



eTICS2
The Grid Quality Process



European Commission
Information Society and Media

INFSO-RI-223782

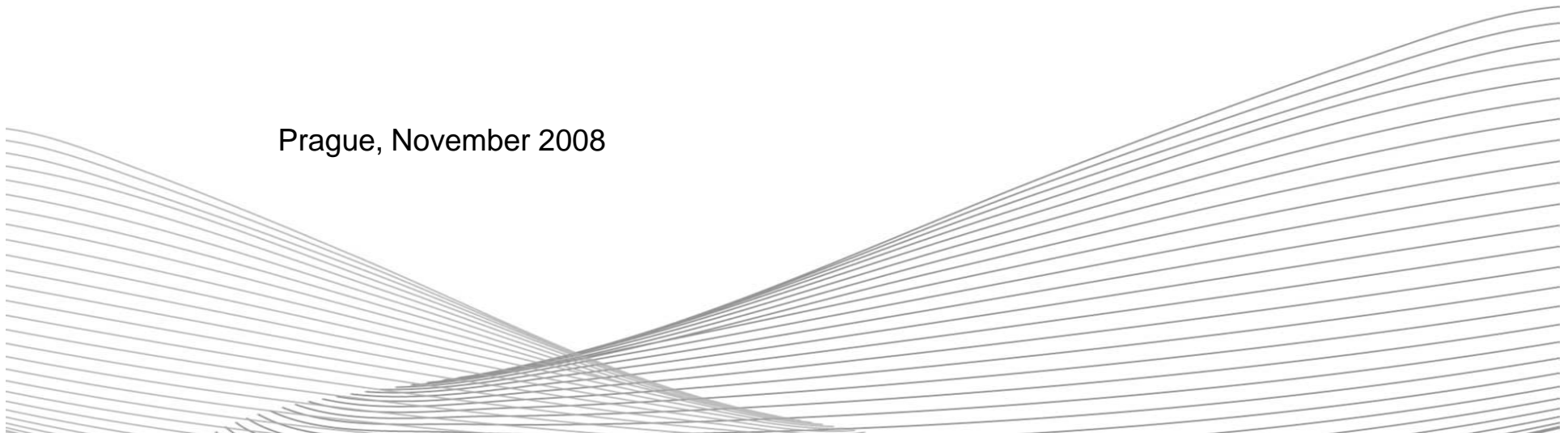
ETICS and EGEE

Supporting the gLite release process

JRA1/SA3 All Hands Meeting


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CERN - ETICS

Prague, November 2008



Contents

- **New features**
 - CLI client
 - Repository service
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 - DIFF configurations
 - Web portal improvements
- **Future Plan**
 - Multi-package configurations
 - Subsystem / dependency enhancement
 - Timescale
- **Release Process**
 - Use cases
 - Comments

 Feedback is
very welcome



CLI Client: Performance

	Old client	New client	Speed-up	Modules
gLite	~35h	~4h	875%	384
WMS	1h 43m 41s	14m 16s	735%	110
DM	1h 12m 18s	10m 34s	720%	104
Security	29m 38s	5m 45s	483%	65
LB	14m 32s	2m 51s	460%	42

In addition, other commands such as:

- ***show structure commands***
- ***listing or editing commands***

have been improved and they are almost instantaneous.



CLI Client: New Features

- **Local packages**

- When a required package is **already available** in the build host through the default package manager (yum, apt-get), the client will **not download it** and will **point** the properties to the existing locations.

- **Useful properties**

- libdir
- package.forceSource = true
- platformName
- platformFamily
- platformArch
- gcc.version

“lib” or “lib64”

to force the source co

“slc4_ia32_gcc346” ...

“slc4”, “slc5”, etc.

“ia32”, “x86_64”, etc.

“323”, “346”, etc.

