

External User Access Through the LLE Principal Investigator Portal

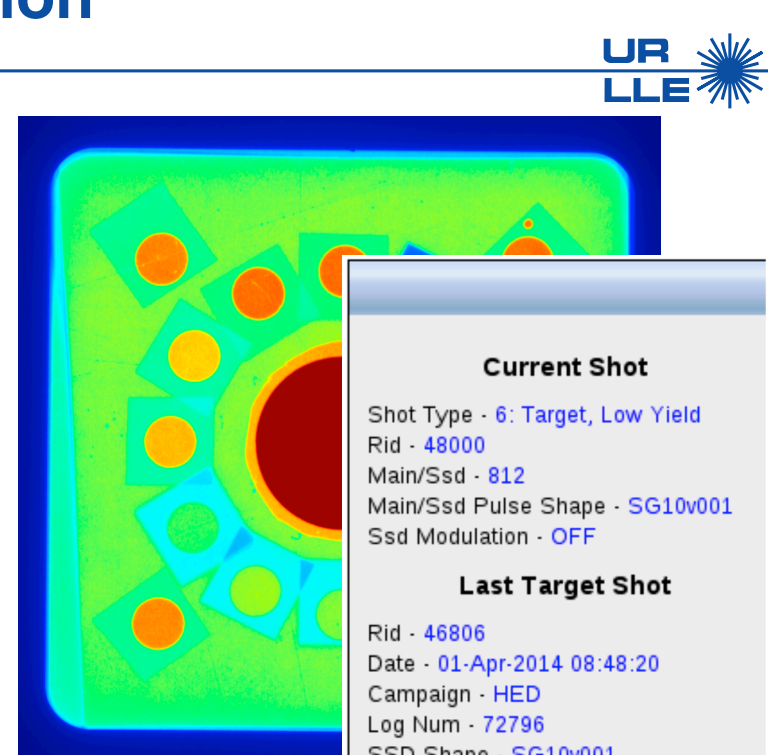


R. W. KIDDER, A. ZELLER, T. MEYER, P. STOECKL, R. PASOLS, and R. HOLDERRIED

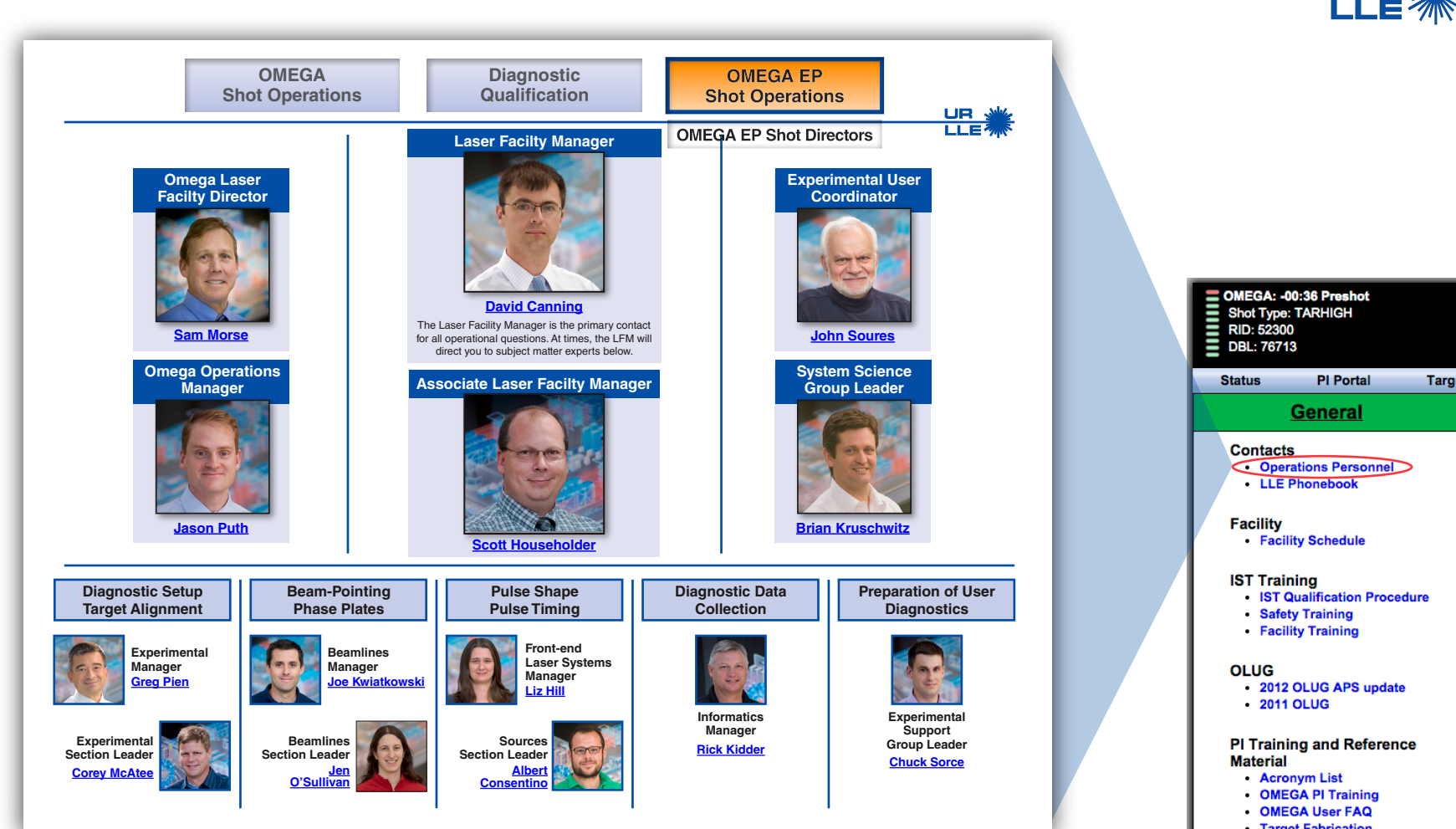
University of Rochester, Laboratory for Laser Energetics

Informatics resources support PI's through coordination of facility information

- The portal provides a one-stop location to find facility information
- Informatics pages provide the latest system status, pulse shaping, experimental, and laser configuration
- The Informatics Group coordinates access to resources like archives, networks, and databases
- Working to develop new tools and services to simplify access to facility information and reports

