

ATLAS offline software

ePIC Committee on Collaborative Software Development Guidelines and Policies, Meeting #4

3 October 2025

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With some material from Alex Undrus (BNL)

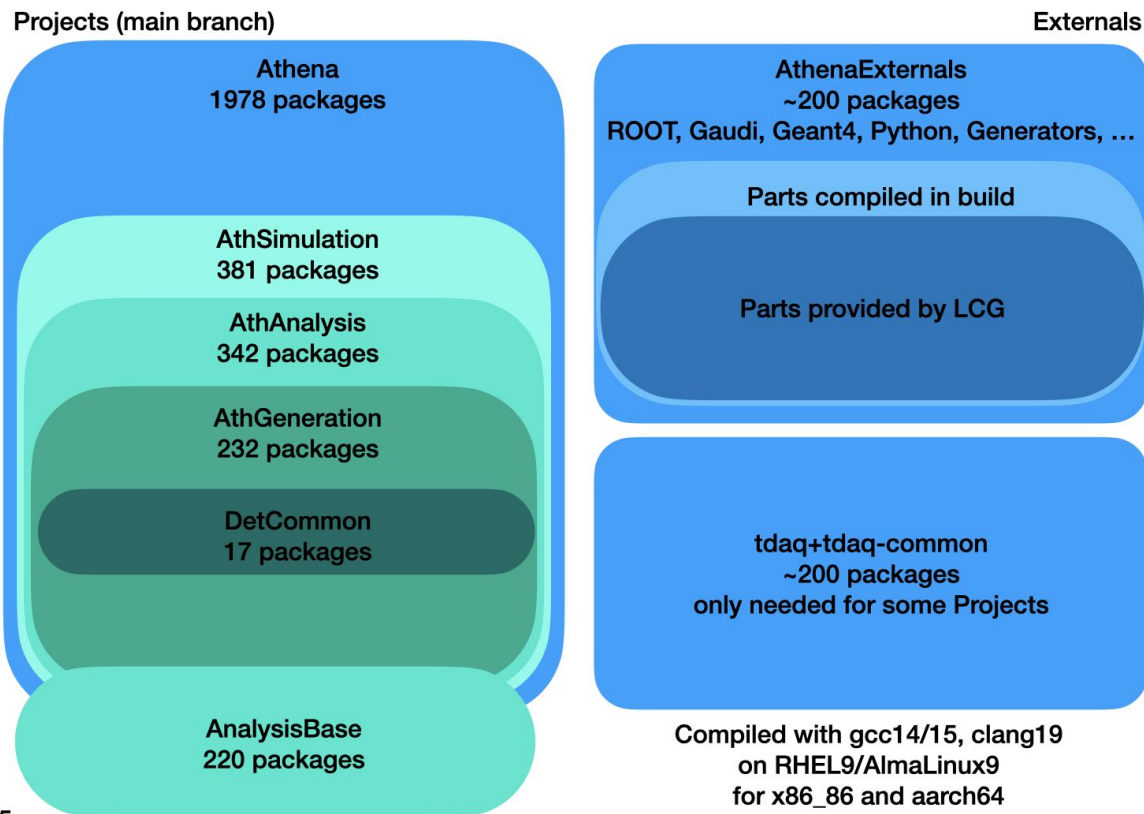
Slides updated/extended from talks at ATLAS/CMS/LHCb/ALICE joint session in Feb 2025

List of topics in this talk:

- Overview - building blocks
- Software repository
- Merge request reviews
- Shifts
- Lessons learnt
- CMake
- Externals and LCG releases
- Projects
- Platforms
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- Test builds
- Jenkins, Gitlab, CI
- Nightly builds
- Machines
- Numbered releases
- EOS+CVMFS installations
- ART tests

- Section 6.1 of Run3 ATLAS software and computing paper
 - <https://atlas.web.cern.ch/Atlas/GROUPS/PHYSICS/PAPERS/SOFT-2022-02/>
 - <https://arxiv.org/pdf/2404.06335>
- Athena releases and nightly builds
 - <https://atlassoftwaredocs.web.cern.ch/athena/developers/releases/>
- Merge review shifter procedure: <https://atlas-software.docs.cern.ch/software-infrastructure/code-review/>
- ATLAS C++ coding guidelines: <https://atlas-software.docs.cern.ch/coding-guidelines/>
- Athena Guidelines: <https://atlas-software.docs.cern.ch/athena/guidelines/>
- ATLAS cmake configuration:
 - <https://atlassoftwaredocs.web.cern.ch/athena/developers/cmake/>
- ATLAS cmake package:
 - <https://gitlab.cern.ch/atlas/atlasexternals/-/tree/main/Build/AtlasCMake>
- How to build a release
 - <https://atlassoftwaredocs.web.cern.ch/athena/developers/building/>
- ATLAS offline software in gitlab
 - <https://gitlab.cern.ch/atlas/athena> and <https://gitlab.cern.ch/atlas/atlasexternals>
- Hep_OSlibs meta-package
 - https://gitlab.cern.ch/linuxsupport/rpms/HEP_OSlibs/-/blob/el9/README-el9.md

