T32 - FactoryTalk Network Manager
Software
Integrated Architecture
A HIGH PERFORMANCE ARCHITECTURE

Smart. Automation system with intelligence that just works.

Productive. Simple integrated development resulting in improved real-time operations and expedited maintenance.

Secure. End-to-end security.
Integrated Architecture® Portfolio

**Design Software**
- Studio 5000®
- CCW
- Arena®

**Programmable Automation Controllers**
- CompactLogix™
- ControlLogix®
- GuardLogix®
- Armor™ GuardLogix®

**Smart Sensing Devices**
- RightSight™
- VisiSight™
- RFID
- Pressure

**Input / Output Devices**
- Compact I/O™
- FLEX™ I/O
- POINT I/O™
- ArmorBlock®
- ArmorPOINT®

**Distributed Control System**
- PlantPAx®
- Stratix®

**Industrial Network Infrastructure & Media**

**Motor Control Devices**
- PowerFlex®
- IntelliCENTER®

**Motion Control**
- Kinetix®
- iTRAK®
- MagneMotion®

**Visualization & Information Software**
- FactoryTalk®
- ThinManager®

**Operator Interfaces & Industrial Computers**
- PanelView™
- MobileView™
Why Network Management Software?

- Networks are critical to automation assets
  - Control, I/O, drives, HMI, etc.
- Plants will experience significant network growth over the next several years
- Plant floor staff tasked with network operations and maintenance
  - Increase visibility of automation assets on the network
  - Network health and monitoring in context of the plant floor assets
  - Simplify the troubleshooting process, quickly identify network root causes issues
  - More easily deploy, commission and maintain networks

Plant floor staff need an easy-to-use, intuitive tool not targeted at IT experts
FactoryTalk® Network Manager software helps give you increased network visibility, real-time troubleshooting and simplified configuration and deployment. Get insight into the performance of your network operations by getting a closer look into your devices connected on the plant floor.
FactoryTalk Network Manager Software

Features and Benefits

- Discovery of plant floor assets
- Overall Topology and Device Centric View
- CIP and PROFINET protocols

Network Visibility
Network Topology View
## Inventory View

- Auto Discovery
  - EtherNet/IP
  - CIP/PROFINET
- Routers/switches
- End devices
- Search
- Link to end device
- Export list

### FactoryTalk Network Manager

<table>
<thead>
<tr>
<th>Device Filter</th>
<th>Name</th>
<th>Description</th>
<th>IP Address</th>
<th>MAC Address</th>
<th>Product ID</th>
<th>Vendor</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Devices</td>
<td>131.200.174.102</td>
<td>131.200.17...</td>
<td>Unknown</td>
<td>Root &gt; OtherGroup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client Devices</td>
<td>131.200.174.107</td>
<td>131.200.17...</td>
<td>Unknown</td>
<td>Root &gt; OtherGroup</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## End Device View

### DEVICE OVERVIEW

#### END DEVICE
- Device Overview
- Additional Details

#### CHASSIS LAYOUT
- Slot
- Name, Description
- Serial #
- Major, Minor Version

### Table: Device Profile

<table>
<thead>
<tr>
<th>Slot</th>
<th>Vendor ID</th>
<th>Product Type</th>
<th>Device Profile</th>
<th>Product Code</th>
<th>Revision</th>
<th>Status</th>
<th>Serial Number</th>
<th>Product Name</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0x1</td>
<td>0xE</td>
<td>Programmable Logic Controller</td>
<td>0x36</td>
<td>16.056</td>
<td>0x3170</td>
<td>3014102</td>
<td>1756-L51/A LOGIX5551</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0x1</td>
<td>0xC</td>
<td>Communications Adapter</td>
<td>0x3A</td>
<td>5.001</td>
<td>0x60</td>
<td>3787955</td>
<td>1756-ENI/A</td>
<td>131.200.174.135</td>
</tr>
</tbody>
</table>
Group Dashboard

