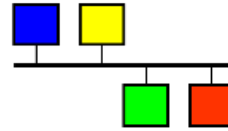


DE LA RECHERCHE À L'INDUSTRIE



EPICS



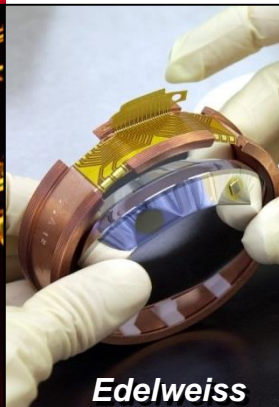
ARCHIVING APPLIANCE PLUGIN DEVELOPMENT FOR DATA BROWSER



Double Chooz



ALICE



Edelweiss



HESS



Herschel



CMS



Katy SAINTIN

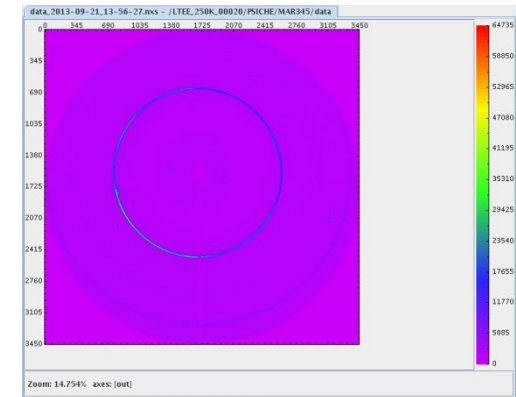
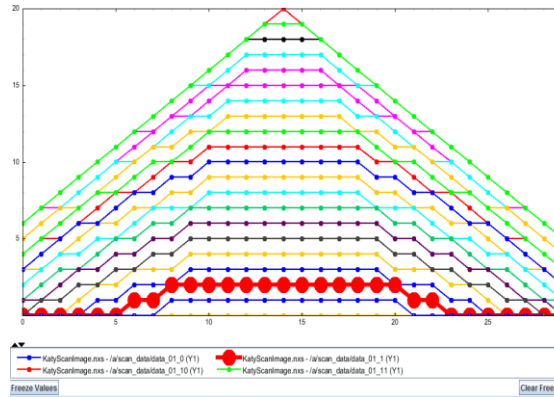
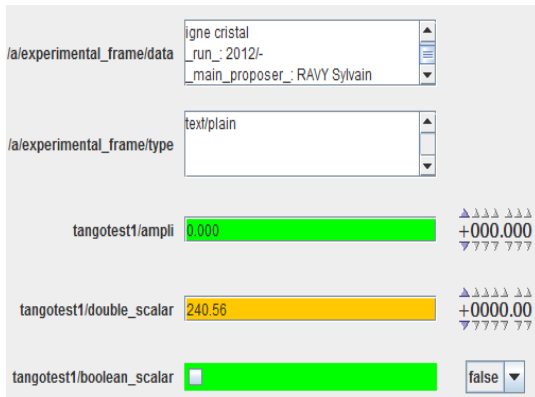
June 2019





COMETE GUI Framework

<http://sourceforge.net/projects/comete/>



CDMA Framework

<https://sourceforge.net/projects/commondatamodel>



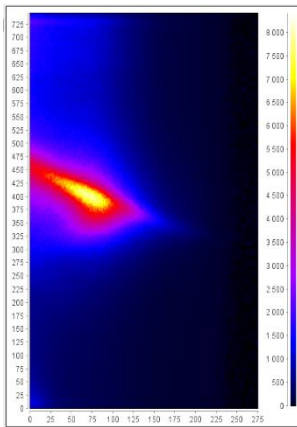
Soleil plugins :
Nexus file, EDF file,
Tango control system,
Archiving database.

