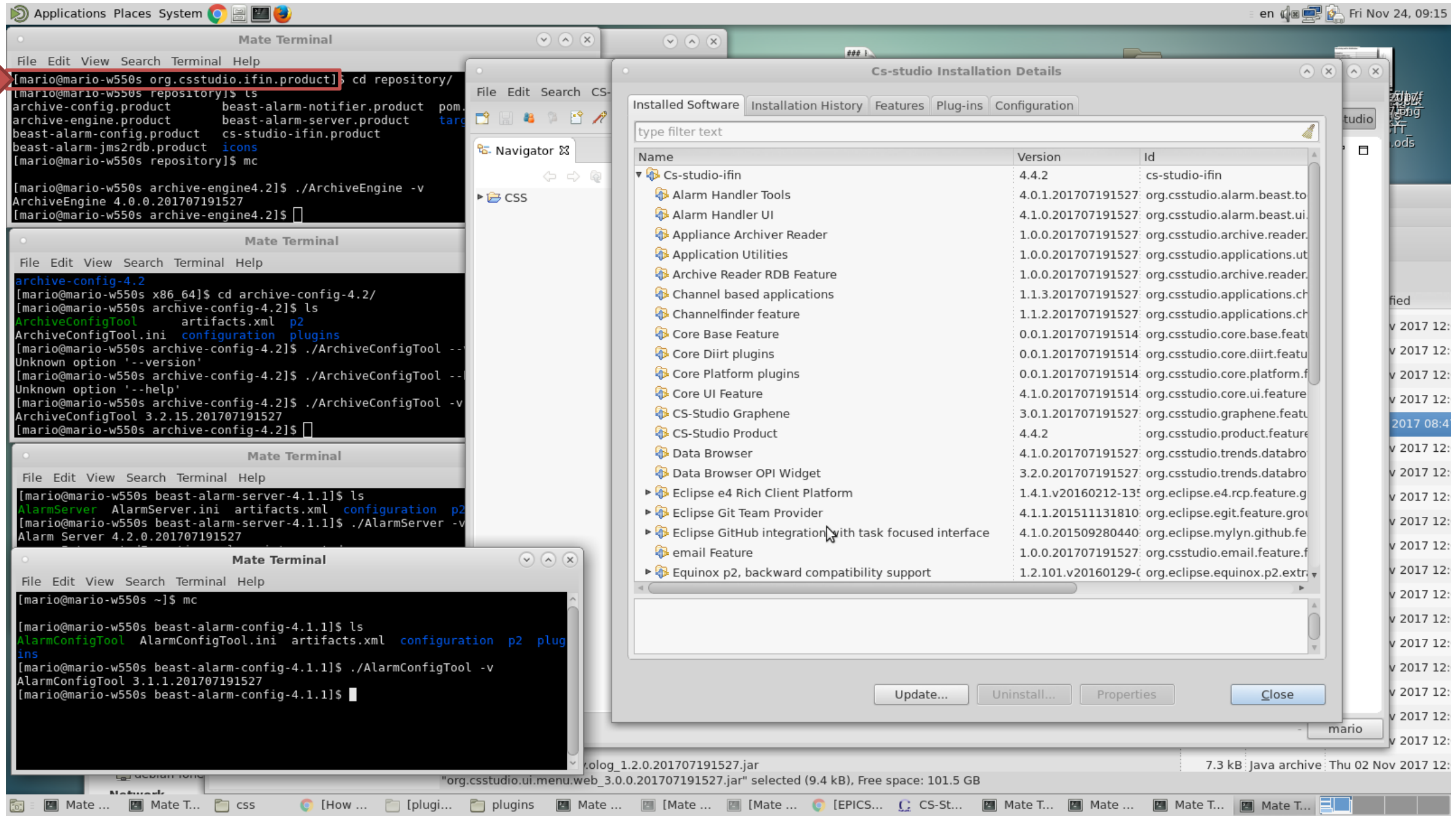
