Getting Started with EPICS

A lecture Series

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Outline

- **What**
- **Why**
- **How**

What

- **Getting Started with EPICS lecture series**
- **A series of lectures aimed at a wide audience**
  - From GUI users to IOC hackers
- **Aimed at APS/ANL people, but most subject matter applicable to EPICS sites generally**

Why

- A lot of people at the APS interact with the control system in some way. There was a widespread desire to learn more about it.
- We wanted to give people a common control system vocabulary.
- Many ‘occasional EPICS developers’ wanted to learn more. Needed help up the learning curve.
- To correct some misconceptions about EPICS.
- It appeared as a goal on Neds’ PA.

How

- Arranged and coordinated by APS Accelerator and Beamline Controls groups
- Much discussion on format, content e.t.c.
- Lectures with “powerpoint” presentations
- Presenters were from many groups
- All have been video recorded
- Recordings are or will become available on the web
- Course divided into five sessions, each aimed at a different audience
- Created a “virtual LINAC” application to give attendees their own EPICS system

Session 1 - Introduction

- **Introduction to EPICS**
- **Introduction to the course**
- **What is EPICS**
- **What does it do**
- **Some concepts introduced:**
  - CA
  - IOC
  - Database
- **Two classes**

Session 2 – Using Tools

- **Using EPICS Tools**
- **For people who use client side tools**
- **Five classes**
  - Overview of client tools
  - MEDM
  - Alarm Handler
  - OAG tools
  - Channel Archiver

Session 3 - Developing Tools

- **Developing EPICS Tools**
- **For those interested in creating "EPICS-enabled" tools**
- **Seven sessions**
  - Introduction to CA clients
  - Tcl/Tk in the OAG environment
  - IDL and Python
  - SDDS Toolkit
  - CA servers
  - Perl
  - Java and JCA

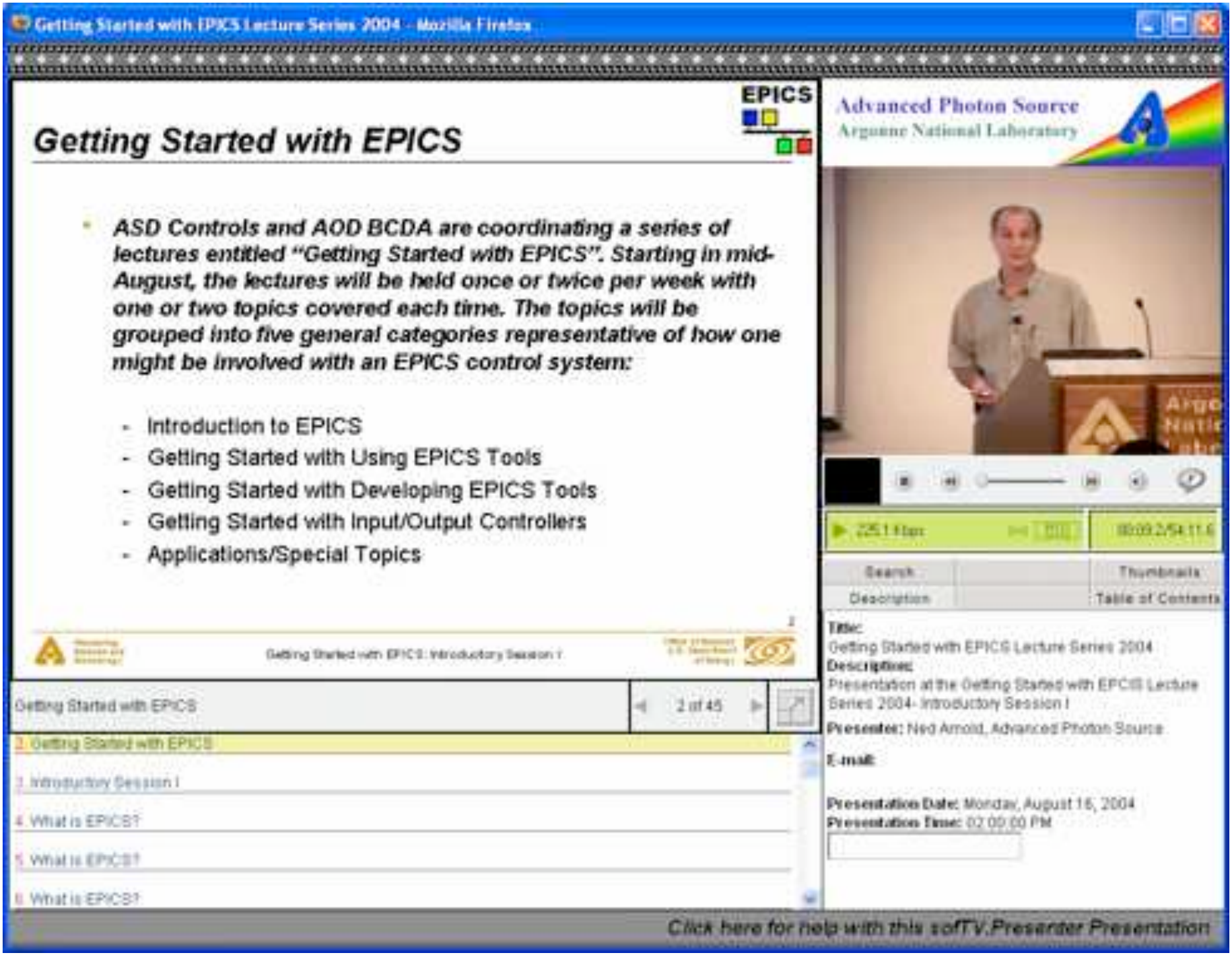
Session 4 - IOCs

- **For IOC developers**
- **Nine classes**
- **Topics covered:**
  - Introduction to IOCs
  - Databases
  - SNL
  - Record support
  - Device Support
  - VDCT
  - Finding, Deploying and Managing I/O support
  - ASYN

Session 5 – Special Topics

- **Whatever didn't fit in to the other sessions**
- **Classes being scheduled:**
  - CA in depth
  - synApps
  - Motor Control
  - Detectors and feedback
  - Scans
  - Data Visulization
  - Remote Access

The Virtual LINAC


Getting Started with EPICS Lecture Series 2004 - Mozilla Firefox
Getting Started with EPICS
EPICS
ASD Controls and AOD BCDA are coordinating a series of lectures entitled "Getting Started with EPICS". Starting in mid-August, the lectures will be held once or twice per week with one or two topics covered each time. The topics will be grouped into five general categories representative of how one might be involved with an EPICS control system:
- Introduction to EPICS
- Getting Started with Using EPICS Tools
- Getting Started with Developing EPICS Tools
- Getting Started with Input/Output Controllers
- Applications/Special Topics
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Getting Started with EPICS Lecture Series 2004
Description:
Presentation at the Getting Started with EPICS Lecture Series 2004- Introductory Session I
Presenter: Ned Arnold, Advanced Photon Source
E-mail:
Presentation Date: Monday, August 16, 2004
Presentation Time: 02:00:00 PM
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Results

- **Classes have been running since August, ~1 class/week**
- **Attendance has been good, from many parts of ANL**
  - Min ≈ 14
  - Max ≈ 90
  - Mean ≈ 30
- **Slides for all classes to date are available on-line (.ppt or .pdf)**
- **Steaming video of classes is becoming available on-line**
- **Positive feedback from attendees**
- **Web Site:**
  - http://www.aps.anl.gov/aod/bcda/epicsgettingstarted/