## Document Revision History

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## Reference Documents

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1. Overview

1.1 Purpose

Alborz is a reverse engineering toolkit that provides an interactive environment for recovery and evaluating the architecture of a software system, using techniques for pattern-matching, data mining, clustering, and quality evaluation. The result of the recovery is provided to the user through hypertext pages and graph visualization techniques and tools. It is convenient for professional users to make use of Alborz to analyze software architecture as Alborz is integrated with Eclipse.

This manual provides the requirements and installation instructions for Alborz 1.0 on all supported operating systems.

1.2 How to Use This Document

In this document, the first part gives the system requirement for running Alborz, including software and hardware aspects. The second part described steps to install Alborz. To install Alborz 1.0, user needs to install Eclipse and SHriMP first. In the last part, configuring Alborz 1.0 is described.

1.3 Assumptions

In addition to the instructions outlined in this manual, it is assumed that anyone installing Alborz should have working knowledge of and/or experience with:

- General installation of software on the target platform
- Starting and stopping processes on the target platform
- Using Eclipse as development tool
- Installing and using Eclipse plug-ins
2. System Requirements

System requirements for Alborz 1.0 are separated into several groups:

- Hardware Requirements
- Operating System Requirements
- Software Requirements
- Web Browser Requirements

2.1 Hardware Requirements

The hardware used for Alborz 1.0 should meet the following minimum requirements:

- 256 MB of RAM (512 MB is recommended)
- Pentium III 800 MHz or AMD 800 MHz or greater
- 512 MB hard disk space, including 200 MB for Eclipse 3.X plus space for Alborz 1.0

2.2 Operating System Requirements

Alborz 1.0 has been tested and is supported on the following operating system platforms.

- All Win32 Platforms. (Complete tested for Windows XP SP2 and Windows Vista)
- Solaris 8
- Red Hat 6.2/6.3 using Linux 2.2.x kernel
- Red Hat 7.2 with JDK 1.4.1_02 installed and configuration changes as noted in this guide.
- Red Hat 8.0 with JDK 1.4.1_02 installed and configuration changes as noted in this guide.
- Mac OS X 10.4

2.3 Software Requirements

To install Alborz 1.0, the following products are necessary:

- Eclipse 3.1, Eclipse 3.2 or Eclipse 3.3
- SUN Java Run Environment (JRE) 1.4.2
- Stand-Alone Shrimp 2.6.0
2.4 Web Browser Requirements

Some functions and views of Alborz 1.0 use a standard Web browser. Any browser used in Alborz 1.0 must support JavaScript 1.2 and scripting must not be disabled.

Presently there are three tested and supported web browsers:

- Microsoft Internet Explorer 5.5 or greater
- Netscape Communicator 4.76 or greater
- FireFox Browser 2.007 or greater
3. Installation

3.1 Installing Eclipse

Download Eclipse 3.1, 3.2 or 3.3 from http://www.eclipse.org/downloads/, the Classic Version is recommended. Install Eclipse which you downloaded to your computer. After installing the Eclipse SDK in a directory, you can start the Workbench by running the Eclipse executable included with the release (you also need a 1.4.2 JRE, not included with the Eclipse SDK). On Windows, the executable file is called eclipse.exe, and is located in the eclipse sub-directory of the install. If installed at c:\eclipse32, the executable is c:\eclipse32\eclipse\eclipse.exe.

Note: Set-up on most other operating environments is analogous. For more information about Eclipse, you can check the online documents of Eclipse at http://www.eclipse.org/documentation/

3.2 Installing SHriMP

Shrimp is both an application and a technique, designed for visualizing and exploring software architecture and any other information space. SHriMP (Simple Hierarchical Multi-Perspective) is a domain-independent visualization technique designed to enhance how people browse and explore complex information spaces. You can get more information about SHriMP and download this application from http://www.thechiselgroup.org/shrimp.

In Alborz 1.0, we recommend you download Stand-Alone Shrimp 2.6.0 and install it in a different location than Eclipse.

3.3 Install Alborz 1.0

Alborz 1.0 can be downloaded from:

After your download alborz1.0.rar file, extract this file into the plug-in directory of Eclipse. For example, if you installed Eclipse in c:\Eclipse3.3, then extract the alborz1.0.rar file into the folder: c:\Eclipse3.3\plugins. If the operation is successful, you will find a folder “ca.mcmaster.ALBORZ_1.0.0” in c:\Eclipse3.3\plugins.

Start Eclipse from your computer and you will find the Alborz menu in Eclipse. This means the Alborz plug-in has been successfully imported to eclipse.
In eclipse, click windows->Open Perspective -> Other, then the perspective list window will be shown.
Select the Alborz perspective and then select Ok. The Alborz perspective will be shown in Eclipse as below.

3.4 Configuration

In the Eclipse menu bar, click ALBORZ menu and select Configuration… menu item, or choose “click here to configure the system” in “Welcome to ALBORZ” page, then the Alborz configuration window will be shown.

In this Configuration window, two variables need to be set; these are: Work path and SHriMP path.
Work path

**Work path** is the location where Alborz works and systems' information/source code exist. For convenience, we provide some testing data to help user to become familiar with Alborz. You can download the testing data from:

Extract the `.rar` file to your hard drive such as `c:\ALBORZ_data\`. Then you can set the Work path variable value as: `c:\ALBORZ_data\STATIC\Data/` by using the folder selection button beside the Work path text box.

If the Work path is set correctly, the testing data will be loaded automatically and all testing data will be shown in the System Navigator View of Alborz 1.0.

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SHriMP path

Set the **SHriMP path** value to the location where SHriMP is installed.

For example, if you installed SHriMP at `C:\Shrimp_2_6_1\`, you should set the SHriMP path value to this location by using the folder selection button beside the SHriMP path text box.

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**End**