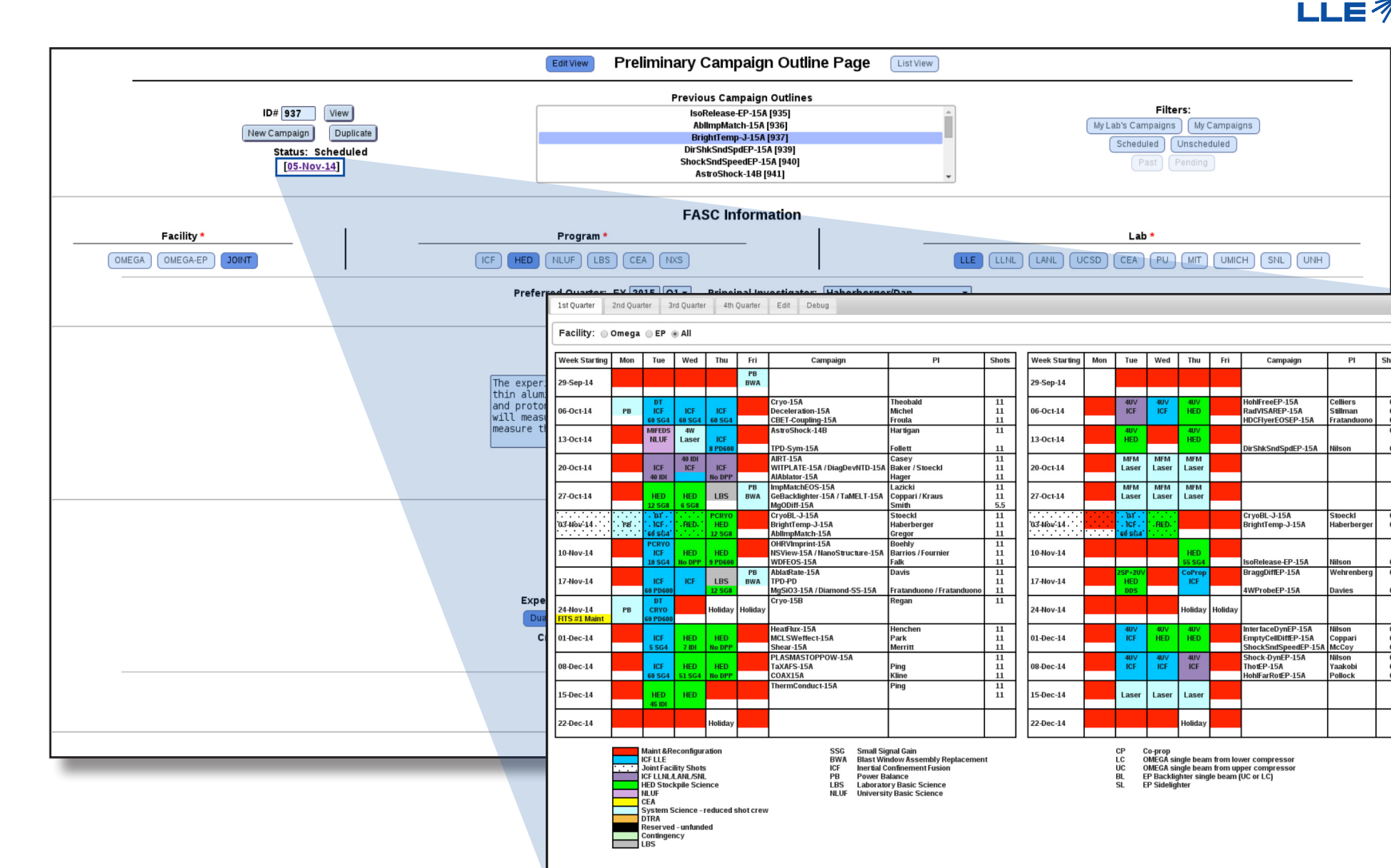


Informatics introduces PI's to Operations Personnel



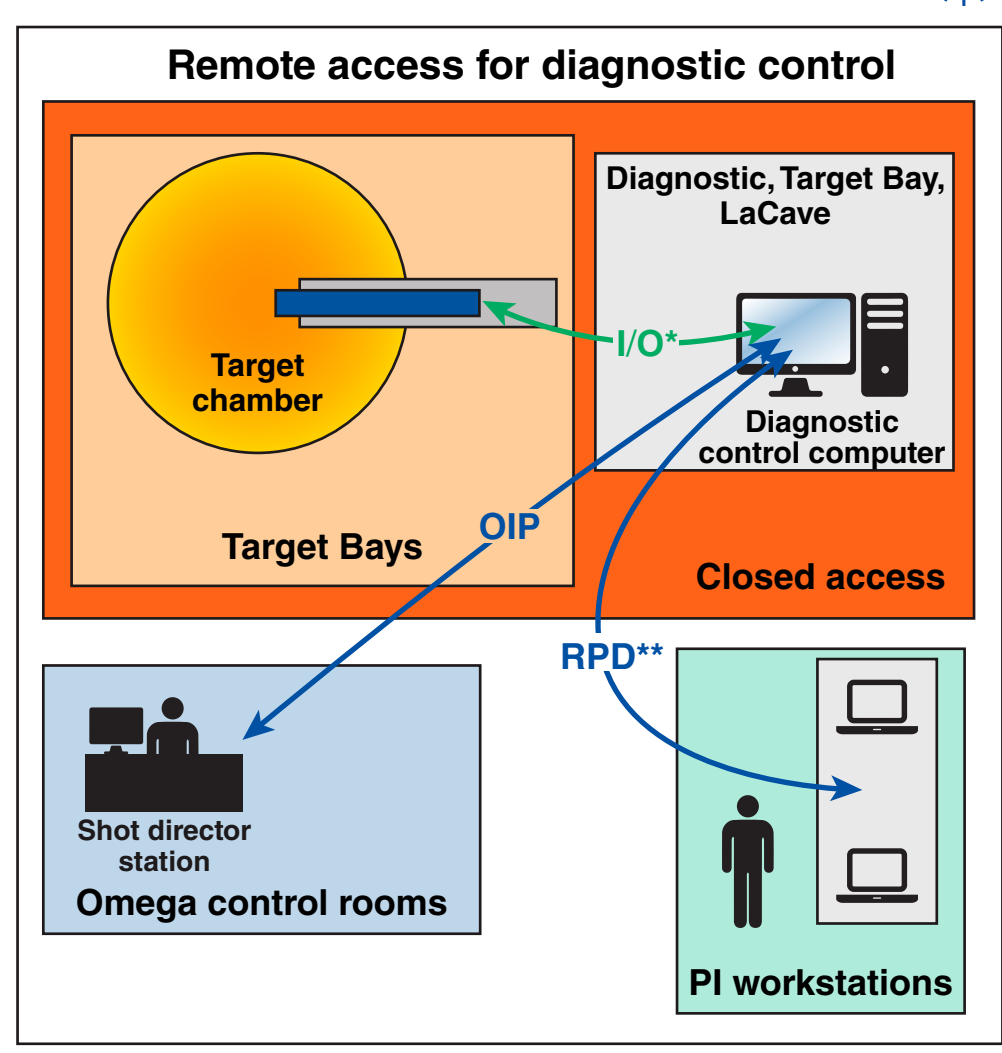
- Recent changes allow PI's to know who's who in operations, opening communications

A new proposal administration page is being developed, linking PI's campaigns to the facility calendar



The Informatics Group coordinates the integration of user equipment into operations

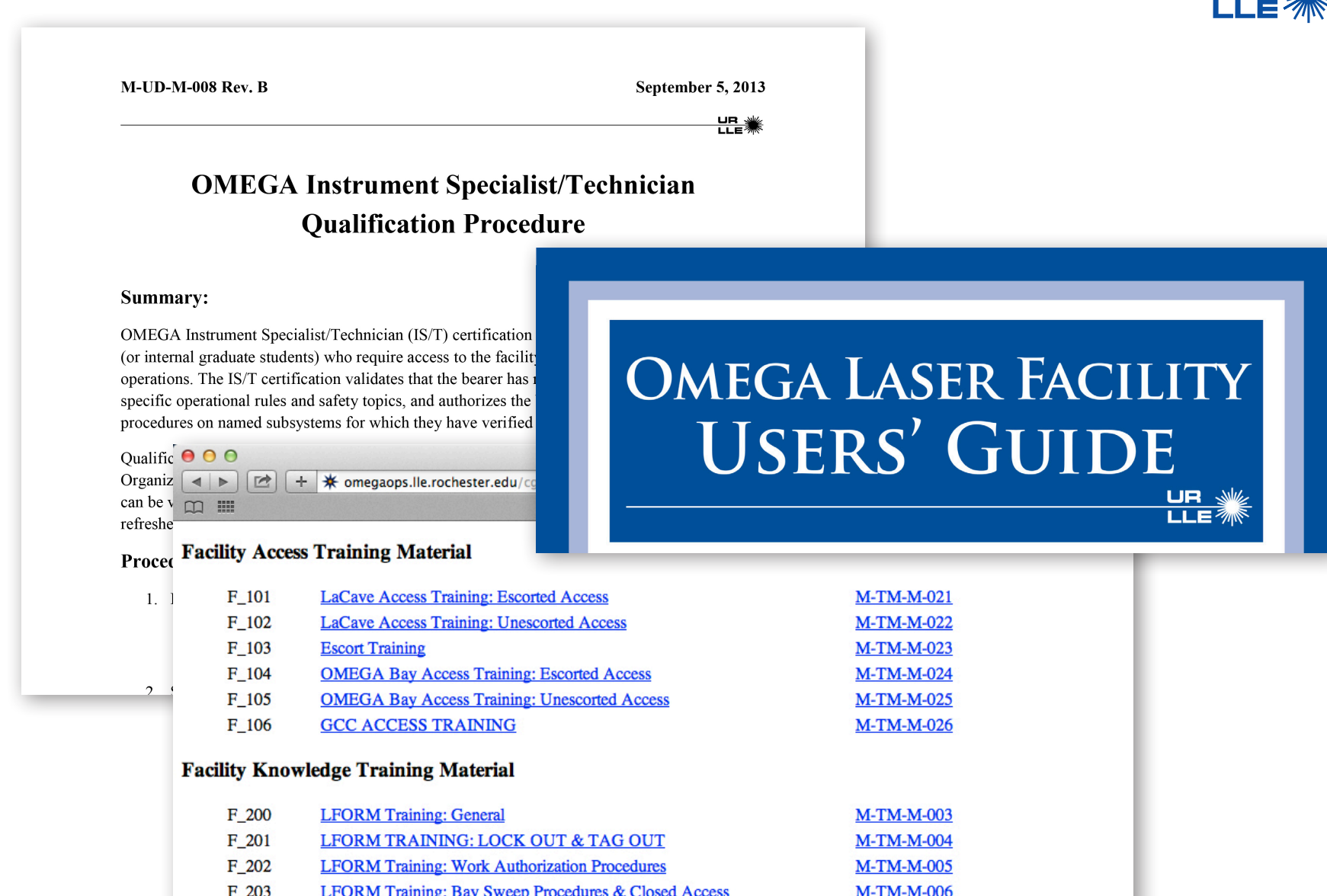
- Support for remote access to diagnostics from PI accessible areas
- OMEQA Intercommunication Protocol (OIP) support for diagnostic shot interaction
- Secure data archival with web-based retrieval
- High-speed digital imaging system (DIS) network for GigE Cameras
- Interface equipment available for external users



