

Retrieval and Display of Module/ Hybrid Data from the SCT Database

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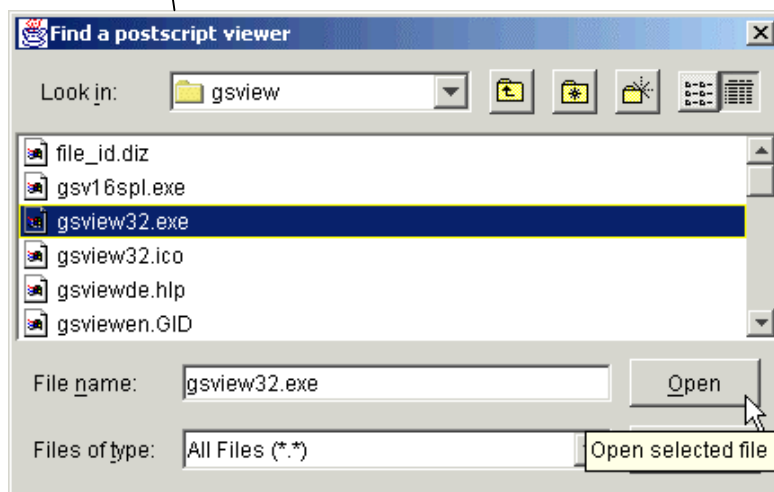
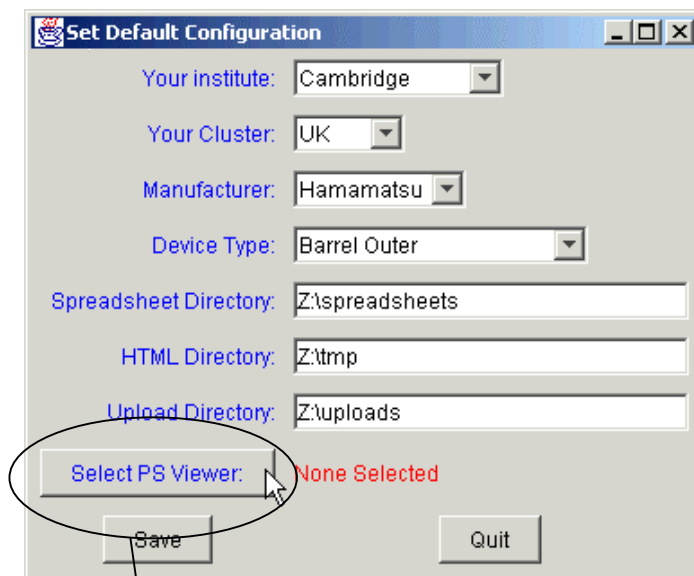
- Standalone application written in java
- runs on Windows, Linux and MacOSX
- available to download from
<http://www.hep.phy.cam.ac.uk/~silicon/jSCTDB.html>

- Test data for:
 - sensors
 - ASIC wafers
 - ASICS (Bill Murray)
 - Modules/hybrids
- Stocks
 - location, status etc
- Items
 - status, test history, shipment history, assembly tree, test report
- Shipments
 - reports, items in shipments
 - new shipments

Run by typing 'java sctdb/gui' from a command prompt.

First enter the password

Then setup your preferences:



Stocks Report.

Eg List all barrel ASIC-Hybrids and their locations

The screenshot shows a software window titled "Java SCT Database Interface" with a version of 6.6. It features a "Preferences" button in the top right. Below the title bar are tabs for "Stocks", "Items", "Shipments", and "Test Data", with "Stocks" being the active tab. The main area contains a red heading "List local stocks:" followed by three filter fields: "Location" set to "Anywhere", "Manufacturer" set to "Any", and "Device Type" set to "Barrel ASIC-Hybrid". A "Submit Database Query" button is positioned below these filters. At the bottom of the main area, a table displays "Query Results (101 records):". The table has five columns: "Serial Number", "Mfr Serial No", "Type", "Current Location", and "Assembled?". The visible rows show serial numbers from 20220338200001 to 20220338200008, all of type "bmHASIC" and located in "Birmingham", with an "Assembled?" status of "NO". At the bottom of the window are "Save Spreadsheet" and "Quit" buttons.

