

UNICORE

Distributed development

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SourceForge „Develop“ page

Code

Programming Languages: [Java](#), [Perl](#)

License: other

Repositories

SVN [browse code](#), [statistics](#), last commit on 2009-08-24

```
svn co https://unicore.svn.sourceforge.net/svnroot/unicore unicore
```

CVS [browse code](#), [statistics](#)

```
cv s -d:pserver:anonymous@unicore.cvs.sourceforge.net:/cvsroot/unicore login  
cv s -z3 -d:pserver:anonymous@unicore.cvs.sourceforge.net:/cvsroot/unicore co -P modulename
```

Links You May Need

[Download UNICORE](#)
[Get Support for UNICORE](#)
[Send a request to join this project](#)

Project Admins

[bjoernh](#)
[bschuller](#)
[dmallmann](#)

Our Numbers

[Bugs](#) (14 open / 240 total)
[Support Requests](#) (0 open / 3 total)
[Patches](#) (2 open / 17 total)
[Feature Requests](#) (44 open / 146 total)
[Public Forums](#) (0 messages in 0 forums)
[Mailing Lists](#) (5 total)
[CVS Repository](#) (40 commits, 3,971 reads)
[Browse CVS](#)
[SVN Repository](#) (5,113 commits, 16,700 reads)
[Browse SVN](#)

What's happening?

Show:

- UNICORE**
bschuller committed revision [5282](#) to the [UNICORE](#) SVN repository, changing 1 files.
2009-08-24 14:45:39 UTC by [bschuller](#)
- UNICORE**
bschuller committed revision [5281](#) to the [UNICORE](#) SVN repository, changing 1 files.
2009-08-24 14:09:20 UTC by [bschuller](#)

Newest Members

[nlamla](#)
[wnoor](#)

Version control

- SVN
- Mailing list is notified of each commit
 - Including detailed diff

 metrx/	4921	5 weeks	uaivanuy	A mock-up component for testing purposes.
 ogsabes/	3914	7 months	bschuller	move ogsabes-types to unicorex
 ogsarus/	3036	15 months	mri1706	Initial import.
 optional/	5105	2 weeks	bschuller	new version 2.6.1
 persistence/	5230	4 days	bschuller	use TimeUnit.SECONDS since minutes/hours do not yet exist in Java 1.5
 quickstart/	4964	5 weeks	bschuller	updates for 6.2.1
 securityFramework/	5249	3 days	bjoernh	only register mbean server if configured
 simpleworkflow/	5130	13 days	bschuller	do not append ":::0" to iteration ids
 tools/	4598	3 months	rbreu	DNs now compliant with RFC 2253
 tsj/	5270	8 hours	bschuller	add possibility to export environment variables to the job's environment
 ucc/	5273	3 hours	bschuller	fix typo; change workflow command names in emacs mode
 ugsf/	3014	15 months	golbi	added scalability test and fixed divby 0 error in normal file test
 unicorex/	5282	51 minutes	bschuller	remove duplicate (?) test, seems the same as TestUCC in the "functional" package
 uvos/	5216	5 days	golbi	fixed typo in docs: log4j prefix
 workflow/	5266	42 hours	bschuller	callback methods are void now; add storage EPR property
 wsrfite/	5268	27 hours	bschuller	do not change service def file
 xnjs/	5277	2 hours	bschuller	next version
 ...	4828	7 months	bschuller	single XUCB file

Build automation

- Apache Maven
 - Project descriptor file
 - Dependencies
 - Build details
 - Dependencies available for download from public repositories (UNICORE specific dependencies maintained in a repository at Jülich)
 - No libs in source control!
- Apache Ant
 - For building the server packages
 - Building the (Eclipse based) UNICORE Rich client