Computer	Scopes
Linux	2-DPO7200 2.5 GHz
Win7 (64 or 32 bit)	TEK 1 GHz
Control Room workstation	TEK 500 MHz

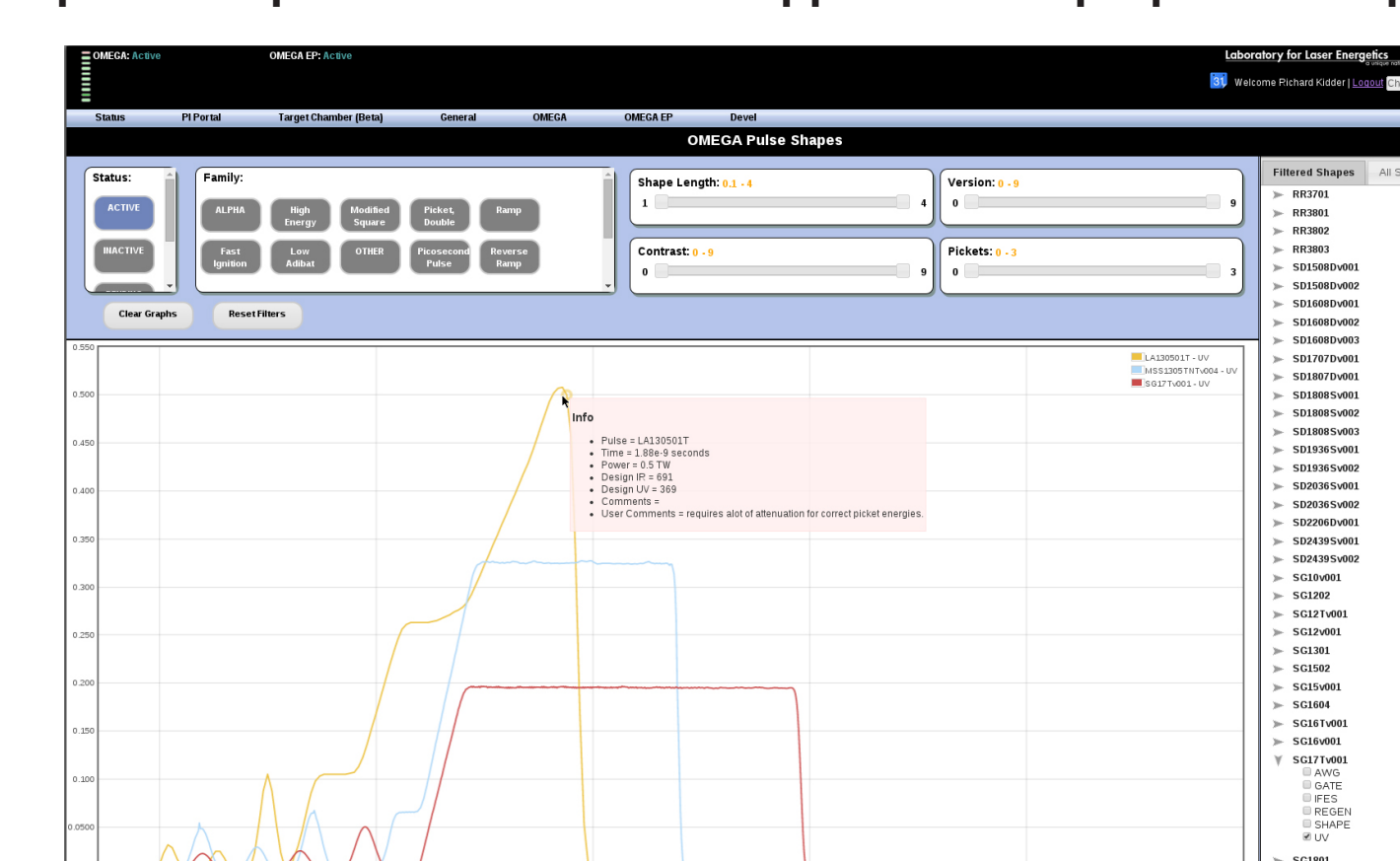
*Interface adaptors (rs232, gpib, ethernet, USB, fiber)

The PI Portal provides links to required facility training



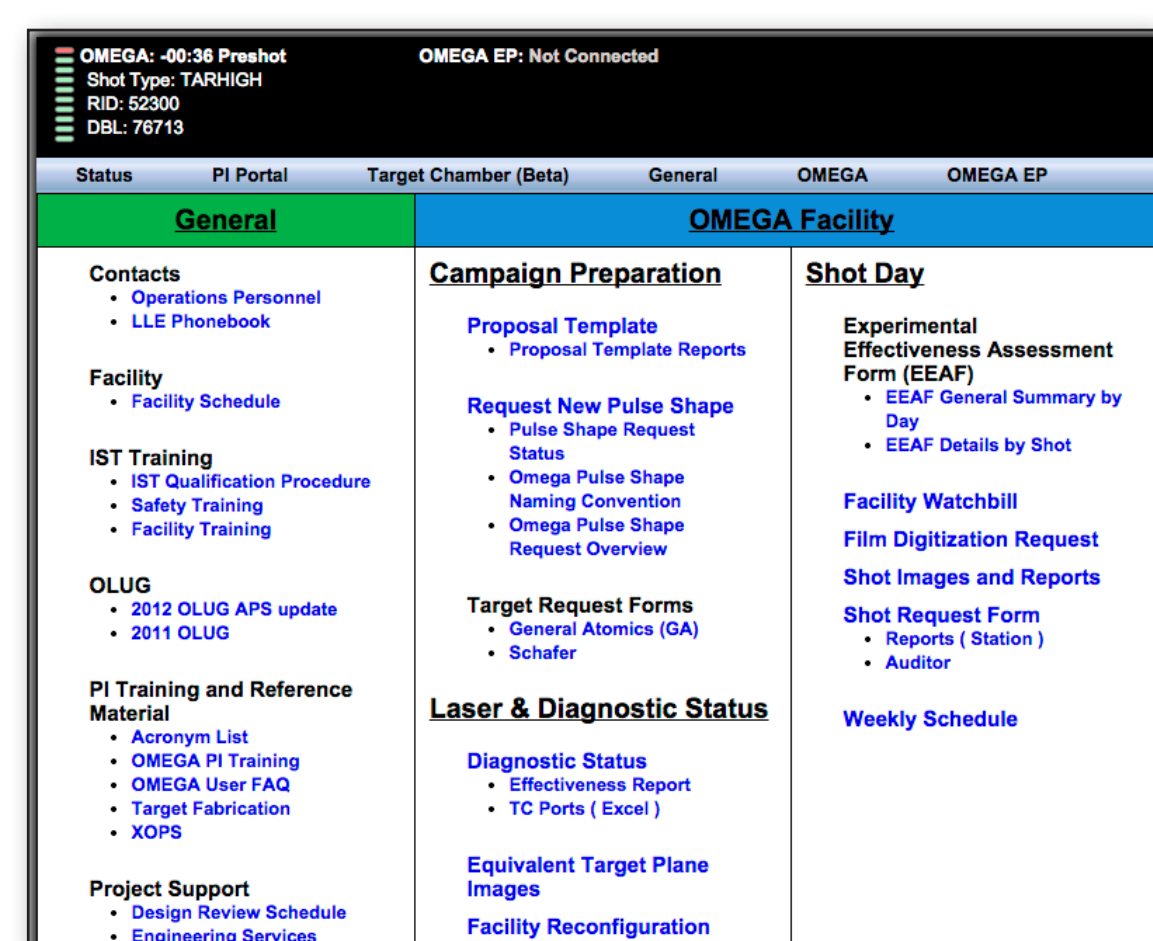
The PI Portal provides access to Omega pulse-shape information