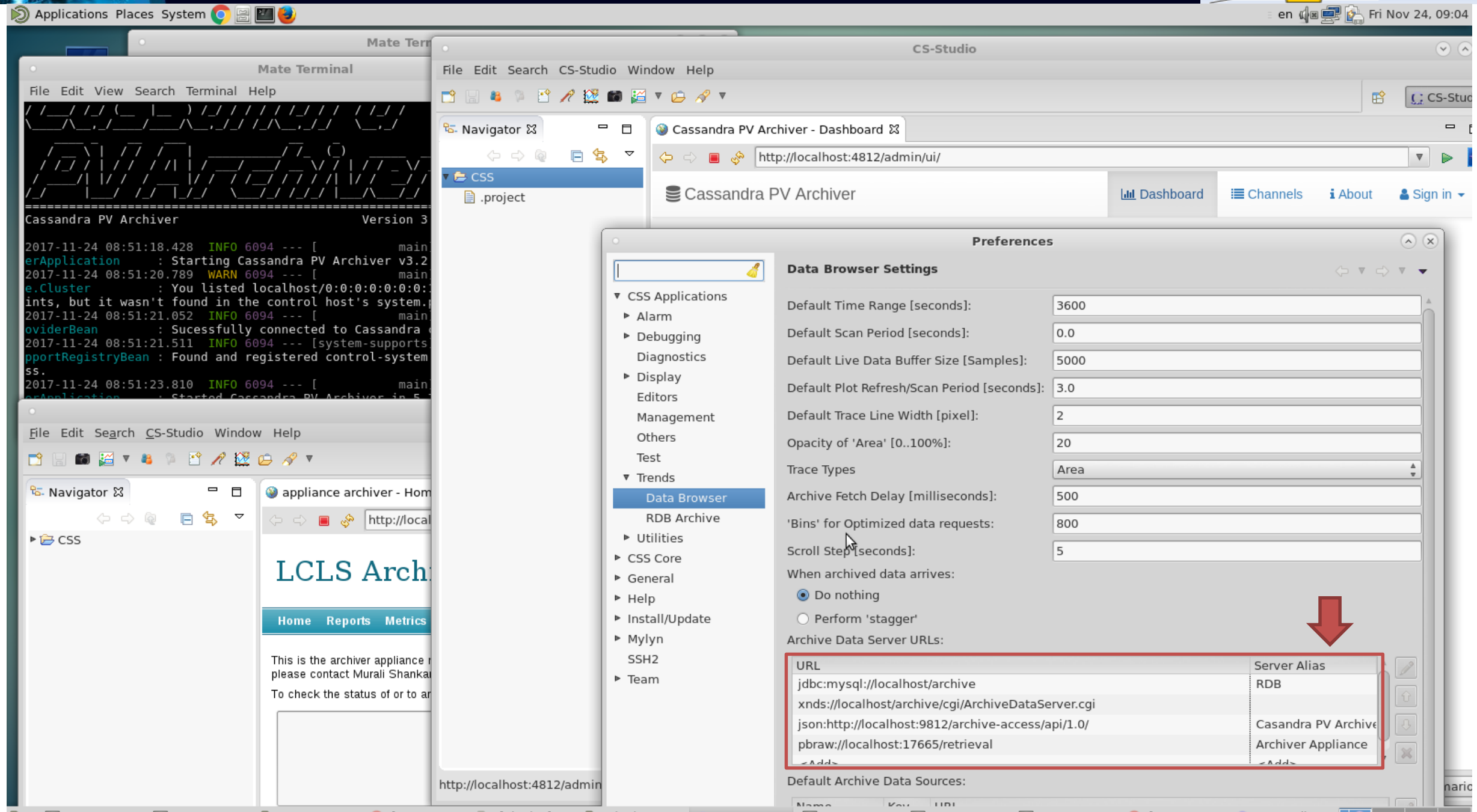
# PANDA DCS Core (group) Meeting