Serial Number	Mfr Serial No	Type	Current Location	Assembled?
20220338200001	20220338200001	bmHASIC	Birmingham	NO
20220338200002	20220338200002	bmHASIC	Birmingham	NO
20220338200003	20220338200003	bmHASIC	Birmingham	NO
20220338200004	20220338200004	bmHASIC	Birmingham	NO
20220338200005	20220338200005	bmHASIC	Birmingham	NO
20220338200006	20220338200006	bmHASIC	Birmingham	NO
20220338200007	20220338200007	bmHASIC	Birmingham	NO
20220338200008	20220338200008	bmHASIC	Birmingham	NO

Item Reports – Eg EndCap Hybrid

Version 6.6 Preferences

Java SCT Database Interface

Stocks | **Items** | Shipments | Test Data

Retrieve Single Item Information

Serial Number:

Status

Test History

Shipment History

Assembly Tree

Full Report

Assembly Trees

Assembly Tree containing 20220990032339

- [-] Assembly Tree
 - [-] 20220990103056 (fmModuleOutK5)
 - 20220900600580 (fmSiDetectorW31) Position 1
 - 20220900600583 (fmSiDetectorW31) Position 2
 - 20220900700798 (fmSiDetectorW32) Position 1
 - 20220900700802 (fmSiDetectorW32) Position 2
 - 20220990000744 (fmFaninOutR) Position 1
 - 20220990000744 (fmFaninOutR) Position 1
 - 20220990000748 (fmFaninOutL) Position 2
 - 20220990000748 (fmFaninOutL) Position 2
 - [-] 20220990032339 (fhHybridK5) Position 1
 - 20220950000315 (fhFlexK5) Position 1
 - 20220990032353 (fmSpineOut) Position 1

records):

Received By	Send Date	Received?
xford	03JUN2002	YES
eneva	05SEP2002	YES

Module/Hybrid Reports

Version 6.6 Preferences

Java SCT Database Interface

Stocks | Items | Shipments | **Test Data**

Sensors | ASIC Wafers | ASICs | Barrel Modules | EndCap Modules

Device Selection

Cluster: Tested at: Current Locn:

Serial No Range: From: To:

SCTDAQ | IV | ROD | Assemblies | DataSheets | Metrology | Profiles

Select SCTDAQ Test Data

Device: Temperature:

Reset
 Redundancy
 FullByPass
 Pipeline
 StrobeDelay
 3PtGain
 Trim
 ResponseCurve
 Noise
 TimeWalk
 LongTerm

TrimScan Type: Data:

Query Results (10 records):

Serial No	Location	Date	Status	Defects	Icc N...	Idd No...	Icc No...	Idd N...
20220330200003	Cambridge	27SEP2002	Pass	0	140	520	960	250
20220330200011	Cambridge	27SEP2002	Pass	0	70	490	920	210
20220330200011	Cambridge	09OCT2002	Pass	0	80	520	1010	250
20220330200011	Cambridge	06JAN2003	Pass	0	410	490	930	210
20220330200013	Cambridge	27SEP2002	Pass	0	410	490	920	220
20220330200017	Cambridge	26FEB2003	Pass	0	150	480	940	220
20220330200018	Cambridge	04FEB2003	Pass	0	80	480	960	220
20220330200020	Cambridge	28JAN2003	Pass	0	110	530	920	250

EndCap Modules Tab

Version 6.6 Preferences

Java SCT Database Interface

Stocks | Items | Shipments | **Test Data**

Sensors | ASIC Wafers | ASICs | Barrel Modules | **EndCap Modules**

Device Selection

Tested at: Current Locn:

Enter serial number range using full 14-digit numbers:

From: To:

SCTDAQ Data | IV Scans | ROD | Assemblies

Select SCTDAQ Test Data

Temperature:

Reset Redundancy FullByPass Pipeline

StrobeDelay 3PtGain Trim ResponseCurve

Noise TimeWalk LongTerm

TrimScan Type: Data:

Query Results:

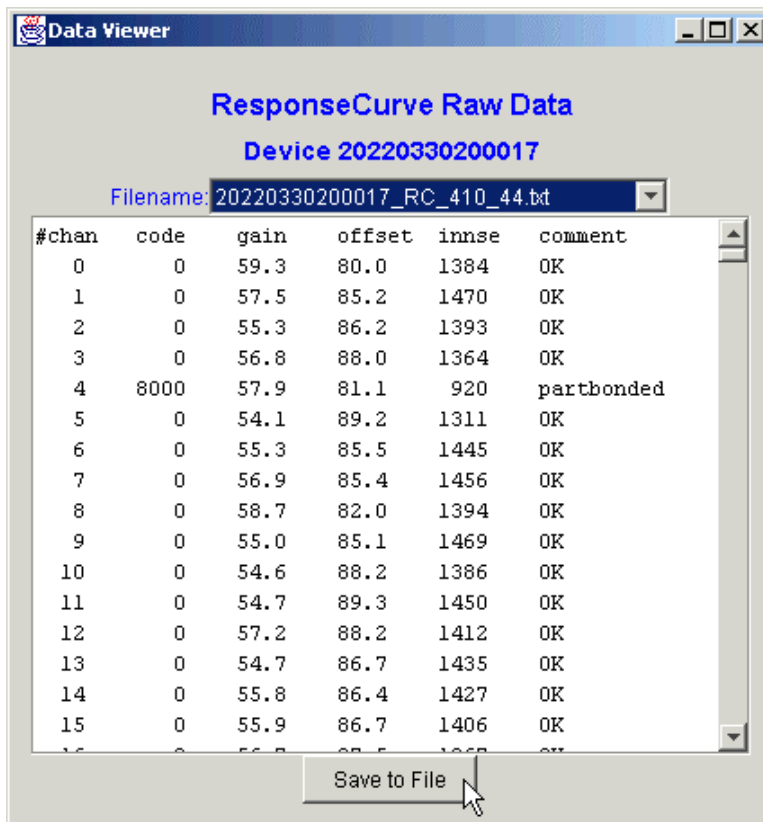
Eg, Noise from Response Curve Scan

The screenshot shows the 'Java SCT Database Interface' software. It has a menu bar with 'Stocks', 'Items', 'Shipments', and 'Test Data'. Below that are sub-menus for 'Sensors', 'ASIC Wafers', 'ASICs', 'Barrel Modules', and 'EndCap Modules'. The main area is titled 'Device Selection' and contains several dropdown menus: 'Cluster' (UK), 'Tested at' (Cambridge), 'Current Locn' (Anywhere), 'Serial No Range' (From: 1, To: 9999). Below this is another set of sub-menus: 'SCTDAQ', 'IV', 'ROD', 'Assemblies', 'DataSheets', 'Metrology', and 'Profiles'. The 'Select SCTDAQ Test Data' section has a 'Device' dropdown (Modules) and a 'Temperature' dropdown (Any). There are several radio button options: 'Reset', 'Redundancy', 'FullByPass', 'Pipeline', 'StrobeDelay', '3PtGain', 'Trim', 'ResponseCurve' (selected), 'Noise', 'TimeWalk', and 'LongTerm'. There are also 'TrimScan Type' (n/a) and 'Data' (Input Noise ENC) dropdowns. At the bottom of the form are buttons for 'List Tests', 'All Tests', 'Full Data', and 'Raw Data'. Below the form is a table titled 'Query Results (12 records):' with columns for Serial No, Location, Date, Status, Defe..., M0, S1, S2, S3, S4, E5, M8, S9, S10, S11, S12, and E13. The table contains 12 rows of data. At the bottom of the window are buttons for 'Save Spreadsheet' and 'Quit'.

