



**ETICS**  
*The Grid Quality Process*

# Training: Build using the ETICS Service Welcome, Logistics and Overview

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[www.eu-etics.org](http://www.eu-etics.org)





- **Welcome to this ETICS training event**
- **The ETICS Service and Tools are still under beta testing. We expect to release v1.0 in December**
- **This is an opportunity to give feedback that can influence the first release. **ETICS is for you!!****
- **Please share your thoughts with us and others:**
  - [etics-discuss@cern.ch](mailto:etics-discuss@cern.ch)
- **Goal of today's training day: **Teach the foundations of the ETICS Service for building Grid and distributed software, such as DILIGENT****

- **Time: 14:30 – 18:30**
- **Programme:**
  - <http://indico.cern.ch/conferenceDisplay.py?confId=6849>
  - Includes slides and exercises
- **Please take a **Student Id Number** and use it by appending this number to the modules and configuration you will be creating today (more details in the exercises material)**

- **We have tested the tutorials with:**
  - Browser: Firefox (Internet Explorer doesn't work)
  - Command-line client: SLC3 and SLC4. If you are running another OS and experience difficulties:
    - account: eticsbld\_1...eticsbld\_31
    - Password: buildWithETHICS
    - hostname: lxb1303.cern.ch
- **Required dependencies for the client and tutorials:**
  - rpmbuild
  - openssl-devel
  - python-devel
- **Bugs (if ever found ;-)** should be reported:
  - email to: [etics-bugs@cern.ch](mailto:etics-bugs@cern.ch) or better
  - enter in savannah: <http://savannah/projects/etics> (please login if possible, so that we can get back to you)

- **Please fill an evaluation form before leaving. This is important for us to improve and do a better job**

- **Vision:** A dependable, reliable, stable grid infrastructure requires high-quality, thoroughly tested, interoperable software middleware and applications
- **Mission:** Provide a generic service that other projects can use to efficiently and easily build and test their grid and distributed software. Set up the foundations for a certification process to help increasing the quality and interoperability of such software



Build system,  
software  
configuration, service  
infrastructure,  
dissemination, EGEE,  
gLite, project coord.