ATLAS software schematic overview



3 major blocks built by different teams:

- **Projects:** ATLAS offline software
- **Externals:** CERN EP/SFT through LCG layers and ATLAS offline software
- **TDAQ:** ATLAS trigger/DAQ

15 Sep 2025

ATLAS offline software repository

The screenshot shows the GitLab CERN interface for the 'athena' project. The left sidebar contains navigation links: Project, Pinned, Merge requests (188), Manage, Plan, Code, Build, Deploy, Analyze, and Settings. The main content area displays the 'athena' project page. At the top, there's a header with the ATLAS logo, 'athena' name, and statistics: 199 Stars, 2731 Forks. Below this, a 'Merge branch' notification for 'cov.StoreGate-20250913' is shown. A table lists the project's files and their last commit details.

Name	Last commit	Last update
.devcontainer	Update Dockerfile and d...	May 23, 2025 at 8:26 AM
.vscode	VSCode WorkDir Worksp...	Mar 21, 2025 at 3:04 PM
AsgExternal/Asg_Test	Updated ASG test files w...	Aug 6, 2025 at 7:46 AM
AtlasGeometryCommon	main-coverage-CavernInf...	Aug 14, 2025 at 8:56 AM
AtlasTest	CI test for single threade...	Sep 11, 2025 at 9:04 AM
Build	atlas_git_merge: fix for s...	Aug 19, 2025 at 5:43 PM
Calorimeter	Merge branch 'unpack.Id...	Sep 12, 2025 at 7:30 PM
Commission	CommissionRec: Fix cov...	Sep 6, 2025 at 4:05 AM
Control	Merge branch 'cov.Store...	Sep 15, 2025 at 9:23 AM
DataQuality	Use C++20 std::erase in...	Sep 12, 2025 at 2:02 AM
Database	Merge branch 'main-cle...	Sep 15, 2025 at 9:22 AM
DetectorDescription	IdDict, etc: Faster imple...	Sep 12, 2025 at 7:30 PM
Event	Merge branch 'main-cle...	Sep 15, 2025 at 9:22 AM
External	Pythia8: do not install no...	Apr 24, 2024 at 9:48 AM

Project information: The ATLAS Experiment's main offline software repository. DOI: 10.5281/zenodo.2641997. Doxygen main. 153,915 Commits, 40 Branches, 3,659 Tags, 1.2 GiB Project Storage, 584 Releases. README, LICENSE, Add CHANGELOG, Add CONTRIBUTING, Enable Auto DevOps, Set up CI/CD, Configure Integrations. Created on December 06, 2018.

ATLAS offline software is hosted at:

<https://gitlab.cern.ch/atlas/athena>

And some of the CMake “glue” code for externals at:

<https://gitlab.cern.ch/atlas/atlasexternals>

ATLAS offline software contributions

Everyone in ATLAS can open a merge request (MR) to the ATLAS code ([Git workflow](#), [Shift documentation](#))

Local code development:

- Make local change in git feature branch of athena repository
- Compile and test a handful of packages against relevant nightly build on CVMFS

MR procedure:

- Incremental CI build of the code changes in MR against current gitlab branch
- CI with unit tests (few seconds to minutes) for affected packages and ~100 CI tests with longer “production” workflows and output validation (1-4h)
- Output validation: comparison of outputs (HITS, AOD, DAODs,...) to be binary identical in physics variables - files are stored on CERN EOS and synced to CVMFS
- Allow “output-changes” only if coordinators agree or meeting discussion in case of production reconstruction
- MR checks by MR shifter level 1 - can escalate to Level 2 shifter or experts
- Release coordinator accepts ~30-60 MRs per work day
- Nightly builds for different “projects” and distributed to CVMFS
- Several hundred longer “integration” tests are run through PanDA overnight (ART)

