

EPICS Training 2015

EPICS is used extensively at the APS. The last comprehensive EPICS training at the APS was held ten years ago. Since then many things have changed, and many individuals have joined the organization. The AES Software Services Group has been organizing an updated series of EPICS training classes which started in September 2014 and continues through the beginning of 2015. Some of the classes will have corresponding hands-on laboratory sessions.

The slides and video for the [2014 training classes](#) are available through the EPICS website [here](#).

After they have been presented, the slides and video for the 2015 classes will be made available through the EPICS website [here](#).

Time	Topic	Description of Content	Duration	Presenter
2015				
Day 9 - 2015-01-08				
A1100				
10:00 AM	EPICS Device Support	What it is / Why it exists / How it works / The DSET / Routines / Interrupts / Asynchronous I/O	1h	Andrew Johnson
11:00 AM	Managing IOC Support Code	Finding, deploying and managing IOC Support Modules	30m	Andrew Johnson
Day 10 - 20 15-01-15				
A1100				
2:00 PM	synApps	Overview / What it is / What it offers	1h	Tim Mooney
Day 11 - 20 15-01-22	Syllabus and Instructions			
E1100 /E1200				
10:00 AM - 3:00 PM	Using areaDetector 1 - Lecture and Demonstration	Overview; detector drivers, plugins and viewers.	Half Day	Mark Rivers
Day 12 - 20 15-01-23				
E1100 /E1200				
10:00 AM - 3:00 PM	Using areaDetector 2 - Hands-on Tutorial	Students will run areaDetector application and viewers with simulation or real cameras.	Half Day	Mark Rivers
Day 13 - 2015-01-26				
E1100 /E1200				
10:00 AM - 3:00 PM	Asyn Driver 1 - Lecture and demonstration	Overview; writing asyn drivers and clients.	Half Day	Mark Rivers
Day 14 - 2015-01-27				
E1100 /E1200				
10:00 AM - 3:00 PM	Asyn Driver 2 - Hands-on Tutorial	Students will write an asyn driver and create a soft-IOC.	Half Day	Mark Rivers
Day 15 - 2015-01-29				
E1100 /E1200				
10:00 AM - 3:00 PM	areaDetector Programming 1	Writing areaDetector drivers	Half Day	Mark Rivers

Day 16 - 2015-01-30 E1100 /E1200				
10:00 AM - 3:00 PM	areaDetector Programming 2	Writing areaDetector plug-ins	Half Day	Mark Rivers
Day 17 - 20 15-02-10 E1100 /E1200				
10:00 AM - 1:00 PM	Stream Device - Lecture and Tutorial	Streams programming Tutorial: Streams Programming	1h 90m	Marty Smith
Day 18 - 20 15-02-16 A1100				
10:00 AM - 1:00 PM	Using Motors	Overview / Supported controllers / The motor record / How to use it Configuring a motor record (hardware types, save/restore, soft motors)	1h 2h	Ron Sluiter Kevin Peterson
Day 19 - 20 15-02-17 A1100				
10:00 AM - 1:00 PM	Motor control internals	How motor support works Demo: Programming a motor controller (asyn with motor phase 3 support)	1h 2h	Joe Sullivan Kevin Peterson
Day 20 - 2015-02-24 E1100 /E1200				
10:00 AM - Noon	EPICS and Tcl/Tk	CANCELLED/POSTPONED	TBD	Louis Emery
Day 21 - 20 15-02-27 A1100				
10:00 AM - 11:00 AM	Scanning	The scan record / How to use it / Nesting scan records / MDA files / What's in them / How to view the data / Data conversion tools Demo: Scanning, data visualization	1h	Tim Mooney
Day 22 - 20 15-03-03 A1100				
10:00 AM - 1:00 PM	More synApps	autosave / userCalcs / softGlue	3h	Tim Mooney
Day 23 - 20 15-03-17 A1100				
10:00 AM - 3:00 PM	Building EPICS Software	Demo/Tutorial: Building EPICS Base, Extensions, synApps	TBD	Andrew Johnson and Tim Mooney
Day 24 - 2015-03-23 A1100				
10:00 AM - Noon	The PV Gateway	What it is / How it works / Configuration / APS Gateways	2h	Marty Smith

Day 25 - 20 15-03-27 A1100				
10:00 AM - Noon	iocapps Tools	Tool used to manage APS Accelerator operational IOCs	TBD	Andrew Johnson
Day 26 - 20 15-03-31 A1100				
10:00 AM - Noon	EPICS Programming Features	Why use / Build system features / libCom facilities / devLib	TBD	Andrew Johnson
Day 27 - 2015-05-26 A1100				
10:00 AM - Noon	EPICS and Tcl/Tk		2h	Louis Emery