Ansto plugins :
NetCDF,
HDF



COMETE GUI FRAMEWORK

COMmunity of Extendable Toolkit for Experiment



ImageViewer SWT

COMETE Widgets

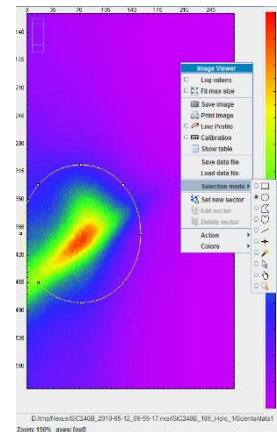
Comete SWT

Comete AWT

Comete SWING

Data Source

CDMA



ImageViewer SWING



File: D:\temp\Nexus\Nexus_00288.nxs

- ↳ Scanning_0000
 - ↳ METROLOGIE
 - ↳ User
 - ↳ scan_data
 - ↳ read_image
- ↳ D:\temp\Nexus\XPS527_2010-07-08_23-00-50.nxs
 - ↳ XPS527_130_Holo_100
 - ↳ ANTADES
 - ↳ Science
 - ↳ Science_3_3
 - ↳ chroMediCalc
 - ↳ detail
 - ↳ sliceCalc
 - ↳ sumDef
 - ↳ User
 - ↳ comment_conditions
 - ↳ experimental_frame
 - ↳ definition
 - ↳ duration
 - ↳ end_time
 - ↳ equipment_identifier
 - ↳ run_number
 - ↳ start_time
 - ↳ title
 - ↳ XPS527_131_Holo_101
 - ↳ XPS527_132_Holo_102
 - ↳ XPS527_133_Holo_103
 - ↳ XPS527_134_Holo_104
 - ↳ XPS527_135_Holo_105
 - ↳ XPS527_136_Holo_106
 - ↳ XPS527_137_Holo_107
 - ↳ XPS527_138_Holo_108
 - ↳ XPS527_139_Holo_109
 - ↳ XPS527_13_Holo_10
 - ↳ XPS527_110_Holo_110
 - ↳ XPS527_111_Holo_111
 - ↳ XPS527_112_Holo_112
 - ↳ XPS527_113_Holo_113
 - ↳ XPS527_114_Holo_114
 - ↳ XPS527_115_Holo_115
 - ↳ XPS527_116_Holo_116
 - ↳ XPS527_117_Holo_117
 - ↳ XPS527_118_Holo_118
 - ↳ XPS527_119_Holo_119
 - ↳ XPS527_120_Holo_120
 - ↳ XPS527_121_Holo_121
 - ↳ XPS527_122_Holo_122

Data Item: XPS527_7_130_Holo_130_Science_0_0\data1

	0	1	2	3	4	750
0	123.0	243.0	171.0	227.0	180.0	721.5
1	132.0	189.0	212.0	222.0	180.0	701.0
2	144.0	227.0	170.0	143.0	142.0	677.5
3	136.0	113.0	190.0	183.0	182.0	659.0
4	165.0	145.0	155.0	136.0	136.0	623.5
5	185.0	198.0	185.0	172.0	147.0	600.0
6	196.0	198.0	217.0	177.0	151.0	571.5
7	143.0	182.0	170.0	170.0	129.0	550.0
8	199.0	180.0	130.0	161.0	221.0	521.5
9	246.0	183.0	154.0	153.0	118.0	501.0
10	180.0	174.0	141.0	175.0	136.0	471.5
11	166.0	171.0	170.0	128.0	142.0	450.0
12	118.0	141.0	144.0	158.0	189.0	424.5
13	200.0	160.0	168.0	157.0	192.0	403.0
14	176.0	161.0	248.0	212.0	170.0	371.5
15	209.0	277.0	179.0	159.0	189.0	361.0
16	175.0	200.0	260.0	187.0	185.0	309.0
17	161.0	236.0	161.0	185.0	185.0	271.5
18	174.0	133.0	164.0	253.0	222.0	251.0
19	182.0	162.0	136.0	223.0	158.0	251.5
20	213.0	307.0	214.0	233.0	186.0	221.5
21	189.0	174.0	221.0	266.0	173.0	209.0
22	118.0	165.0	200.0	261.0	170.0	171.5
23	225.0	187.0	207.0	143.0	143.0	161.0
24	244.0	226.0	233.0	202.0	161.0	121.5
25	249.0	244.0	175.0	239.0	262.0	101.0
26	190.0	227.0	275.0	241.0	230.0	71.5
27	226.0	234.0	200.0	133.0	238.0	51.5
28	302.0	220.0	197.0	172.0	198.0	21.5
29	209.0	275.0	157.0	200.0	244.0	0.0

Name Value

Name	Value
signal	
timestamp	2010-07-08T05:04:01.466
description	Matrix with Slice times Channel...
_lastModified	2010-07-08T03:04:01.277