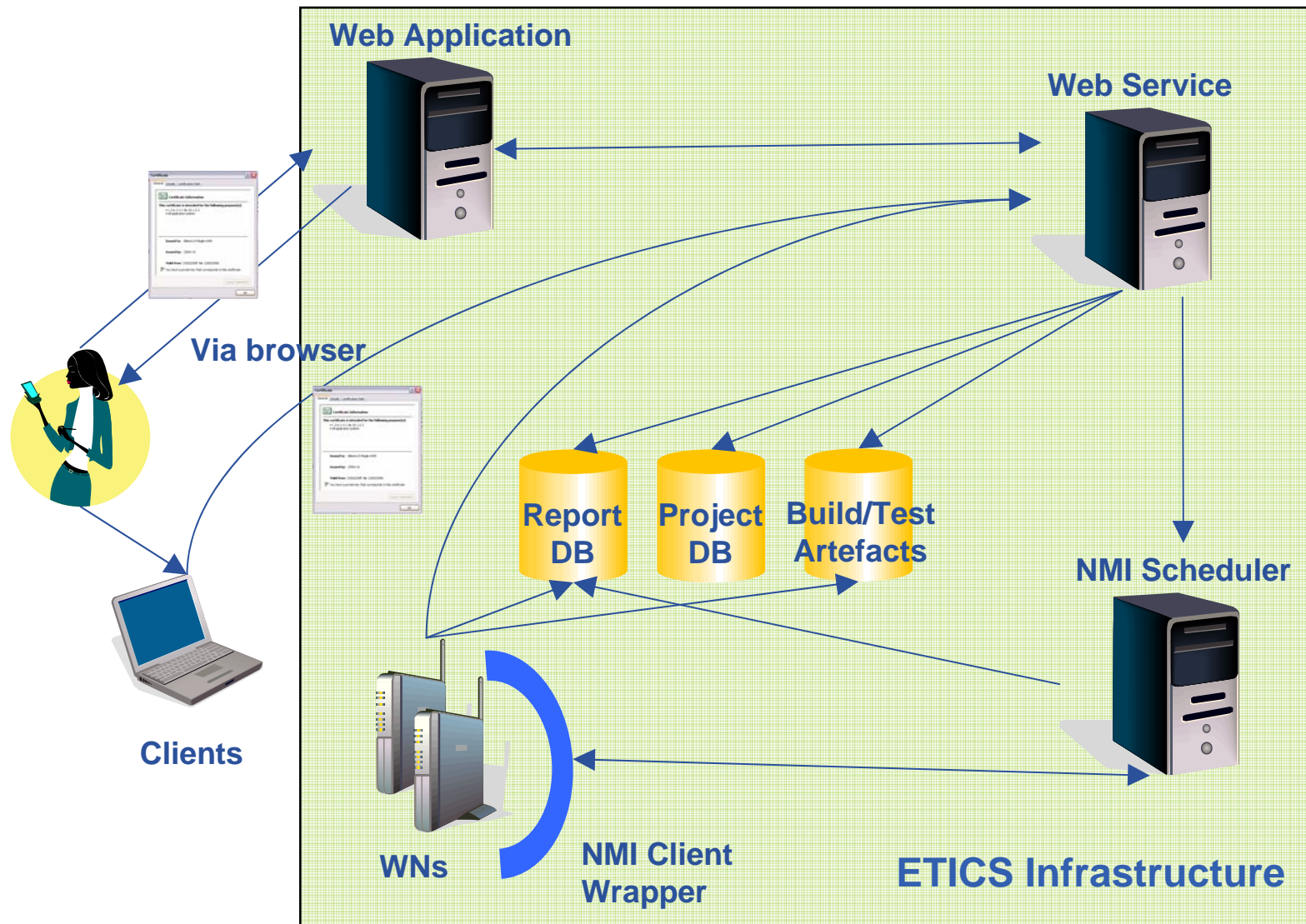
Software  
configuration,  
service  
infrastructure,  
dissemination

The Condor batch  
system, distributed  
testing tools, service  
infrastructure, NMI

Web portals and  
tools, quality  
process,  
dissemination,  
DILIGENT

Test methods and  
metrics, unit testing  
tools, EBIT









**Contains all project and configuration information, currently implemented as a MySQL DB**



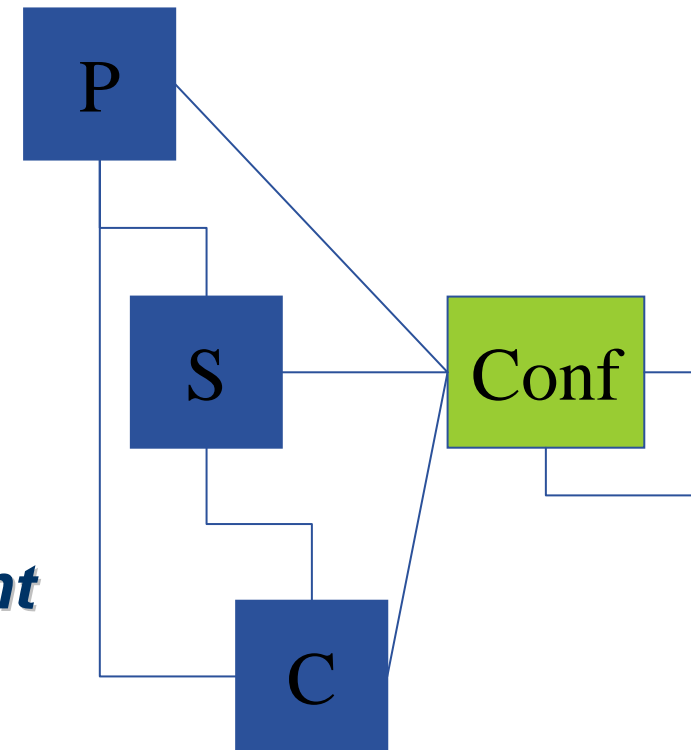
**Contains the output of builds and test runs. Implemented as a MySQL database**



