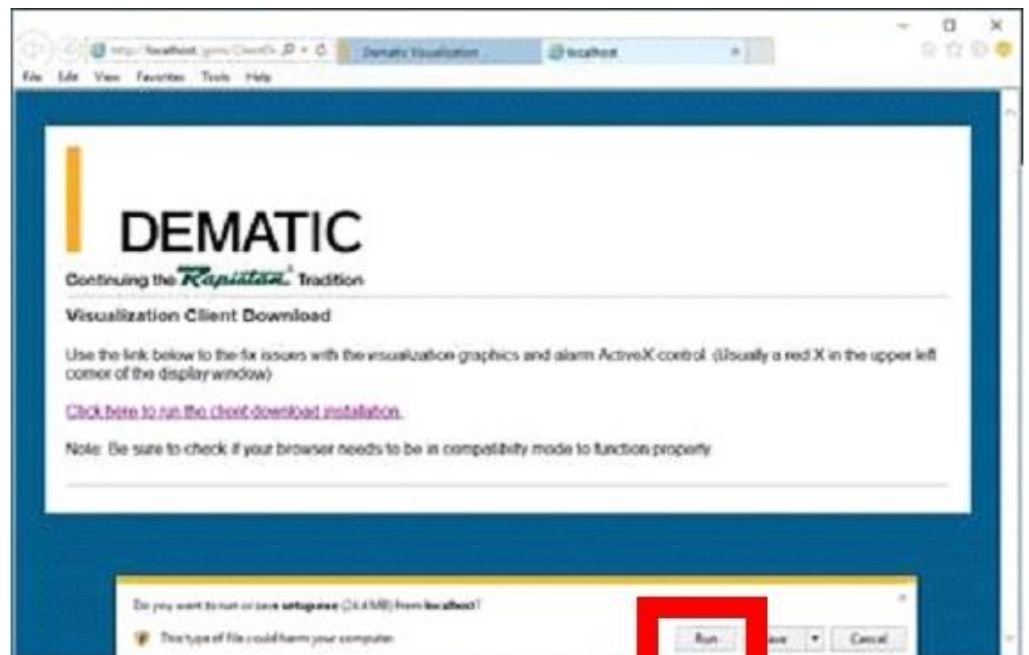
1. Log into Visualization as Administrator using the Login link in the upper right corner of the web page.



2. Select Client Download from the tree on the left side of the page.



3. Click on the link to run the client download. Select Run when prompted.



4. Follow the prompts using the default settings.
5. Restart the computer when prompted.

6. Open Internet Explorer and log in using any login.
7. Click on the Visualization link on the left and verify the screen displays correctly.

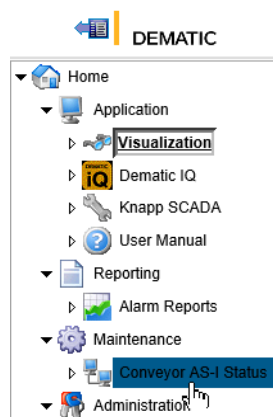
Once the controls have been downloaded, the next time the Visualization site is accessed, the controls will not need to download again.

7 Detail Screens

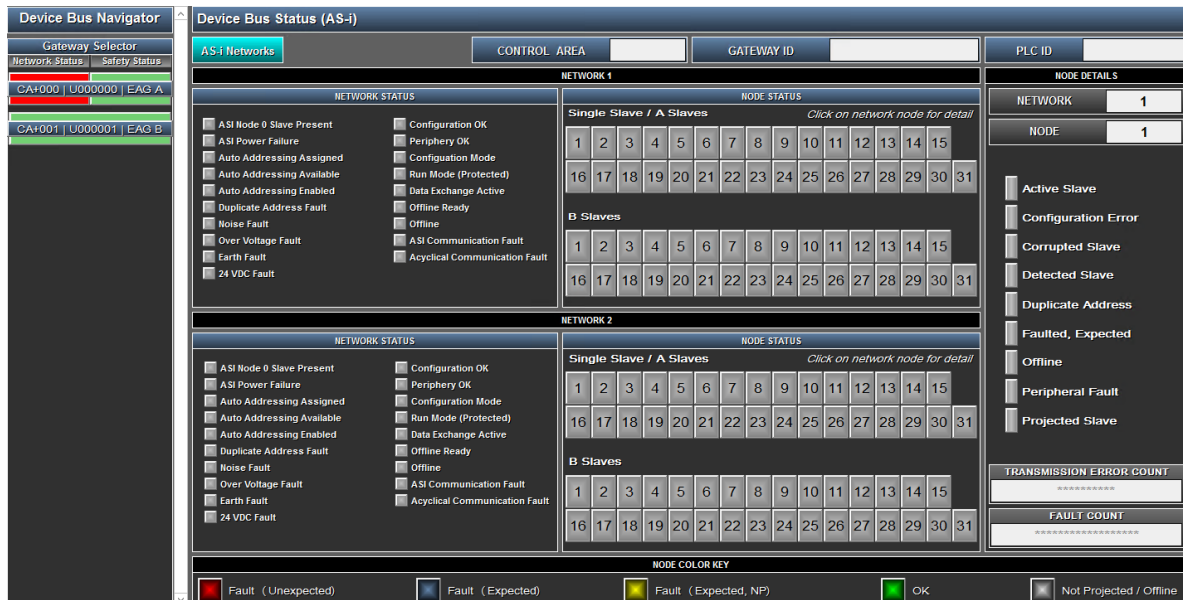
Visualization includes detail status screens for systems that include Actuator Sensor Interface or sub-systems such as Dematic Multishuttle™ (Multishuttle). Specialty control or status screens are also provided when specified by project requirements.

