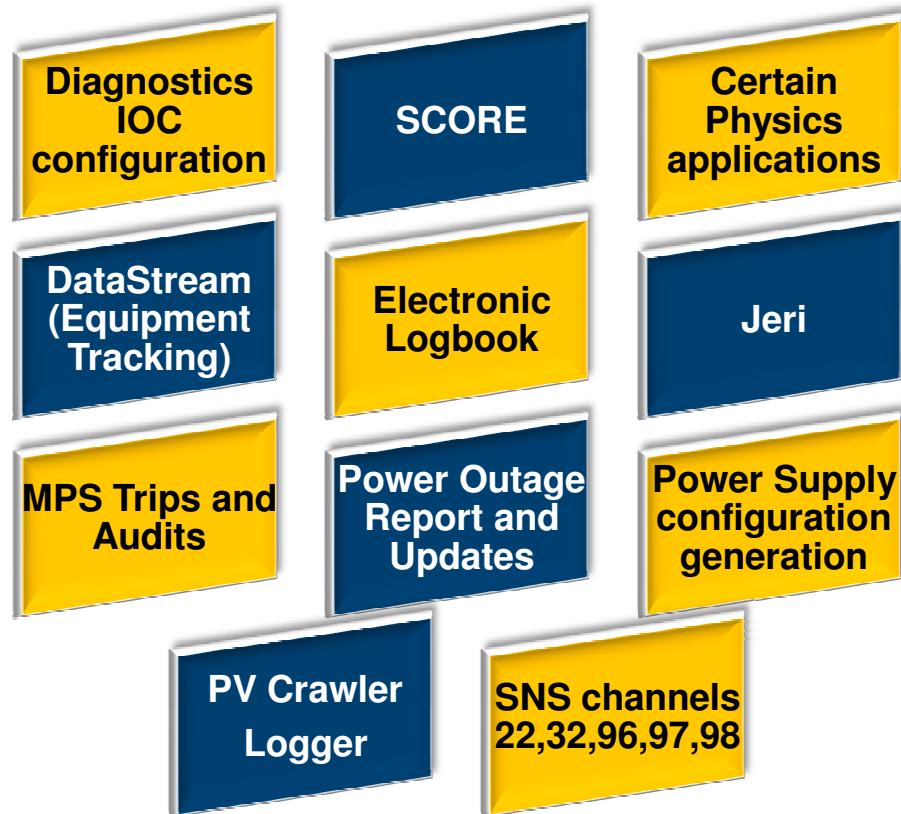


Control System Studio and the SNS Relational Database



Dave Purcell
PCaPAC 2008
October 20-23, 2008

Different Tools Related to the SNS RDB

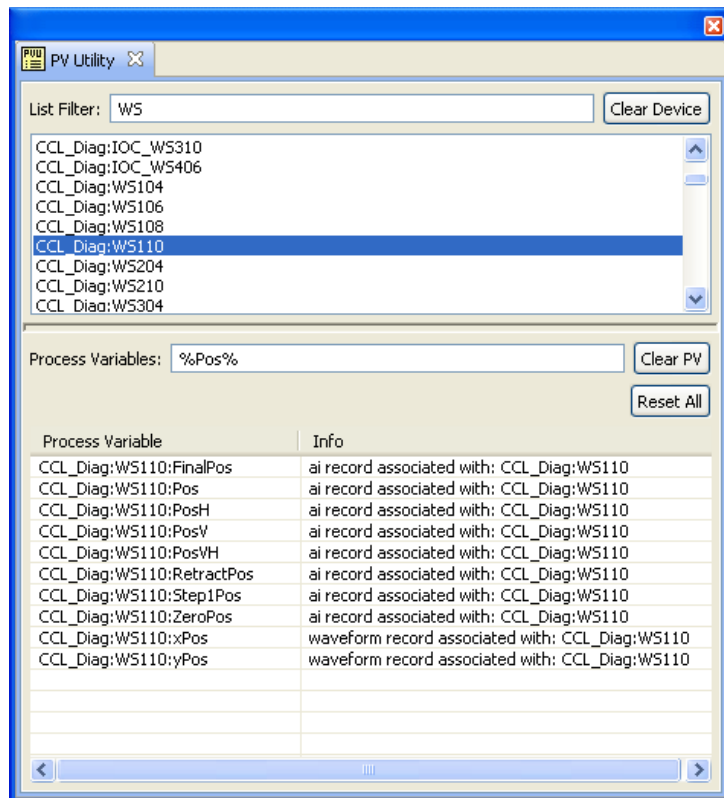


Research Accelerator Division
 Diagnostics IOC configuration
 BLM Statistics
 Bypass Request
 Data search and archive
 DataStream
 Datastream Reports
 Document Number Reservation
 Electronic Logbook
 Equipment Tracking
 Equipment Receiving
 ICS NetReg
 JACoW SPMS (ICALEPCS07)
 Jeri
 MPS Trips
 MPS Audits
 ODBC users
 Operations Administration
 Power Outage Report
 Power Updates