# Controls Requirements Summary Table

| Panda sub-system | Hardware Controls | | | | | | | | SW and/or HW Interface with | | | | Details | Contact person |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HV | LV | FEE | GAS | VAC | COOL | MOV | OHW | TRIG | HESR | OSYS | DSS | | |
| Pellet Target | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | Alexander Gerasimov |
| Cluster Jet Target | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | Bogusław Zwięgliński |
| Micro Vertex Detector | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | Hans-Georg Zaunick |
| Straw Tube Tracker | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | Mario Bragadireanu |
| Planar GEM Trackers | | | | | | | | | | | | | | Berndt Voss (?) |
| Barrel DIRC | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | Carsten Schwarz |
| Barrel Time of Flight (SciTil) | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | Ken Suzuki |
| Forward Tracking | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | Jerzy Smyrski |
| Endcap Disc DIRC | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | Avetik Hayrapetyan |
| Forward RICH | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | Sergey Kononov |
| Forward TOF | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | Denis Veretennikov |
| Barrel EMC | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Tobias Triffterer |
| Backward Endcap EMC | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | |
| Forward Endcap EMC | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | |
| Forward Shashlyk Calorimeter | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | Sofia Bukreeva |
| Luminosity Detector | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | Florian Feldbauer |
| Muon System | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | Nikolay Zhuravlev |
| Hypernuclear Target Sys | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | Michael Bölting |
| Hypernuclear Ge Det | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | Marcell Steinen |
| Solenoid | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | Alexandr Erokhin<br>Anastasios Belias |
| Dipole | | | | | | | | | | | | | | Dieter Prassuhn<br>Anastasios Belias |
| **Total (21 Sub-sys, 19 replies)** | 17 | 18 | 15 | 13 | 4 | 11 | 9 | 6 | 8 | 12 | 10 | 13 | 13 | |


Applications Places System
en Fri Nov 24, 09:15
Mate Terminal
File Edit View Search Terminal Help
[mario@mario-w550s org.csstudio.ifin.product]$ cd repository/
[mario@mario-w550s repository]$ ls
archive-config.product beast-alarm-notifier.product pom.
archive-engine.product beast-alarm-server.product targ
beast-alarm-config.product cs-studio-ifin.product
beast-alarm-jms2rdb.product icons
[mario@mario-w550s repository]$ mc
[mario@mario-w550s archive-engine4.2]$ ./ArchiveEngine -v
ArchiveEngine 4.0.0.201707191527
[mario@mario-w550s archive-engine4.2]$
Mate Terminal
File Edit View Search Terminal Help
archive-config-4.2
[mario@mario-w550s x86_64]$ cd archive-config-4.2/
[mario@mario-w550s archive-config-4.2]$ ls
ArchiveConfigTool artifacts.xml p2
ArchiveConfigTool.ini configuration plugins
[mario@mario-w550s archive-config-4.2]$ ./ArchiveConfigTool --
Unknown option '--version'
[mario@mario-w550s archive-config-4.2]$ ./ArchiveConfigTool --
Unknown option '--help'
[mario@mario-w550s archive-config-4.2]$ ./ArchiveConfigTool -v
ArchiveConfigTool 3.2.15.201707191527
[mario@mario-w550s archive-config-4.2]$
Mate Terminal
File Edit View Search Terminal Help
[mario@mario-w550s beast-alarm-server-4.1.1]$ ls
AlarmServer AlarmServer.ini artifacts.xml configuration p2
[mario@mario-w550s beast-alarm-server-4.1.1]$ ./AlarmServer -v
Alarm Server 4.2.0.201707191527
Mate Terminal
File Edit View Search Terminal Help
[mario@mario-w550s ~]$ mc
[mario@mario-w550s beast-alarm-config-4.1.1]$ ls
AlarmConfigTool AlarmConfigTool.ini artifacts.xml configuration p2 plug
ins
[mario@mario-w550s beast-alarm-config-4.1.1]$ ./AlarmConfigTool -v
AlarmConfigTool 3.1.1.201707191527
[mario@mario-w550s beast-alarm-config-4.1.1]$
File Edit Search CS-
Navigator
CSS
Cs-studio Installation Details
Installed Software
Installation History
Features
Plug-ins
Configuration
type filter text
Name
Version
Id
Cs-studio-ifin 4.4.2 cs-studio-ifin
Alarm Handler Tools 4.0.1.201707191527 org.csstudio.alarm.beast.to
Alarm Handler UI 4.1.0.201707191527 org.csstudio.alarm.beast.ui
Appliance Archiver Reader 1.0.0.201707191527 org.csstudio.archive.reader.
Application Utilities 1.0.0.201707191527 org.csstudio.applications.ut
Archive Reader RDB Feature 1.0.0.201707191527 org.csstudio.archive.reader.
Channel based applications 1.1.3.201707191527 org.csstudio.applications.ch
Channelfinder feature 1.1.2.201707191527 org.csstudio.applications.ch
Core Base Feature 0.0.1.201707191514 org.csstudio.core.base.featu
Core Diirt plugins 0.0.1.201707191514 org.csstudio.core.diirt.featu
Core Platform plugins 0.0.1.201707191514 org.csstudio.core.platform.f
Core UI Feature 4.1.0.201707191514 org.csstudio.core.ui.feature
CS-Studio Graphene 3.0.1.201707191527 org.csstudio.graphene.featu
CS-Studio Product 4.4.2 org.csstudio.product.feature
Data Browser 4.1.0.201707191527 org.csstudio.trends.databro
Data Browser OPI Widget 3.2.0.201707191527 org.csstudio.trends.databro
Eclipse e4 Rich Client Platform 1.4.1.v20160212-135 org.eclipse.e4.rcp.feature.g
Eclipse Git Team Provider 4.1.1.201511131810 org.eclipse.egit.feature.grou
Eclipse GitHub integration with task focused interface 4.1.0.201509280440 org.eclipse.mylyn.github.fe
email Feature 1.0.0.201707191527 org.csstudio.email.feature.f
Equinox p2, backward compatibility support 1.2.101.v20160129-( org.eclipse.equinox.p2.extra
Update...
Uninstall...
Properties
Close
mario
.olog_1.2.0.201707191527.jar
7.3 kB Java archive Thu 02 Nov 2017 12:
"org.csstudio.ui.menu.web_3.0.0.201707191527.jar" selected (9.4 kB), Free space: 101.5 GB
Mate ... Mate T... css [How ... [plugi... plugins Mate ... [Mate ... [Mate ... [EPICS... CS-St... Mate T... Mate ... Mate T... Mate T...