Example dependency tree (excerpt, generated by Maven)

```
[INFO] eu.unicore:uas-core:jar:1.2.2
[INFO] +- eu.unicore:uas-types:jar:1.2.2:compile
[INFO] | +- de.fzj.unicore:jsdl-xmlbeans:jar:1.3:compile
[INFO] | \- de.fzj.unicore:wsrflite:wsrflite:jar:1.8.15:compile
[INFO] +- de.fzj.unicore:wsrflite:wsrflite:jar:1.8.15:compile
[INFO] | +- log4j:log4j:jar:1.2.14:compile
[INFO] | +- xmlbeans:xbean:jar:2.2.0:compile
[INFO] | +- xmlbeans:xbean_xpath:jar:2.2.0:compile
[INFO] | +- org.codehaus.xfire:xfire-xmlbeans:jar:1.2.6:compile
[INFO] | | \- org.codehaus.xfire:xfire-aegis:jar:1.2.6:compile
[INFO] | |   \- net.java.dev.stax-utils:stax-utils:jar:20040917:compile
[INFO] | +- xfire:xfire-jsr181-api:jar:1.0-M1:compile
[INFO] | +- org.mortbay.jetty:jetty:jar:6.1.19:compile
[INFO] | +- org.mortbay.jetty:jetty-sslengine:jar:6.1.19:compile
[INFO] | +- hsqldb:hsqldb:jar:1.8.0.10:compile
[INFO] | +- net.sf.ehcache:ehcache:jar:1.2.4:compile
[INFO] | \- eu.unicore.security:xfire-secutils:jar:1.3.3:compile
[INFO] |   +- org.codehaus.xfire:xfire-core:jar:1.2.6:compile
[INFO] |   \- eu.unicore.security:securityLibrary:jar:1.5.1:compile
[INFO] |     \- pl.edu.icm.saml:samly2:jar:1.2.1:compile
[INFO] |       +- org.apache.santuario:xmlsec-java6:jar:1.4.2:compile
[INFO] |       +- pl.edu.icm.unicore.security:SAMLtypes:jar:1.1:compile
[INFO] |       \- eu.unicore.security:crl-checking:jar:1.0-rc1:compile
[INFO] |         \- bouncycastle:bcprov-jdk15:jar:140:compile
[INFO] +- de.fzj.unicore:xnjs-module-core:jar:1.2.2:compile
[INFO] | \- de.fzj.unicore:persistence:jar:0.5:compile
[INFO] +- de.fzj.unicore.xuudb:xuudb-common:jar:1.2.1:compile
[INFO] +- net.sourceforge.sunxacml:sunxacml:jar:1.2:compile
[INFO] \- eu.unicore.security:xfire-secutilsWithDSig:jar:1.3.3:compile
[INFO]   +- org.apache.ws.security:wss4j:jar:1.5.8-pre-20090717:compile
```

Integration with ETICS – build and test on multiple OS

The screenshot displays the ETICS Web Portal in a Mozilla Firefox browser. The address bar shows the URL `https://etics.cern.ch/eticsPortal/#legBs`. The user is identified as Andre Giesler. The main navigation bar includes links for **My ETICS**, **Configuration**, **Repository**, **Administration**, and **Requests**.

The interface is divided into several sections:

- Project:** A tree view on the left showing a hierarchy of projects and sub-projects, including `unicore`, `atomic-services`, `CommonInformation`, `ogsa-bes`, `security-framework`, `unicorex`, `wsrfite`, `xnjs`, `xuudb`, and `gateway`.
- Workspace:** A tree view on the right showing the workspace structure for the selected project, including `unicore.wsrfite_trunk`, `wsrf_core_trunk_1.8.11`, `wsrf_types_trunk_1.5.0`, and various build and test commands.
- Submit Remote Build for 'unicore.wsrfite.wsrf_types_trunk_1.5.0':** The main configuration panel on the right, which includes:
 - General:** `logging: verbose`
 - Checkout:** `environment: Propagate environment and properties from unicore_6.1.3`, `checkout: possibly`, `build from: binary`
 - Build Execution:** `execution: Do not stop on errors`
 - Packaging & Repository:** `repository: Publish artefacts to Volatile Area default`
 - Host:** A list of host options for `host selection`, with `CERN Scientific Linux 4 (ia32) with gcc 3.4.6` selected.
 - Submission Parameters:** `platforms: slc4_ia32_gcc346`, `checkoutOptions: --config "unicore.wsrfite.wsrf_types_trunk_1.5.0" --project "unicore" --project-config "unicore_6.1.3" --forcecheckout --verbose`, `submitOptions: --config "unicore.wsrfite.wsrf_types_trunk_1.5.0" --verbose --target postpublish`, `requirements: client_req_volatile=default;`
- Configurations:** A search box at the bottom left showing two configurations found: `unicore.wsrfite_HEAD` and `unicore.wsrfite_trunk`.