 Projectwise
 PSSO Wireless Handheld Meter Readings Entry
 PSSO Meter readings Report
 Certain Physics applications
 Power Supply configuration generation
 PV Crawler
 PV Logger
 RF Cavity trips
 SCORE
 SNS channels 22,32,96,97,98
 SNS Service Request Web Interface
 SNS Work Order Closeout
 Web reports including ROCS
Neutron Scattering Division
 Integrated Proposal Tracking System (IPTs)
 Primavera
 XWHOS
 SCIAT
 DALOG

Tools Languages

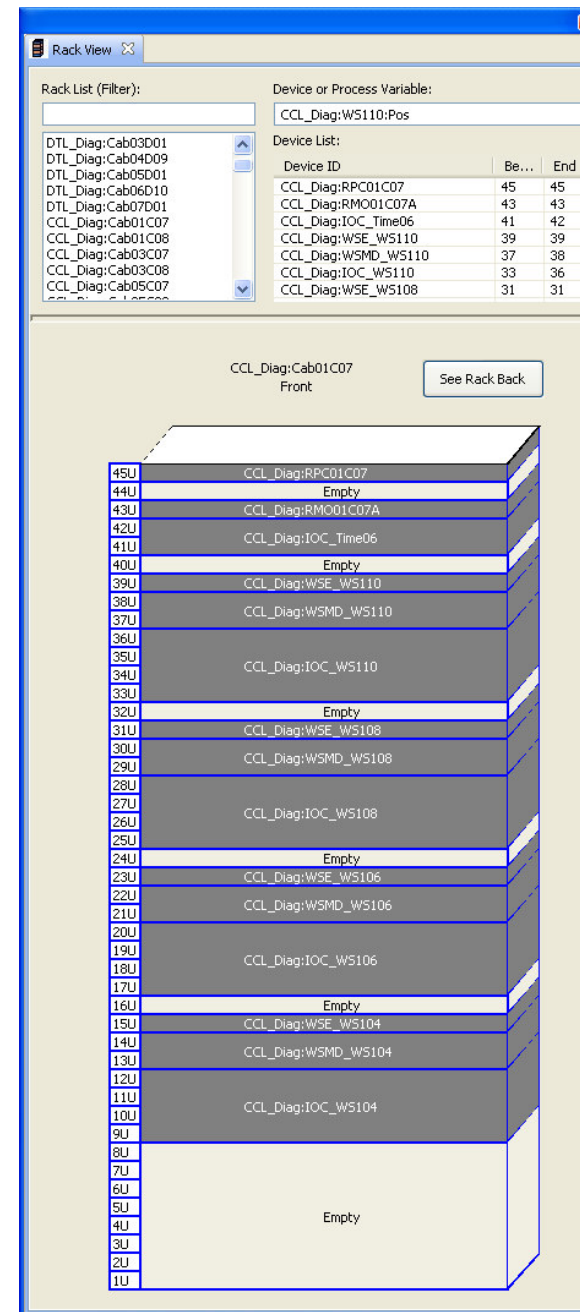
- **Java**
- **Web Pages**
 - **HTML, XML, PHP, Javascript (Ajax), Coldfusion, Jsp, etc.**
 - **CAML**
- **Perl**
- **Others?**

