

Web2cToolkit: Framework for Internet Control System Applications

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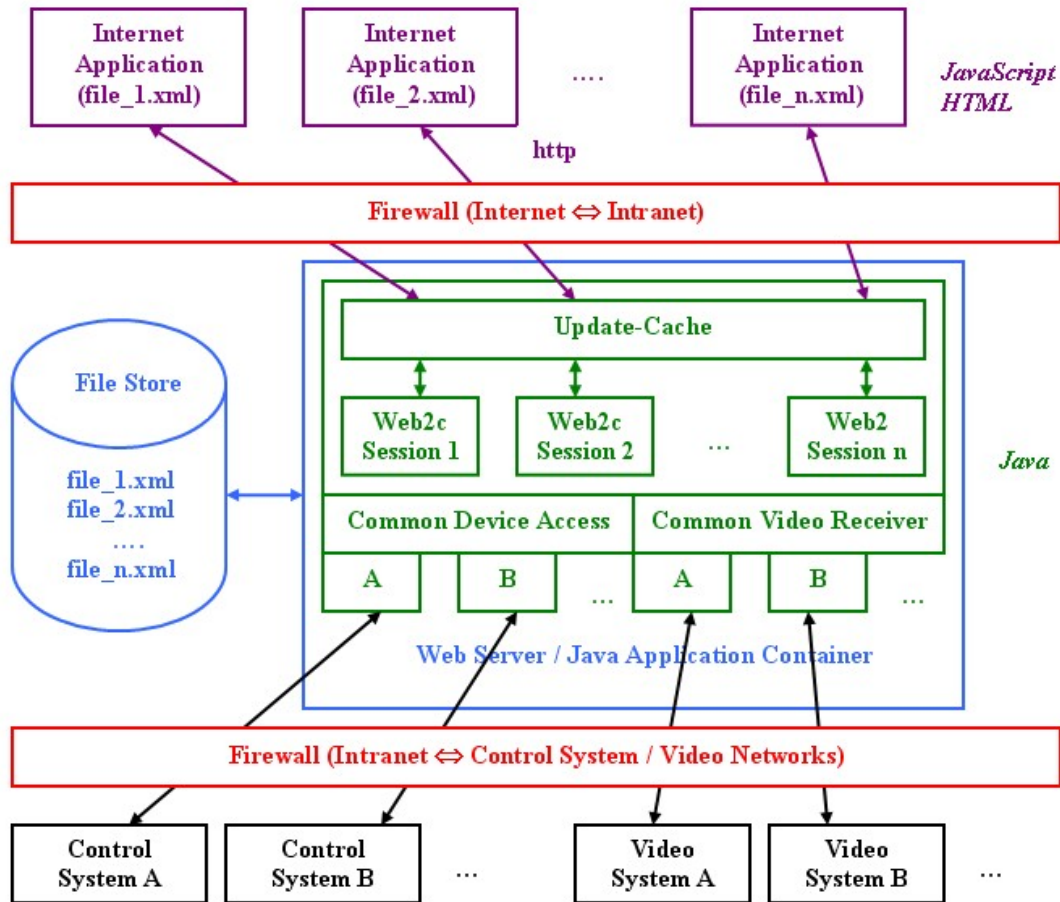
Web2cToolkit

- **Web2c**
 - Acronym for **Web**-based **controls client**
 - Framework for internet control system applications
- **Features**
 - Browser-hosted, interactive, graphical
 - User-friendly look-and-feel, multi-language support
 - OS platform independent
 - Runs without additional specific software installation
 - Supports different user roles (layman, expert and supervisor)
 - Secure user authentication and authorization
 - Access allowed from everywhere if not explicitly restricted, no firewall constraints
 - Common device access (live and archived data) interface for various accelerator control systems
 - Common video receiver interface for various video transmitting standards

Web2cToolkit

- Dynamic web page:
 - runs in web browser
 - contains only HTML tags and JavaScript code snippets
 - asynchronous communication with web application server (Java servlet) via XMLHttpRequest / XMLHTTP method, no page re-load
- MD5-encrypted password transmission
- Control system interfaces:
 - TINE, DOOCS, TANGO (via DOOCS), EPICS (via DOOCS)
- Video receiver interfaces (protocol / format):
 - rtp / jpeg
 - TINE / jpeg
- Implemented tools:
 - synoptic display (Web2c)
 - graphical synoptic display editor (Web2cEditor)
 - archive viewer (Web2cArchiveViewer)

