



NORDUGRID

*Grid Solution for Wide Area
Computing and Data Handling*

ARC6 @ the NG19 Conference, Lund

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Rolling out the ARC6 release



There were 6 everywhere



SIX



Six ways to answer what ARC is (1 / 6)

Advanced Resource Connector

Keep in mind that ARC has always been a **middleware**..




"What do you mean 'let's get rid of the middlemen'
- we are the middlemen!"

Meet
the
ARC
Nordugrid ARC
...ent **ever!**
...everything!

The release preparation (2 / 6)

- We announced ARC6 (almost) on **6 June (6/6)**:
Maiken messaged at 22:46 on 6/6:
"It is a shame to miss 6/6, but now I feel that it is better to wait until tomorrow morning. Seems a bit silly to send out release email at 23 in the night, not much point. So will send out announcement tomorrow!"
- .. after being happy with the **6th** release candidate (v6.0.0**rc6**):

 **v6.0.0** Tagging for ARC 6.0.0 release
-o- [7d48d115](#) · Edited release note date · 1 week ago

 **v6.0.0rc6** Sixth and expected final release candidate for ARC 6.0.0
-o- [1b829ea1](#) · Merge branch 'arc6-translations' into 'master' · 3 weeks ago
- ... that concluded a development work which started in 201**6**!

Six major NEW things in ARC6 (3 / 6)

1. ARC.CONF

- Complete rework, authorization, user mapping, defaults, config blocks, validation

2. Scalability & manageability improvements

- *Event-driven internal job loop, startup scripts, logfiles, streamlined packages*

3. New Runtime Environment framework

- default, installed, enabled RTEs, introduction of RTE parameters

4. ARCCTL, a new server-side sysadmin tool

- one-stop-shop tool for administrating an ARC CE

5. JURA accounting improvements

- New config, republishing, internal restructuring

6. ARCHERY



Six obsoleted component sets (4/6)

1. Large number of config options
2. CREAM and UNICORE related client plugins and server-side modules
3. All the Windows and Solaris code and builds
4. Support for BES, WSRF, non-EMIES WS flavours, JDL, ARCJSDL, RSL
5. EMIR indexing service and server-side EGIIS
6. ARC-SDK support for top-BDII and GLUE1



Six thing we postponed to ARC7 (5 / 6)

1. Completion of several Tech Preview solutions:

- REST Interface
- Internal Interface
- Python LRMS
- Candypond service

2. Any major work on the client-side

- Including arcsub cli option consolidation

3. Embracing non-x509 security trends

4. Controldir restructuring

5. Phasing out gridftp and glue-1

6. Better error messages



Get ARC6: The Guides (6/6)

- Upgrade from ARC5 to ARC6, follow the **six step** checklist: migrating5to6:
 1. Rewrite your arc.conf: you can send your configuration to us and we will help to rework it for ARC6.
 2. Learn the ARC6 packages and services names.
 3. Get familiar with ARC Control Tool that will simplify your life as an ARC6 administrator.
 4. Don't forget to enable RunTime Environments (RTE) with arcctl rte enable.
 5. Be aware of accounting subsystem changes.
 6. Say "Good Bye!" to EGIIS, the ARC community is migrating over to a DNS-based ARCHERY system.
- Try ARC6 in **six steps**, follow the guide:
 - Step 1. Enable NorduGrid ARC6 repos
 - Step 2. Install A-REX
 - Step 3. Run A-REX
 - Step 4. Generate user certificate and key for testing
 - Step 5. Submit job and check it is running
 - Step 6. Play more with the ARC Computing Element
- or watch the **6 minutes** long video!



6+1: The people

- The ARC developer chat contains 1 **6+1** names; the top ARC6 contributors:
 - Aleksander, Andrii, David, Florido, Mattias
- The ARC6 support channel lists 1 **6+1** names, the top ARC6 sysadmins:
 - Andrej, Dmytro, Jens, Gianfranco
- The ARC technical coordination group consists of **6+1** names:
 - Maiken, Oxana, Anders, David, Aleksander, Mattias and myself
- **A big thank to EVERYBODY!**

The NG19 Challenge:

- What is your ARC-related six-pack?



- Send your **ARC SIX collection** to ng2019@nordugrid.org and win a prize at the Conference dinner 😊

Six reasons to install ARC6

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.