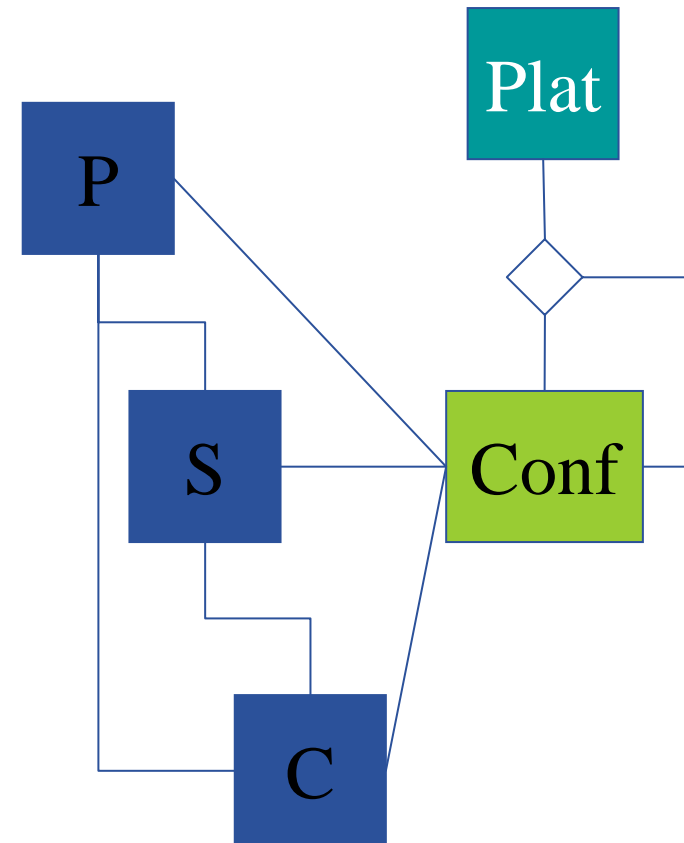
**Contains the artifacts produced by build and test runs (packages, text, files, complete distributions, etc). Implemented as a file system**

- **Developers:** can run local and remote builds/tests and create/edit configurations
- **Integrators:** register artefacts
- **Testers:** register test reports
- **Release Managers:** can publish artefacts, create release notes and other documentation
- **Project Managers:** can create and manage projects, assign permissions, set policies, etc

- **Project:** container for components and subsystems
- **Subsystem:** container for components
- **Component:** a module configuration can also be made of sub-module's configurations
- **Module:** generic way to refer to *project, subsystem* and *component*
- **Configuration:** concrete module instance (a.k.a. CVS tag)



