

Infor LN HTML5 Workbench Administration Guide

Copyright [©] 2016 Infor

Important Notices

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement, the terms of which separate agreement shall govern your use of this material and all supplemental related materials ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above. Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Without limitation, U.S. export control laws and other applicable export and import laws govern your use of this material and you will neither export or re-export, directly or indirectly, this material nor any related materials or supplemental information in violation of such laws, or use such materials for any purpose prohibited by such laws.

Trademark Acknowledgements

The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or related affiliates and subsidiaries. All rights reserved. All other company, product, trade or service names referenced may be registered trademarks or trademarks of their respective owners.

Publication information

Infor LN Release: 10.5

Publication Date: October 4, 2016

Document code: ttworkbenchag (U9858)

Contents

About this guide	5
Contacting Infor	5
Chapter 1: Introduction	7
Software prerequisites	7
Workbench operation	7
Workbench deployment	8
Chapter 2: Configuration of Workbench Web Server	11
Prereguisites	11
Determine the value of configuration items	11
Configuring Application Server username and password (Tomcat)	
Creating / verifying Tomcat user account	
Configuring Application Server username and password (JBoss)	14
Creating JBoss management user account.	14
Configuring Workbench Web Server's LN UI Instance	14
Troubleshooting	15
Configuring Workbench Deployment URL	16
Troubleshooting	16
Configuring Workbench Web Server Base URL	17
Chapter 3: Configuration of Workbench Web Server (WebSphere)	19
Prerequisites	19
Determine the value of configuration items	20
Retrieving WebSphere configuration details	20
Configuring Workbench Web Server's LN UI Instance	21
Troubleshooting	22
Configuring the Enterprise Server for Workbench Deployment	22
Chapter 4: Workbench installation	23
Deploving an Additional File	23
Troubleshooting	24
Creating or updating an Additional File	24
Troubleshooting	24
Chapter 5: Workbench diagnostic information	27
Configuration of the Workbench log file	
	20

Contents

About this guide

Use this guide as a reference at your site. This guide does not teach you about Infor LN Workbench. This guide shows you how to use the Infor LN Workbench application functions to complete specific setup and maintenance tasks.

This guide provides administration information for Infor LN Workbench Applications based on HTML5 technology (Workbench).

Note: This guide is not applicable to Silverlight based Workbenches. For more information about the installation of Silverlight based Workbenches, see *Infor LN Workbench Installation Guide* (U9732 US).

Intended audience

This guide is for the Infor LN system administrators who are responsible for setup and maintenance tasks.

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal.

If we update this document after the product release, we will post the new version on this website. We recommend that you check this website periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

About this guide

Introduction

1

A Workbench provides an advanced user interface to Infor Enterprise Server. Workbenches are seamlessly integrated with Infor LN UI and the Infor Ming.leTM environment. Depending on design, a Workbench can be started as an ordinary Infor LN session or can be incorporated on a Infor Ming.le Role-Based Home Page.

For instructions on how to start HTML5 Workbenches correctly, check solution KB 1408013 at <u>http://www.infor.com/inforxtreme</u>.

Software prerequisites

For a description of the software requirements, see the Infor LN UI Administration Guide .

Workbench operation

In Enterprise Server, the Workbench is supported by a 3GL session and one or more DLL and/or BDE components. These are installed and deployed with the standard PMC tools.

The Workbench user interface, shown in the end user's browser, is supported by a web application. The web application communicates with the relevant BDE and DLL components in Enterprise Server.

There are various subsystems relevant to the operation of a Workbench. The subsystems are:

- Enterprise Server: Infor Enterprise Server.
- LN UI Server (General Purpose): a Java based web server running the LN UI web application.
- Workbench Web Server: a Java based web server running the web application part for one or more Workbenches.
- Web Browser: the end user's browser.
- Caution: We recommend that you deploy the LN UI Server (General Purpose) and the Workbench Web Server in the same DNS domain. If this is **not** possible, the privacy settings

in the client browsers must not block third-party cookies. In IE, third-party cookies are blocked by default.

This diagram shows an overview of the various subsystems relevant to the operation of a Workbench:



Workbench deployment

To activate the Workbench as a web application, an administrator must deploy it from an Additional File. The Additional File must be present on the Enterprise Server, for example through distribution using the standard PMC tools. The administrator starts the deployment using the Workbench Applications session; this step requires that LN UI is operational on the Workbench Web Server.

This diagram shows the operational LN UI on the Workbench Web Server:



This document describes:

- The configuration of the LN UI instance present at the Workbench Web Server. The configuration steps of the Workbench Web Server's LN UI are described in "Configuration of Workbench Web Server" on page 11.
- The deployment of Workbenches using this LN UI instance. The actual deployment of the Additional File for a particular Workbench is described in "Workbench Installation" on page 23.

Introduction

Configuration of Workbench Web Server

This section is applicable to Workbench Web Servers employing the Tomcat, JBoss, or WebLogic web server. When the WebSphere application server is used, see "Configuration of Workbench Web Server (WebSphere)" on page 19

You must prepare the LN UI instance at the Workbench Web Server to support the deployment of Workbenches. The Enterprise Server required for those deployment tasks must be configured.

