R*TIME Viewer 4.5

New Feature Summary

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Executive Summary

- 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

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.

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Flow Control

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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

"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?

Viewer 4.6:

- Histogram option on Scrolling Trends
- Polar Plot

Future additions:

- Update chaining (already started!)
- Slider inputs
- Color selection entity (for trends, etc.)
- Non-rectangular poke regions
- Active-X control integration
- Web based output