

CSS – Workshop Introduction

EPICS Meeting – CSS-Workshop

DESY, April 24, 2006

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Before we start:

Everybody should have a running version of CSS
on his notebook!

Please go to:

<http://css.desy.de> -> Download CSS-Core

(read instructions on the bottom of the web page to load the application
plugins from the DESY update site)

If you need a soft-IOC (Windows only):

<ftp://ftp.desy.de/pub/EPICS/CSS/OpclocShell.zip>

In CSS: Menu -> CSS -> Preferences -> CSS-Core -> EPICS -> addr_list:
localhost/ auto_addr_list: []

<http://css.desy.de> -> Download CSS-Core

Download CSS core Eclipse Application - Mozilla Firefox

http://css.desy.de/content/e413/index_eng.html

Download CSS core

Download CSS core Eclipse Application

Version	Date	OS	Comment	Download Link
CSS-0.9.4	19.04.2007	Windows	new login	CSS Core 0.9.4 (Windows)
CSS-0.9.4	19.04.2007	Linux GTK	new login	CSS Core 0.9.4 (Linux GTK x86)
CSS-0.9.4	19.04.2007	Mac PPC	new login	CSS Core 0.9.4 (Mac OSX PPC)
CSS-0.9.4	19.04.2007	Mac x86	new login	CSS Core 0.9.4 (Mac OSX x86)
CSS-0.9.3	27.03.2007	Windows	XMPP Communication	CSS Core 0.9.3 (Windows)
CSS-0.9.3	27.03.2007	Linux GTK	XMPP Communication	CSS Core 0.9.3 (Linux GTK x86)
CSS-0.9.3	27.03.2007	Mac PPC	XMPP Communication	CSS Core 0.9.3 (Mac OSX PPC)
CSS-0.9.3	27.03.2007	Mac x86	XMPP Communication	CSS Core 0.9.3 (Mac OSX x86)
CSS-0.9.2	17.01.2007	Windows	new release	CSS Core 0.9.2 (Windows)
CSS-0.9.2	17.01.2007	Linux GTK	new release	CSS Core 0.9.2 (Linux GTK x86)
CSS-0.9.2	17.01.2007	Mac PPC	new release	CSS Core 0.9.2 (Mac OSX PPC)
CSS-0.9.2	17.01.2007	Mac x86	new release	CSS Core 0.9.2 (Mac OSX x86)

Übertrage Daten von ftp.desy.de...

1. Select the CSS version for your operating system.
2. Read the instructions at the bottom of the web page.
3. Load the additional plugins from the DESY update site (do NOT load the DESY specific ones – unless you have access to the local DESY subnets)

Agenda for Today

- Introduction/ Basic Ideas (Matthias Clausen - DESY)
- Core Utility Plugins (Matthias Clausen - DESY)
 - ScreenShot
 - XMPP-based Management
- Core Applications
 - DataViewer (Kay Kasemir - SNS)
 - Synoptic Display Studio (SDS) (Sven Wende – C1-WPS)
- Core Plugins
 - Namespace Tools (LDAP/ UNIX scripts) (Helge Rickens - DESY)
 - CSS Alarm/ Message Tools (Jan Hatje - DESY)
 - Post Mortem Data Analyzer (Albert Kagarmanov - DESY)
- Interfaces
 - Data Access Layer (DAL) (Igor Kriznar – Cosylab)
- Developers Corner
 - CSS-Update Site/ What makes a Plugin a CSS plugin (Jan Hatje - DESY)
 - Eclipse experience (ALL / Kay Kasemir – SNS/ Ken Evans - ANL)

Introduction

- Initiator(s)
- Basic Ideas
 - MB3 -> Eclipse Context Menu (for free)
Information on your fingertips
 - Definition of Data Types
 - Drag and Drop
 - Central Logging Facility
 - Authentication/ Authorization
 - Management
 - Using the CSS core for UI and for headless applications