- Pulse shapes are available for both the OMEGA and OMEGA EP Laser Systems
- Up-to-date pulse information for approved and proposed templates

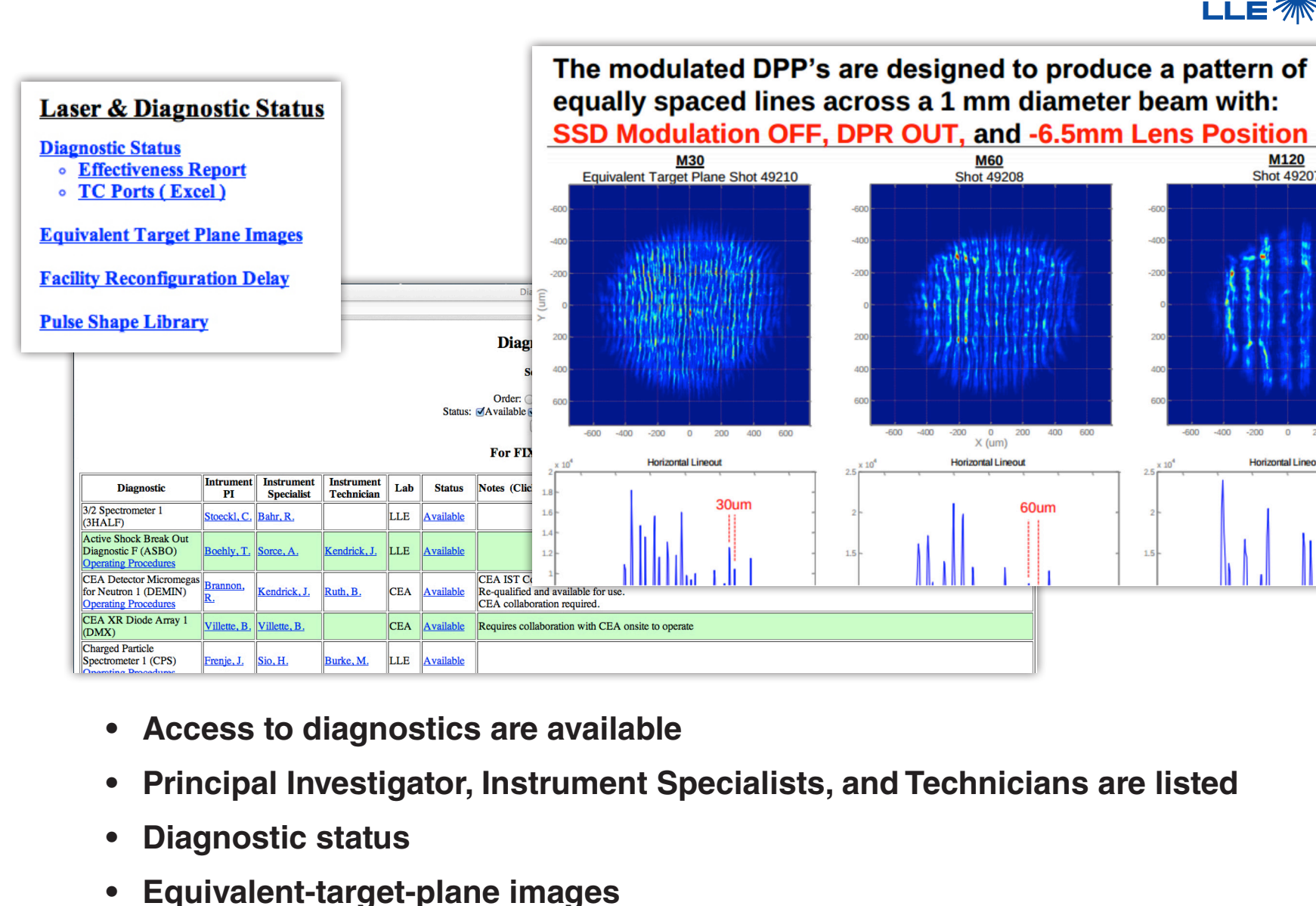


The Informatics Group supports users' information management needs

- The PI Portal page is located on the new Informatics page for convenient access to facility information
- Provides PI's with the access to information necessary to run successful campaigns
- Provide current shot status
- Provides feedback for PI suggestions

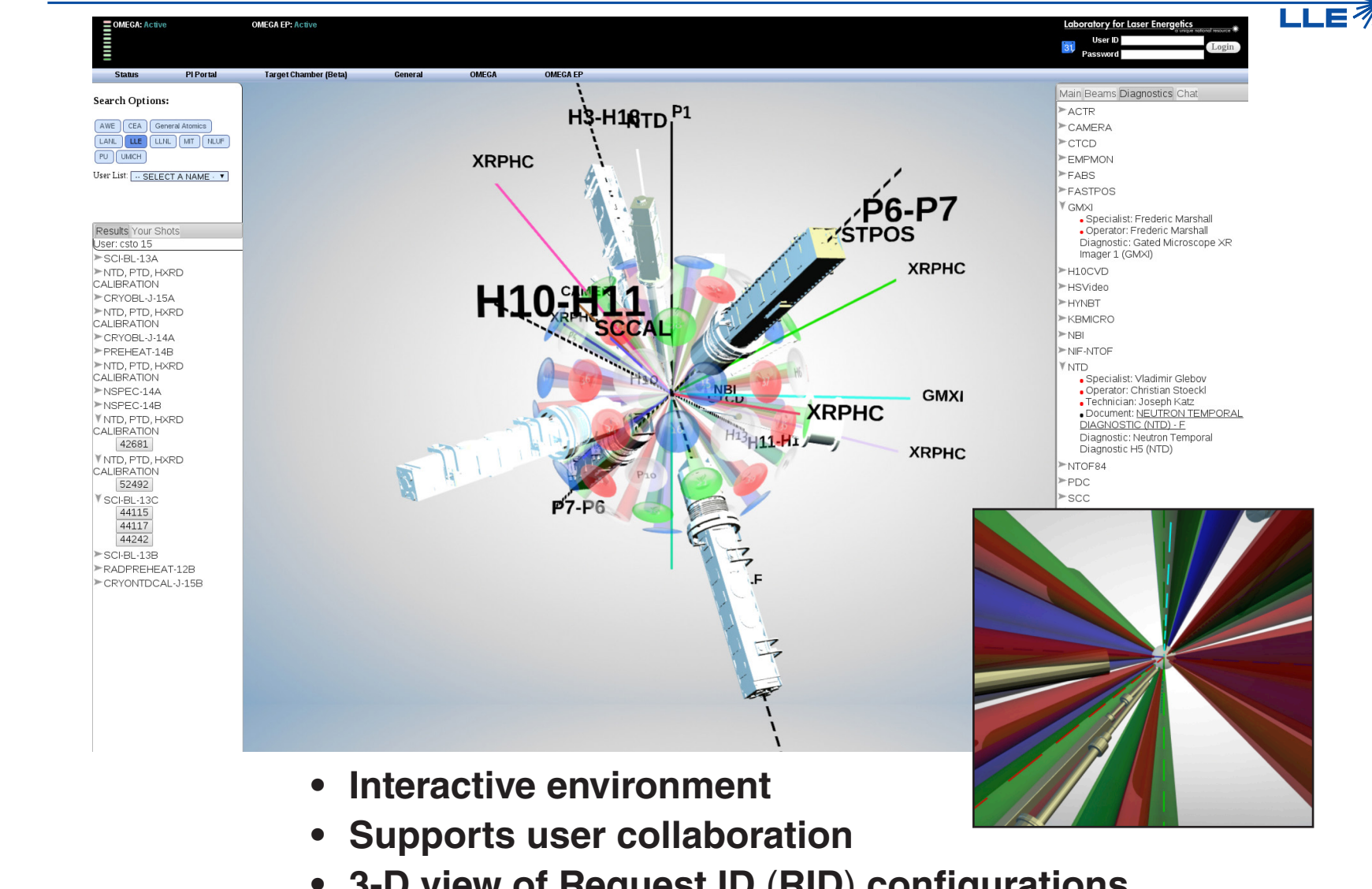


The PI Portal provides access to diagnostic information



- Access to diagnostics are available
- Principal Investigator, Instrument Specialists, and Technicians are listed
- Diagnostic status
- Equivalent-target-plane images