SOLEIL Proxima 2 Centring

3 Clicks Centring

STANDEY Phi scan terminated

Centring 3 Clicks Click1 Click2 Click3

OKAL Abort

Sample Visualization

Focus 0.2050 Zoom 1

Horizontal Translation X 2.50 Vertical Translation Z 0.0101

Back Light Front Light

OMEGA Axis

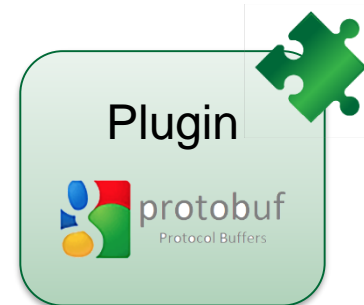
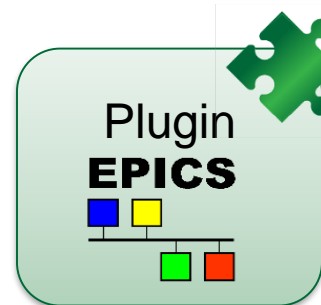
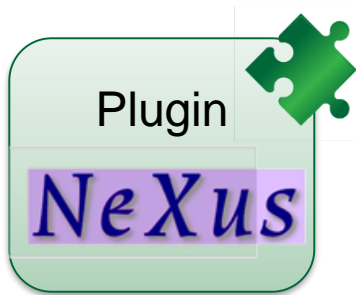
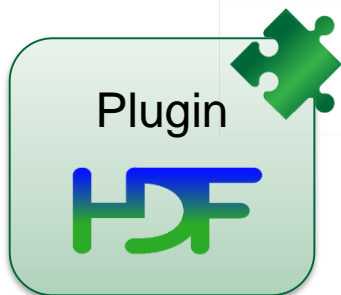
Position 90.447 Write

Rotation 90 180 0 180

Zoom: 100% axes [out]

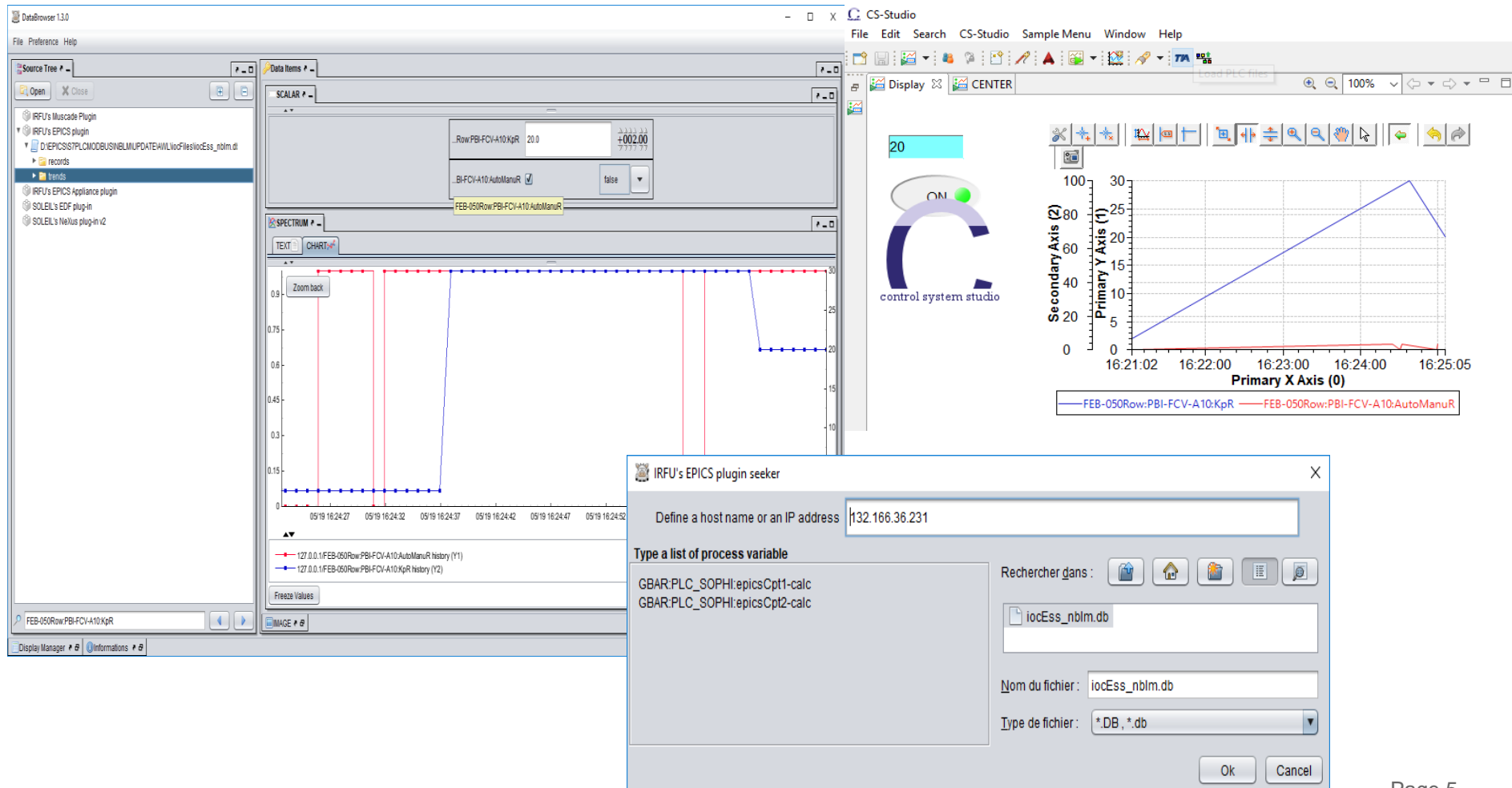
Name	Type	X	Y	Width	Height	Width (um)	Height (um)	Length	Length (um)
50 micro ...	Rectangle	301	242	50	50	50	50		