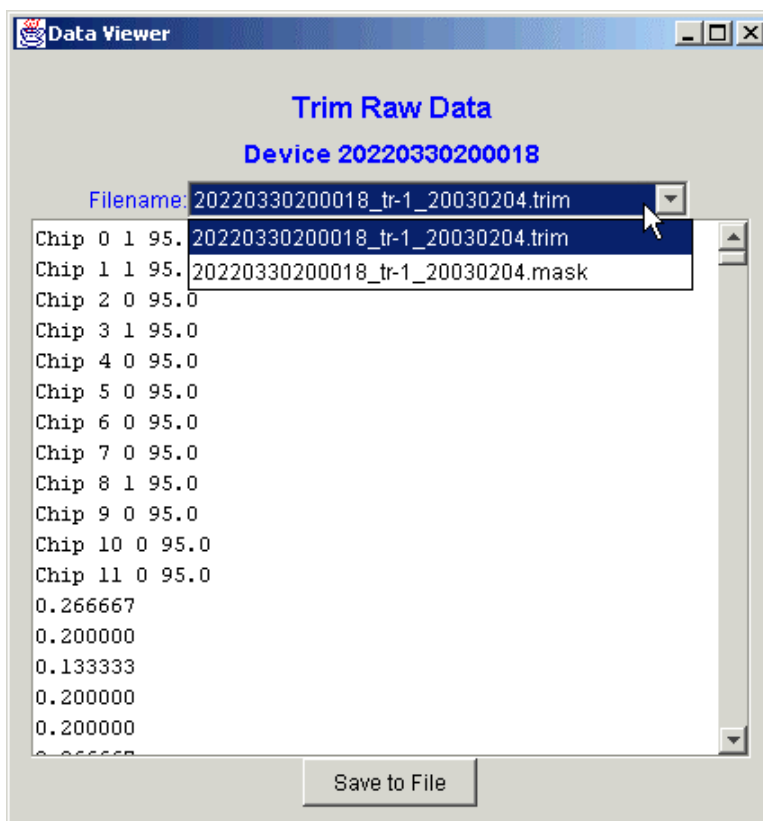
Serial No	Location	Date	Status	Defe...	M0	S1	S2	S3	S4	E5	M8	S9	S10	S11	S12	E13
20220330200003	Cambridge	27SEP2002	Pass	2	1392	1429	1421	1441	1416	1439	1481	1470	1442	1486	1442	1463
20220330200011	Cambridge	27SEP2002	Pass	0	1425	1437	1403	1402	1414	1411	1369	1375	1392	1426	1394	1439
20220330200011	Cambridge	27SEP2002	Pass	0	1425	1437	1403	1402	1414	1411	1369	1375	1392	1426	1394	1439
20220330200011	Cambridge	06JAN2003	Pass	0	1473	1510	1480	1484	1509	1489	1436	1459	1472	1502	1473	1492
20220330200013	Cambridge	27SEP2002	Pass	2	1427	1426	1445	1426	1430	1408	1452	1458	1393	1389	1389	1405
20220330200017	Cambridge	26FEB2003	Pass	3	1410	1362	1393	1399	1375	1400	1423	1412	1423	1428	1411	1403
20220330200018	Cambridge	04FEB2003	Pass	7	1451	1409	1444	1453	1442	1474	1458	1477	1479	1407	1460	1532
20220330200018	Cambridge	07FEB2003	Pass	7	1266	1231	1268	1246	1260	1270	1270	1274	1291	1232	1260	1314

- 'Raw Data' – download & display raw data
- 'Full Data' – display entire information for this test in a 'browser'
- 'All Tests' – display summary of all SCTDAQ tests for this module

Raw Data button downloads and unzips any raw data



RC data



Trim raw data comprises the trim file and the mask file.