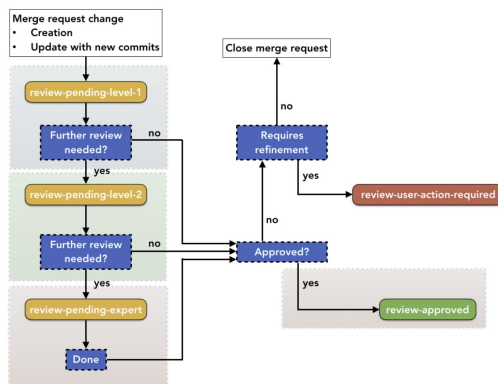
ATLAS offline software contributions

The screenshot displays the GitLab interface for the `atlas/athena` repository. The left sidebar contains a navigation menu with options: Project, Pinned, Merge requests (188), Manage, Plan, Code, Build, Deploy, Analyze, and Settings. The main content area shows a list of merge requests. The top merge request is titled "2025-09-12: merge of 24.0 into main" and is updated on Sep 13, 2025. Other merge requests include "TruthIO: Fix HepMC2 build.", "TrigSignatureMoni: reduce mutex locking", "TrigCompositeUtils: use ReadHandleKey in getRejectedDecisionNodes", "Coral.msgstream.replace", "TileRecUtils: Allow to build Tile cells for Test Beam", "Draft: Fix ACTS TrkMeasurementCalibrator", "Draft: remove TauTracks pt/eta/phi from PHYS", "Draft: DerivationFrameworkLLP: Small additions to LLP1 derivation needed for the Run3 MS displaced vertex search", "remove GhostPartons from PHYS", and "LArConditionsCommon: cache LAr run and deadline info". Each merge request entry includes the title, author, date, and a status icon (e.g., a red 'x' for pending or a green checkmark for approved).

https://gitlab.cern.ch/atlas/athena/-/merge_requests

Merge request reviews by shift team

- Workdays, two level-1 and two level-2 shifters on shift: 9-13:00, 13-17:00
- Release Coordination shifter all week for main and 24.0 branch each (very expert level)
- Mattermost channel for communication
- Merge review shifter procedure: <https://atlas-software.docs.cern.ch/software-infrastructure/code-review/>
- ATLAS coding guidelines:
 - C++: <https://atlas-software.docs.cern.ch/coding-guidelines/>
 - Athena Guidelines: <https://atlas-software.docs.cern.ch/athena/guidelines/>
 - Checked in CI with CheckerGccPlugins package ([link](#)) and flake8 ([link](#))



- CI and Shifter mark MR status and needed actions through **labels** in gitlab

Practical lessons learnt and Policy decisions

- Practical considerations:

- Keep MRs small and break them up into several pieces if needed
- Decide early on coding guidelines and check/enforce them automatically in the CI with e.g. with CheckerGccPlugins package ([link](#)), flake8 ([link](#)) and static code checker like cppcheck ([link](#)) or coverity
- Avoid working with too many specialized production branches
 - In Run2 ATLAS worked with at least 5 (or more ?) different dedicated branches (Tier0 reconstruction, Trigger, upgrade, derivations+analysis, simulation, main)
 - Extremely tedious to merge them back together after several years of separate progress in the branches
 - For Run3 decided to only have 2 active branches: (a) Tier0 reconstruction, HLT trigger, simulation (b) event generation, derivations, analysis, upgrade
- It might be worth checking with the ACTS team about their CI practices:
<https://github.com/acts-project/acts> and <https://acts.readthedocs.io/en/latest/contribution/contribution.html>

- Collaboration policy decisions:
 - Licence
 - Add an open source licence that is compatible with all dependencies early on , like e.g. Apache 2.0 - see also <https://hepsoftwarefoundation.org/activities/licensing.html>
 - Copyright
 - Similarly add a copyright of the code - use something like “Copyright (C) 2002-2025 CERN for the benefit of the ATLAS collaboration” - but on behalf for BNL and/or JLab
 - Check the Open Source resources
 - CERN's Open Source Program Office: <https://opensource.web.cern.ch/welcome-ospo-page>

Operating system, git and platforms

- Operating system

- Run3 (2022-2026): RHEL9/AlmaLinux9 + Hep_OSlibs meta-package ([link](#))
 - Bare metal machines (64 core AMD EPYC) provided by CERN IT for nightlies and CI
- Run2 (2015-2018): CentOS7 nightlies once per 10 days built in container

- Offline software repository and CI

- Open source and hosted at <https://gitlab.cern.ch/atlas/athena/> and <https://gitlab.cern.ch/atlas/atlasexternals>
- Using jenkins CI for athena MRs and gitlab CI for atlasexternals MRs
- 2 gitlab branches of athena under active development:
 - main (Event generation, derivations, Analysis)
 - 24.0 (Tier0 reconstruction, MC simulation, HLT at Point1)

- Platforms

- x86_64-v2 and aarch64 (Arm v8) (N.B. about 1.5% of Grid jobs with x86_64-v2)
- Main: gcc 14.2 (Run3 production), gcc15.2, clang19 with cuda 12.8.1, python 3.12.11
- 24.0: gcc 13.1, python 3.11.9, cuda 12.4
- Run2 legacy builds with gcc11 and gcc8

- Containers

- Created for AnalysisBase/AthAnalysis every week
- Created on demand for other releases occasionally

