



Science & Technology
Facilities Council

ICAT status for the CLF High Powered Lasers

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Astra Gemini (to date)

- Using ICAT for ~5 years
- Storing data back to 2008
- 80+ experiments
- Almost 7 million datasets
- Over 7 million datafiles



Astra Gemini (future)

- Current bid for upgrade from 1 shot every 20s to 10Hz by 2019
- New EPICS control system
- Possible data rates of TB per day
- Move to tape storage



Vulcan

- Using ICAT since around start of 2016
- Almost identical setup to Gemini
- IP authenticator being added
- Should be in production by end of 2016



eCat2

Version: 2.0.1-SNAPSHOT
Built: 2016/04/15 12:00:29

Select by time | Select by expt | Select by id | Select continuous

Last 24 hours | Last 7 days | Last 28 days | 2016-03-16 09:09 to 2016-04-05 17:00 | Get data

Data types

VD
 VR
 VF
 VE

Max. shots

50
 1000
 Unlimited

Visible Shots

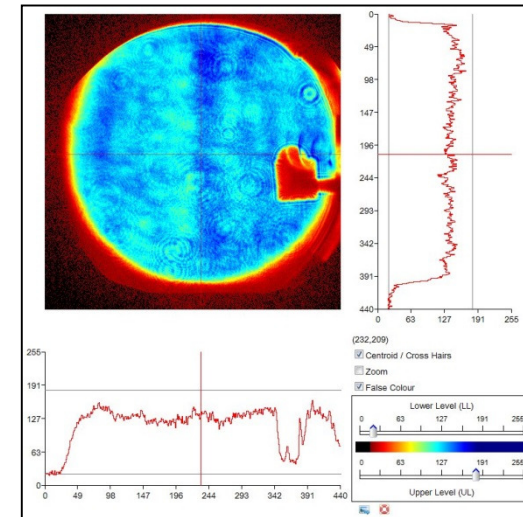
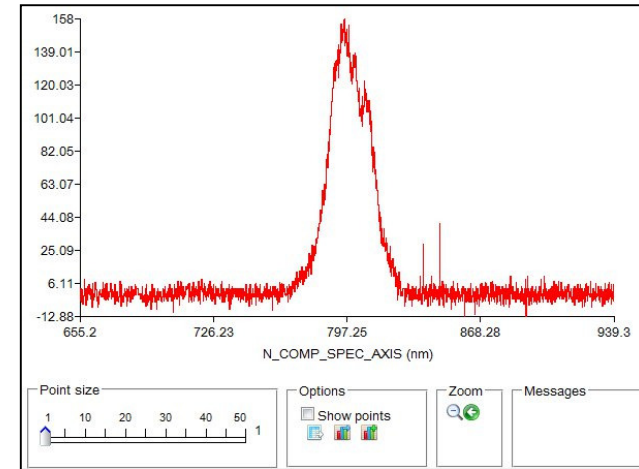
10
 20
 50

- [-] Data Channels
 - [+] Dataset
 - [-] 6mm aperture
 - [+] Inner
 - [-] Outer
 - [+] 6mm outer ff (VD)
 - [+] 6mm outer filter (VD)
 - [+] 6mm outer nf (VD)
 - [-] 6mm outer spectrum (VD)
 - 6mm_out_sp1_rep_spectr_bar
 - 6mm_out_sp1_rep_spectr_fwhm
 - 6mm_out_sp1_rep_spectr_max
 - 6mm_out_sp1_rep_spectr_min
 - 6mm_out_sp1_rep_spectr_noise
 - 6mm_out_sp1_rep_spectr_peak_i
 - 6mm_out_sp1_rep_spectr_peak_l
 - 6mm_out_sp1_rep_spectr_sigma
 - 6mm_out_sp1_spectr
 - 6mm_out_sp1_sts_active
 - 6mm_out_sp1_sts_date
 - 6mm_out_sp1_sts_error_msg
 - 6mm_out_sp1_sts_gravity
 - 6mm_out_sp1_sts_status
 - 6mm_out_sp1_sts_time
 - [+] Outer ff (VD)
 - [+] Outer nf (VD)
 - [+] Spectrometer (VD)
 - [+] Control room
 - [+] Corner
 - [+] Input la1

Shot date date	Shot date time	Shot number number	Fired energies la4 beam 7	La4 b07 nf1 image	Tap b07 nf1 image	La4 b07 sp1 spectr	6mm out sp1 spectr
05/04/2016	16:13:59	6	646.8				
05/04/2016	15:09:43	5	566.3				
05/04/2016	14:06:52	4	569.5				
05/04/2016	12:17:19	3	585.6				
05/04/2016	10:51:26	2	662.8				
05/04/2016	09:42:44	1	650				
04/04/2016	19:17:55	8	646.8				
04/04/2016	18:07:12	7	588.8				
04/04/2016	16:55:18	6	518				
04/04/2016	15:35:13	5	666.1				