'Full Test Reports' act like a web browser

SCTDAQ Test Report

ResponseCurve Test Report

Device 20220330200017 tested at Cambridge on 26FEB2003

Comments

No comments found

DAQ Information

Host	DAQ Version	DeviceType	Time
PCBJ	3.36	Barrel_Module	13:10:47

DCS Information

T0	T1	Vdet	Idet	Vcc	Icc	Vdd	Idd	Time Powered
27	27	197	1.3	3.5	1000	4.02	480	null

No link selected

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SCTDAQ Test Report

Fit P0	1747.11	1515.76	1527.55	1659.28	1546.94	1751	1736.65	1610.59	1633.22	2040.58	1810.05	1912.42
Fit P1	7.67	6.98	6.84	7.45	6.78	7.78	7.79	7.27	7.33	8.8	8.09	8.61
Fit P3	-787.24	-668.39	-676.5	-741.95	-687.32	-788.39	-780.84	-717.74	-729.62	-935.51	-818.06	-868.48
Fit Status	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Defects

Channel	Defect Type
4	PARTBONDED
176	PARTBONDED
763	NOISY

Plots

Title	Link
Plots (postscript)	http://www.hep.phy.cam.ac.uk/si-bin/getfile.pl?file=20220330200017_RCPlot_20030226_131049.ps

No link selected

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Clickable links to retrieve/display postscript or other reports/web links

'All Tests' Report

SCTDAQ Tests for 20220330200018

SCTDAQ Test Report for 20220330200018

Test Data

Test	Date	Location	Status	T0	T1	Comments	Summary	Raw Data	Plots
Reset	04FEB2003	Cambridge	Pass	19	19	No defects	Report		
FullByPass	04FEB2003	Cambridge	Pass	28	28	No defects	Report		
Pipeline	04FEB2003	Cambridge	Pass	28	28	No defects	Report		
StrobeDelay	04FEB2003	Cambridge	Pass	29	29	Delay from 10 to 12 No defects	Report		
3PtGain	04FEB2003	Cambridge	Pass	29	29	Gain from 53.4 to 59.1mV/fc Noise from 1453 to 1569 ENC 7 defect(s)	Report	Raw Data	Plots (postscript)
TrimRange 0	04FEB2003	Cambridge	FAIL	29	29	10 channels masked 7 defect(s)	Report	Trim/Mask	Plots (postscript)
						3 channels masked			

Raw data for Test number 990099135

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Clickable links to generate:

- Full Data report in same browser window
- Raw Data
- Plots/postscript

ROD Configuration Files

Java SCT Database Interface

Stocks | Items | Shipments | Test Data

Sensors | ASIC Wafers | ASICs | Barrel Modules | EndCap Modules

Device Selection

Cluster: UK | Tested at: Cambridge | Current Locn: Anywhere

Serial No Range: From: 1 | To: 9999

SCTDAQ | IV | ROD | Assemblies | DataSheets | Metrology | Profiles

List ROD module configuration Files

Temperature: Any

List Files

All Tests | Full Data | Raw Data

Query Results (7 records):

Device	Config file	Date	Temperature
20220330200020	20220330200020_369_65.xml	28JAN2003	27
20220330200018	20220330200018_375_64.xml	04FEB2003	29
20220330200024	20220330200024_383_65.xml	05FEB2003	29
20220330200028	20220330200028_383_65.xml	05FEB2003	
20220330200018	20220330200018_385_233.xml	07FEB2003	
20220330200028	20220330200028_385_233.xml	07FEB2003	
20220330200017	20220330200017_410_65.xml	26FEB2003	