Common Data Model



CAJ : Channel Access for Java to read & write PV

VisualDCT : EPICS Visual Database Configuration Tool for parsing a EPICS db file



The screenshot displays the CS-Studio interface with several components:

- DataBrowser 1.3.0**: Shows a source tree on the left with folders for 'IRFU's Muscade Plugin', 'IRFU's EPICS plugin', and 'records'. The 'records' folder is expanded to show 'trends'.
- SCALAR**: A control panel for 'FEB-050Row:PBI-FCV-A10.KpR' with a value of 20.0 and a setpoint of +002.00. A checkbox for 'AutoManuR' is checked.
- SPECTRUM**: A chart showing two data series: 'FEB-050Row:PBI-FCV-A10.AutoManuR History (Y1)' (red line) and 'FEB-050Row:PBI-FCV-A10.KpR History (Y2)' (blue line). The Y-axis ranges from 0 to 0.9, and the X-axis shows time from 05:19 to 16:24:52.
- control system studio**: A central visualization area showing a '20' value and a 'ON' indicator with a green dot.
- Display**: A graph with two Y-axes. The Primary Y Axis (0) ranges from 0 to 30, and the Secondary Y Axis (2) ranges from 0 to 100. The X-axis is labeled 'Primary X Axis (0)' and shows time from 16:21:02 to 16:25:05. Two series are plotted: 'FEB-050Row:PBI-FCV-A10.KpR' (blue line) and 'FEB-050Row:PBI-FCV-A10.AutoManuR' (red line).
- IRFU's EPICS plugin seeker**: A dialog box for configuring the connection. It includes a text field for 'Define a host name or an IP address' with the value '132.166.36.231'. Below, it lists process variables: 'GBAR.PLC_SOPHI:epicsCpt1-calc' and 'GBAR.PLC_SOPHI:epicsCpt2-calc'. A search section 'Rechercher dans:' shows a file 'iocEss_nblm.db' with 'Nom du fichier:' and 'Type de fichier:' set to '*DB, *.db'.

EPICS Archiver Appliance : Read Google Protobuf files



The screenshot displays the EPICS Archiver Appliance Viewer interface. The main window shows a data plot with two series: GBAR:PLC_SOPHI:epicsCpt1-calc (blue line) and GBAR:PLC_SOPHI:epicsCpt2-calc (orange line). The y-axis is labeled 'SEC' and ranges from -20 to 80. The x-axis shows time intervals from 30s to 1Y.

