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# National Energy Research Scientific Computing Center (NERSC)

## Python Scripting for Atlas

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# Outline

- **ASK**
  - Clarifications about Goals and Scope
- **GaudiPython**
  - Status and Future Direction
- **ObjectBrowser**
  - What is What and What to Expect
- **PyROOT**
  - Python bindings to CINT dictionary



# ASK – Goals and Scope

- **Lower the threshold** for Atlas sw
  - Structured in layered steps
  - Proven successful in tutorials
  - Extensive online documentation
- **ASK operates in User Space**
  - No overlap with other Atlas software
  - No code dependencies beyond Python
  - Scope waxes/wanes as needed



# GaudiPython

- **Part of the Gaudi distribution**
  - Provides binding to Athena core objects
  - Original based on hand-written Boost
  - Based on PyLCGDict in Gaudi 0.14
- **Brings Python scripting to Athena**
  - Migration currently under way
  - Accessible through “athena.py” script



# ObjectBrowser

- **GUI** taken from **IDLE**
  - Available in CVS, “need” Python 2.3
  - Interactive access to GaudiPython objs
- **Backend** based on **PyLCGDict**
  - Interactive access to StoreGate
  - Class dictionary management
  - *Not yet developed!*



# PyROOT

- **Bridge** between **ROOT** and **Python**
  - Free mixing of Python/CINT sessions
  - Objects and call-backs can cross interpreter borders
- Has a **wide application**
  - Small, efficient, and self-contained
  - Currently more clients outside LHC ...
  - May become part of ROOT distribution