WorldView Full-Graphic Display System

Use your System Maps for SCADA

Automation & Supervisory Control for Electric, Transit & Water Utilities since 1960

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1. WORLDVIEW INTRODUCTION

WorldView provides a modern and a user-friendly interface for managing entire SCADA system in one large scale World Map using High quality graphics. WorldView environment provides quick access to large number of graphic displays including single line diagrams, geographical maps, trend graphs, summary displays, operations log and tabular views. The graphic displays support layers, paining, zooming, decluttering, dynamic line coloring, hyperlinks and many other display features.

1.1 WorldView View Window

The Operator can dynamically view analog and status data points, send a setpoint to an RTU, or open or close a breaker or start or stop a pump. Status points are displayed as colored graphical symbols or lines and/or text. Analog points are displayed numerically or as horizontal or vertical bars. Clicking on a control point produces a dialog box which can be used to operate the point.

A user can pan or zoom to any location on the Map. More convenient, a map can be segregated into different views which are used to display a particular portion of the map at a particular zoom level. A Map can have many views, and, buttons are provided as a means to jump to a specific view
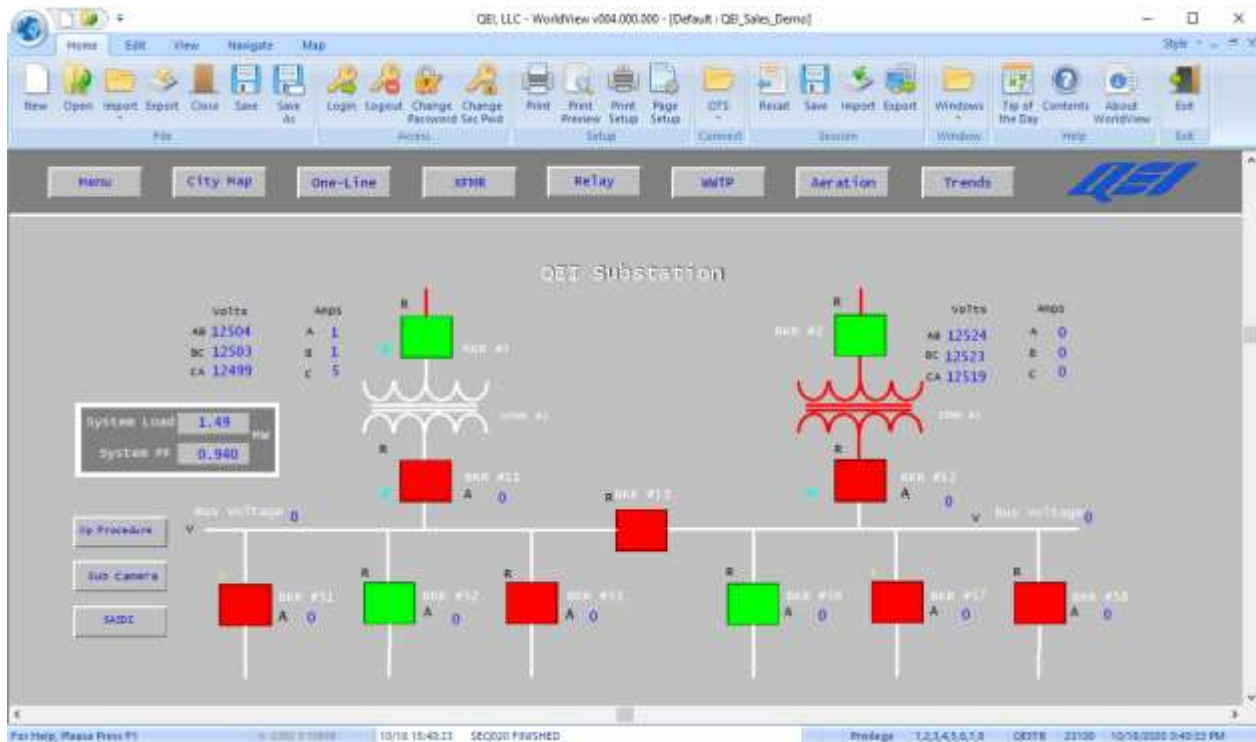
1.2 Navigating in a WorldView World Map Display

Ribbon buttons located at the top of the Map can be used to navigate and operate the Map. If the mouse is equipped with a scroll wheel, rotating the wheel causes the Map to zoom in or out; pressing down on the wheel activates the Pan View button, letting up deactivates the button.