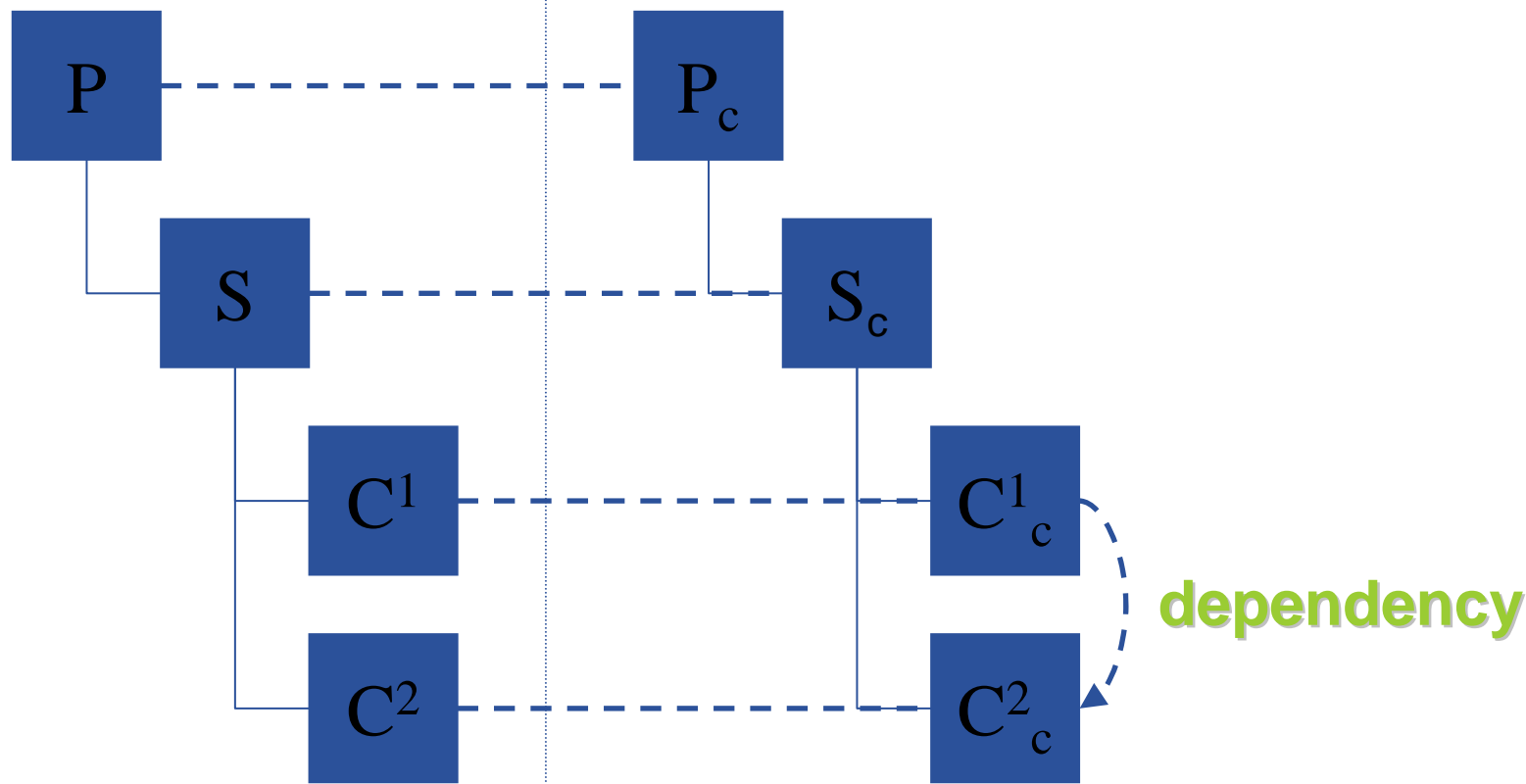
- **Platform:** represents a specific combination of *architecture*, *operating system* and *C/C++ compiler*
  - E.g. `slc3_ia32_gcc323`
- **Allows users to specify platform specific metadata**
  - Commands
    - Version control system commands (e.g. CVS)
    - Build commands
    - Test commands
  - Properties
  - Environment variables
  - Dependencies