Applications Places System
Fri Nov 24, 09:04
Mate Terminal
File Edit View Search Terminal Help
Cassandra PV Archiver Version 3
2017-11-24 08:51:18.428 INFO 6094 --- [ main
erApplication : Starting Cassandra PV Archiver v3.2
2017-11-24 08:51:20.789 WARN 6094 --- [ main
e.Cluster : You listed localhost/0:0:0:0:0:0:0:1
ints, but it wasn't found in the control host's system.
2017-11-24 08:51:21.052 INFO 6094 --- [ main
oviderBean : Sucessfully connected to Cassandra
2017-11-24 08:51:21.511 INFO 6094 --- [system-supports
pportRegistryBean : Found and registered control-system
ss.
2017-11-24 08:51:23.810 INFO 6094 --- [ main
CS-Studio
File Edit Search CS-Studio Window Help
Navigator
CSS
.project
Cassandra PV Archiver - Dashboard
http://localhost:4812/admin/ui/
Cassandra PV Archiver
Dashboard
Channels
About
Sign in
Preferences
Data Browser Settings
CSS Applications
Alarm
Debugging
Diagnostics
Display
Editors
Management
Others
Test
Trends
Data Browser
RDB Archive
Utilities
CSS Core
General
Help
Install/Update
Mylyn
SSH2
Team
Default Time Range [seconds]: 3600
Default Scan Period [seconds]: 0.0
Default Live Data Buffer Size [Samples]: 5000
Default Plot Refresh/Scan Period [seconds]: 3.0
Default Trace Line Width [pixel]: 2
Opacity of 'Area' [0..100%]: 20
Trace Types Area
Archive Fetch Delay [milliseconds]: 500
'Bins' for Optimized data requests: 800
Scroll Step [seconds]: 5
When archived data arrives:
Do nothing
Perform 'stagger'
Archive Data Server URLs:
URL
Server Alias
jdbc:mysql://localhost/archive
RDB
xnds://localhost/archive/cgi/ArchiveDataServer.cgi
json:http://localhost:9812/archive-access/api/1.0/
Casandra PV Archive
pbraw://localhost:17665/retrieval
Archiver Appliance
Default Archive Data Sources:
appliance archiver - Hom
LCLS Archi
Home
Reports
Metrics
This is the archiver appliance
please contact Murali Shanka
To check the status of or to a
http://localhost:4812/admin

Applications Places System

en Fri Nov 24, 09:41

Mate Terminal

Mate Terminal

File Edit View Search Terminal Help

```
#!/usr/bin/env python

from pcaspy import Driver, SimpleServer
import random

prefix = 'STT:'
pvdb = {

    'SET_HV_000':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_001':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_002':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_003':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_004':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_005':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_006':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_007':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_008':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_009':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_010':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_011':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_012':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_013':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_014':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_015':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_016':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_017':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_018':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_019':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_020':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_021':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_022':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_023':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_024':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
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        'SET_HV_027':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_028':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_029':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
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        'SET_HV_031':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_032':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_033':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
        'SET_HV_034':{'prec': 0,'scan':10,'unit' : 'V', 'value' : 1800     },
:
```

PCASpy Documenta

Secure https://pcaspy.readthedocs.io/en/latest/

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pcaspy

latest

Search docs

- Installation
- Tutorial
- Other Tips
- Reference
- Development
- Release Notes



Read the Docs v: latest

# PCASpy Documentation

## Overview

PCASpy provides not only the low level python binding to EPICS Portable Channel Access Server but also the necessary high level abstraction to ease the server tool programming.