? Any requests



Repository Service

- **Performance** has been considerably improved
- **New email**

```
Your Run results
=====
Result           = Success
Component        = org.etics.nmi.scripts
Configuration    = etics-nmi-scripts_R_1_4_1_1
Start time       = 03/11/2008 18:36:25
End time         = 03/11/2008 18:36:34
Run_type         = build
Platforms        = sl5_ia32_gcc412
Registration      = false
Volatile namespace = default
ETICS client     = 1.3.10-1
```

You can find detailed build logs at the following URL:

http://etics-repository.cern.ch:8080/repository/reports/id/912ee401-7b6c-4678-b89e-7e4a36c14c94/sl5_ia32_gcc412/-/reports/index.html

To download the reports as tar.gz:

http://etics-repository.cern.ch:8080/repository/reports/id/912ee401-7b6c-4678-b89e-7e4a36c14c94/sl5_ia32_gcc412

To list, download and see details of the packages that have been successfully registered in the permanent and/or volatile area of the repository:

http://etics-repository.cern.ch:8080/repository/packages/id/912ee401-7b6c-4678-b89e-7e4a36c14c94/sl5_ia32_gcc412



New “Packages” interface



ETICS Repository Downloads <http://etics-repository.cern.ch:8000/repository/download>


Snapshot: http://etics-repository.cern.ch:8000/repository/packages/5d/2b393170-1770-4862-8106-78e321b251a2/slot_1a32_gm344

Generated: 06/11/2008 06:56:39

Area / Directory / File	Type	Size	Creation Date
ETICS Repository			
VOLATILE: glite_3_1_0_dev			
CGSI_gSOAP_2.7-1.3.2-2.sl4.i386.rpm	rpm	71069	06/11/2008 04:01:30
CGSI_gSOAP_2.7-1.3.2-2.tar.gz	tar.gz	458153	06/11/2008 04:01:30
CGSI_gSOAP_2.7-dev-1.3.2-2.sl4.i386.rpm	rpm	248467	06/11/2008 04:01:30
CGSI_gSOAP_2.7-voms-1.3.2-2.sl4.i386.rpm	rpm	167964	06/11/2008 04:01:30
DPM-1.7.0-5sec.sl4.src.rpm	src.rpm	1467944	06/11/2008 04:01:30
DPM-DBI-1.7.0-1sec.sl4.i386.rpm	rpm	39779	06/11/2008 04:01:30
DPM-DBI-1.7.0-1sec.sl4.src.rpm	src.rpm	19116	06/11/2008 04:01:30
DPM-DBI-1.7.0.tar.gz	tar.gz	16590	06/11/2008 04:01:30
DPM-client-1.7.0-5sec.sl4.i386.rpm	rpm	5327651	06/11/2008 04:01:30
DPM-client-1.7.0-5sec.sl4.i386.rpm	rpm	5327651	06/11/2008 04:01:30
DPM-copy-server-mysql-1.7.0-5sec.sl4.i386.rpm	rpm	542276	06/11/2008 04:01:30
DPM-copy-server-oracle-1.7.0-5sec.sl4.i386.rpm	rpm	549980	06/11/2008 04:01:30
DPM-dicom-1.7.0-5sec.sl4.src.rpm	src.rpm	1464884	06/11/2008 04:01:30
DPM-dicom-copyd-mysql-1.7.0-5sec.sl4.i386.rpm	rpm	62713	06/11/2008 04:01:30
DPM-dicom-server-mysql-1.7.0-5sec.sl4.i386.rpm	rpm	522140	06/11/2008 04:01:30
DPM-httpd-1.2.1-2sec.sl4.noarch.rpm	rpm	8461	06/11/2008 04:01:30
DPM-httpd-1.2.1-2sec.sl4.src.rpm	src.rpm	8462	06/11/2008 04:01:30
DPM-httpd-1.2.1_old_6-11-2008_4-1-30-0.tar.gz	tar.gz	5734	06/11/2008 04:01:30



Build information and Package information



Package Information

Snapshot: http://etics-repository.cern.ch:8080/repository/download/volatile/glite_3_1_0_dev/org.glite.org.glite.security.cgsi-gsoap-2.7/1.3.2/slc4_i386_gcc346/CGSI_gSOAP_2.7-1.3.2-2.slc4.i386.rpm/

Info

Name: CGSI_gSOAP_2.7	Relocations: /usr
Version: 1.3.2	Vendor: CERN/IT/GD
Release: 2.slc4	Build Date: 06/11/2008 02:08:26
OS: linux	Build Host: lxetvm0036.cern.ch
Group: Application/File	Source RPM: CGSI_gSOAP_2.7-1.3.2-2.slc4.src.rpm
Size: 166102	Licence: Open Source EGE License
Packager: (none)	RPM Version: 4.3.3
Architecture: i386	Platform: i386-redhat-linux-gnu
URL: (none)	

Summary: GSI plugin for gSOAP
Description:
 CGSI allows writing gSOAP clients with GSI authentication.
 This package contains the shared libraries for the client side.

