



AGETOR®

OpenROAD
Application Integration
Guide

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1 Preface

This document is a guide to installation of and development with the AGETOR® OpenROAD Application Integration.

1.1 Audience

This guide is written for developers of OpenROAD applications who use the AGETOR® OpenROAD Application Integration.

1.2 Typographic conventions

- Text marked with *italics* refer to other publications or definitions of concepts
- Text marked like `AbstractClassName`, `identifier`, `myCoolFunction()` and `cmd` refer to executable commands, identifiers or literal code excerpts

 Issues requiring your special attention are presented like this!

1.3 Related documents

Other documents related to AGETOR® OpenROAD Application Integration are

- *IDL guide*. General description of the IDL language.
- *ARE guide*. Detailed information on setting up and using the AGETOR® Broker
- *ServiceRunner guide*. Detailed information on setting up and using the AGETOR® ServiceRunner

1.4 Terminology

In this document we will use the shorter name *OpenROAD AI* for *AGETOR® OpenROAD Application Integration*, and the term *OpenROAD Bridge* for *AGETOR® OpenROAD AI Bridge*.

1.5 Requirements

Before reading this guide, you should be acquainted with the IDL language, and the AGETOR® Broker and ServiceRunner (see the above-mentioned guides).


1.6 Acknowledgements

The software described in this document includes software developed by the Apache Software Foundation (<http://www.apache.org>).

1.7 Outline

This document focuses on installation of OpenROAD AI and on the enabling OpenROAD services as AGETOR® IDL services by means of the AGETOR® OpenROAD AI Bridge.

2 Installation

 With regard to development and client-side run-time, this product is only available on the Windows platform.

Before you begin the installation of the OpenROAD AI make sure that you have the following prerequisites installed:

- Java Development Kit (JDK) version 1.4.2 or newer
- AGETOR Development Kit (ADK) version 2.0.8 or newer
- OpenROAD 4.1 service pack 3
- Microsoft XML

Download the newest version of OpenROAD AI and copy the package into your “AGETOR_HOME/install/packages” directory. If you are installing a newer version of OpenROAD AI on top of an older or just updating it then the configuration should already be correct. Notice though that new properties or environment variables could have been added and therefore you should always consult the release.txt for changes.

- Open a command window with `AGETOR_HOME/bin/prompt.bat` and run `installer.bat`
- After the AGETOR® installtool has started open a Internet browser and point to `http://localhost:8020`
- If prompted for login and password, please type in your login and password (the default is admin/admin)
- Under “Product(s) ready to install” click on “AGETOR OpenROAD Application Integration 2.0.0” and answer the questions
- When the Install Tool has finished, you must run an additional installation script to complete the installation. Please refer to the release text for more instructions

3 Overview

OpenROAD AI has two purposes:

- Enabling Windows-based OpenROAD clients to connect to AGETOR® IDL services
- Exposing OpenROAD servers as AGETOR® IDL services by using the AGETOR® OpenROAD bridge

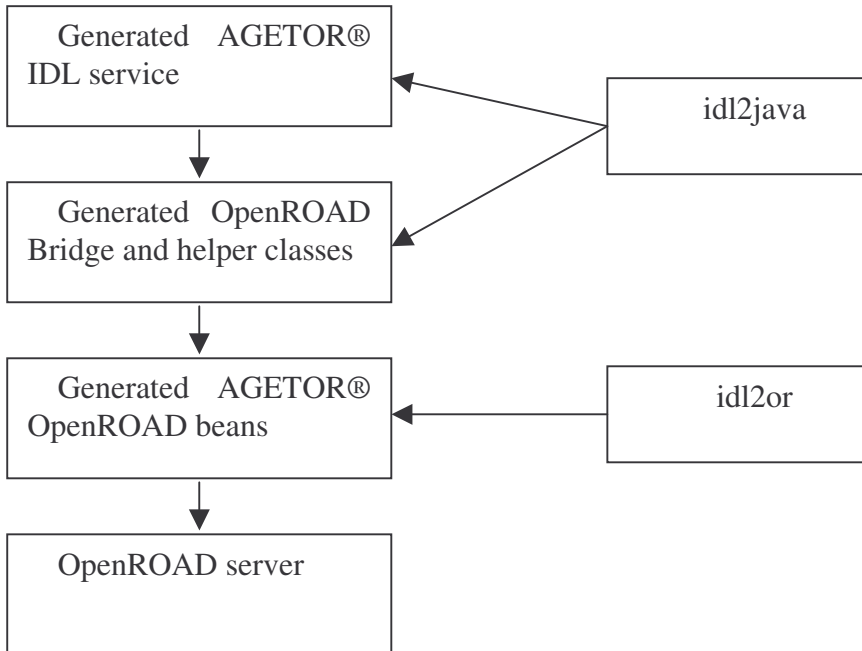
Both these tasks require the `idl2or` tool, which generates OpenROAD and Java code. In addition to `idl2or` the OpenROAD Bridge requires the `idl2java` tool.

4 The `idl2or` tool

The `idl2or` tool is started by typing `idl2or` in an AGETOR® prompt. More information is available from within the `idl2or` program itself.

5 AGETOR® OpenROAD Bridge

The architecture of the bridge is shown in the figure below.



The OpenROAD Bridge classes are generated by this command:

```
idl2java --orbridge <IDL file>
```

After generation of the Java classes the generated AGETOR® IDL service must be added to the ServiceRunner. Add a file with the extension `.cfg` or `.xml` to the directory `AGETOR_HOME/conf/services` (or a sub-directory of this) with the following content:

```
<SERVICES LOGBASE="{AGETOR_HOME}/logs">
  <PROGRAM
    CLASS="{IDL module name}.<interface name>ORBridgeServer"
    TYPE="orb"
    RPORT="{relative port}"
    DESCRIPTION="{interface name}ORBridge"
    LOGFILE="{interface name}ORBridgeServer.log"
  >
  <PARAM NAME="orServername" VALUE="{OpenROAD AKA name}"/>
</PROGRAM>
</SERVICES>
```

Remember to change the variables to your specific values. When the service has been configured and added to the Broker (see the *ARE guide* for help), the Broker and ServiceRunner may be started and the OpenROAD Bridge is ready to answer client requests.