BONUS

- Full Athena build of ~2000 packages supports (theoretically) most of the production workflows
 - Athena, AthSimulation, AthAnalysis/AnalysisBase, AthGeneration, DetCommon
 - Projects with dedicated use cases developed years ago to make builds a bit more light-weight and save build time (when build machines were not yet so powerful)
 - Uses LCG_108 as basis and tdaq/tdaq-common (Athena, DetCommon) for externals
 - Can be used via CVMFS
- AnalysisBase is an exception:
 - Full stand-alone ROOT based release (no LCG and tdaq dependencies)
 - Work horse for end-user analysis
 - Can be used via CVMFS and also with containers on e.g. a laptop

LCG releases and AtlasExternals



- Software stack provided by CERN EP/SFT with
 - Content overview: <https://lcginfo.cern.ch>
 - More details in “2025 CERN EP/SFT program of work” overview talk at [link](#)
 - Provides compilers and consistent software stacks: 800+ external packages
 - Major LCG versions in sync with major/bugfix versions of ROOT
 - ATLAS requests LCG layers usually with minor version updates of MC generators and a few other external packages every few weeks
- AtlasExternals
 - Dedicated builds of externals ATLAS prefers to control version/patches:
 - Geant4 (10.6 used for Run3, and 11.3 for R&D)
 - Gaudi
 - Several python packages, onnxruntime, gdb and more
 - ROOT for AnalysisBase


CMake and Packages





- Historically ATLAS offline code is organized in ~2000 packages, i.e. translates into ~2000 subdirectories with dedicated CMakeLists.txt files that represent e.g. a particular reconstruction algorithm+tools
- CMake:
 - Used to build libraries and executables together with python configuration and data files
 - A dedicated set of CMake macros was developed to ease usage of package structure vs. libraries ([link](#) and [link](#))
 - EOS and CVMFS are used for large data files for CI tests
 - User can develop code and build small parts against a full pre-build nightly (located on CVMFS)
 - CTest is used for a total of ~2400 unit tests
 - CPack is used to create RPMs used for nightly installation on CVMFS
 - If deemed good a nightly can be declared a numbered stable release, will separately installed on CVMFS with 'unlimited lifetime and can be directly used in production
 - N.B. nightlies can also be used in production but will unless pinned disappear after 30 days)

CMakeLists.txt examples for ATLAS package

main ▾ athena / Control / AthenaExamples / AthExHelloWorld / **CMakeLists.txt** Find file Blame History Permalink



 Cleanup AthExHelloWorld
Tadej Novak authored 8 Mar 2023 at 18:56 Verified 7985c150 


 Code owners Assign users and groups as approvers for specific file changes. [Learn more.](#) Manage branch rules





CMakeLists.txt  1.26 KiB Edit ▾ Lock Replace Delete   

```
1 # Copyright (C) 2002-2023 CERN for the benefit of the ATLAS collaboration
2
3 # Declare the package name:
4 atlas_subdir( AthExHelloWorld )
5
6 # Component(s) in the package:
7 atlas_add_component( AthExHelloWorld
8                     src/*.cxx
9                     src/components/*.cxx
10                    LINK_LIBRARIES GaudiKernel AthenaBaseComps )
11
12 # Install files from the package:
13 atlas_install_joboptions( share/*.py )
14 atlas_install_python_modules( python/HelloWorldConfig.py
15                             POST_BUILD_CMD ${ATLAS_FLAKE8} )
16
17 # Test(s) in the package:
18 atlas_add_test( AthExHelloWorld
19               ENVIRONMENT THREADS=0
20               SCRIPT test/test_AthExHelloWorld.sh )
21
22 atlas_add_test( AthExHelloWorldMT_1
23               ENVIRONMENT THREADS=1
24               SCRIPT test/test_AthExHelloWorld.sh )
25
26 atlas_add_test( AthExHelloWorldMT_2
27               ENVIRONMENT THREADS=2
28               SCRIPT test/test_AthExHelloWorld.sh
29               LOG_IGNORE_PATTERN "AthenaHiveEventLoopMgr.* processing event|^HelloWorld.*(INFO|WARNING A WARNIN
30 )
31
32 atlas_add_test( AthExHelloWorldCA
33               SCRIPT python -m AthExHelloWorld.HelloWorldConfig
34               POST_EXEC_SCRIPT nopost.sh )
35
```

main ▾ athena / Reconstruction / Jet / JetRec / **CMakeLists.txt** Find file Blame History Permalink

 JetRec: thread-checker cleanup ***
Frank Winkmeier authored 23 Jan 2025 at 08:29 e81bbdda 

 Code owners Assign users and groups as approvers for specific file changes. [Learn more.](#) Manage branch rules