Continuous integration

- Atlassian Bamboo
 - Builds components when code in the repository changes
 - Runs unit tests (which developers sometimes do not :-)
 - Success/failure notifications to mailing list (and individual developer)
 - Web frontend

Dashboard - Atlassian Bamboo for UNICORE - Mozilla Firefox

http://zam544.zam.kfa-juelich.de:8085/start.action

BAMBOO Log in | Signup | Help

Home Authors Reports

Atlassian Bamboo for UNICORE

All Plans Current Activity Collapse All | Expand All

<input type="checkbox"/> CRL Checking	✓ Default > CRLCHECKING-TRUNK-4	Ran: 4 weeks ago Updated by Björn Hagemeier Duration: 6 seconds Tests: 6 passed
<input type="checkbox"/> PersistenceFramework	✓ TRUNK > PERSISTENCE-DEF-4	Ran: 5 days ago Updated by Bened Schuller Duration: 18 seconds Tests: 12 passed
<input type="checkbox"/> UNICORE 6 Gateway	✓ Trunk > UEGATEWAY-TRUNK-16	Ran: 1 hour ago Updated by gabi Duration: 31 seconds Tests: 18 passed
<input type="checkbox"/> UNICORE Service Orchestrator	✓ Trunk > SO-TRUNK-37	Ran: 2 days ago Manual build by Bened Schuller Duration: 1 minute Tests: 7 passed
<input type="checkbox"/> UNICORE Workflow engine	✓ Trunk > WORKFLOWENGINE-TRUNK-47	Ran: 2 days ago Updated by Bened Schuller Duration: 1 minute Tests: 56 passed
<input type="checkbox"/> UNICORE X	✓ Trunk > UNICOREX-TRUNK-92	Ran: 2 days ago Updated by Bened Schuller Duration: 10 minutes Tests: 82 passed
<input type="checkbox"/> UNICORE XNJS	✓ Trunk > XNJS-TRUNK-37	Ran: 3 weeks ago Updated by Bened Schuller Duration: 4 minutes Tests: 98 passed
<input type="checkbox"/> WSRFlite	✓ Trunk > WSRFLITE-TRUNK-55	Ran: 4 days ago Updated by Bened Schuller Duration: 7 minutes Tests: 95 passed
<input type="checkbox"/> WSRFlite Types	✓ Trunk > WSRFTYPES-DEF-12	Ran: 4 weeks ago Updated by Bened Schuller Duration: 22 seconds Tests: No tests found

Successful builds are green, failed builds are red.

Feed for all builds or all failed builds.

View plans in status summary screen.

Powered by a free Atlassian Bamboo open source license for UNICORE. Try Bamboo - The Zen of Continuous Integration.

Powered by Atlassian Bamboo version 2.2.1 build 1206 - 17 Mar 09

[Report a problem](#) | [Request a feature](#) | [Contact Atlassian](#) | [Contact Administrators](#)

Done

UNICORE 6 release schedules

- Core servers, workflow servers, major clients
 - „point releases“ e.g. 6.2.2
 - Approximately every 2-3 months
 - Bug fixes, minor new features
 - Major releases
 - Approximately once a year
 - Major changes and new features
- Other components as appropriate
 - UVOS VO Service
 - CIS information service

UNICORE 6 component release procedure

- The component is built and tested thoroughly by the developers and any additional “in-house” testers
- **Release candidate** of a component is made available for download
- **Announced** on development mailing list (and to other stakeholders, e.g. projects)
- 10 working days “**voting period**”
- If no objections or critical bugs have been raised, the software is released.

Experiences and lessons learnt

- Learn from big open-source projects (e.g. at Apache, at SourceForge)
- Inter- and intra-team communication and transparency is crucial for distributed development to succeed
- Notifications of code changes (SVN check-ins)
- Clear, automated dependency management is a life-saver
- Continuous integration is very beneficial. Most useful if various deployment platforms can be used for testing (ETICS)
- More work needed:
 - More „real“ integration tests (full stack)
 - Multiple platforms (both client and server)