Informatics has developed a web-based 3-D OMEGA target chamber configuration viewer

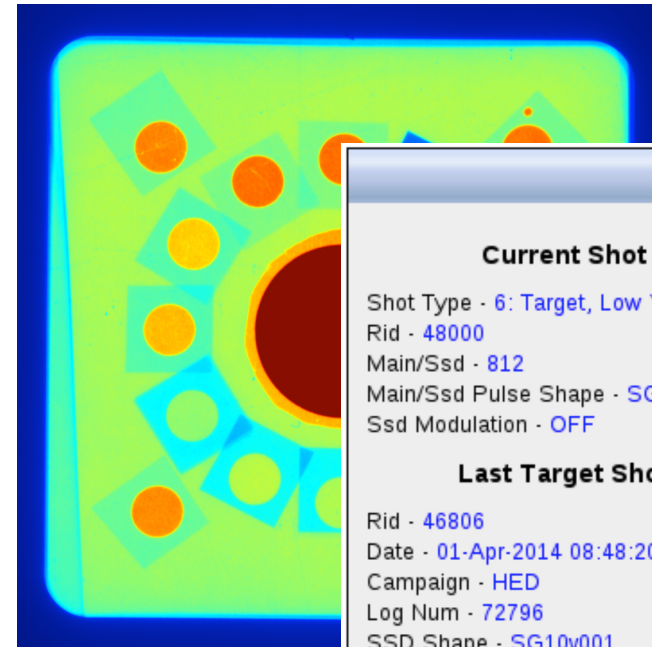


- Interactive environment
- Supports user collaboration
- 3-D view of Request ID (RID) configurations

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Current Shot

Shot Type - 6: Target, Low Yield
 Rid - 48000
 Main/Ssd - 812
 Main/Ssd Pulse Shape - SG10v001
 Ssd Modulation - OFF

Last Target Shot

Rid - 46806
 Date - 01-Apr-2014 08:48:20
 Campaign - HED
 Log Num - 72796
 SSD Shape - SG10v001
 PI1 - Frederic Perez

OMEGA: 00:35 Preshot - Closed OMEGA EP: Not Connected
 Shot Type - TARLOW
 RID - 52440
 DBL - 76695

Status PI Portal Target Chamber (Beta) General OMEGA OMEGA EP Devel

Omega Laser System Omega EP Laser System

Download Shot Information As Json

Omega Executives

Shot Executive	Beam Lines Executive	Laser Drivers Executive
Preshot Closed	Ready For Charge	Ready For Charge

Open Clients

Basic Shot Info Shot Timings

Previous Shot Num - 76694

OMEGA EP Performance Envelope descriptive values*

Revision date: 06-Dec-2013

00:00:00

Short Pulse (IR)	Pulselength	Beam		
		1 (current)	1 (full spec)	2 (current)
On target energy		50 J	700 J	400 J
No Disposable Debris Shield	10 ps	850 J	2600 J	1250 J
	100 ps	1000 J	2600 J	2000 J

Note: Beam 1 is also known as the "Sidelighter" or alternatively the "Lower Compressor"
 Beam 2 is the "Backlighter" (OMEGA EP or OMEGA) or the "Upper Compressor"

Short Pulse (IR)	Pulselength	Beam		
		1 (current)	1 (full spec)	2 (current)
On target energy		50 J	50 J	50 J
No Disposable	.7 ps	50 J	50 J	50 J

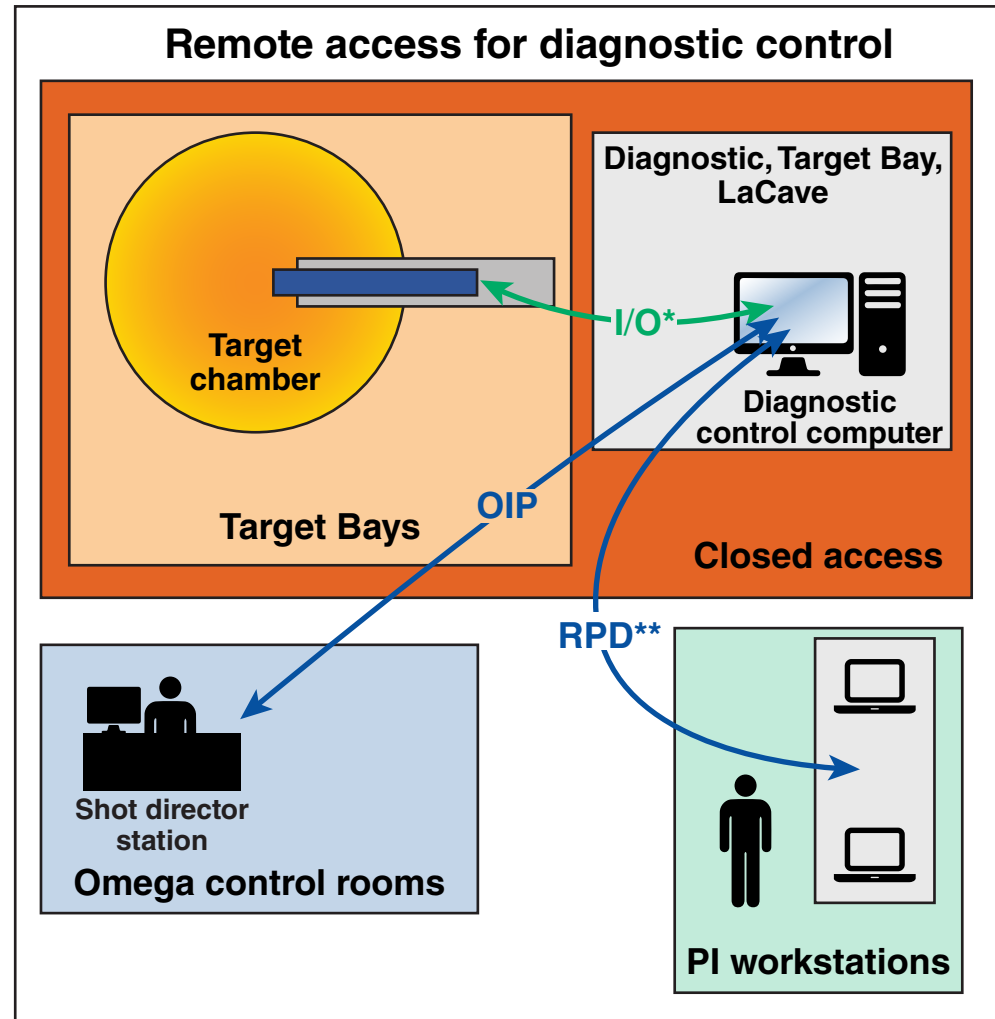
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The Informatics Group coordinates the integration of user equipment into operations



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*Diagnostic input/output
**Remote desktop