CMakeLists.txt  2.99 KiB Edit ▾ Lock Replace Delete   

```
1 # Copyright (C) 2002-2025 CERN for the benefit of the ATLAS collaboration
2
3 # Declare the package name:
4 atlas_subdir( JetRec )
5
6 # Extra dependencies, based on the environment:
7 set( extra_libs )
8 if( NOT GENERATIONBASE )
9     list( APPEND extra_libs xADDPFlow )
10     if( NOT XAOD_ANALYSIS )
11         list( APPEND extra_libs AthenaMonitoringKernelLib )
12     endif()
13     if( NOT XAOD_STANDALONE )
14         list( APPEND extra_libs StoreGateLib )
15     endif()
16 endif()
17
18 # External dependencies:
19 find_package( FastJet COMPONENTS fastjetplugins fastjettools siscone siscone_spherical )
20 find_package( FastJetContrib COMPONENTS VariableR RecursiveTools )
21 find_package( GTest )
22
23 # Component(s) in the package:
24 atlas_add_library( JetRecLib
25                 JetRec/*.h Root/*.h Root/*.cxx src/*.cxx
26                 PUBLIC_HEADERS JetRec
27                 INCLUDE_DIRS ${FASTJET_INCLUDE_DIRS} ${FASTJETCONTRIB_INCLUDE_DIRS}
28                 LINK_LIBRARIES ${FASTJET_LIBRARIES} ${FASTJETCONTRIB_LIBRARIES} AsgDataHandlesLib AnaAlgorithmLib AsgTools AthL
29                 PRIVATE_LINK_LIBRARIES CxxUtils xAODTracking )
30
31 if( NOT XAOD_STANDALONE )
32     atlas_add_component( JetRec
33                         src/components/*.cxx
34                         LINK_LIBRARIES ${FASTJET_LIBRARIES} AthContainers AthenaBaseComps GaudiKernel JetEDM JetInterface JetReclib St
35     endif()
36
```

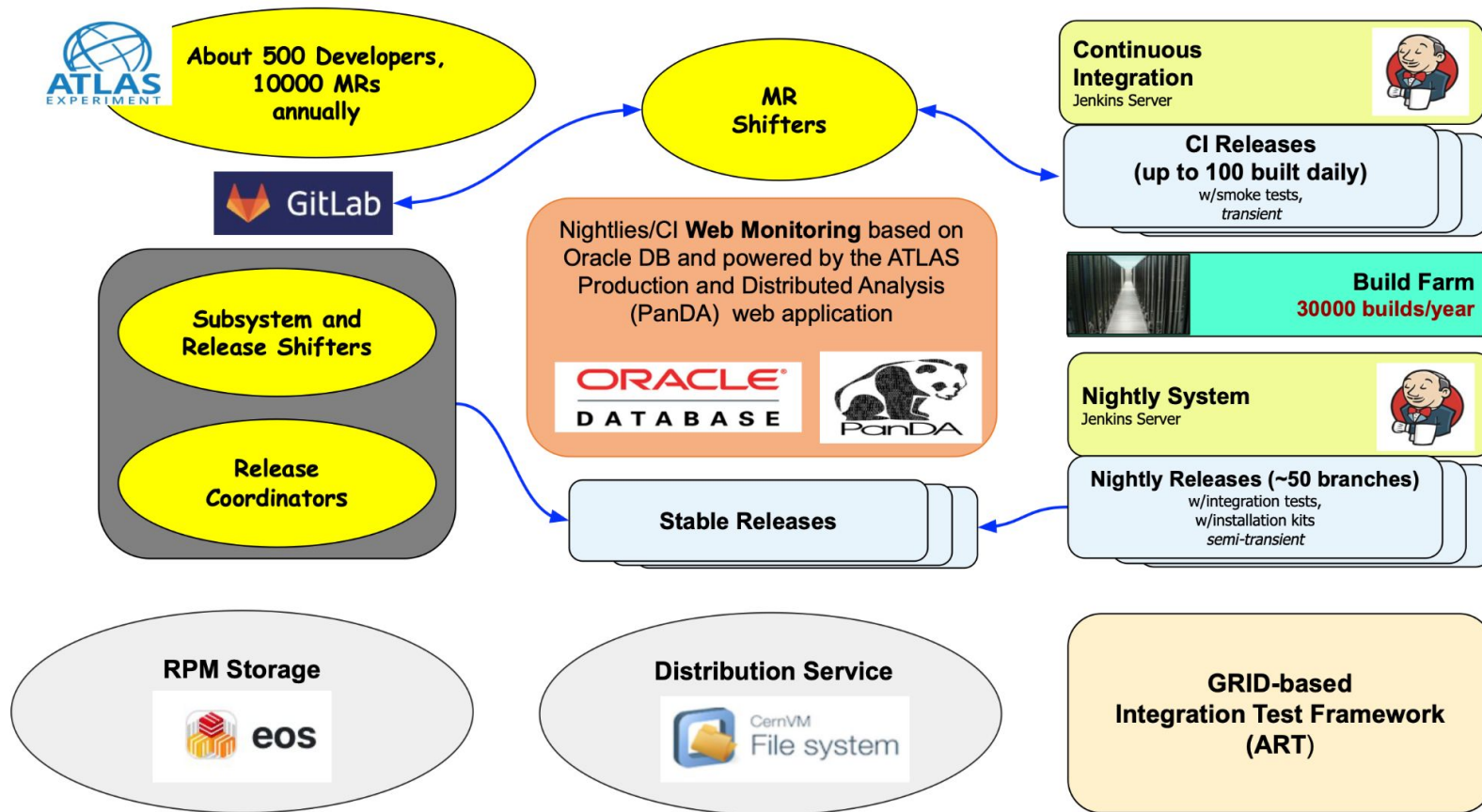
Left: <https://gitlab.cern.ch/atlas/athena/-/blob/main/Control/AthenaExamples/AthExHelloWorld/CMakeLists.txt>

