

Performance testing of EPICS user interfaces -- an attempt to compare the performance of MEDM, EDM, CSS-Boy and EPICS

Speaker: Richard Farnsworth Paper also: J. P. Hammonds, B. Pausma, C. Suarez, ANL, Argonne, IL 60439, USA
A. Rhyder, A. Starritt, SLSA, Clayton, Vic 3168, Australia

- “Is it fast enough?” rather than “Which is fastest?”?
- Used commodity desktop hardware - what you can buy today for ~ \$1000 or so
- Linux Red Hat Ent 6.4 and Windows 7 Ent
- Mac hardware made direct comparisons difficult
- Lowest common denominator – text and simplest widget only
- MEDM, EDM, CSS-Boy, EPICSQt, and CAQtDM and AS Delphi
- Tried to be fair



Results - text

Table 1: Linux Update Rates, Text Widget

UI	Version	CPU	Max Update Linux	Lossless Update Linux
CSS-BOY	3.1.4	14.88	22000	15000
EPICSQt	2.4.18	13.12	11100	10000
EDM	1.12.40	10.95	35100	20000
MEDM	3.1.7	12.83	65000	45000
CAQtDM	2.8.0	13.71	13500	5000
AS-Delphi	Int	16.54	9900	5000

Table 2: Windows Update Rate, Text Widget

UI	Version	CPU	Max Update W7	Lossless Update W7
CSS-BOY	3.1.4	14.88	23000	16500
EPICSQt	2.4.18	13.12	10000	8000
EDM	1.12.40	10.95	NA	NA
MEDM	3.1.7	12.83	22250	16000
CAQtDM	2.8.0	13.71	13000	5500
AS-Delphi	Int	16.54	NA	NA

Table 3: Linux Update Rates, Graphical Widget

UI	Version	Max Update Linux	Lossless Update Linux
CSS-BOY	3.1.4	9840	8000
EPICSQt	2.4.18	14400	4000
EDM	1.12.40	142880	32000
MEDM	3.1.7	136800	48000
CAQtDM	2.8.0	16600	12000
AS-Delphi	Int	--	--

Table 4: Windows Update Rates, Graphical Widget

UI	Version	Max Update W7	Lossless Update W7
CSS-BOY	3.1.4	28800	16000
EPICSQt	2.4.18	40000	40000
EDM	1.12.40	NA	NA
MEDM	3.1.7	36000	7360
CAQtDM	2.8.0	--	--
AS-Delphi	Int	--	--

Screen shots, Questions? And thanks for your attention.

The image is a collage of screenshots from an Android Studio IDE, illustrating various development tasks and UI elements.

Top Row:

- Calendar View:** A screenshot of a calendar application showing a grid of dates. The dates are color-coded (blue, yellow, red) and arranged in a grid.
- Grid of Small Windows:** A screenshot showing a large grid of small, identical application windows, each displaying a simple UI with a title bar and a content area.
- Logcat Window:** A screenshot of the Logcat window showing a list of log messages, including timestamps, log levels, and message content.

Bottom Row:

- Dialog Box:** A screenshot of a dialog box titled "Dialog" with a menu bar (File, Edit, Help, Windows) and a grid of numbers (81, 82, 83, etc.) displayed in a grid.
- Message Box:** A screenshot of a message box titled "Information: Opening uis/mydialog.ui in new window" with a close button.