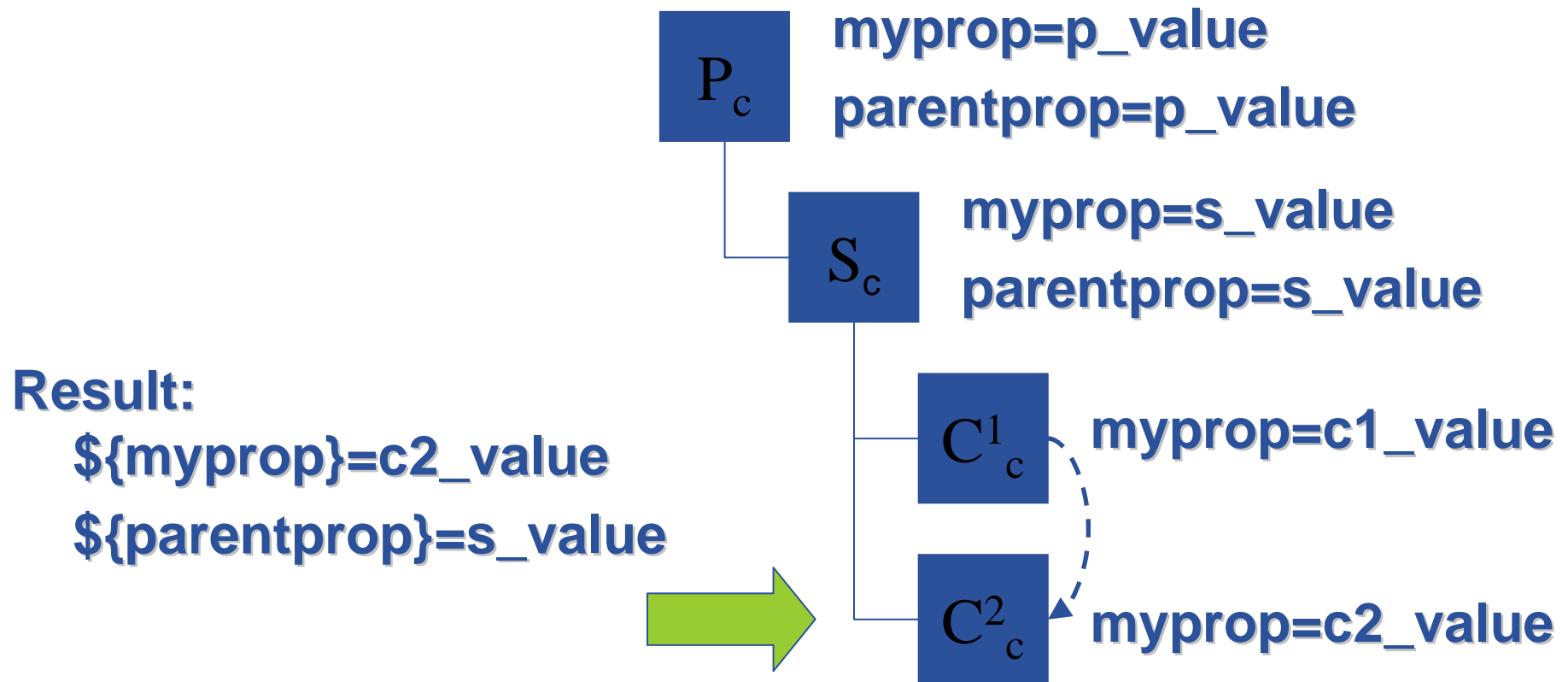


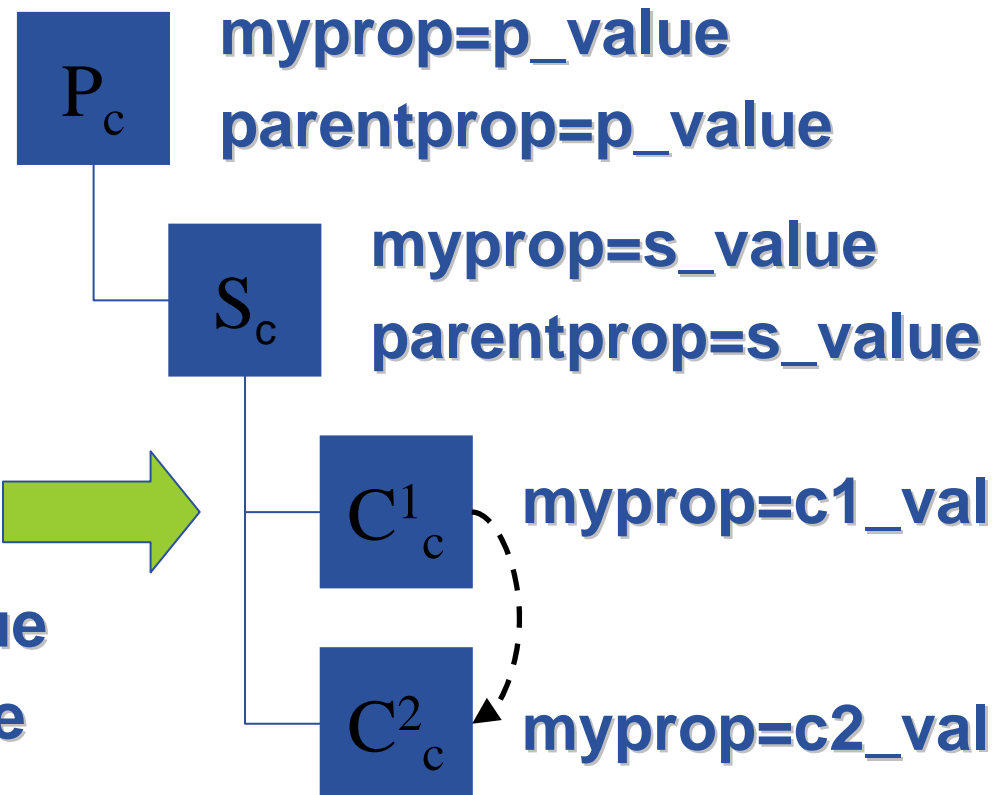
- **Properties and environment variables in the ETICS data model are an important point of extensibility**
- **Used in commands**
  - E.g.: `cvcs -d ${vcsroot} co -r ${tag} ${moduleName}`
- **Properties and environment variables are **inherited** from parents and **propagated back** from children and dependencies**