Viewing data using eCAT2

Id	Time	N comp nf image	N comp spec trace	N comp ff e	N comp spec centre
114835	2015-03-29 20:55:48			-2.46E6	805.9
114834	2015-03-29 20:40:28			-2.541E6	803
114833	2015-03-29 20:13:07			-2.543E6	803.15
114832	2015-03-29 19:49:07			-2.476E6	802.95
114831	2015-03-29 19:26:27			-2.421E6	802.85
114830	2015-03-29 18:56:27			-2.529E6	
114829	2015-03-29 18:41:07			-2.552E6	802.05
114828	2015-03-29 18:06:27			-2.665E6	804.25
114827	2015-03-29 17:50:27			-2.482E6	806.2
114826	2015-03-29 17:33:47			-2.406E6	802.15

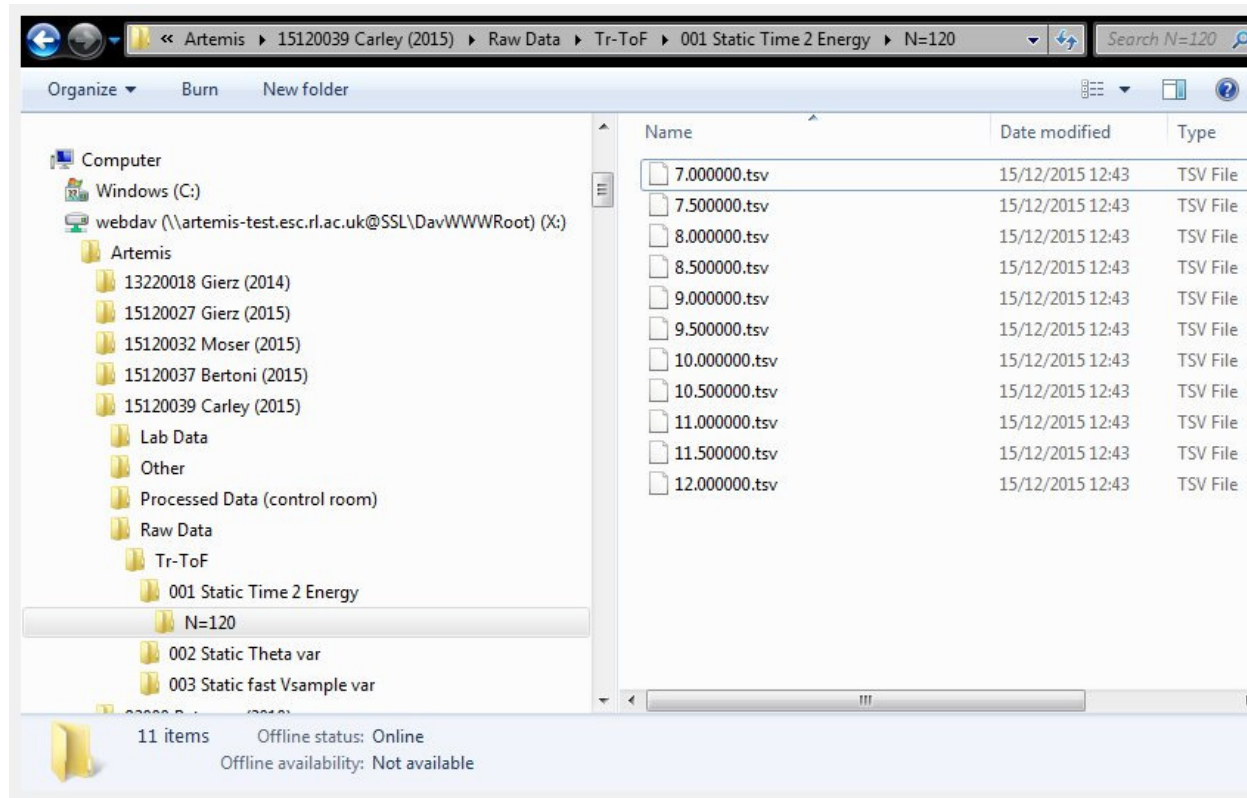


Artemis

- New IDAV component developed to access ICAT like a file system
- Dragging and dropping of data only – no metadata
- Should go into production by April 2017



File system access to ICAT





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Questions ?