Two basic Utilities for SNS



PV Utility

Rack View Utility



PV Utility

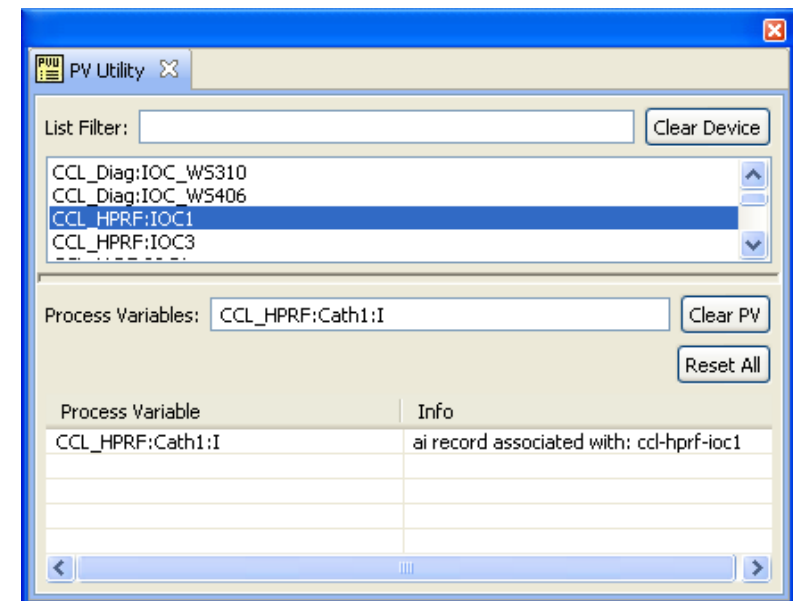
