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Banner Workflow 8.0

This guide documents Release 8.0 of the Banner Workflow System.

Hardware and Software Requirements

Banner Workflow - Client

Banner Workflow is a web based application. The requirements to run the client side of Banner Workflow are based on the browser that the user selects.

Banner Workflow has been tested against and supports the following browsers on machines with at least 256 MB of RAM:

- Microsoft Internet Explorer 6.x and 7
- Safari 1.3.2 and 2.0

Note
Please note that this list is for Banner Workflow only. If you are integrating Banner Workflow with other SunGard Higher Education products, such as Banner or Luminis, please check those products for the browsers they support.

Note
Banner Workflow uses Java Web Start technology to run client programs to support the graphical modeling of workflows and client launching from the browser. The first time a user attempts to use this functionality, they may be prompted to install a Java JRE if they do not already have a compatible one installed.
**Banner Workflow - Server**

**Required Software:**

- Oracle Application Server 10g Release 3 (10.1.3.4)
- Oracle Database 9i (9.2.0.4), 10g R1 (10.1.1) patch 2, or 10g R2 (10.2.0.1.0)
- JDK version 5 (with the Java Cryptography Extension)

The following versions of Banner are supported for integration

- Banner 7.x and Banner 8.x

The following versions of Luminis are supported for integration of single-sign on and Banner Workflow Channels

- Luminis 4.1.1 with the latest hot fix available from Luminis Support.

**Note**

Java may have been installed with your version of the Oracle Application Server or as part of your operating system. Check the version by executing `java -version` and install Java 5 separately if necessary.

**Note**

If your Java installation does not include the Java Cryptography Extension, you will need to install it separately before beginning the Banner Workflow installation.

**Required Hardware:**

- Banner Workflow has been tested against a Sun Java 5 VM. All operating systems that are supported by the Oracle Application Server 10g Release 3 (10.1.3.4) should be acceptable for Banner Workflow. The majority of SunGard Higher Education's testing has been done on a Windows 2003 Server.

- Memory: 2 GB of RAM.

- Hard drive: 1-2 GB of available space.

- Processor:
  - Intel: Dual 2.4 ghz processors are recommended.
  - Sparc: Dual 900 mhz processors are recommended.

**Note**

Operating systems such as HP-UX and Tru-64 will have their own Java VM. The VM must be built off of Sun's Java 5 specification to run Banner Workflow.
Enhancements

Banner Workflow 8.0 contains the following enhancements:

- Banner Enterprise Identity Services Integration
- Banner Workflow Calendar
- Banner Workflow Examples

Banner Enterprise Identity Services Integration

Banner Workflow is integrated with Banner Enterprise Identity Services beginning with Banner Workflow 8.0. This integration enables SPML (Service Provisioning Markup Language) provisioning of user information from a third-party Enterprise Identity Management System to Banner Workflow. This enhancement also allows Banner Workflow to be authenticated as a CAS client and with Enterprise Identity Management Access Managers using token-based authentication when integrated with Banner Enterprise Identity Services. For Single-sign on (SSO), please refer to the Banner Workflow Technical Integration Guide for configuration guidelines when integrating with either CAS or an Enterprise Identity Management Solution.

Note

For more information on integrating Banner Workflow with Banner Enterprise Identity Services, please see the Banner Enterprise Identity Services 8.0 Handbook.

Prerequisites

The Banner Workflow Provisioning Gateway was tested to run in an Oracle Application Server 10.1.3.x OC4J virtual machine using default OC4J VM settings. Specific hardware and software specifications depend on the Oracle Application Server and platform that are selected.

A version of Java 5 is required to run the ant-based installation script. In most cases, the jdk bundled as part of Oracle Application Server can be used.

Banner Workflow Calendar

The calendar handling within the Workflow Engine was enhanced to offer safer concurrency between application threads accessing the calendar data. This will help avoid rare conditions among multiple engine threads accessing calendar data that could result in one of the threads issuing an application exception.

This enhancement addresses RPE # 1-4CEI6U.
Workflow Examples

In Banner Workflow 8.0, all example workflows are delivered with an “SGHE_B8” prefix to differentiate the example workflows from other workflows in your system.

Note
Changes to Banner tables in 8.0+ releases have impacted one of the delivered workflow examples. The SGHE_B8 New Employee Security Setup example workflow delivered by SunGard Higher Education will not work with Banner 8.0+. There are table changes in Banner that require additional information. This information is not currently provided in the workflow causing the workflow to break. The workflow will continue to work with Banner 7.0.

Note
The Electronic Document Form (GOAWFED) was made obsolete with the Banner 8.0 release making the Grade Change example workflow invalid for Banner Workflow 8.0. As a result, SunGard Higher Education will not deliver this example workflow with Banner Workflow 8.0.

Please access the Customer Support Center (http://connect.sungardhe.com) if you need assistance implementing this example workflow.