Signature

Package not signed

Provides

```
libcgsi_plugin_gsoap_2.7.so
libcgsi_plugin_gsoap_2.7.so.1.3.2 FIND_PROVIDES
libcgsi_plugin_gsoap_2.7_cpp.so.1.3.2 FIND_PROVIDES
CGSI_gSOAP_2.7 = 1.3.2-2.slc4
```

Requires

```
/bin/sh PREREQ INTERF SCRIPT_PRE SCRIPT_POST SCRIPT_PREUN SCRIPT_POSTUN RPMLIB
libc.so.6 FIND_REQUIRES
libc.so.6(GLIBC_2.0) FIND_REQUIRES
libc.so.6(GLIBC_2.1) FIND_REQUIRES
libc.so.6(GLIBC_2.1.3) FIND_REQUIRES
rpmLib(CompressedFileNames) <= 3.0.4-1 PREREQ SCRIPT_PRE SCRIPT_POST SCRIPT_PREUN SCRIPT_POSTUN RPMLIB
rpmLib(PayloadFilesHavePrefix) <= 4.0-1 PREREQ SCRIPT_PRE SCRIPT_POST SCRIPT_PREUN SCRIPT_POSTUN RPMLIB
vdt_globus_essentials
```



Under development

- **DIFF** configurations command
 - 2 possible implementations
 - **Complete** configuration tree (up to 2 minutes for gLite)
 - **Only** the specified configuration (needs some changes)
- **Submission** panel improvement
 - Submission lists per **module**
- **External** request improvement
 - Request multiple platforms, Add platform
- Bugfixes of the Configuration WA
 - Iceweasel



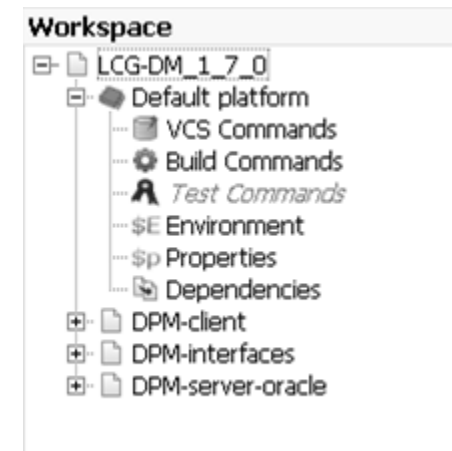
YUM (REPOMD) Repositories

- One repository **per build**
- One global repository for the **REGISTERED** area
- [http://etics-repository/pm/repomd/id/ {ID} / {PLATFORM}](http://etics-repository/pm/repomd/id/{ID} / {PLATFORM})
- <http://etics-repository/pm/repomd/registered>
 - /etics.repo
 - /repodata/repomd.xml
 - /repodata/primary.xml.gz
 - /repodata/filelists.xml.gz
 - /repodata/other.xml.gz
- The packages are linked from the **/download** interface



Multiple packages per configuration

- Currently **only one package** (different package formats but with the same content) can be created **per configuration**
- With custom SPECFILE it is possible to create multiple packages but it is not possible to **address them separately** as dependency.
- Currently we need to merge externals tar.gz
- **WORKAROUND:**
 - Use what we call **virtual-packages**
- **PROPOSED SOLUTION:**
 - Allow a component configuration to have package subconfigurations.
 - The checkout can be defined in the parent configuration
 - Each package can be created in each subconfiguration



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ETICS and gLite

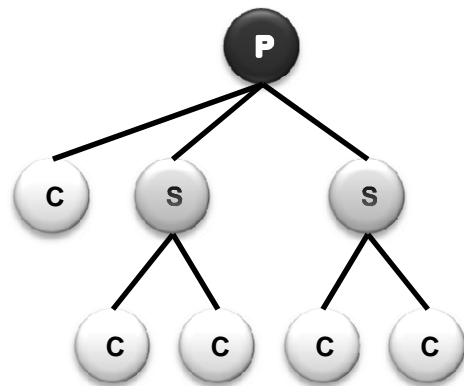
Examples of multi-package configurations