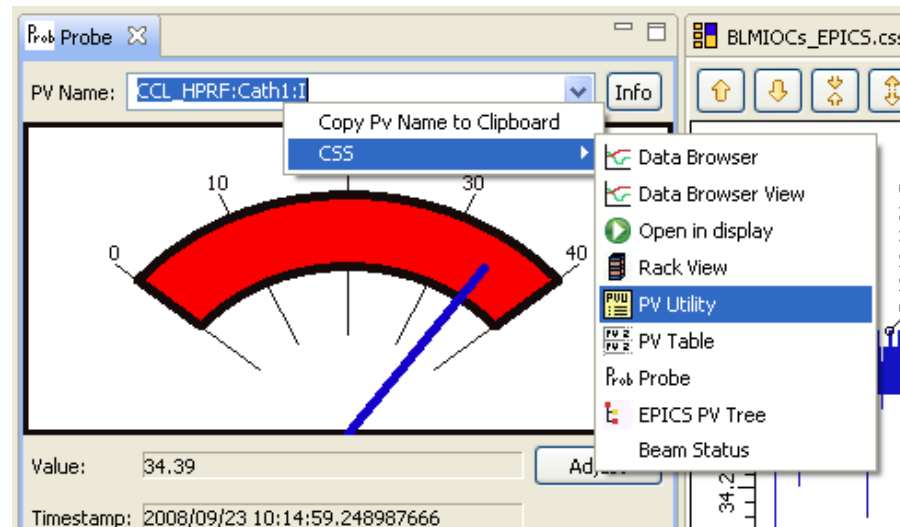
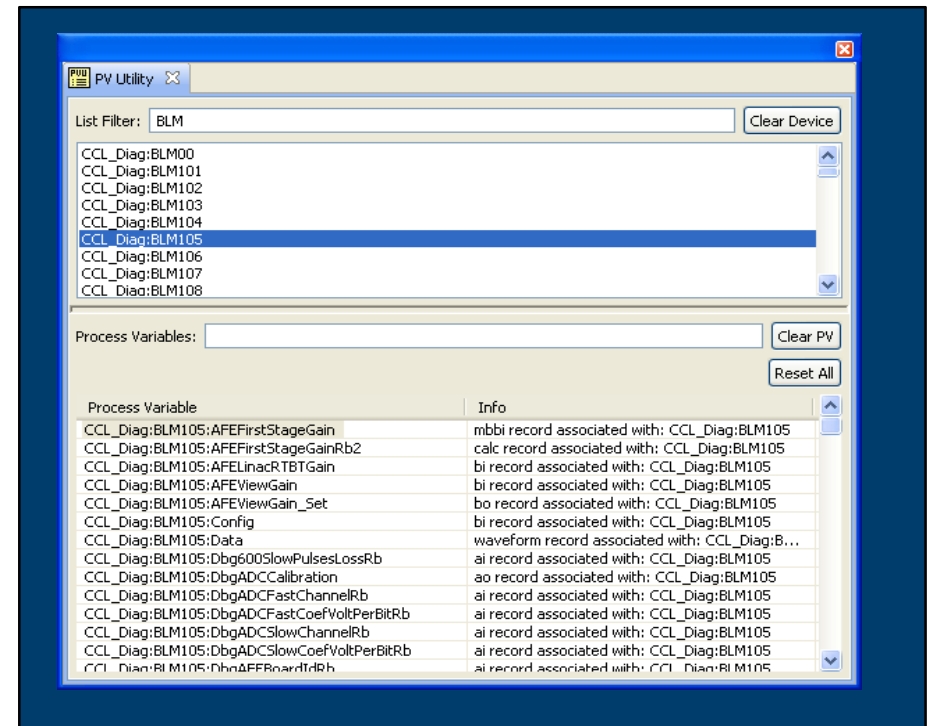
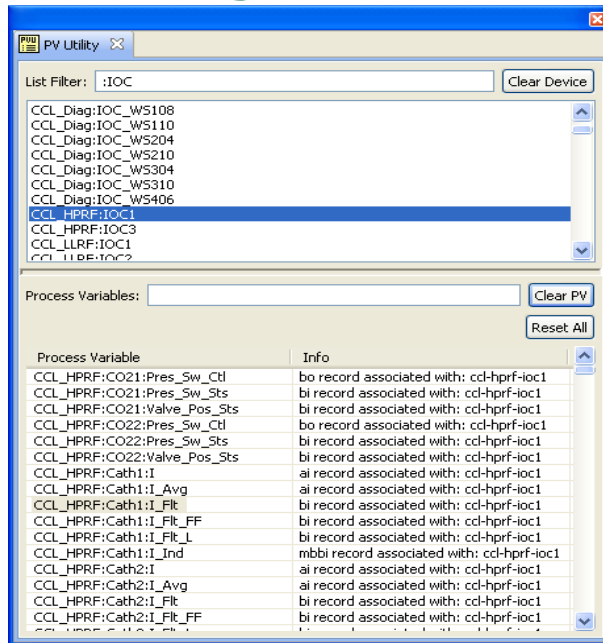
Requires