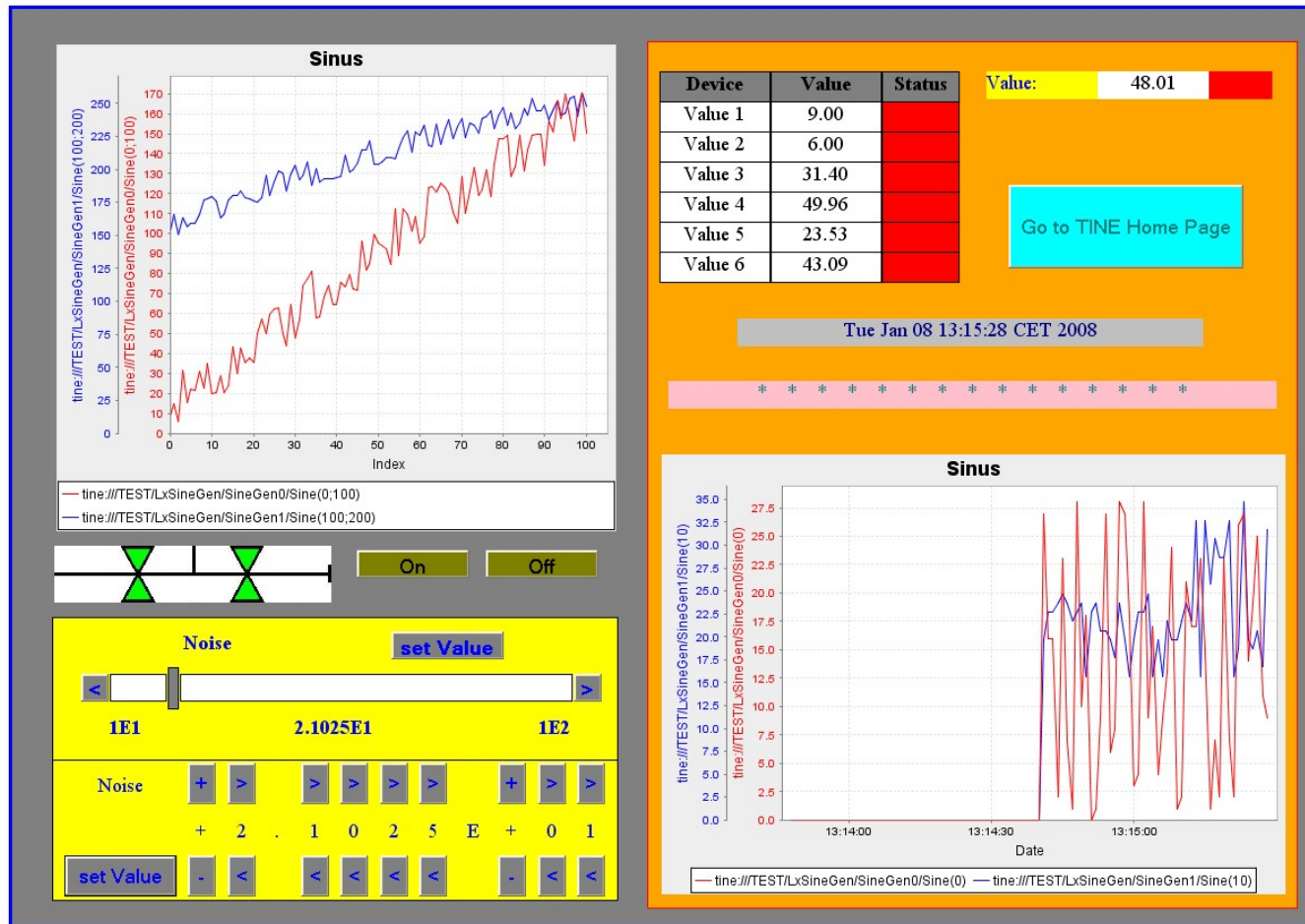
Web2cToolkit



Web2cToolkit

- **Synoptic Display (Web2c):**
 - Application layout and content described by configuration file (.xml)
 - Implemented widgets:
 - Web2cSection
 - Web2cEmbeddedPage
 - Web2cLabel
 - Web2cLabelList
 - Web2cValue
 - Web2cValueList
 - Web2cIndicator
 - Web2cIndicatorList
 - Web2cText
 - Web2cTextList
 - Web2cImage
 - Web2cAnimatedImage
 - Web2cButton
 - Web2cSlider
 - Web2cWheelSwitch
 - Web2cInput
 - Web2cTicker
 - Web2cTime
 - Web2cTrend
 - Web2cHisto
 - Web2cVideo
 - Web2cChat