To get PCASpy for your system, checkout the Installation guide. Then to get started with, check out a series of Tutorial. It walks through the principles of a PCASpy application. After that you should feel confident to start your adventure. If necessary consult the Reference about the API.

After you have created an application, be it generic or site specific, share your experience at success stories and let others be inspired.

## Contents



Network

Browse Network

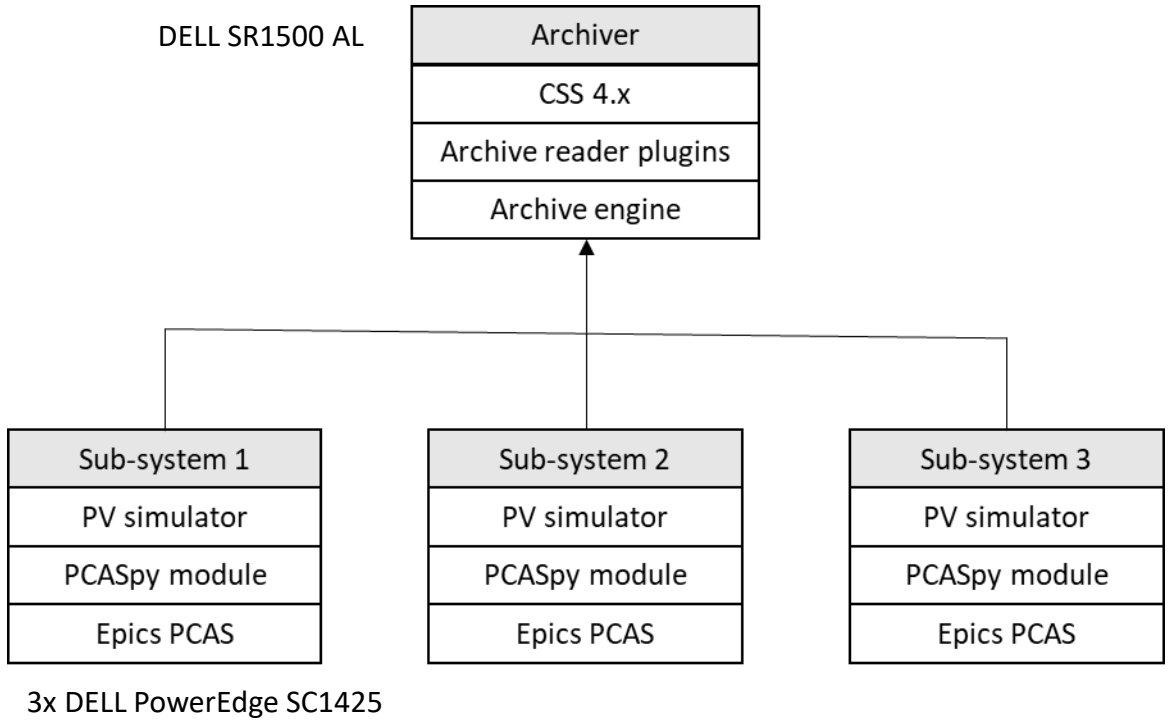
org.csstudio.utility.httpd_

org.csstudio.utility.ologu

org.csstudio.utility.olog_1.2.0.201707191527.jar 7.3 kB Java archive Thu 02 Nov 2017 12:

"org.csstudio.ui.menu.web_3.0.0.201707191527.jar" selected (9.4 kB), Free space: 101.5 GB

# Controls -Software proof of concept




**Proof of concept available in IFIN-HH:**

Hardware: reused from local PANDA grid
- In 2018 we can upgrade to a PowerEdge VRTX blade system

Archiver
- RDB Archive Engine;
- Archiver Appliance;
- Cassandra PV Archiver

PV-simulator: STT HV &LV ( 1248 PV's on each node)
- it can be easily scaled up by increasing the number of prefixes to the PV names