- **Using the ETICS packager**
 - Different **install targets** in the children packages
 - The property **packageName** defines each package name of the children configurations
 - The parent configuration could also generate a package with the **whole build** while the children only part of it.
- **Using a custom SPECFILE**
 - The property **packageName** defines the each package name of the children configurations in order to match the downloadFrom
 - The content of parent and children configurations are left to the user.
 - All the other attributes (such as version, properties, etc.) will be **inherited** from the parent configuration unless **overwritten**
 - Cloning and locking will **include** the sub-packages

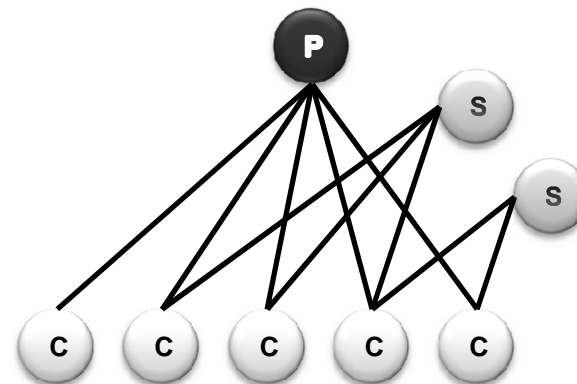


Subsystems

- Subsystems can define only **one way** to group components
- Problems arise when **different grouping** ways are needed (Ownership, Node type, Software entity, etc.)
- Transform the subsystems to become **independent groups** of selectable components
- Allow a component to be in multiple Subsystems
- From “**Folder**” paradigm to “**Tag**” paradigm