Web2cToolkit: Synoptic Display

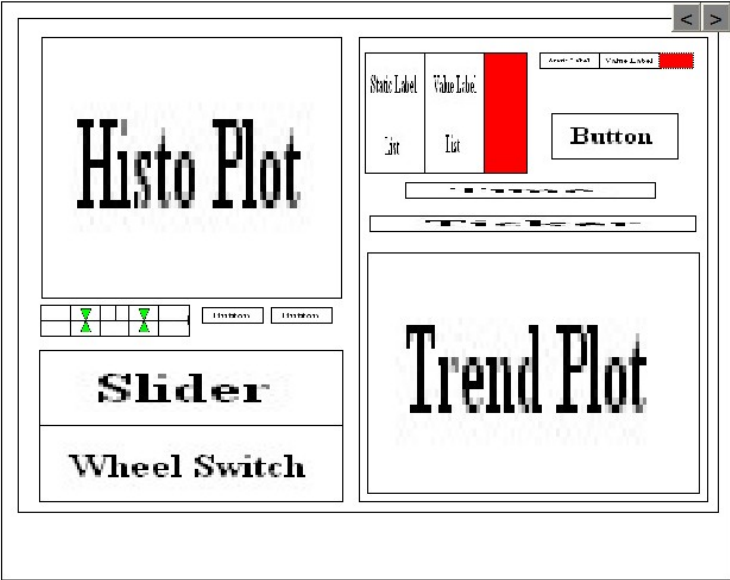


Web2cToolkit: Synoptic Display Editor

Section
EmbeddedPage
Label
LabelList
Text

Add Component

Remove Component



Toggle among components

Confirm attribute changes

Reset page

Help

Attribute	Value
type	Indicator
section	section2
id	indicator1
bounds	1104 84 1160 108
tooltipText	Indicator
border	none
borderColor	black
trueValue	10
falseIcon	redicon.jpg
trueIcon	greenicon.jpg
uri	tine:///TEST/LxSineGen

Web2cSynopticDisplayDemo.xml

Save to file

Read from file

Web2cToolkit: Archive Viewer

Data Selection

User-defined selection:

HERA Electron Beam Current [mA]
HERA Proton Beam Current [mA]
HERA Electron Beam Lifetime [1/s]
HERA Proton Beam Lifetime [1/s]

>>

HERA Electron Beam Current [mA]
HERA Proton Beam Current [mA]
HERA Electron Beam Lifetime [1/s]
HERA Proton Beam Lifetime [1/s]

clear selection

Predefined selection:

HERA Beam Current Overview
HERA Beam Lifetime Overview

>>

clear selection

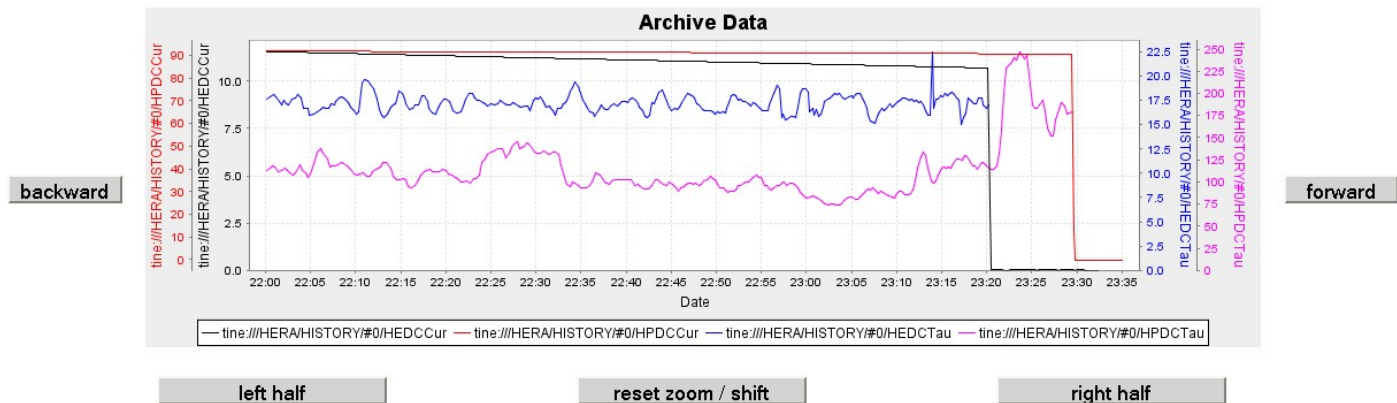
Time Period Selection

Archive: Year Month Day Hour Minute

2007 06 30 23 59 from 2007-06-30 22:00:00 to 2007-06-30 23:59:00 clear selection

Live: last 12h >> clear selection

get data (plot) get data (table)



Web2cToolkit

- **Home page:**

<http://web2cToolkit.desy.de>