



# **4<sup>th</sup> 4DIAC Users' Workshop**

**ETFA , Cagliari, Italy  
September 10, 2013**

**[www.fordiac.org](http://www.fordiac.org)**

- Welcome & Overview *A. Zoit/G. Ebenhofer*
- Session Application Experiences
  - Challenges and experiences using 4DIAC for Smart Grid laboratory automation *F. Andr n*
  - 4DIAC integration into the FASA project: a success story of increased maintainability and modularity *V. Domova*
- Session Performance Improvements
  - IEC 61499 Function Block implementation of distributed Load Balancing for FREEDM System *S. Patil*
  - Designing high performance IEC 61499 applications on top of DDS *F. P rez*
  - Model Level Timing Analysis for IEC 61499 and 4DIAC *L. Lednicki*
- Open Discussion on the Future of 4DIAC

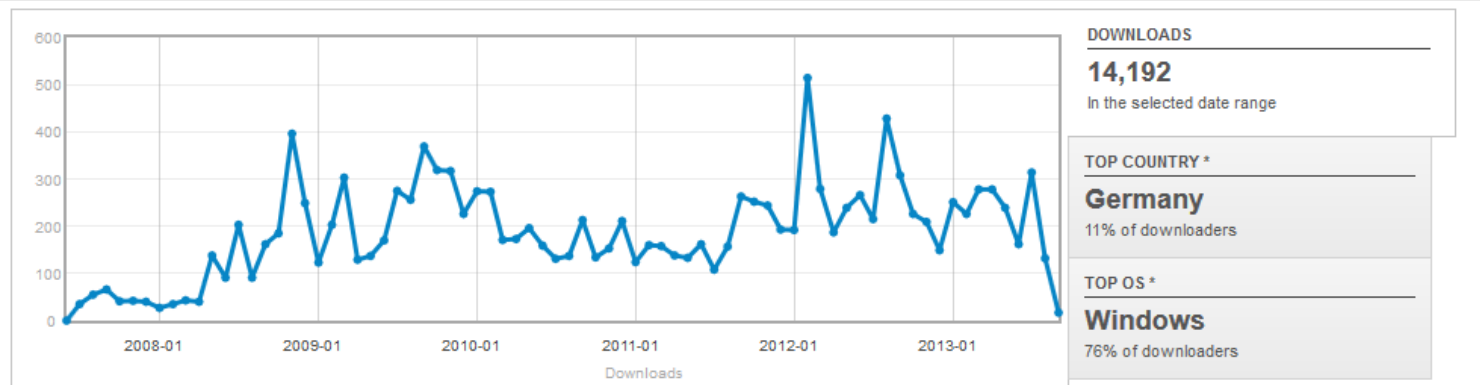
# Goal

- Open Source implementation of IEC 61499
- Common basis for development, industrial application, and research of IEC 61499
- Leveraging the use of IEC 61499 within industry
- Open Source License
  - Eclipse Public License
  - Allows usage in products and proprietary add-ons

- FORTE (4DIAC-RTE)
  - IEC 61499 compliant run-time environment
  - C++ implementation
  - Portable to multiple platforms
- 4DIAC-IDE
  - IEC 61499 compliant engineering environment
  - Java-based implementation
  - Implementation as Eclipse plug-ins
- 4DIAC-LIB
  - Collection of function block libraries
- 4DIAC-Systems
  - Collection of test applications

# Some Statistics

- In the last year we had:
  - 2 major and 4 minor releases
  - 2480 downloads
  - 86 opened and 110 closed tickets
  - 468 commits
  - 63 topics – 419 forum messages



# Release Cycle

- Two major releases per year
  - Feb. 15<sup>th</sup>
  - Sept. 15<sup>th</sup>
- Feature freeze two weeks upfront
- Extended by monthly minor releases
  - Bug fixes are introduced more early

# Most recent changes

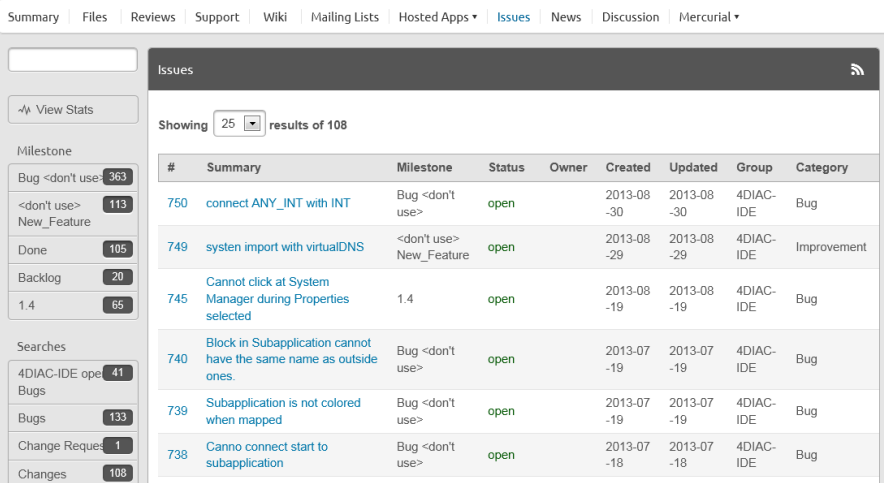
- 4DIAC-IDE
  - Improved support for bootfile generation
  - Using standard eclipse import/export wizards
  - Reopen opened editors on IDE restart
- 4DIAC-LIB
  - IEC 61131-3 library
  - OSCAT library
    - additional function blocks adapted from the open source IEC 61131-3 function block library OSCAT ([www.oscat.de/](http://www.oscat.de/))
- FORTE
  - Ethernet POWERLINK support
  - VCD trace