Right: <https://gitlab.cern.ch/atlas/athena/-/blob/main/Reconstruction/Jet/JetRec/CMakeLists.txt>

Nightly build flavours

- Building nightlies from 24.0 and main gitlab branches
 - Athena, AthSimulation, AthGeneration, AthAnalysis, AnalysisBase, DetCommon
 - x86_64 and aarch64
 - Athena nightly with clang19
- Development nightlies
 - dev3LCG (ROOT head), dev4LCG (currently v6-36-00-patches)
 - Test new versions of ROOT, external packages, cmake, cuda etc.
- Several dedicated experimental special nightlies
 - ACTS, Geant4 11.3, archflag (x86_64-v3), lto, gccchecker, HepMC2, Gaudi
- Legacy nightlies
 - Run2 CentOS7 builds in containers

ATLAS Offline Software Development Workflow at a Glance



Key component of ATLAS offline software workflow since 2017

- Jenkins based build and testing system interconnected with GitLab
- CI build for each GitLab Merge Request (MR) creation/update
 - Up to 100 CI jobs daily
 - ~16500 CI jobs completed in 2024
- Rapid unit and integration testing
- Efficient pipelines with dynamic optimization of build and test scale
- Comprehensive feedback to developers
 - Dynamic monitoring is based on the Oracle DB technology and integrated with the ATLAS BigPanDA web service
 - Job results are posted directly to GitLab MR views
- ATLAS teams use CERN GitLab CI for smaller projects

ATLAS Nightly System

- Validates accepted code changes every night
- Dedicated Jenkins automation server (separate from the CI system)
- ~ 50 branches - production, experimental, testing new externals, legacy
 - Optimized scheduling - some branches do not run daily
- Support for Alma9 and ARM platforms
 - Legacy builds within CentOS7 containers
- ~ 13200 Nightly jobs completed in 2024
- Employs the same dynamic monitoring as the CI system
- Release installation on the CVMFS file system
 - Worldwide accessibility
 - See details in the next slides
- Rapid fast unit testing, executed locally on build nodes
- Comprehensive GRID-based integration testing in the ART framework
 - See details in the next slides

ATLAS Software Build Farm

- 18 powerful 64-core Alma9 BM nodes
 - 251 GB RAM, 1.7 TB SSD
- 10 16-core Alma9 VM nodes
 - 114 GB RAM, 160 GB SSD, 490 GB eph SSD, 490 GB Ceph
- 4 20-core ARM VM nodes
 - 57 GB RAM, 200 GB SSD, 490 GB Ceph
- Efficient use through sharing nodes between the CI and Nightly systems
 - Priority for CI jobs at day time, nightly jobs at night time

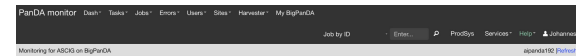
- **Nightly installations**
 - Executed on three CVMFS release managers
 - Created from RPM files using dnf5
 - Procedure based on Bash shell scripts, featuring:
 - Parallelization mechanisms, including lock-based synchronization
 - Support for all CVMFS transaction types, with results analysis and notifications
 - Storage space management
 - Standard nightly release retention policy: 30 days
- **Stable releases installations performed on a separate CVMFS server**
- **Additional installations maintained**
 - Data files for test frameworks
 - External packages and tools
- **Key statistics**
 - Release installation time: 10 to 100 minutes, depending on system load and release size
 - Peak Activity: About 40 release installations on peak days
 - Storage utilization: 7.2 TB out of 15 TB available