## Modules Structure

## Configurations Structure





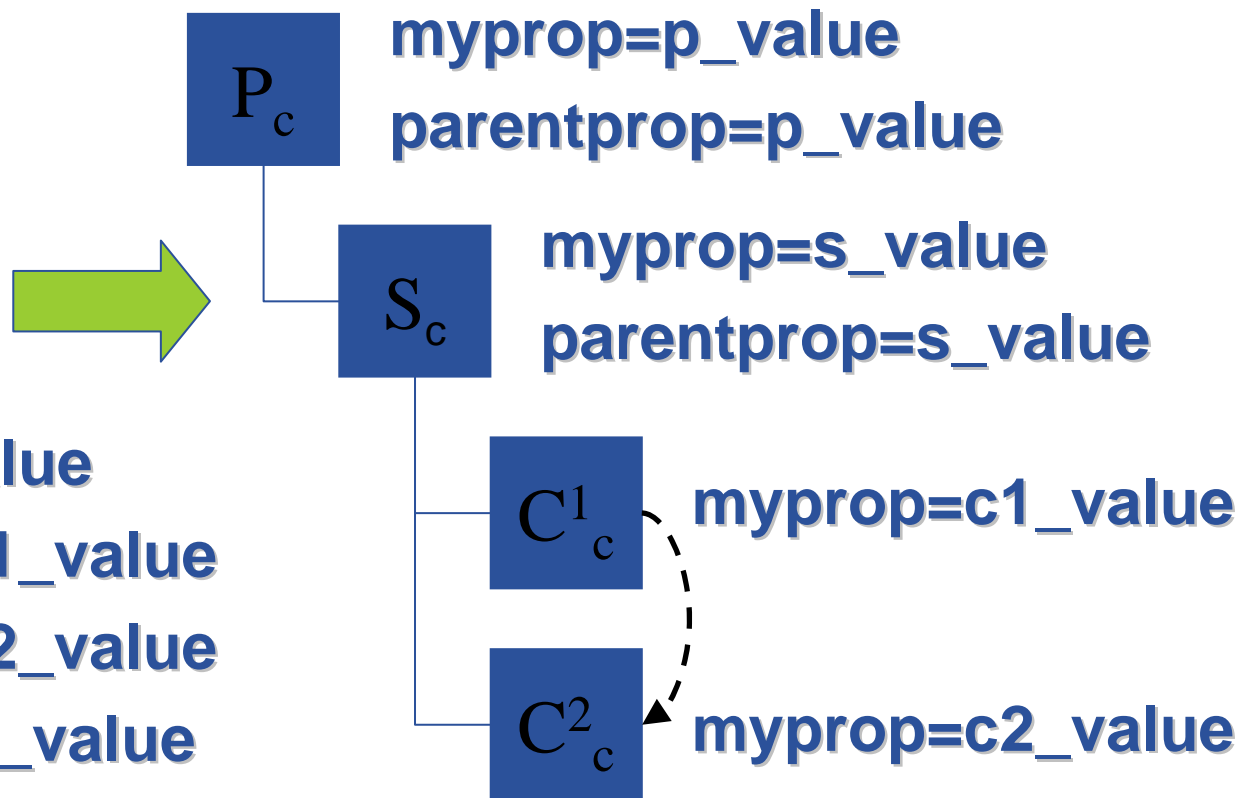


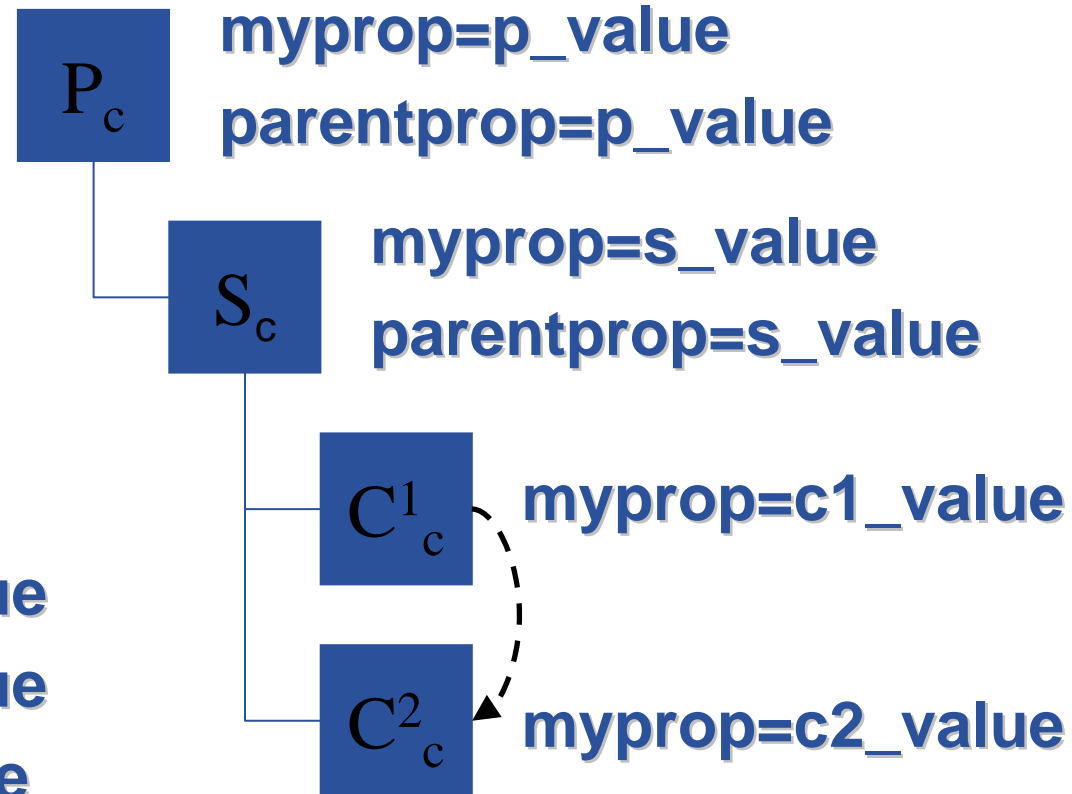
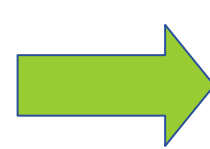
- **Result:**  
 $\{\text{myprop}\} = \text{c1\_value}$   
 $\{\text{c2.myprop}\} = \text{c2\_value}$   
 $\{\text{parentprop}\} = \text{s\_value}$