A Map can have many different Views. Views can be accessed from pushbuttons configured on the Map that point to a specific view, Views can also be called up by clicking on a graphic symbol placed on a World Map display. Using this approach any desired view can be accessed with a single mouse click from a main overview display.

World Map display can be named and listed in a pull-down menu, user can select the Map Views button to view a list of Maps, or Map layers to change layers visibility or the auto Declutter feature.

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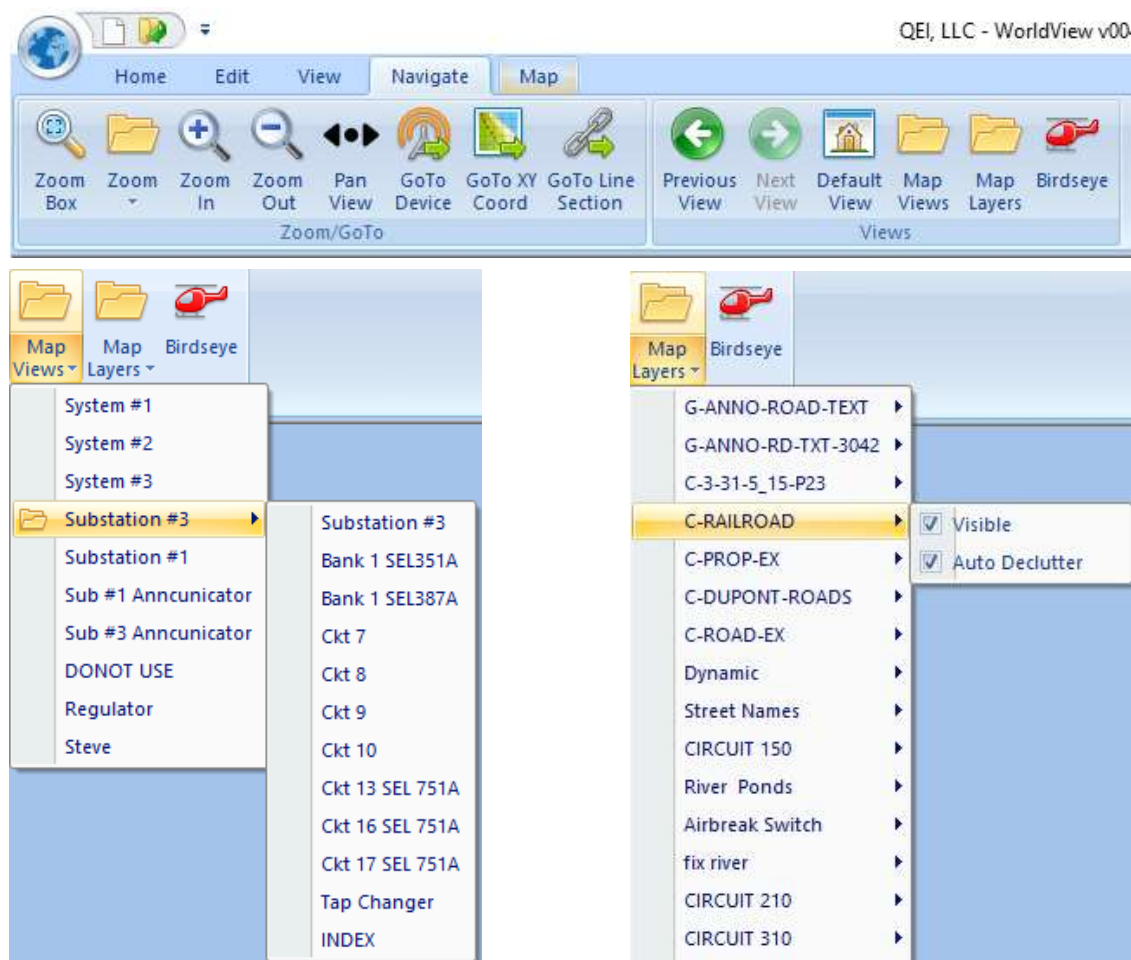
2. DISPLAY AND CONTROL OF FIELD EQUIPMENT

Graphic elements which execute controls and display the state of equipment at remote locations are incorporated into different World Map display Layers which causes them to automatically appear on the screen at a convenient level of magnification, as the operator zooms in to the World Map display.

The system supports a secondary password on controls. The secondary password can be defined for each user account and capable to be enabled for individual points.