ART: ATLAS Release Testing Framework

- Python testing framework designed to detect defects and bugs in nightly builds
- Executes tests locally on the dedicated VMs or on the GRID
- Triggered by Jenkins Nightly Server and runs on nightly builds installed on CVMFS
- Jenkins initiates the GitLab-CI API to start a pipeline
- Jobs can run for up to 24 hours, processing a high number of events, which helps uncover rarer bugs
- Current operations:
 - Runs for approximately 20 nightly releases each day
 - Executes thousands of grid jobs and hundreds of local node jobs daily
 - GRID job results are published to the BigPanDA web service
 - Local job results are hosted on EOS local web but will soon be integrated into BigPanDA

ATLAS BigPanDA Monitoring System

- Django-based web application that aggregates data from Oracle DB and other sources
- Provides a wide range of dashboards, from high-level summaries to detailed views of individual computational jobs and their logs
- Supports dashboards for ART, CI, Nightly Systems, and many other workflows



ATLAS Nightlies and CI Global Page

- CI and Nightly Systems: A Beginner's Guide
- CI and Nightly Systems: Features and Policies
- For the ATLAS Release Tester (ART) results, the color coding is as follows: blue for active, green for succeeded, brown-red for finished with problems, and red for failed number of tests
- Explanations of the table headers can be found at the bottom of the page

Show 100 entries									
Search:									
Nightly Group	Branch	Recent Release	Build time	Compilation errors (warnings)	CTest for CI test errors (warnings) timeouts	ART LOCAL	ART GRID	CVMFS (in diff)	
CI	MR-CI-builds	MR-81675-2025-09-16-01-30	16-SEP-06:21	0/0	0/0/0	N/A	N/A	N/A	
PRODUCTION	24.0_AnalysisBase_x86_64-el9-gcc13-opt	2025-09-15T12:00	02:16	0/0	0/0/0	N/A	N/A	16-SEP-08:01	
PRODUCTION	24.0_AnalysisBase_x86_64-el9-gcc13-opt	2025-09-15T12:00	01:46	0/0	0/0/0	N/A	N/A	16-SEP-02:22	
PRODUCTION	24.0_Athena_x86_64-el9-gcc13-opt	2025-09-13T12:00	14-SEP-06:12	0/0	0/0/0	N/A	N/A	14-SEP-10:02	
PRODUCTION	24.0_Athena_x86_64-el9-gcc13-opt	2025-09-15T12:00	16-SEP-00:03	0/0	3/0/1	0.25.78.0	40.224.93.2	16-SEP-03:51	
PRODUCTION	24.0_Athena_x86_64-el9-gcc13-opt	2025-09-15T12:00	16-SEP-21:56	0/0	0/0/0	0.3.0.0	0.36.0.1	16-SEP-20:31	
PRODUCTION	24.0_Daemon_x86_64-el9-gcc13-opt	2025-09-15T12:00	15-SEP-21:13	0/0	0/0/0	N/A	N/A	15-SEP-21:41	
PRODUCTION	main_AnalysisBase_x86_64-el9-gcc14-opt	2025-09-15T12:00	03:03	0/0	0/0/0	0.8.2.0	0.8.2.0	16-SEP-04:11	
PRODUCTION	main_AnalysisBase_x86_64-el9-gcc14-opt	2025-09-15T12:00	00:41	0/0	0/0/0	N/A	0.8.0.4	16-SEP-01:10	
PRODUCTION	main_AthGeneration_x86_64-el9-gcc14-opt	2025-09-15T12:00	15-SEP-23:21	0/0	0/0/0	0.40.0.9	1.7.20.13	16-SEP-00:01	
DEVELOPMENT	main_Athena_x86_64-el9-gcc14-opt	2025-09-15T12:00	16-SEP-00:50	0/0	0/0/4	N/A	N/A	16-SEP-04:41	

Back to main page

Test type: grid and local
Package: DirectIOART, TrTestsART, TrTestsARTPlots
Branch: main/Athena/x86_64-el9-gcc14-opt, main/Athena/x86_64-el9-gcc13-opt, main/Athena/x86_64-el9-clang19-opt, 24.0/Athena/x86_64-el9-gcc13-opt

Tests results:

Show10entries

Package	Branch	07 Sep 2025	08 Sep 2025	09 Sep 2025	12 Sep 2025	13 Sep 2025
DirectIOART	main/Athena/x86_64-el9-clang19-opt	---	08000	08000	0503	08000
DirectIOART	main/Athena/x86_64-el9-gcc14-opt	---	08000	0602	08000	08000
TrTestsART	24.0/Athena/x86_64-el9-gcc13-opt	01230	---	01431	01520	01431
TrTestsART	main/Athena/x86_64-el9-clang19-opt	---	07141	07150	07130	07150
TrTestsART	main/Athena/x86_64-el9-gcc14-opt	---	01750	01740	01750	01552
TrTestsARTPlots	main/Athena/x86_64-el9-clang19-opt	---	0180	0180	0180	0180
TrTestsARTPlots	main/Athena/x86_64-el9-gcc14-opt	---	0810	0720	0900	0810