Save Spreadsheet

Data Viewer

Reset Raw Data

Device 20220330200017

Filename: 20220330200017_410_65.xml

```

<module>
  <sn>20220330200017</sn>
  <source>generated by SCTDAQ</source>
  <location>Cambridge</location>
  <date>26/02/03 14:44:33</date>
  <meta><version>3.36</version><run>410</run><scan>65</scan>
  <active>1</active>
  <select>0</select>
  <dcs name="vdet">197 100.00</dcs>
  <dcs name="vcc">3.50 1000</dcs>
  <dcs name="vdd">4.00 600</dcs>
  <chip id="00" address="0x20" active="1">
    <config> 2 3 1 1 0 0 0 0 1 0 0</config>
    <mask> 0xffffffff 0xffffffff 0xffffffff 0xffffffff</mask>
    <reg name="vthr">0x39</reg>
    <reg name="vcac">0xa0</reg>
    <reg name="delay">0x0c</reg>
  </chip>
  </module>
    
```

Save to File

Status of Assemblies

The screenshot displays the 'Java SCT Database Interface' window, version 6.6. The interface includes several tabs: 'Stocks', 'Items', 'Shipments', 'Test Data', 'Sensors', 'ASIC Wafers', 'ASICs', 'Barrel Modules', and 'EndCap Modules'. The 'Test Data' tab is active, showing a 'Device Selection' section with dropdown menus for 'Cluster' (UK), 'Tested at' (Cambridge), and 'Current Locn' (Anywhere). Below these are input fields for 'Serial No Range' from 1 to 9999. A secondary section, 'List Registered Assemblies', contains a 'Device' dropdown set to 'ASIC-Hybrids' and a 'List Assemblies' button. At the bottom of this section are buttons for 'All Tests', 'Full Data', and 'Raw Data'. The 'Full Data' button is circled, with an arrow pointing to a secondary window titled 'Assembly Trees'. This window shows a tree structure for assembly 20220338200002 (bmHASIC), listing 12 sub-assemblies with their serial numbers and positions. A 'Close' button is at the bottom of the 'Assembly Trees' window. In the main interface, a 'Query Results (1 records):' table is visible, and a 'Save Spreadsheet' button is at the bottom left.

Version 6.6 Preferences

Java SCT Database Interface

Stocks | Items | Shipments | Test Data

Sensors | ASIC Wafers | ASICs | Barrel Modules | EndCap Modules

Device Selection

Cluster: UK Tested at: Cambridge Current Locn: Anywhere

Serial No Range: From: 1 To: 9999

SCTDAQ | IV | ROD | Assemblies | DataSheets | Metrology | Profiles

List Registered Assemblies

Please ignore the 'Test At' field above.

Device: ASIC-Hybrids

List Assemblies

All Tests Full Data Raw Data

Query Results (1 records):

Serial No	Type	Assembly Date
20220338200002	bmHASIC	04JUL2002

Save Spreadsheet

Assembly Trees

Assembly Tree containing 20220338200002

- Assembly Tree
 - 20220338200002 (bmHASIC)
 - 20220337200002 (bmHPC) Position 1
 - 20220990034932 (chABCD3T) Position 1
 - 20220990034933 (chABCD3T) Position 2
 - 20220990034937 (chABCD3T) Position 3
 - 20220990034950 (chABCD3T) Position 4
 - 20220990034959 (chABCD3T) Position 5
 - 20220990034969 (chABCD3T) Position 6
 - 20220990034970 (chABCD3T) Position 7
 - 20220990034977 (chABCD3T) Position 8
 - 20220990034981 (chABCD3T) Position 9
 - 20220990034982 (chABCD3T) Position 10
 - 20220990034983 (chABCD3T) Position 11
 - 20220990034984 (chABCD3T) Position 12

Close

Summary

To do List:

- Optimise SCTDAQ 'summary' reports
- Complete reporting for barrel data:
 - datasheets
 - metrology
 - profiles

Please use it, and let me know of problems/bugs and requested features.