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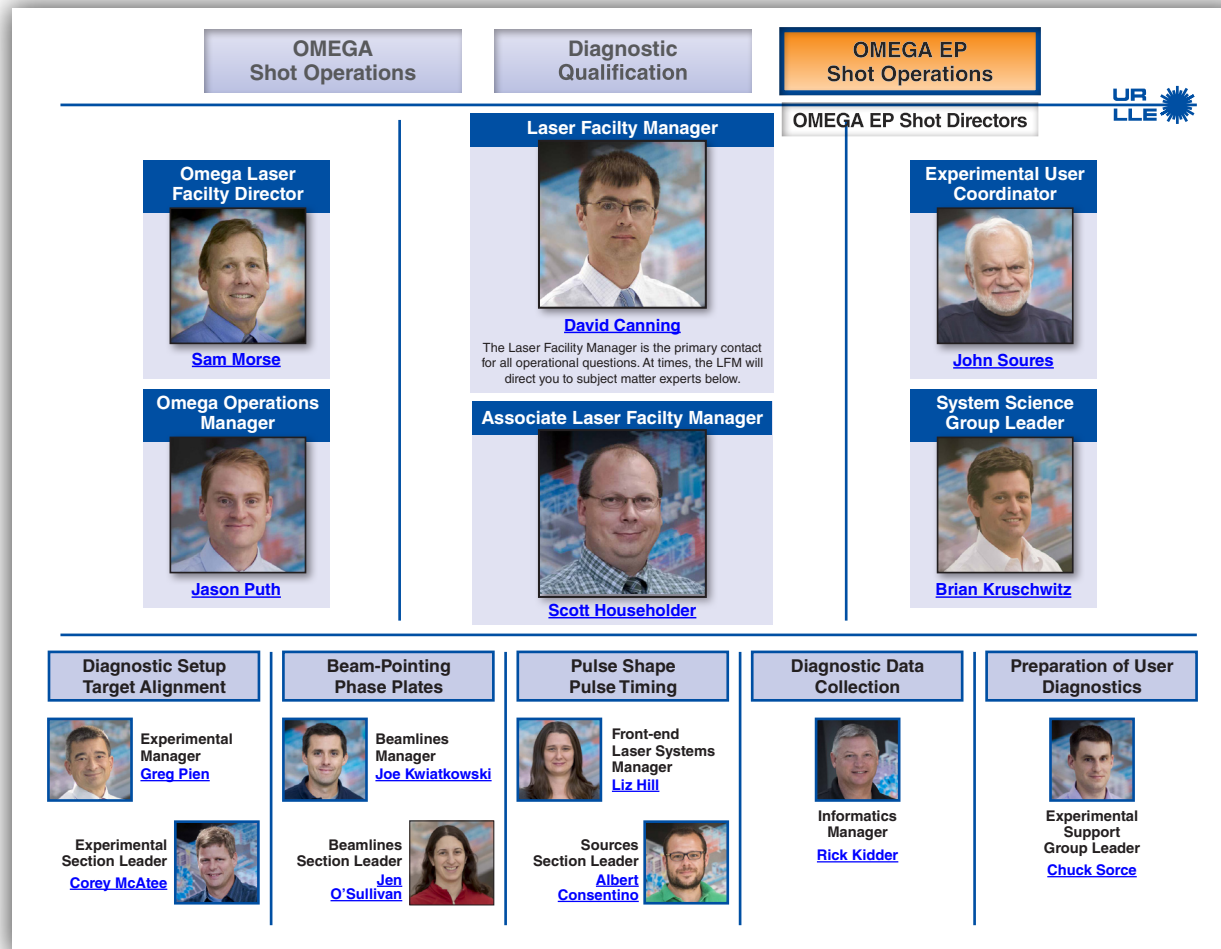
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OMEGA: -00:36 Preshot		OMEGA EP: Not Connected	
Shot Type: TARHIGH RID: 52300 DBL: 76713			
Status	PI Portal	Target Chamber (Beta)	General
General		OMEGA Facility	
Contacts <ul style="list-style-type: none"> • Operations Personnel • LLE Phonebook Facility <ul style="list-style-type: none"> • Facility Schedule IST Training <ul style="list-style-type: none"> • IST Qualification Procedure • Safety Training • Facility Training OLUG <ul style="list-style-type: none"> • 2012 OLUG APS update • 2011 OLUG PI Training and Reference Material <ul style="list-style-type: none"> • Acronym List • OMEGA PI Training • OMEGA User FAQ • Target Fabrication • XOPS Project Support <ul style="list-style-type: none"> • Design Review Schedule • Engineering Services 	Campaign Preparation <ul style="list-style-type: none"> • Proposal Template <ul style="list-style-type: none"> • Proposal Template Reports • Request New Pulse Shape <ul style="list-style-type: none"> • Pulse Shape Request Status • Omega Pulse Shape Naming Convention • Omega Pulse Shape Request Overview • Target Request Forms <ul style="list-style-type: none"> • General Atomics (GA) • Schafer Laser & Diagnostic Status <ul style="list-style-type: none"> • Diagnostic Status <ul style="list-style-type: none"> • Effectiveness Report • TC Ports (Excel) • Equivalent Target Plane Images • Facility Reconfiguration 	Shot Day <ul style="list-style-type: none"> • Experimental Effectiveness Assessment Form (EEAF) <ul style="list-style-type: none"> • EEAF General Summary by Day • EEAF Details by Shot • Facility Watchbill • Film Digitization Request • Shot Images and Reports • Shot Request Form <ul style="list-style-type: none"> • Reports (Station) • Auditor • Weekly Schedule 	

Informatics introduces PI's to Operations Personnel



OMEGA: -00:36 Preshot
 Shot Type: TARHIGH
 RID: 52300
 DBL: 76713

Status	PI Portal	Target
General		
Contacts		
<ul style="list-style-type: none"> Operations Personnel LLE Phonebook 		
Facility		
<ul style="list-style-type: none"> Facility Schedule 		
IST Training		
<ul style="list-style-type: none"> IST Qualification Procedure Safety Training Facility Training 		
OLUG		
<ul style="list-style-type: none"> 2012 OLUG APS update 2011 OLUG 		
PI Training and Reference Material		
<ul style="list-style-type: none"> Acronym List OMEGA PI Training OMEGA User FAQ Target Fabrication XOPS 		
Project Support		
<ul style="list-style-type: none"> Design Review Schedule Engineering Services 		

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The PI Portal provides links to required facility training



M-UD-M-008 Rev. B

September 5, 2013



OMEGA Instrument Specialist/Technician Qualification Procedure

Summary:

OMEGA Instrument Specialist/Technician (IS/T) certification (or internal graduate students) who require access to the facility operations. The IS/T certification validates that the bearer has specific operational rules and safety topics, and authorizes the procedures on named subsystems for which they have verified

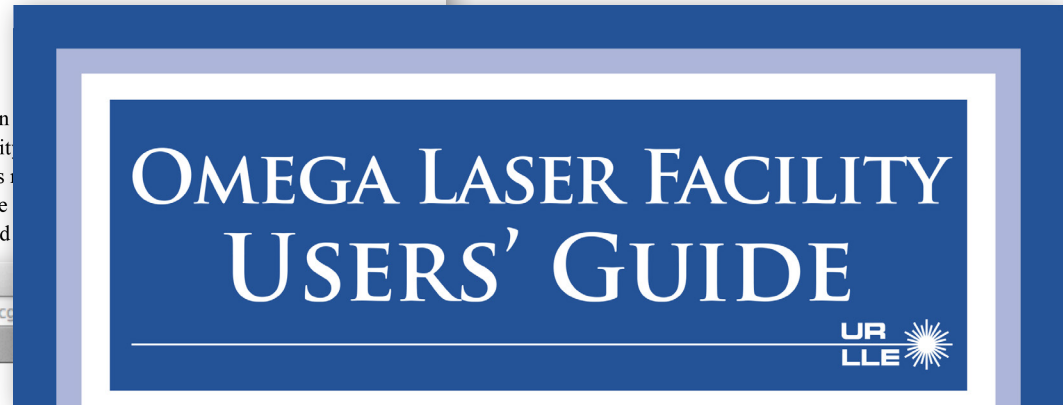
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Facility Access Training Material

1. F_101	LaCave Access Training: Escorted Access	M-TM-M-021
F_102	LaCave Access Training: Unescorted Access	M-TM-M-022
F_103	Escort Training	M-TM-M-023
F_104	OMEGA Bay Access Training: Escorted Access	M-TM-M-024
2. F_105	OMEGA Bay Access Training: Unescorted Access	M-TM-M-025
F_106	GCC ACCESS TRAINING	M-TM-M-026

Facility Knowledge Training Material

F_200	LFORM Training: General	M-TM-M-003
F_201	LFORM TRAINING: LOCK OUT & TAG OUT	M-TM-M-004
F_202	LFORM Training: Work Authorization Procedures	M-TM-M-005
F_203	LFORM Training: Bay Sweep Procedures & Closed Access	M-TM-M-006



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The PI Portal provides access to diagnostic information