Data points are placed around the Map and displayed as numerical values, bars, or various symbols. If the mouse cursor is placed over a data point, a popup is displayed showing information about the point. If the point is clicked on, a dialog box appears allowing the user to operate the point.
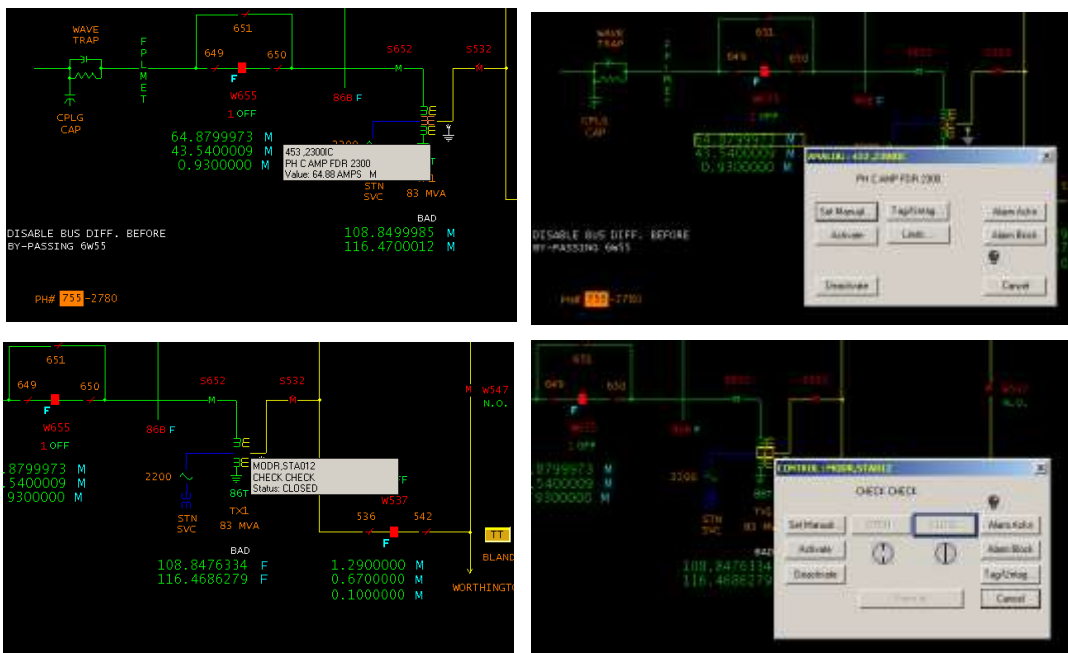
Live data display elements that can be incorporated into a World Map display include the following:

- Text labels that change with equipment state
- Graphic symbols that change shape and color with equipment state
- Mobile icons showing direction, location and movement
- Symbols annunciating point conditions: tagged, manually set, alarm block, telemetry fail
- Selection targets that initiate individual controls or macro control sequences
- Analog values displayed as vertical or horizontal bar graphs
- Analog values displayed numerically in scaled engineering units
- Selection targets to display and adjust analog alarm limit levels
- Alarm annunciation with flashing and color priority indication
- Display energization status on mouse hover
- General system conditions indicated by flashing & coloring whole areas of the world map

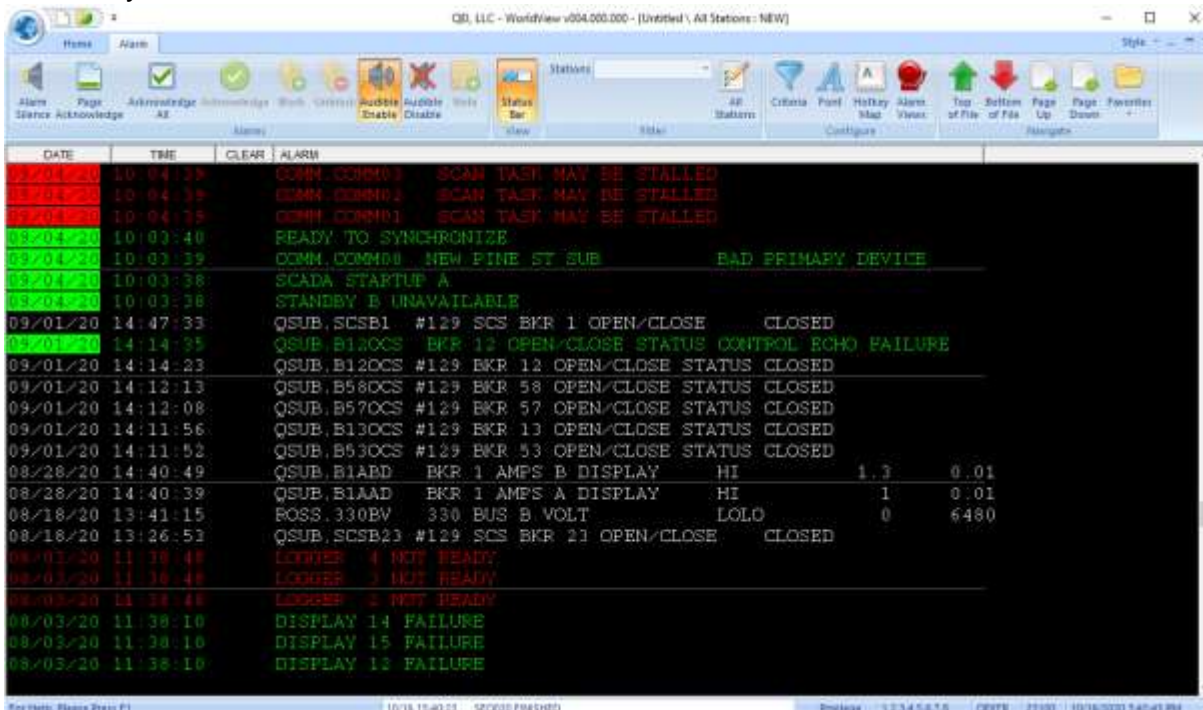QEI, LLC - 973-379-7400 sales@qeiinc.com www.qeiinc.com