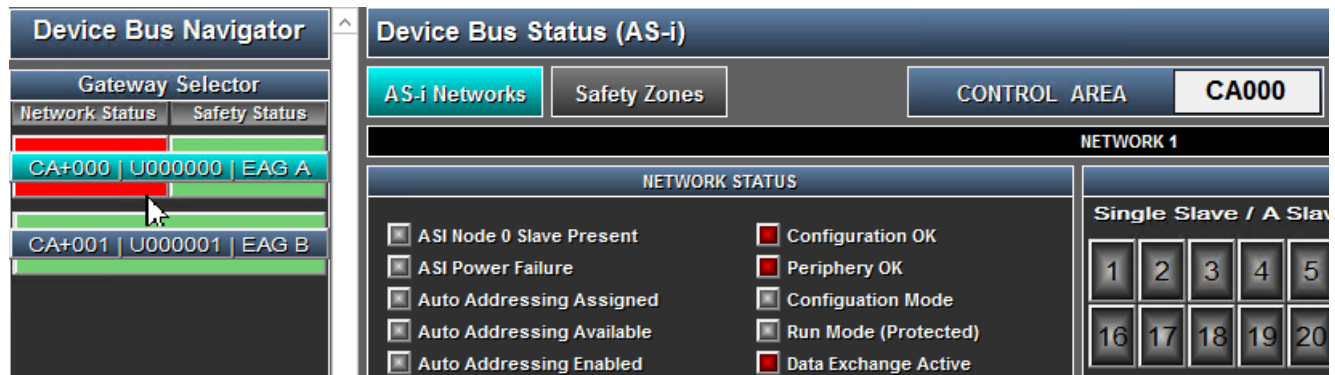
7.1 Actuator Sensor Interface (AS-i)

The AS-i (Actuator Sensor Interface) network and node status is displayed for each gateway in the system. For sites using the AS-i Safe standard there will also be a display screen showing status of the Output Signal Switching Devices (OSSD).



Selecting the AS-i Status item from the Tree View will display a list of system gateways on the left side of the page, and detailed network and node status on the right.





When a gateway is selected on the Device Bus Navigator, the selected gateway's current status is displayed on the Device Bus Status screen. If AS-i Safe standards have been implemented in the source PLC for the gateway selected, a Safety Zones selection button will appear in the status screen menu bar.





Selecting the Safety Zones button will open the OSSD safety zone status page for the selected gateway.

7.2 System Speed Control

User permissions determine which screens/functions are available.

Users that have the **system control permissions** associated with their user name have the ability to adjust the target speed of the system.

System Speed

| Button(s) | Description |
|---|---|
|   | Sorter Selection Pressing this button changes the display to the corresponding sorter. For example Routing or Shipping. |

The system speed control is used to display the current system speed settings and to edit the system speed parameters. These parameters are used to create a speed range minimum and maximum request. The request, if allowed, causes the PLC to set the actual range minimum and maximum values.

There are four system speed modes: **Automatic, Slow, Fast, User Defined**

System Control : Routing

Routing

Shipping

System Speed


Speed (fpm) 576

Min Speed Allowed 350

Current Speed (fpm) 576

Max Speed Allowed 570


570



570

User Defined Speed Range

570



570

Actual / Current Speed Range

Automatic

Slow

Fast

User Defined

Slow & Fast

Slow system speed sets the requested minimum & maximum speed to the minimum speed allowed. The **Fast** setting sets the requested speed to the maximum speed allowed.

Automatic & User Defined

The **Automatic** setting allows the PLC to set the system speed anywhere between the minimum and maximum speed limits based on product volume at the merge. The PLC monitors periodic “snapshots” of product flow at the merge lines. As product volume increases, the PLC increases the system speed. As product volume decreases, the PLC decreases the system speed.

The **User Defined** setting operates the same as Automatic, but allows the operator to adjust the minimum and maximum speed range. To set the speed range, move the User Defined Speed Range slider bars to the desired minimum and maximum speeds. The PLC then adjusts the system speed within this user-defined range.

NOTE: If excessive product is detected entering the recirculation line, the sorter speed may be automatically lowered to reduce choking / gridlocking.