# Migrated to new SourceForge infrastructure

- Issue Tracker
- Forum
- Wiki
- Source Code Repositories
  - 4DIAC-IDE: <http://sourceforge.net/p/fordiac/fordiac-ide/>
  - FORTE: <http://sourceforge.net/p/fordiac/forte/>
  - 4DIAC-LIB: <http://sourceforge.net/p/fordiac/fordiac-lib/>
  - 4DIAC-Systems: <http://sourceforge.net/p/fordiac/fordiac-systems/>



- Hosted on SourceForge-Platform
- Bug-Tracker
- Feature requests
- Forum
- Wiki



The screenshot shows the SourceForge Issues page for 4DIAC. It includes a navigation bar with links like Summary, Files, Reviews, Support, Wiki, Mailing Lists, Hosted Apps, Issues, News, Discussion, and Mercurial. Below the navigation bar, there's a search bar and a 'View Stats' button. A sidebar on the left shows 'Milestone' filters: Bug <don't use> (363), <don't use> New\_Feature (113), Done (105), Backlog (20), and 1.4 (65). Below that, 'Searches' are listed: 4DIAC-IDE ope (41), Bugs (133), Change Reques (1), and Changes (108). The main content area shows a table of issues with columns for #, Summary, Milestone, Status, Owner, Created, Updated, Group, and Category. The table displays several open issues, including 'connect ANY\_INT with INT', 'system import with virtualDNS', 'Cannot click at System Manager during Properties selected', 'Block in Subapplication cannot have the same name as outside ones', 'Subapplication is not colored when mapped', and 'Canno connect start to subapplication'.

#	Summary	Milestone	Status	Owner	Created	Updated	Group	Category
750	connect ANY_INT with INT	Bug <don't use>	open		2013-08-30	2013-08-30	4DIAC-IDE	Bug
749	system import with virtualDNS	<don't use> New_Feature	open		2013-08-29	2013-08-29	4DIAC-IDE	Improvement
745	Cannot click at System Manager during Properties selected	1.4	open		2013-08-19	2013-08-19	4DIAC-IDE	Bug
740	Block in Subapplication cannot have the same name as outside ones.	Bug <don't use>	open		2013-07-19	2013-07-19	4DIAC-IDE	Bug
739	Subapplication is not colored when mapped	Bug <don't use>	open		2013-07-19	2013-07-19	4DIAC-IDE	Bug
738	Canno connect start to subapplication	Bug <don't use>	open		2013-07-18	2013-07-18	4DIAC-IDE	Bug
	Rename of data input/output					2013-07-18	5 days	4DIAC-

- PLEASE provide feedback, questions, etc. via the offered channels
- Feedback helps to improve quality

- 4DIAC 1.4 in Sept. 2013
- 4DIAC 2.0 in 2014
  - IEC 61499 V2 compliant
  - Update to Eclipse 4
  - Improved SubApp support
- Discussion in the 4DIAC-Team
  - Propose 4DIAC as Eclipse Project
  - Feedback and experiences for getting an Eclipse project is welcome

# Getting Involved

- Bug-list / feature-requests as starting point for involvement
- Source code provided in distributed version control system "Mercurial"
  - 4DIAC-IDE  
<http://sourceforge.net/p/fordiac/fordiac-ide/>
  - FORTE  
<http://sourceforge.net/p/fordiac/forte/>
  - 4DIAC-LIB  
<http://sourceforge.net/p/fordiac/fordiac-lib/>
  - 4DIAC-Systems  
<http://sourceforge.net/p/fordiac/fordiac-systems/>
- Patches of collaborators will be reviewed and applied

# How to become a 4DIAC-Comitter?

- What is a committer
  - Technically – who has write access
  - Who care about the project and want to improve it
- How do I become a committer?
  - Get involved and contribute (forum, issue tracker, ...)
  - Submit 10+ non trivial patches and get them applied
  - Ask a committer to nominate you
  - Committers will start a vote on the committers mailing list
- <http://www.fordiac.org/51.0.html>



# **4DIAC likes to say thank you!**

Many thanks to all bug reporters, feature requesters and patch submitters.

# Overview and Update

## Contact

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