- **CSS Core Utility Plug-ins**
- **At Least One Interface Implementation**
 - **SNS Implementation RDB Utility for connection to Oracle.**

Provides

- **List of Devices or Components**
 - **Can be Filtered.**
 - **Will be converted to Object Extensions (Front End Controller)**
- **List of Process Variables**
 - **Based on Selected Device**
 - **Can be Filtered**
 - **Or combination of Device and Filter**

PV Utility



Rack View Utility

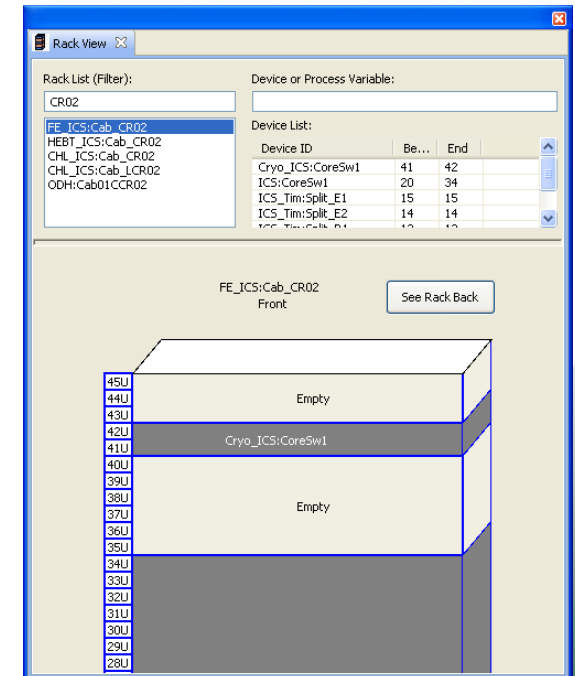
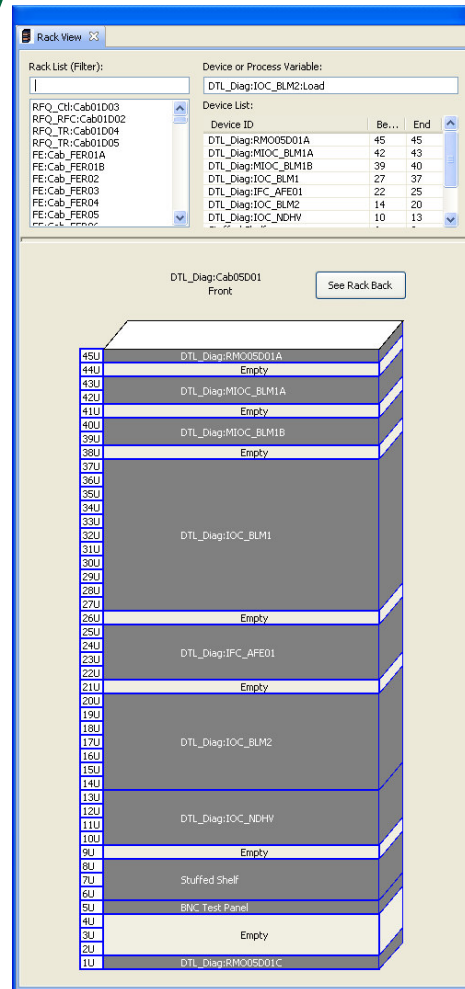
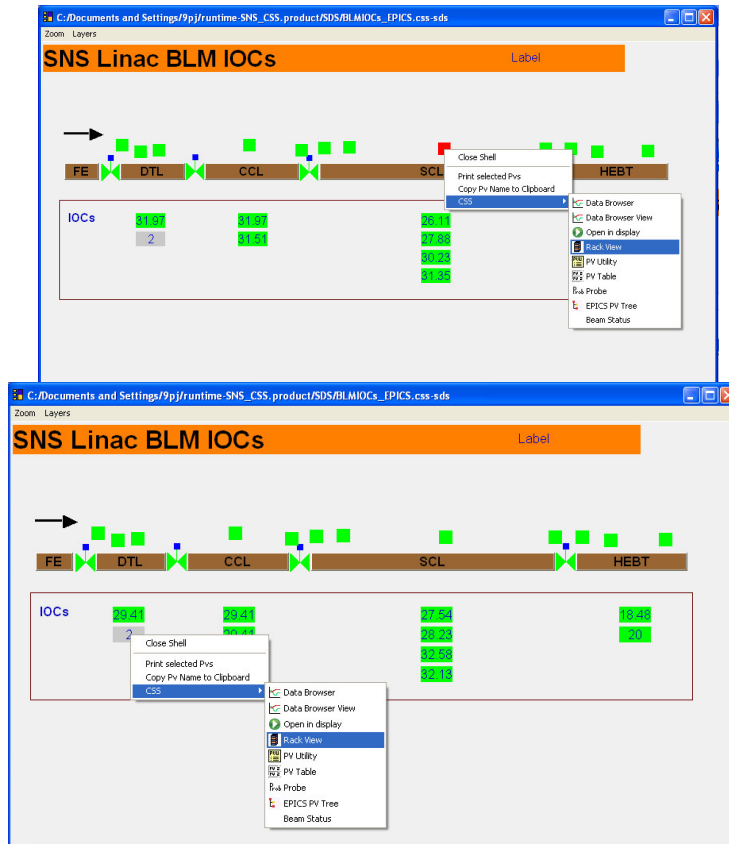
Also Requires

- **CSS Core Utility Plug-ins**
- **At Least One Interface Implementation**
 - **SNS Implementation RDB Utility for connection to Oracle.**