Showing 1 to 7 of 7 entries

Test name	13 Sep 2025	Site	Duration, d:h:m	RSS, MB	CPU type
test_tf_andmerge_int_ca.sh	0 1 succeeded 1 1/2 # D W	INFN-FRASCATI	0:0:10.58	731	3506.9 s=AM
test_tf_andmerge_serial_ca.sh	0 1 succeeded 1 1/2 # D W	ARNES	0:0:26.53	534	2754 s=AM
test_tf_atheca.sh	0 1 succeeded 1 1/2 # D W	UKI-NORTHGRID-MAN-HEP-GPU	0:0:01.58	39	117 s=Intc
test_tf_data19_int.sh	0 1 succeeded 1 1/2 # D W	DESY-ZN	0:0:30.45	7336	8110 s=AM
test_tf_data19_int.sh	0 1 finished 1 1/2 # D W	prague08P	0:0:00:01	18745	8185.3 s=AM
test_tf_data19_int.sh	0 1 finished 1 1/2 # D W	CSCS-LCO2-ALPS	0:0:08:25	11436	9088.6 s=AM
test_tf_data19_hybrid.sh	0 3 succeeded 1 1/2 # D W	DESY-ZN	0:0:14.62	1006	1787.2 s=AM
test_tf_data19_mpi.sh	active 1 1/2 # D W	GoSchL LQDISK	0:2:00:27	520	29382.8 s=AM
test_tf_data19_int.sh	0 1 finished 1 1/2 # D W	wuppertal	0:1:39:35	13191	8652 s=AM
test_tf_data19_nucle_int.sh	active 17 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:24.36	0	---
	active 16 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:24.18	0	---
	active 15 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:24.19	0	---
	active 14 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:26.43	0	---
	active 13 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:27.30	0	---
	active 12 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:28.02	8763	9088.9 s=AM
	active 11 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:28.17	8203	8122.4 s=AM
	active 10 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:28.38	9443	8443.3 s=AM
	active 9 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:28.37	9626	8195.7 s=AM
	active 8 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:31.46	8242	8426.6 s=AM
test_tf_data22_hybrid_ca.sh	active 7 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:32.43	8079	8205.6 s=AM
	active 6 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:34.26	7640	8335.5 s=AM
	active 5 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:35.03	8129	8116 s=AM
	active 4 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:35.57	7800	8545.9 s=AM
	active 3 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:36.17	7609	8027.5 s=AM
	active 2 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:37.01	9770	10200 s=AM
	active 1 1/2 # W	ANALY-UKI-SOUTHGRID-OX-HEP-VP	0:0:39.59	7777	8649.2 s=AM
	0 1 finished 1 1/2 # D W	TRIUMF	0:0:36:37	1503	20333.3 s=Intc
	0 1 finished 1 1/2 # D W	UKI-NORTHGRID-MAN-HEP	0:1:12:11	9008	9761.9 s=AM
	0 1 finished 1 1/2 # D W	CA-SFU-T2	0:0:32:38	4591	1302.8 s=AM
test_tf_data24_int_ca.sh	0 1 finished 1 1/2 # D W	FZK-LCO2	0:1:03:35	20826	12503.6 s=AM
test_tf_endmerge_int_ca.sh	0 1 succeeded 1 1/2 # D W	FZK-LCO2	0:0:08:48	681	2996.3 s=AM
test_tf_endmerge_serial_ca.sh	0 1 succeeded 2 1/2 # D W	ARNES	0:0:17:02	332	2935.4 s=AM
test_tf_merge_mpi_ca_nu.sh	0 1 succeeded 1 1/2 # D W	UKI-NORTHGRID-MAN-HEP	0:0:22:23	736	20203.1 s=AM
test_tf_q48_andmerge.sh	0 1 finished 1 1/2 # D W	BWTF-CFB	0:0:01:42	1205	8733.8 s=AM
test_tf_RUNA_r2a_ca_int_no_md200.sh	active 1 1/2 # D W	BWTF-CFB	0:0:03:03	689	5479.9 s=AM
test_tf_RUNA_r2a_ca_int_md200_overlay.sh	0 1 finished 1 1/2 # D W	ANALY-METZ-Athens-VP	0:0:08:35	2036	5345.7 s=AM
test_tf_RUNA_r2a_ca_int_no_pileup.sh	0 3 succeeded 1 1/2 # D W	ARNES	0:0:13:42	357	9020.1 s=AM

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