2.1 Control Menus

When operators select controllable devices on a World Map, dialogue boxes open with the appropriate buttons and fields needed to perform control, data entry, and alarm management functions available for the selected point. If configured, the system will ask for a password to perform a control. The secondary password can be enabled for individual points.

- **Open/Close/Execute** controllable devices
- View, Add & Remove **Tags** inhibiting control of critical devices
- **Manually Set** point values or remove the manually set condition
- Modify analog value alarm **Limit Levels**
- **Cancel** outstanding multi-function command sequences
- **Acknowledge** individual alarms, or all points on a station or a page, or All Alarms in the system.
- **Alarm Block** a specific condition or all alarms on a selected point
- **Enable & Disable** the audible alarm bell on the workstation.
- **Silence Audible** alarm (new alarms will re-trigger)
- Activate **Application Programs**

3. ALARM VIEWER DISPLAY

The Alarm Viewer display provides the operator with dialog boxes which define Alarm & Event Summary displays for one, or all stations, and ability to monitor System Alarms. Up to 10 customizable alarm priorities are supported. The operator can acknowledge or block/unblock alarms from this display. Alarms can be filtered by Zones, Priority, blocked, active/cleared, or acknowledged/unacknowledged condition. Alarms are colored on the display based on the current alarm status. This display can be created by the operator on the fly.

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4. WORLDVIEW OPERATOR SUMMARY VIEW

