

Hilbert II

Presentation of
Formal Correct
Mathematical Knowledge

Development Concept

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The source for this document can be found here:

http://www.qedeq.org/0_04_08/doc/project/qedeq_development_concept.xml

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If you have any questions, suggestions or want to add something to the list of modules that use this one, please send an email to the address mime@qedeq.org

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Used other QEDEQ modules:

b `qedeq_basic_concept` http://www.qedeq.org/0_04_08/doc/project/qedeq_basic_concept_en.pdf

f `qedeq_logic_language` http://www.qedeq.org/0_04_08/doc/project/qedeq_logic_language_en.pdf

Contents

1	General Information	5
1.1	Basics	5
1.2	Setup Development Environment	5
1.3	Architecture	6
1.3.1	QedeqBase	6
1.3.2	QedeqKernelSe	6
1.3.3	QedeqKernelBo	6
1.3.4	QedeqKernelXml	6
	Bibliography	7
	Index	7

Chapter 1

General Information

The project **Hilbert II** deals with presentation and documentation of mathematical knowledge. Therefore **Hilbert II** supplies a program suite for the realization of the related tasks. Also the documentation of basic mathematical theories is a main purpose of this project.

This document contains a description of the development concepts of **Hilbert II**. You should have knowledge of the basic concept http://www.qedeq.org/0_04_08/doc/project/qedeq_basic_concept_en.pdf [1] and the logic language http://www.qedeq.org/0_04_08/doc/project/qedeq_logic_language_en.pdf [2] already.

1.1 Basics

Reference implementation in java. Executable as Java 1.4.2 GUI application. The application executes standalone or via Java Webstart.

Currently the development is done within eclipse. Source Control Management system is subversion.

We have a hudson CI server. The release build is also done by that server. Main build script language is ant which runs under Java 1.6. We also produce maven POMs and trigger maven builds. Currently the kernel jars are also available via maven central.

1.2 Setup Development Environment

We need java and eclipse.

Install java. For example via <http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html>

Change

Install eclipse. For example via <http://eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/junosr2>

Under 'Window/Preferences/General/Workspace' change 'Text file encoding' to 'Other: UTF-8' and 'New text file line delimiter' to 'Other: Unix'.

Under 'Window/Preferences/General/Editors/Text Editors' mark box 'Insert spaces for tabs'. Also activate 'Show print margin' and set 'Print margin column' to 120.

'Help/Install New Software...' Add 'svn' 'http://subclipse.tigris.org/update_1.6.x' install svn.

'Help/Install New Software...' Add 'checkstyle' '<http://eclipse-cs.sf.net/update/>' install checkstyle. 'Window/Preferences/Checkstyle' click 'New..', choose 'External Configuration File' and import 'QedeqBuild/resoures/checkstyle/QedeqFormalChecks.xml'. Name check configuration: 'QEDEQ Java Formal Checks 2'

'Window/Open Perspective/Other/SVN Repository Exploring' 'Add SVN Repository' with URL '<https://svn.code.sf.net/p/pmii/code/trunk>'. Browse the new repository and check out all direct subnodes as projects.¹

1.3 Architecture

We have four tiers that are encapsulated in different eclipse projects.

1.3.1 QedeqBase

Project independent basis classes.

1.3.2 QedeqKernelSe

Project dependent basis classes. Contains value objects.

1.3.3 QedeqKernelBo

Here the kernel services can be called.

1.3.4 QedeqKernelXml

We speak XML here. Parsing of XML files and BO serialization is the domain of this package.

¹This should be: QedeqBase QedeqBaseTest, QedeqBuild, QedeqDoc, QedeqGuiSe, QedeqKernelBo, QedeqKernelBoTest, QedeqKernelSe, QedeqKernelSeTest, QedeqKernelXml, QedeqKernelXmlTest, QedeqLib

Bibliography

- [1] qedeq_basic_concept http://www.qedeq.org/0_04_08/doc/project/qedeq_basic_concept_en.pdf
- [2] qedeq_logic_language http://www.qedeq.org/0_04_08/doc/project/qedeq_logic_language_en.pdf 5