Laser & Diagnostic Status

Diagnostic Status

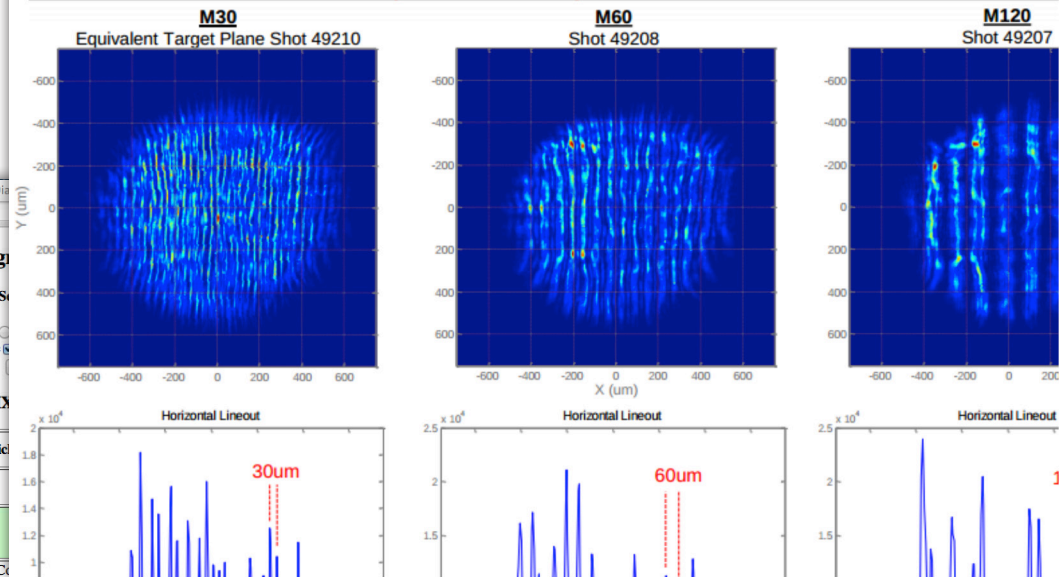
- [Effectiveness Report](#)
- [TC Ports \(Excel\)](#)

Equivalent Target Plane Images

Facility Reconfiguration Delay

Pulse Shape Library

The modulated DPP's are designed to produce a pattern of equally spaced lines across a 1 mm diameter beam with:
SSD Modulation OFF, DPR OUT, and -6.5mm Lens Position



Diagnostic	Instrument PI	Instrument Specialist	Instrument Technician	Lab	Status	Notes (Click)
3/2 Spectrometer 1 (3HALF)	Stoeckl, C.	Bahr, R.		LLE	Available	
Active Shock Break Out Diagnostic F (ASBO) Operating Procedures	Boehly, T.	Sorace, A.	Kendrick, J.	LLE	Available	
CEA Detector Micromegas for Neutron 1 (DEMIN) Operating Procedures	Brannon, R.	Kendrick, J.	Ruth, B.	CEA	Available	CEA IST C Re-qualified and available for use. CEA collaboration required.
CEA XR Diode Array 1 (DMX)	Villette, B.	Villette, B.		CEA	Available	Requires collaboration with CEA onsite to operate
Charged Particle Spectrometer 1 (CPS) Operating Procedures	Frenje, J.	Sjo, H.	Burke, M.	LLE	Available	

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A new proposal administration page is being developed, linking PI's campaigns to the facility calendar



Preliminary Campaign Outline Page

ID# 937 View
 New Campaign Duplicate
 Status: **Scheduled**
 [05-Nov-14]

Previous Campaign Outlines

- IsoRelease-EP-15A [935]
- AbImpMatch-15A [936]
- BrightTemp-J-15A [937]
- DirShkSndSpdEP-15A [939]
- ShockSndSpeedEP-15A [940]
- AstroShock-14B [941]

Filters:
 My Lab's Campaigns My Campaigns
 Scheduled Unscheduled
 Past Pending

FASC Information

Facility * OMEGA OMEGA-EP JOINT
 Program * ICF HED NLUF LBS CEA NXs
 Lab * LLE LLNL LANL UCSD CEA PU MIT UMICH SNL UNH

Preferred Quarter: EV 2014 Q1 Release Investigator: UnsharpenedDop

1st Quarter 2nd Quarter 3rd Quarter 4th Quarter Edit Debug

Facility: Omega EP All

Week Starting	Mon	Tue	Wed	Thu	Fri	Campaign	PI	Shots	Week Starting	Mon	Tue	Wed	Thu	Fri	Campaign	PI	Shots
29-Sep-14					PB BWA				29-Sep-14								
06-Oct-14	PB	DT ICF 48 SGA 48 SGA 48 SGA	ICF	ICF		Cryo-15A Deceleration-15A CBET-Coupling-15A	Theobald Michel Frouda	11 11 11	06-Oct-14		40V ICF HED	40V ICF HED	40V ICF HED		HohlFreeEP-15A RadVTSAREP-15A HDCFyerEOSEP-15A	Collers Sullivan Fratanduono	6 6 6
13-Oct-14		MRFDS NLUF Laser	4W ICF			AstroShock-14B TPO-Sym-15A	Hartigan Follett	11 11	13-Oct-14		40V HED	40V HED			DirShkSndSpdEP-15A	Nilson	6
20-Oct-14		ICF 40 DI ICF	40 DI ICF	ICF No DPP		ART-15A WITPLATE-15A / DiagDevWTD-15A Alabator-15A	Casey Baker / Stoeckl Hager	11 11 11	20-Oct-14		MFM Laser	MFM Laser	MFM Laser				
27-Oct-14		HED 32 SGA 4 SGA	HED 4 SGA	LBS	PB BWA	ImpMatchEOS-15A CoBacklighter-15A / TaMELT-15A MgOHIF-15A	Lazicki Coppari / Kraus Smith	11 11 5.5	27-Oct-14		MFM Laser	MFM Laser	MFM Laser				
03-Nov-14	DT ICF 48 SGA	ICF 48 SGA	HED 4 SGA	HED 4 SGA		CryoBL-J-15A BrightTemp-J-15A AbImpMatch-15A	Stoekli Haberberger Gregor	11 11 11	03-Nov-14		DT ICF 48 SGA	HED 4 SGA			CryoBL-J-15A BrightTemp-J-15A	Stoekli Haberberger	6 6
10-Nov-14		ICF 48 SGA 48 SGA	HED 4 SGA	HED 4 SGA		ORVImprint-15A NSView-15A / NanoStructure-15A WDFEOS-15A	Boshy Barrios / Fournier Falk	11 11 11	10-Nov-14				HED 4 SGA		IsoRelease-EP-15A	Nilson	6
17-Nov-14		ICF 48 SGA	ICF 48 SGA	LBS BWA		AbImp-15A TPO-PD MgSiO3-15A / Diamond-SS-15A	Davis Falk Fratanduono / Fratanduono	11 11 11	17-Nov-14		40V HED 4 SGA	HED 4 SGA	ICF 48 SGA		BraggVREP-15A 4WProbeEP-15A	Wehrenberg Davies	6 6
24-Nov-14	PB	DT CRYO 68 P0600		Holiday	Holiday	Cryo-15B	Regan	11	24-Nov-14					Holiday	Holiday		
01-Dec-14		ICF 48 SGA	HED 7 DI	HED 7 DI		HeaFlux-15A MCL SWRelect-15A Shear-15A	Henchen Park Merritt	11 11 11	01-Dec-14		40V ICF HED 4 SGA	40V ICF HED 4 SGA	40V ICF HED 4 SGA		InterfaceDyneEP-15A EmptyCellHREP-15A ShockSndSpeedEP-15A	Nilson Coppari McCoy	6 6 6
08-Dec-14		ICF 48 SGA 51 SGA	HED 4 SGA	HED 4 SGA		PLASMASTOPPOW-15A TaxAFS-15A COAR-15A	Ping Kline	11 11 11	08-Dec-14		40V ICF 48 SGA	40V ICF 48 SGA	40V ICF 48 SGA		Shock-DyneEP-15A ThooEP-15A HohlRadRoEP-15A	Nilson Yakobi Pollock	6 6 6
15-Dec-14		HED 4 SGA	HED 4 SGA			ThermConduct-15A	Ping	11	15-Dec-14		Laser	Laser	Laser				
22-Dec-14					Holiday				22-Dec-14					Holiday			

Legend:

- Maint & Reconfiguration
- ICF LLE
- Joint Facility Shots
- ICF LLNL, LANL, SNL
- HED Stockpile Science
- NLUF
- CEA
- System Science - reduced shot crew
- DTRA
- Reserved - unlanded
- Contingency
- LBS
- SSC Small Signal Gain
- BWA Blast Window Assembly Replacement
- ICF Inertial Confinement Fusion
- PB Power Balance
- LBS Laboratory Basic Science
- NLUF University Basic Science
- CP Co-prop
- LC OMEGA single beam from lower compressor
- UC OMEGA single beam from upper compressor
- BL EP Backlighter single beam (UC or LC)
- SL EP Sidelighter

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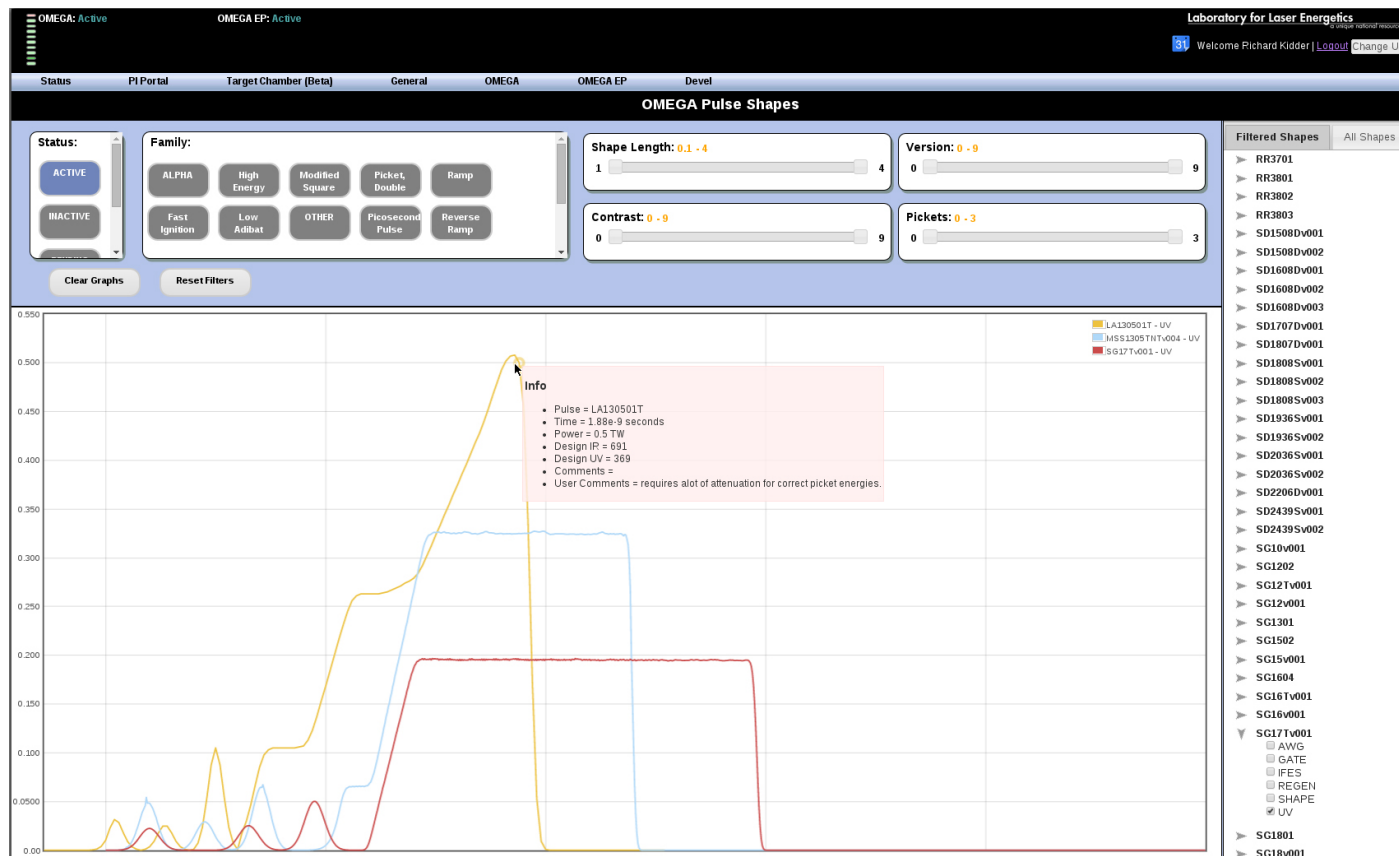
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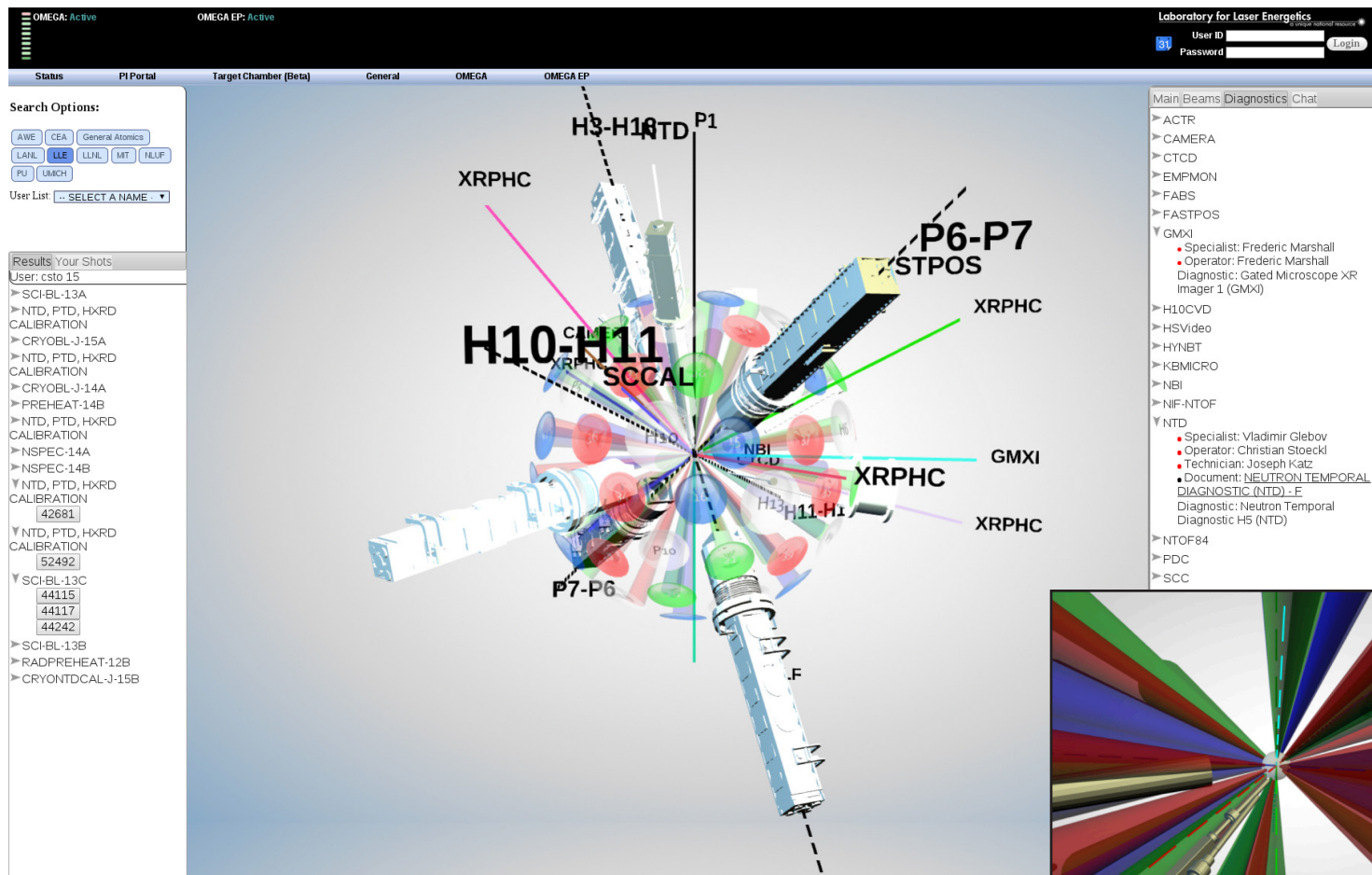


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- Interactive environment
- Supports user collaboration
- 3-D view of Request ID (RID) configurations

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