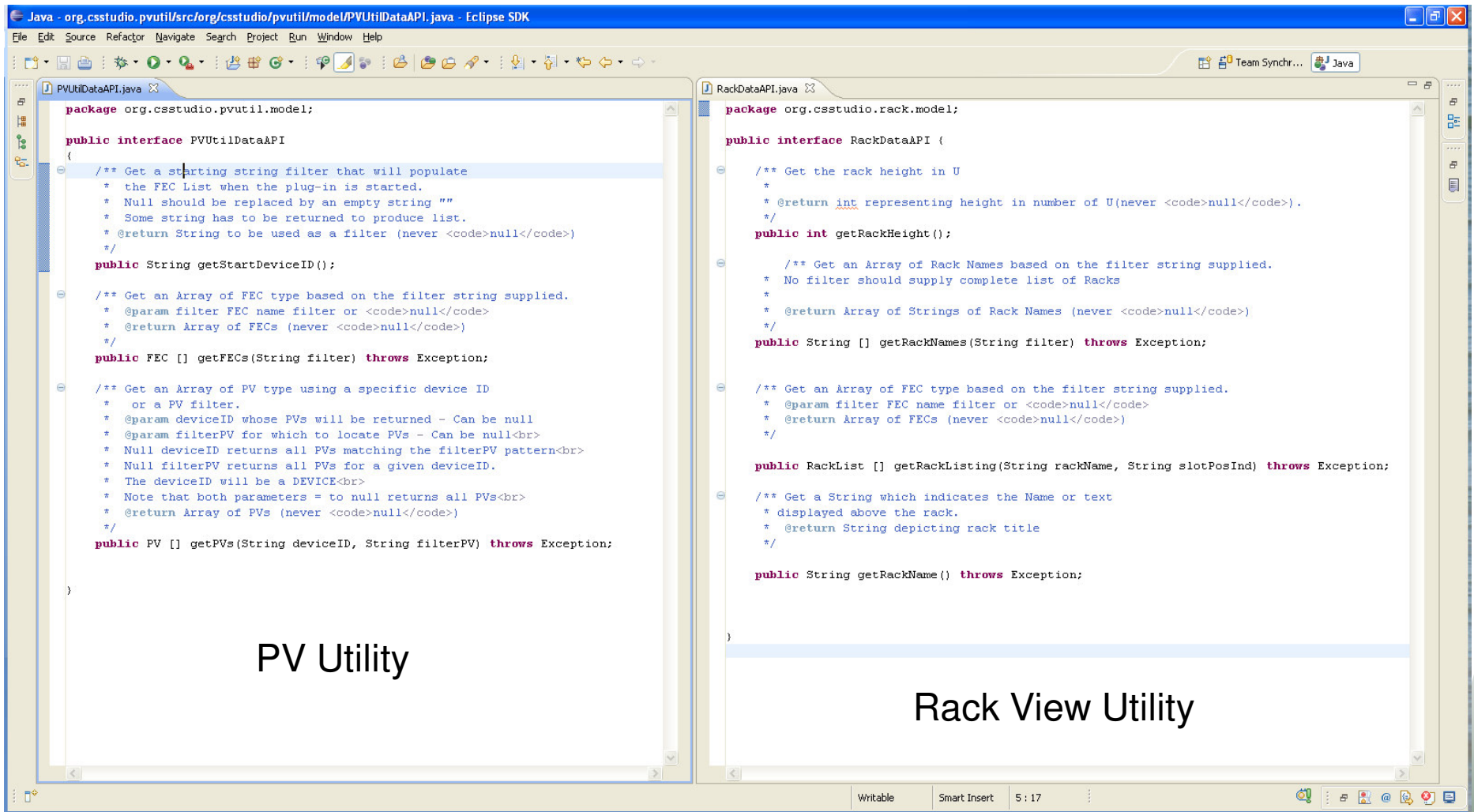
Provides

- **List of Racks at Facility**
 - **Can be Filtered.**
- **List of Rack Contents**
 - **Based on Selected Rack**
 - **Based on Device (Component) or Process Variable**
 - **Will be converted to Object Extensions (Front End Controller)**

Rack View Utility



Utility APIs



PV Utility

Rack View Utility

Other RDB Tools or CSS

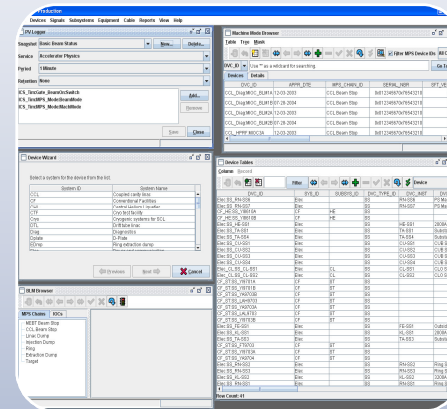


Web Browser (WebCA / CAML)

- Pros
 - Channel Access Support
 - XHTML, Documented, Power of the Web
- Cons
 - Automatic Extension Not Supported

JERI

- Pros
 - Java
 - Working Applications
 - Common Look and Feel
- Cons
 - CA Not Implemented
 - Stand Alone
 - Not Supported