- Alarms
- Assets
- Traffic Utilization
- Port Counts

<table>
<thead>
<tr>
<th>Device</th>
<th>Arg. Util (%)</th>
<th>Re. Util (%)</th>
<th>Ts. Util (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMKE_Stratix8000</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Port</th>
<th>Re. Util (%)</th>
<th>Ts. Util (%)</th>
<th>Connected Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMKE_Stratix8000 : FastEthernet1/3</td>
<td>0</td>
<td>0</td>
<td>131.200.174.41</td>
</tr>
<tr>
<td>CEMKE_Stratix8000 : FastEthernet2/2</td>
<td>0</td>
<td>0</td>
<td>131.200.174.21</td>
</tr>
<tr>
<td>CEMKE_Stratix8000 : FastEthernet3/1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>CEMKE_Stratix8000 : FastEthernet4/1</td>
<td>0</td>
<td>0</td>
<td>access3</td>
</tr>
<tr>
<td>CEMKE_Stratix8000 : GigabitEthernet1/2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
FactoryTalk Network Manager Software

Features and Benefits

- Discovery of plant floor assets
- Overall Topology and Device Centric View
- CIP and PROFINET protocols

- Real-time capture of Alarms and Events
- Historical retention for analysis
- Audit Trail

Network Visibility

Troubleshooting

Configuration and Deployment
Alarm Overview

FILTER ALARMS
- Severity
- Active (New) or Closed
- Type
- Etc.

ALARM VIEW
- Severity, Time, Device, Message, etc.
- Affected Devices
- Assign to a user to resolve
- Stored in a database: Manage Retention Period

EXPORT ALARMS
- Export to CSV file

Network Visibility
Troubleshooting
Configuration and Deployment
ALARM DETAILS

- Shows Affected Connected End Devices
- Alarm Notes (User Entered)
- Alarm Events
- Alarm History
Alarm Configuration

ALARM SETTINGS

- Configure Alarms
- Enable / Disable / Severity
# Software Audits

## Audit Details
- Network Management Software
- Time, User, Action, etc.
- Apply Filters
- Ability to Export to CSV file

<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Operation</th>
<th>Device IP Address</th>
<th>Status</th>
<th>Username</th>
<th>User IP Address</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-10-06 10:10:13</td>
<td>Login</td>
<td></td>
<td>Success</td>
<td>systemadmin</td>
<td>172.28.19.101</td>
<td>Updated device admin state from Unlicensed to Licensed...</td>
</tr>
<tr>
<td>2017-10-06 10:09:59</td>
<td>Changed Device State</td>
<td>101.200.174.5</td>
<td>Success</td>
<td>SystemAdmin</td>
<td></td>
<td>Started device state change task with ID 7275</td>
</tr>
<tr>
<td>2017-10-06 10:09:37</td>
<td>Started Device State Change</td>
<td></td>
<td></td>
<td></td>
<td>10.90.93.35</td>
<td>Started device state change task with ID 7275</td>
</tr>
<tr>
<td>2017-10-06 10:04:26</td>
<td>Login</td>
<td></td>
<td></td>
<td></td>
<td>10.90.93.35</td>
<td>User systemadmin entered incorrect password</td>
</tr>
<tr>
<td>2017-10-06 10:03:56</td>
<td>Login</td>
<td></td>
<td></td>
<td></td>
<td>172.28.19.101</td>
<td>User systemadmin entered incorrect password</td>
</tr>
<tr>
<td>2017-10-06 10:03:49</td>
<td>Login</td>
<td></td>
<td></td>
<td></td>
<td>172.28.19.101</td>
<td>User systemadmin entered incorrect password</td>
</tr>
<tr>
<td>2017-10-06 10:05:31</td>
<td>Logout</td>
<td></td>
<td>Success</td>
<td>SystemAdmin</td>
<td>172.28.19.101</td>
<td>Device state change task with ID 7275</td>
</tr>
<tr>
<td>2017-10-06 14:41:29</td>
<td>Updated User Online</td>
<td></td>
<td></td>
<td></td>
<td>10.90.93.35</td>
<td>System state change task with ID 7275</td>
</tr>
</tbody>
</table>

## Network Visibility

## Troubleshooting

## Configuration and Deployment
Security

Three Default Roles
• Network Admin
• System Admin
• Operator

New User Rights
• Alarm Management
• Device Management
• Network Settings
• Role Based Access Control
• System Settings
• View Only
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- Plug-n-Play
- Configuration Template
Configuration and Deployment

Plug-n-Play (PnP)
- Upload existing configuration and apply variable substitution, attach it to a PnP profile
- Match PnP Profile (IP/Range, serial number, etc.)
- Dashboard, PnP status and metrics

Configuration Templates
- Push configuration to device based on template
Network Management Software

- Network Visibility
- Troubleshooting
- Configuration and Deployment
Thank You!