

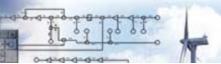
## **R\*TIME Viewer New Features**

## Scientech

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#### **R\*TIME Viewer 4.6 New Features**

- Web Display Converter
  - Display Builder Functions
    - Display Analyze
    - Display Convert





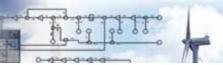


## R\*TIME Viewer 4.5 New Features

- Time Math
- Multi-Entity Send-to-Trend
- "Live" Poke Boxes
- Calendar Control Time Entry
- XY Trend Region Line Widths
- Leading Zeroes on Time Formats
- Client Watchdog Program
- Right Click Pop-up
- Trend Limit Line
- Excel Add-In New Functions
- Language Localization







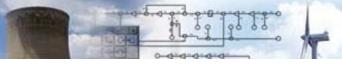
## **Time Math**

# Four new operators in Display Calculations:

- Time Addition
- Time Subtraction
- Time Multiplication by scalar
- Time Remainder (modulo)





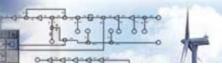


## Time Math (cont.)

## Using new operators:

- Each take two inputs
- All inputs, except second input into Time Multiplication, are assumed to be time values (integer seconds since 1970).
- Second input on Time Multiplication is assumed to be a floating value.
- Each operator returns a time value





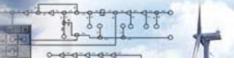
## Time Math (cont.)

## Possible Uses:

- Time since Event (Time since Trip, etc.)
- Countdown to event.
- "Roper" trends.







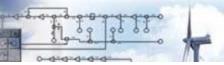
## **Multi-Entity Send-to-Trend**

Each entity now has the property of a selection state

- Select or de-select from the right-click pop-up menu.
- Highlighted on display
- When "Trend Driving Value" option used on a selected entity, all selected entities are scanned for points to send to a trend
- New MMI.INI settings for 8, 16, and 32 point default trends.







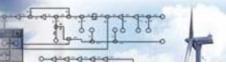
## **Live Poke Boxes**

The Poke Box entity now has a new checkbox, making it "Live".

- Performs the poke action each display update cycle (as defined in the display header).
- Normally used with poke ranges, with the default range having a poke action of "None"
- Still can be clicked for activation if on display.







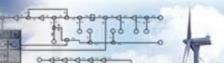
## Live Poke Boxes (cont.)

#### Possible Uses:

- Switching displays based on plant mode
- Activating an Action List to change points being trended when a subsystem is marked as unavailable.
- Forcing a display to the top of the window stack based on conditions.







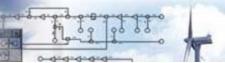
## **Calendar Control**

The Time Entry entity can now use a pop-up dialog box containing a standard Windows calendar control for time and date entry.

- Only used for absolute time entries
- Always available from the right-click pop-up menu
- New definition flag forces the calendar pop-up from the left-click, bypassing the text entry field







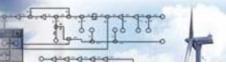
## **XY Trend Region Line Width**

The width of the line used to draw an XY trend region can now be specified.

- Specified in pixels for the current trend definition size
- Scales with X axis of the display
- Center of wide line is placed at numerical location for the region line







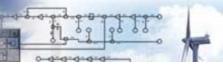
## **Leading Zeroes in Time Formats**

The Time Format page now contains a checkbox for putting leading zeroes in the day and month fields of date output strings and hour fields of time strings.

 Affects Time-Date, Scrolling Trend, and Time Input entities







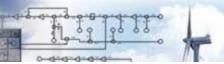
## **Client Watchdog**

A new program is provided that watches for lock-ups in the NetApp and MMI executables.

- Assumes only one instance of MMI.EXE is running on the workstation
- Can be configured to log MMI failures to the server
- Can be configured to attempt to close and restart the MMI program following detection of a failure







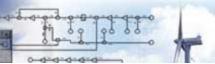
## Right Click Pop-up

## User Configurable Right Click Action

- Allow user configuration of a pop-up screen based on a right click
  - Large single point display
  - Trend
  - Point Info
  - Anything the user wants







## **Excel Add-In**

## Multiple changes to the R\*TIME Excel Add-In

- Data Set Functions
  - Summarize each data set
  - Average
  - Summation
  - Difference







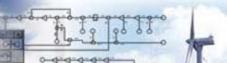
## **Excel Add-In**

#### Time Interval

- Compare the value of a data pair
- Four different intervals in time
- X-Y Plot







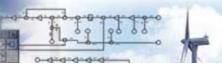
## **Excel Add-In**

#### **Archive Retrieval Parameters**

- Load Parameter Set
- Save Parameter Set







## Language Localization

Updated R\*TIME Data Viewer Language Specific DLL

MMI\_LANG\_xxx.DLL

New Language Specific DLLs created for

- Excel Add-In (EXCEL\_LANG\_xxx.DLL)
- Local Point Group (GROUP\_LANG\_xxx.DLL)





#### "Under the Hood" Enhancements

Some changes that do not directly affect the displays:

- IP Address of socket used in display tracking
  - Fixes display tracking on workstations with multiple NIC cards
- VIDs from External Applications can use non-default service
  - Allows multi-unit data sets to be presented from external applications
  - Requires server update
- Trend Symbol printing adjusted
- Cursor not changed over disabled Poke Boxes or Function Buttons
- Static Relative time labels can now change dynamically





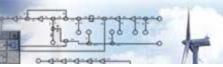
## What's on the Horizon?

#### **Future additions:**

- Histogram option on Scrolling Trends
- Polar Plot
- Update chaining (already started!)
- Slider inputs
- Color selection entity (for trends, etc.)
- Non-rectangular poke regions
- Active-X control integration
- Display / Display System Validation







## **Project Objectives**

- Leverage existing PEPSE model to analyze plant performance
- Use existing plant PI data to feed PEPSE models
- Validate PI data before analysis
- Display results
- Build and archive reports
- Minimize labor and licensing cost.