Future

Implement Additional Object Types

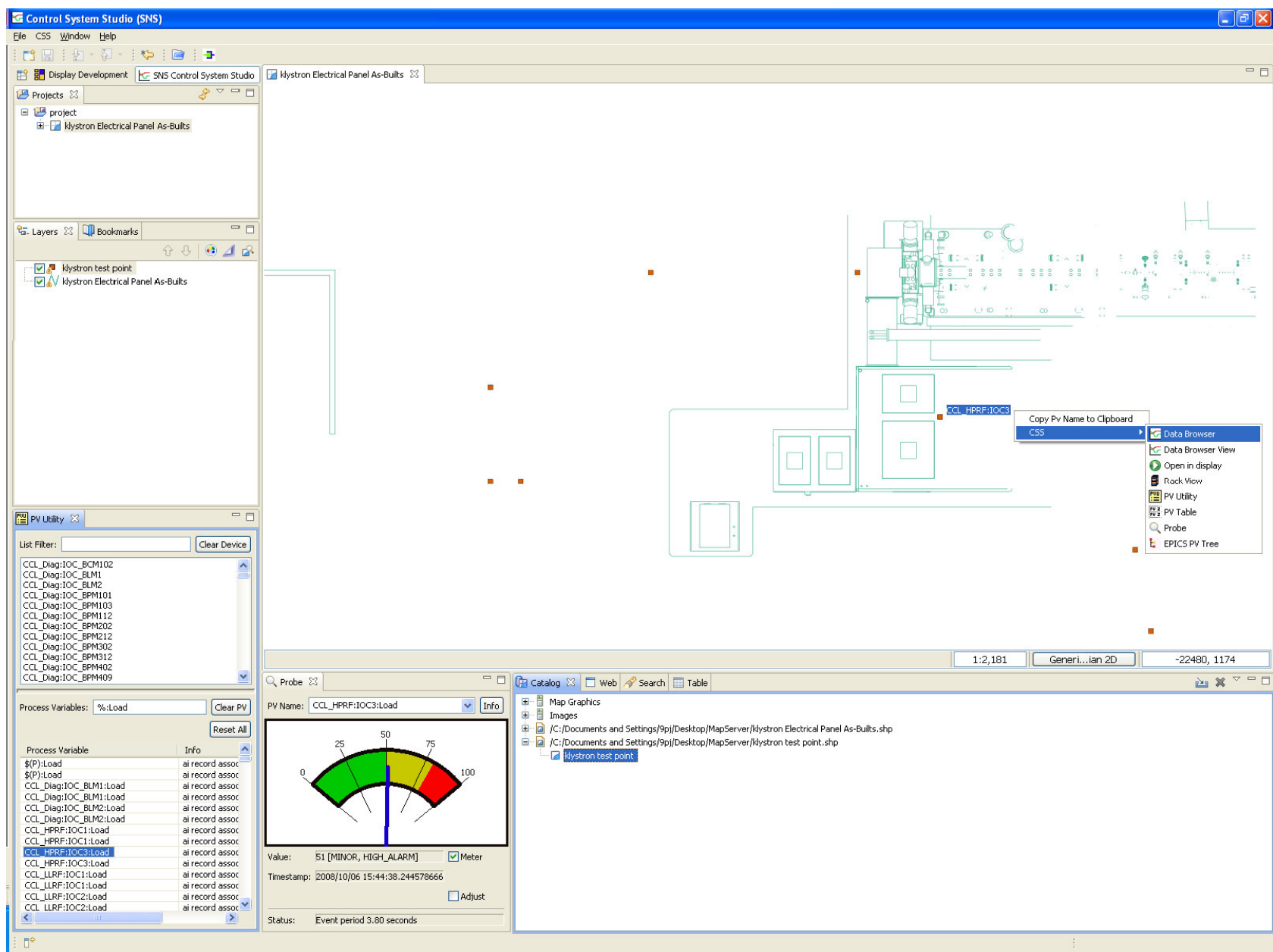
- Front End Controller
- Devices/Components
- Software

Additional Plug-ins

- GPS
- Cabling
- Software:
 - Including ANL Applications of Interest

SNS Specific Tools

- Data Manipulation
- Project Planning and Work Orders
- Configuration Management



Thank You.