The WorldView Operator Summary View provides the operator with dialog boxes which define an Operator Summary View. It is used to monitor operator messages and alarms. The operator messages can be filtered by Zones, Priority, Time and Point Type. Alarms, points and events summaries are embedded on the maps. This display can be created by the operator on the fly.
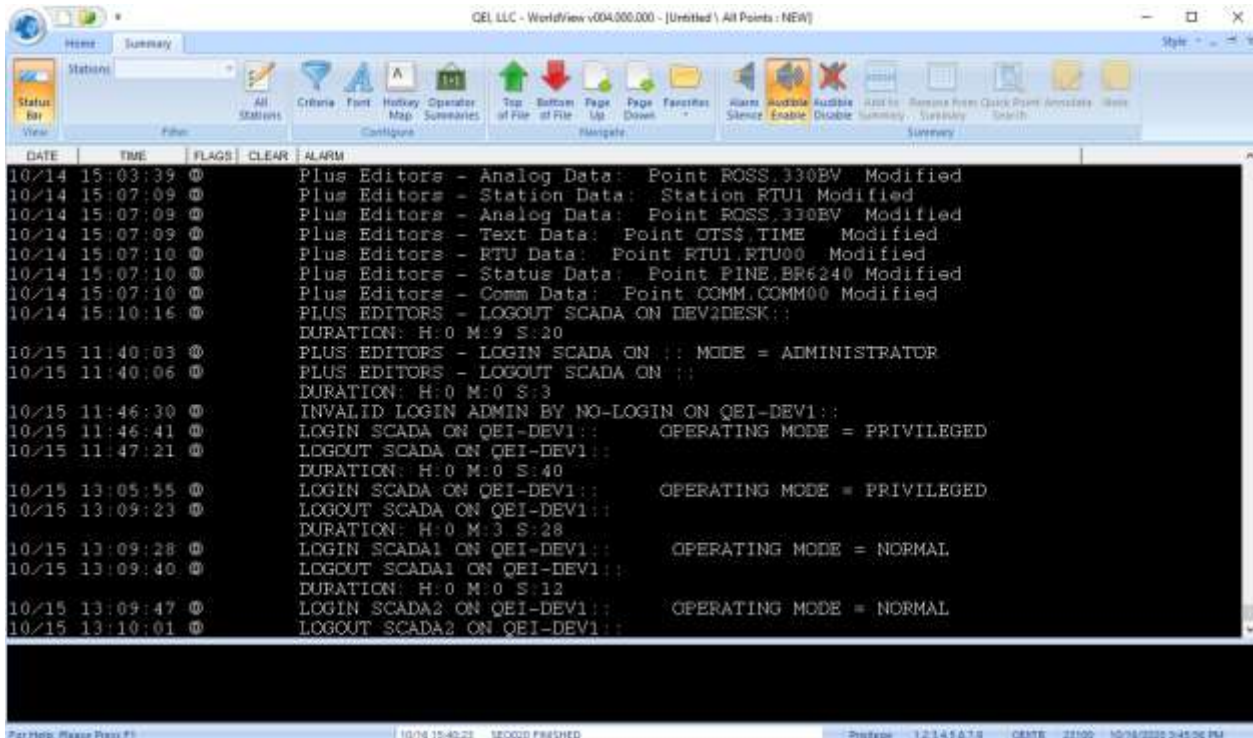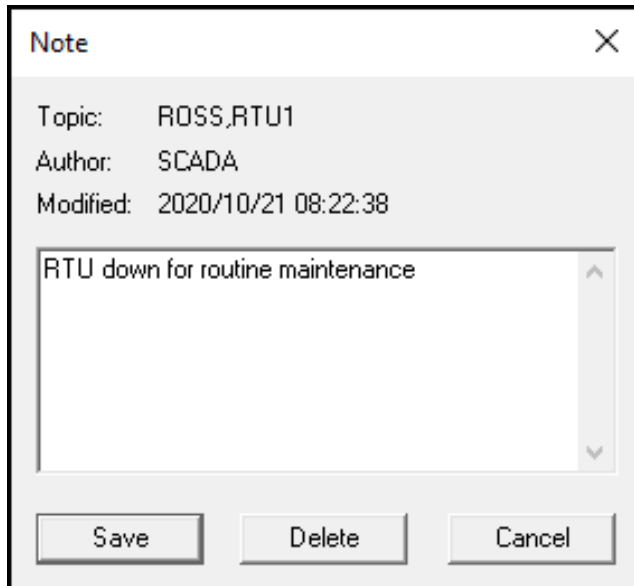

5. WORLDVIEW OPERATOR NOTES

A note can be placed on any data point from the data point's operation dialog box. When selected, the Note dialog box is displayed and the user can add or delete a note on this data point. In addition, Operator Notes tool provides operations and maintenance personnel with a means to exchange information across shifts. All notes activities (creation, modification, deletion) are recorded as events in the system message log.

The system generates a Shift Change Report which automatically lists all Urgent Notes and lists the following events as selected by the operator:

- Non-Urgent Notes
- Critical Alarms
- Off-Normal points
- Off-Scan points
- Tagged points
- Blocked alarms

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- System failure messages
- Communication Statistics

Note ×

Topic: ROSS,RTU1
Author: SCADA
Modified: 2020/10/21 08:22:38

RTU down for routine maintenance

Save   Delete   Cancel

6. WORLDVIEW HI-RESOLUTION TREND GRAPHS

WorldView Historical Trend Graphs are high resolution graphs with color-coded traces plotting up to 20 points on a single trend graph, and multiple graph types are available. Trend Graphs normally appear on the World Map displays as miniature, labeled graph symbols which expand with a mouse click into a pixel resolution trend graph window. Each expanded trend graph window can be moved and re-sized by the operator, and this window position and size can be permanently stored.

Possible Graph Formats and shading effects include:

- **Provide line creation at vertical, horizontal, and 45-degree angles**
- **Horizontal Bar Graphs-** for watching the relationship between variables
- **High-Low-Close** or **High-Low-Average graphs-** to view average values in relation to hourly max and min values.
- **Shading to another variable-** to highlight difference between two quantities.
- **Shading to the previous value-** to highlight rate of change.
- **Shading to a baseline-** to highlight variations above and below a baseline value.
- **Shading to max and min baselines-** to highlight violations above and below min/max limits.
- **Shading above "supply" and below "demand"** -to highlight when demand exceeded supply