

DAT Home

This is the home page for the Data Acquisition Toolkit (DAT) space. Previously called Cluster Computing Toolkit (CTK), it replaces the now obsolete [NPA](#) space.

Latest news

Blog Posts

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- Blog: [COB board database available on Oracle](#) created by Stephen Tether
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- Blog: [New tag core2.2 --- COB \(dpm,dtm\) compatibility](#) created by Unknown User (panetta)
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- Blog: [Executables, modules and libraries contain build date and revision](#) created by Ric Claus
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[Data Acquisition Toolkit](#)
- Blog: [RTEMS 4.10.2 is available](#) created by Ric Claus
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- Blog: [New tag core2.1, flash burning changed for System containers](#) created by Stephen Tether
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- Blog: [Tag core2.0 added to new repo. core 2.1 at head](#) created by Stephen Tether
Jun 28, 2011
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- Blog: [RTEMS 4.10 gnu tools now on AFS](#) created by Unknown User (panetta)
Apr 08, 2011
[Data Acquisition Toolkit](#)

Synopsis

The Data Acquisition Toolkit is a combined hardware/software platform for constructing massively parallel data acquisition systems from modular components for high bandwidth applications such as those found in High Energy Physics and Particle Astrophysics. At the hardware level, we create generic building blocks based on System on Chip (SOC) technology using both embedded CPU and DSP FPGA tiles and many channels of generic, high speed I/O. These SOC's support arbitrary operating systems, but we provide a reference platform with the [RTEMS Realtime kernel](#).

Generation 3 RCE

Software

- [Core DAT API](#)
- ["How-To" documents](#)
- [Release notes](#)

Firmware

- [Memory controller](#)
- SD-Card
- Ethernet
- Protocol Plug-ins

Hardware

- Petacache
- ATLAS

- [LSST](#)
- [COBs](#)
- [DTMs](#)
- [DPMs](#)
- [RTMs](#)

Design and Supporting Documentation

- [Design documentation](#)
- [Hardware documentation](#)
- [External documentation](#)
- [Talks and Presentations](#)

Applications

- [Petacache](#)
- [LSST DAQ](#)
- [ATLAS IBL](#), [RCE Pixel Readout](#)
- [ATLAS HLT](#), [RCE Development Lab @ CERN](#)
- [ATLAS CSC](#)

Dataflow Lab 1 (B170)

The main development area at SLAC for the DAT group is known as **Dataflow Lab 1**, which is room B170 of the Central Lab Annex ([Bldg 84](#)).

- [Management](#)

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