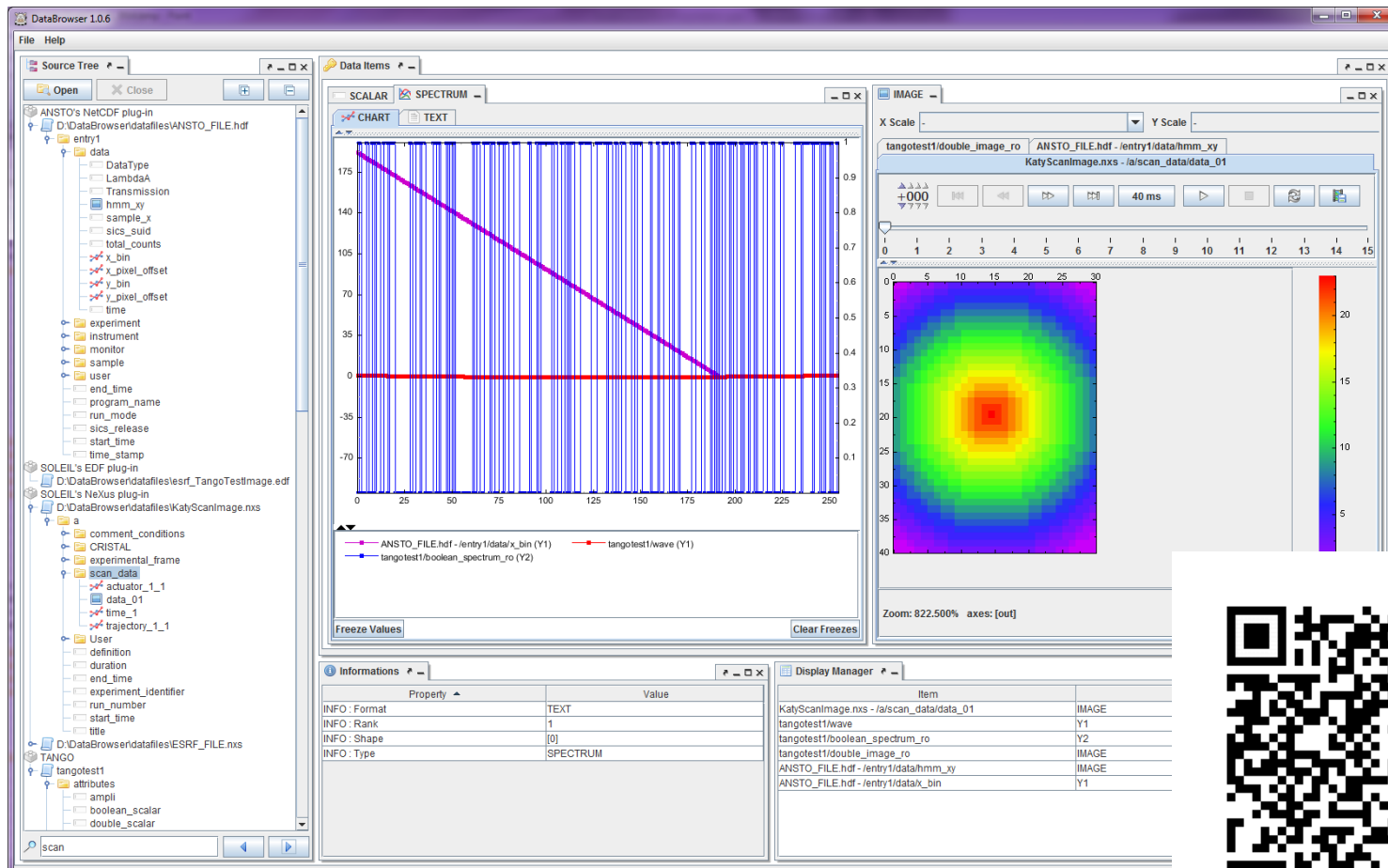
Overlaid on the main window are several configuration windows:

- DataBrowser 1.3.0**: Shows a source tree with folders for IRFU's Muscade Plugin, IRFU's EPICS plugin, and IRFU's EPICS Appliance plugin. The selected file is 'D:\EPICS\optimize-dlts\GBAR\PLC_SOPHI\epicsCpt2calc\2018.pb'.
- IRFU's EPICS Appliance plugin seeker**: A dialog box for searching files. It includes a search field containing 'calc\2018.pb', a file icon, and the Protobuf logo. The 'Options' section has 'Override Default settings' and 'Define a time range' checked. The 'Dynamic date range' is set to 'Last hour'. The 'Start date' is '2018-12-10 11:34:53' and the 'End date' is '2018-12-11 11:14:57'. The 'Sampling period' is 'None', 'Sampling factor' is '0', and 'Number max of events' is '0'.
- SCALAR**: A window showing a zoomed-in view of the data plot with a 'Zoom back' button.
- SPECTRUM**: A window showing a zoomed-in view of the data plot with a 'Zoom back' button.
- Informations**: A table showing properties and values for the selected file.

Property	Value
INFO : Format	NUMERICAL
INFO : Type	SPECTRUM
PV_INFO : Approximated events count	19351589
PV_INFO : Archiving data type	DOUBLE
PV_INFO : FilePath	D:\EPICS\optimize-dlts\GBAR\PLC_SOPHI\epicsCpt2calc\2018.pb
PV_INFO : First event date	Wed Oct 24 15:52:31 CEST 2018
PV_INFO : Last event date	Tue Dec 11 11:14:57 CET 2018
PV_INFO : numberMaxEvents	0
PV_INFO : samplingFactor	0



<http://wiki.synchrotron-soleil.fr/tikiwiki/tiki-index.php?page=How-browse-downloaded-Nexus-files>
<https://svn.code.sf.net/p/cometeapps/code/DataBrowser/delivery/cea/DataBrowserCEA-1.3.0.zip>





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