ETICS and gLite

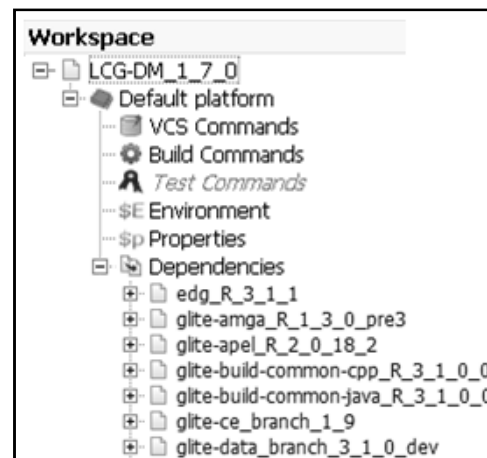


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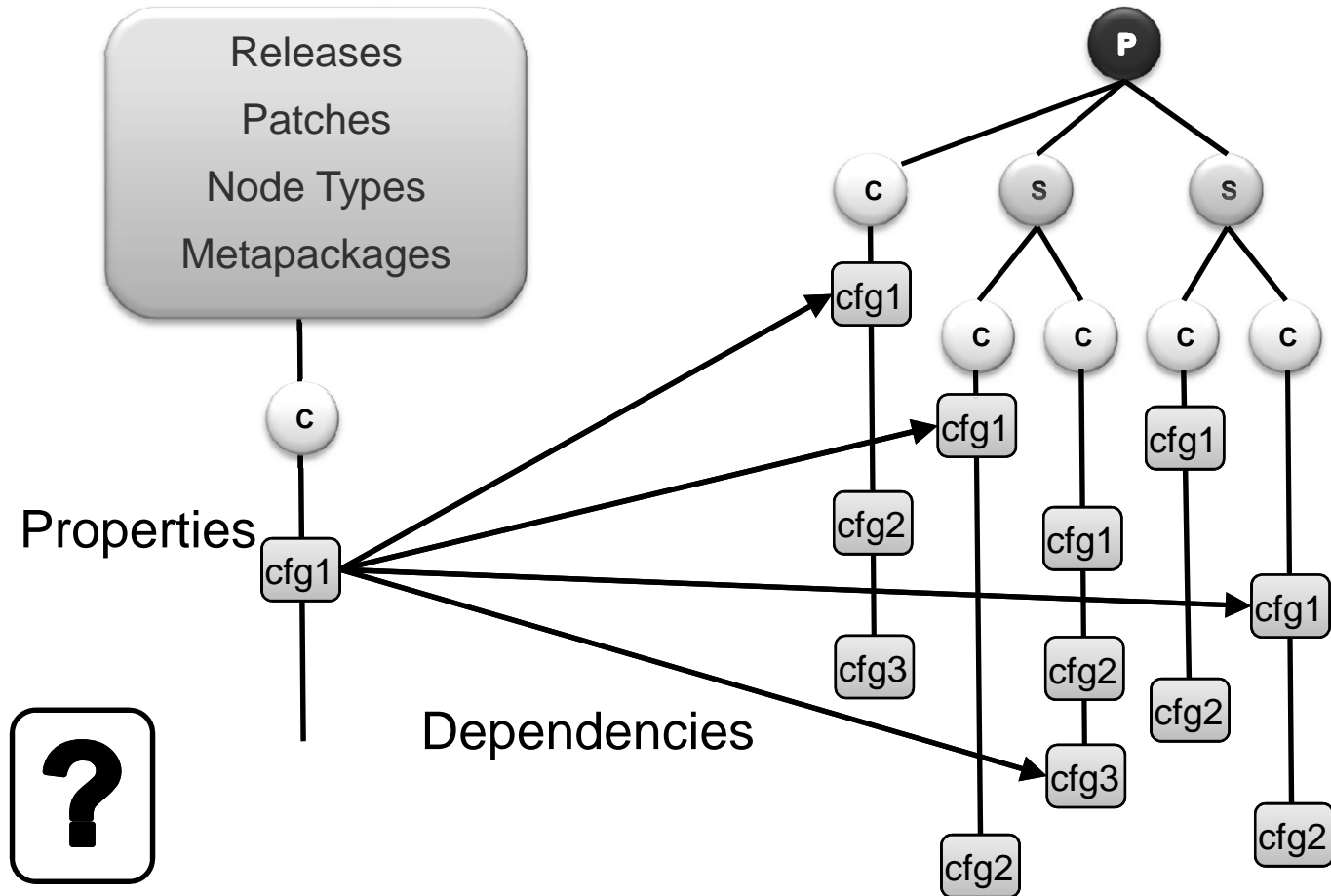


Using dependencies to create bundles

- If a better user interface is created for dependencies, bundles could be created using the same mechanism used for **metapackages**
- Expanding the **dependency tree** of a configuration:
 - **Open and edit** the configurations set as dependencies
 - Resolve the dynamic dependencies using the **current** tree
 - Resolve the dynamic dependencies **selecting** the tree
 - Changing dependencies using **combo boxes**