- Result:

$\{\text{myprop}\} = \text{s\_value}$   
 $\{\text{c1.myprop}\} = \text{c1\_value}$   
 $\{\text{c2.myprop}\} = \text{c2\_value}$   
 $\{\text{parentprop}\} = \text{s\_value}$





- Result:**  
 $\{\text{myprop}\} = \text{p\_value}$   
 $\{\text{s.myprop}\} = \text{s\_value}$   
 $\{\text{c1.myprop}\} = \text{c1\_value}$   
 $\{\text{c2.myprop}\} = \text{c2\_value}$   
 $\{\text{parentprop}\} = \text{p\_value}$

- **ETICS portal:** <http://eu-etics.org>



The screenshot shows the ETICS portal website with a navigation menu and several content sections.

**Navigation Menu:** Quality Links, News Releases, Partners, Getting Started, Work Packages, Build And Test, Documentation

**Dissemination**

- Quality Links**
  - Find reference information on software quality topics
- What's Hot**
  - The latest Hot News, fresh from the press...
- Articles**
  - Read about ETICS in the news
- News Releases**
  - Read all about ETICS in the news
- What's Up**
  - Here, follow what's happening in the ETICS world
- Events**
  - Find here were ETICS is being presented, including

**ETICS@GGF**

ETICS took part in the last [GGF meeting](#), in Tokyo in May. The project chaired a session on the topic of Software Certification and Quality Assurance. This was an opportunity for ETICS to chair its vision on certification and quality assurance with a wide Grid community. People from [EGEE](#), [Globus](#), [OMII-Europe](#) and [CCLRC](#) attended the session and gave constructive feedback on potential area of work for software certification and quality assurance in the GGF context.

To focus the discussion Marc-Elian Bégin from the ETICS project presented a [high-level description of the ETICS project](#) and proposed potential areas of work with GGF. Then, to bring to the discussion the point-of-view of a user of a service such as proposed by ETICS, Steven Newhouse from OMII-Europe also gave a short [presentation](#).

The certification and quality assurance topics explored during the session included:

- Define a certification process for software released in collaboration with GGF. For example, reference implementation of GGF recommendations and interoperability testsuites.
- Publish a set of reference metrics that Grid middleware should track through its build and test processes
- Publish a recommended certification process for Grid middleware

**Services**

- Getting Started**
- Project Setup**
- Build and Test**
- Select User certificate**
- Documentation**

**Collaboration**

**Partners**

- CERN
- INFN
- Engineering Ingegneria Informatica S.p.A
- 4D Soft Ltd
- University of Wisconsin-Madison

**Work Packages**

- WP1: Project administrative and technical management

- **ETICS wiki:**

<https://uimon.cern.ch/twiki/bin/view/ETICS/WebHome>

- **ETICS client getting started**

<https://uimon.cern.ch/twiki/bin/view/ETICS/ClientHowTo>

- **ETICS tutorials**

<https://uimon.cern.ch/twiki/bin/view/ETICS/EticsTutorials>

A large, solid green arrow pointing to the left, positioned to the right of the ETICS tutorials link.

**Under  
development**

- **ETICS provides a multi-platform environment for building and testing middleware and applications**
- **ETICS focus is on automation of: builds, tests, reporting, etc. The goal is to simplify life when managing complex software management tasks**
- **We want it to be as simple as possible to use. For this we need your feedback:**

[etics-discuss@cern.ch](mailto:etics-discuss@cern.ch)

[etics-bugs@cern.ch](mailto:etics-bugs@cern.ch)

Thanks you for taking the time

to learn about **ETICS**

*The Grid Quality Process*

enjoy the day and

give us feedback  
<http://www.eu-etics.org>