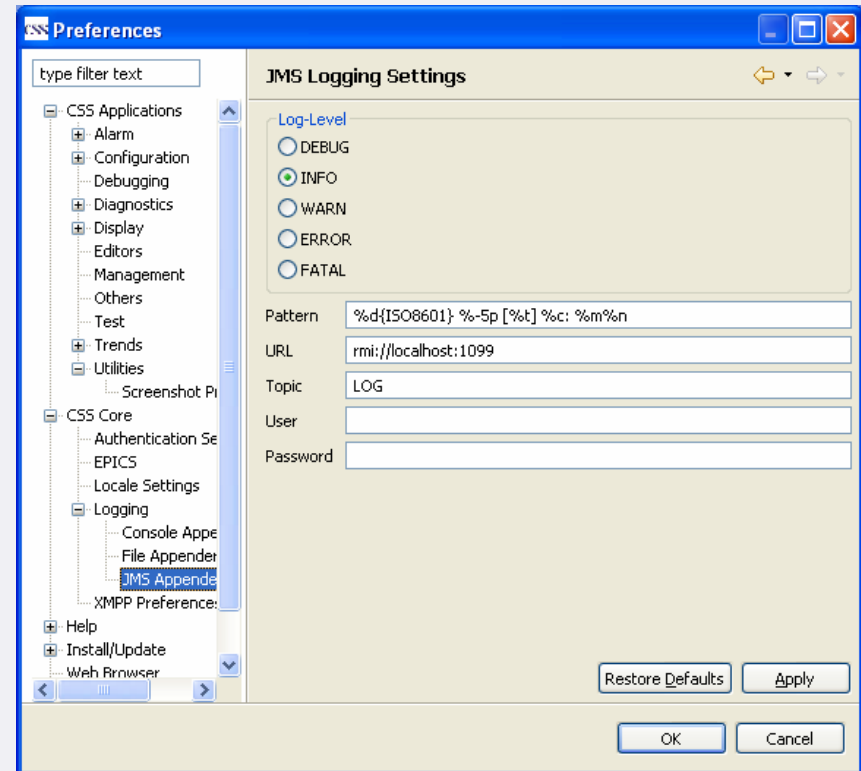
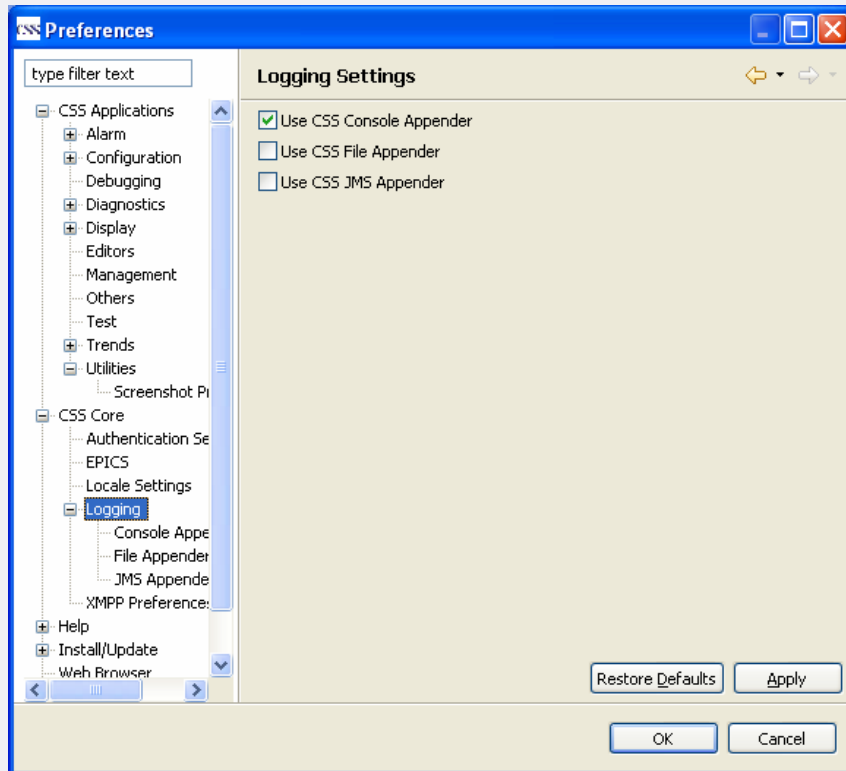
CSS-Initiators

- Phase out old X-Window applications
- Write Once run (nearly) everywhere
- Start from a stable core with a well defined set of basic functionalities
- Open access policy:
 - Run all developments through cvs
 - Use Eclipse Update mechanism from the beginning
 - Allow remote developers to publish their plugins on DESY update site

Basic Ideas

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Central Logging



Example:

`CentralLogger.getInstance().warn(this, "writeVector < 500 - resume writing");`

Basic Ideas

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Authentication/ Authorization

Authentication:

- Implementation of an Interface
 - You can add your Implementation
 - DESY will implement Kerberos

Authorization:

- Implementation of an Interface
 - You can add your Implementation
 - DESY will implement an LDAP configuration server

Basic Ideas

- MB3 (Mouse Button 3)
'Information on your fingertips'
 - Definition of Data Types
 - Drag and Drop
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Using the CSS core for UI and for headless applications

The aim is to:

- Share the CSS-core functionality
 - Logging interfaces
 - Management interfaces
- Share preferences (settings) with other CSS-plugins
- One infrastructure for UI and headless applications
- To achieve this, it's necessary to clearly separate UI code from core (non UI) code.

Plans for future CSS developments (short term)

- Implement Authentication (DESY: Kerberos) based on existing interface.
- Implement Authorization (DESY: LDAP) based on existing interface
- Alarm Properties Editor
- SNL Editor
- Integration of Device Database (MB3 Information on your fingertips)
- Improvement of Management Plugin
- 'Save-Value' Extension Point
- SDS Conversion Tool (*.adl to *.CSS-SDS)

Save Value – Extension Point

- MB3 on the value of a channel
 - Activate Plugin(s) that implement Extension Point
- Save Value Plugin Instance:
 - Can be different implementation on different sites

At DESY:

- Save value in restore.caPut which is loaded after IOC-Init –or-
- Save value in ioc.db –and-
- Save in Oracle database
- Wait until actions are confirmed (transaction) to make sure that the value is really available for the next IOC – reboot.

Plans for future CSS developments (long term)

- SNL Debugger
- PID Auto-tuning Plugin
- Clipboard for CSS data-types (objects)
 - ScreenShot Images
 - CSS-Data objects
 - Exchange objects with remote XMPP instances
- Record/ Playback of Actions

Wish list for future CSS developments – volunteers?

- A ‘real’ J-Probe
- Save/ Restore Plugin

... more throughout this meeting

Wish list - DataBrowser

- Use file extension which is MIME-Type aware:
e.g. use: <CSS-DAB>
- Implementation of 'Run' Mode for existing configurations like in SDS (run as Shell, run as View)

Wish list - other...