Examples of bundles



Timescale

- CLI Client release **15 Nov**
- DIFF command **15 Nov**

- YUM (REPOMD) repositories **End Nov**
- Web portal improvements **End Nov**

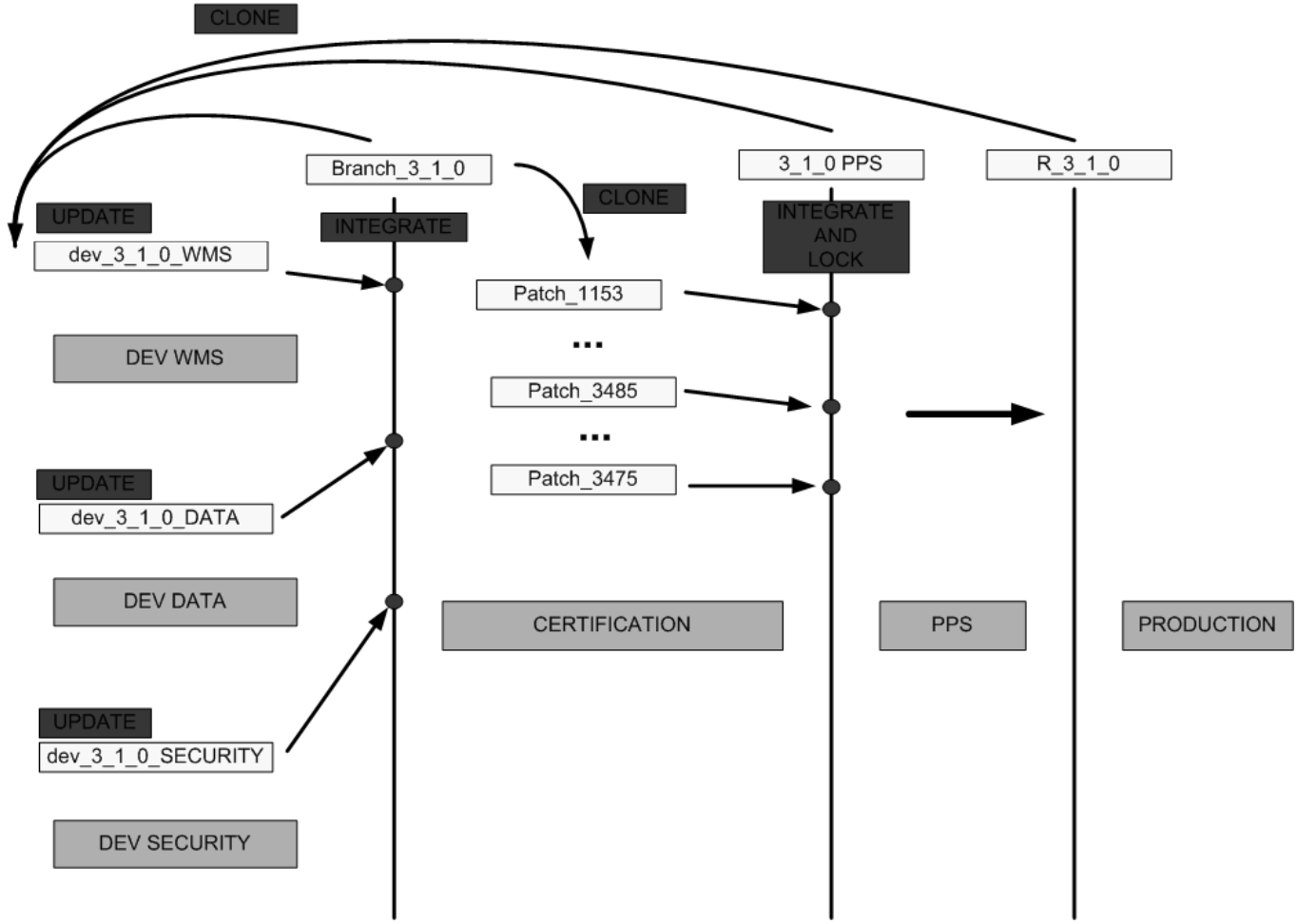
- Dependency enhancement **End year**

- Multi-package configurations **End Jan**
- New subsystems **Jan/Feb**



Release process

- New project configuration for certification added
- Locking of configuration backups added
- VERSIONS!!!



Developer guide

- **Several issues are mentioned**
 - Subsystem restructure needed
 - Exception when an update involves more than a subsystem
 - Keep configuration synchronized
 - Need a way to describe patches
- **Solutions proposed by ETICS**
 - Create bundles using dependencies
 - New subsystem TAG paradigm
 - Multi-package configurations
 - DIFF command

(ETICS commands of the developer guide to be updated)



Use Cases

- Working on the next version of a piece of software that depends only on components already part of `glite_branch_3_1_0`
 - **Normal checkout of the new configuration with `-project-config`**
- Working on the next version of a piece of software that depends on components that are not yet part of `glite_branch_3_1_0`. Such components could be themselves under development.
 - **Personal project config, bundle, checkout-from-local command**
- Rebuild a particular RPM, changing one external dependency
 - **Can be done with ETICS API. Will be introduced as a wizard.**
- Can we prove that the build did not override project level default dependencies?
 - **Warning/Fail on overriding OR non overridable properties**





Feedback

- Additional CLI **properties** needed
- Configuration **DIFF** command
- **YUM** (REPOMD) Repositories
- Multi-package configurations
- Use dependencies to create bundles
- Checkout-from-local command
- New subsystem **TAG** paradigm
- Warning/Error on overriding or non overridable props?
- Other ETICS issues