These tasks are involved:

- Configuring the Tomcat, JBoss or WebLogic web server of the Workbench Web Server.
- Configuring the LN UI web application of the Workbench Web Server.
- On the Enterprise Server, add the Deployment URL and specify the Workbench Web Server Base URL.

When the described steps are successfully completed, the Workbench Web Server and the Enterprise Server are ready to deploy a Workbench web application from its Additional File.

Prerequisites

Meet these requirements:

- The Tomcat, JBoss or WebLogic web server and LN UI are installed and operational on the Workbench Web Server.
- You can start the Workbench Deployment URLs (ttaad7140m000) session and the Workbench Parameters (HTML-based) (ttaad7131m000) session.

Determine the value of configuration items

Some configuration items such as usernames and passwords are used in one or more steps. Use this table to determine and record the value for later usage:

Configuration Item	Description	Chosen Value
Workbench Web Server Base URL	This is the base URL of the web server run- ning at the Workbench Web Server, for exam- ple https://myserver.yourdomain. com:8312.	
Deployment user	This is the user account used by the Enter- prise Server to gain access to the LN UI dur- ing Workbench deployment.	
Deployment password	This is the password used by the Enterprise Server to gain access to the LN UI during Workbench deployment.	
Application Server username	The web server's account, on for example- Tomcat or JBoss, with web application deploy- ment privileges. This account is used by the LN UI during Workbench deployment Exam- ple: wbdeployer	
Application Server password	This is the password for the <application Server Username> mentioned earlier. Exam- ple: deploy123</application 	
Tomcat Home	This item is relevant when the Workbench Web Server is using Tomcat. This is the in- stallation directory of the Tomcat web server on the UI Server for Workbenches, for exam- ple: C:\Infor\ese\apache-tomcat-7. 0.30	
Server name (optional)	This item is available when running on the WebLogic web server. You can find this item on the Server specifics tab. This value is optional and used to deploy to a specific server on WebLogic. If this value is not specified, the server found first is used. Example: AdminServer	

Configuring Application Server username and password (Tomcat)

These configuration steps are applicable when the Workbench Web Server employs a Tomcat web server. The goal is to create a Tomcat user account with management privileges supporting the Workbench deployment. The steps require administrative privileges to read and modify Tomcat configuration files.

Prerequisites

The described procedure assumes this (default) Tomcat web server configuration:

- UserDatabaseRealm backed by file \$CATALINA_BASE/conf/tomcat-users.xml with passwords stored in cleartext.
- Authentication type of realm Tomcat Manager Application is set to BASIC.
- Tomcat manager application supports the Text Manager interface for role manager-script.

Creating / verifying Tomcat user account

Configure the Tomcat web server with the <Application Server username> **and** <Application Server password>.

Complete these steps:

- 1 Use a text editor to open the file <Tomcat Home>/conf/tomcat-users.xml
 - a Add between <tomcat-users> and </tomcat-users>:

```
<user username="<Application Server username>"
    password="<Application Server password>"
    roles="manager-script"/>
```

Using the specified sample values, the file must be similar to:

```
<tomcat-users>
<user username="tomcat" password="admin123" role="standard" />
<user username="wbdeployer"
password="deploy123"
roles="manager-script"/>
</tomcat-users>
```

- b Click Save to save the file and exit the editor.
- **2** Verify the configuration:
 - a Restart the Tomcat web server.
 - b Use a browser to navigate to URL <Workbench Web Server Base URL>/manager/text/list
 - c When prompted to provide username and password for the Tomcat Manager Application, specify <Application Server username> and <Application Server password>

```
OK - Listed applications for virtual host localhost
/:running:0:ROOT
/manager:running:1:manager
/webui:running:1:G:/gwtui/war
/docs:running:0:docs
/wsit-enabled-fromwsdl:running:0:wsit-enabled-fromwsdl
```

```
/examples:running:0:examples
/host-manager:running:0:host-manager
```

Configuring Application Server username and password (JBoss)

These configuration steps are applicable when the Workbench Web Server employs a JBoss web server. The goal is to create a JBoss management user account supporting the Workbench deployment. The steps require administrative privileges to read and modify JBoss configuration files.

Prerequisites

The described procedure assumes this (default) JBoss web server configuration:

• Native management interface associated to the "ManagementRealm" security realm (see standalone.xml, XML element server/management/management-interfaces/native-interface).

Creating JBoss management user account

Use the JBoss command line utility add-user to add a new Management User (realm ManagementRealm). When prompted for the username, specify <Application Server username>; when prompted for the password, specify <Application Server password>

Note: The default JBoss installation allows all local users access to the management interfaces without username and password authentication. We recommend that you disable the silent authentication using the instructions from this Web site:

https://access.redhat.com/documentation/en-US/JBoss_Enterprise_Application_Platform/6/html/ Administration_and_Configuration_Guide/Remove_Silent_Authentication_from_the_Default_Security_ Realm.html

Configuring Workbench Web Server's LN UI Instance

You must configure the Workbench Web Server's LN UI with the username and password you specified earlier for the Workbench deployment. This allows LN UI to deploy the Workbench web application using the web server's management interface.

To configure the Workbench Web Server's LN UI:

- 1 Start the Workbench Web Server's LN UI administrative web application. Use the browser with URL <Workbench Web Server Base URL>/webui/servlet/admin
- 2 Select Infor LN > Workbench Deployer.
- 3 Specify the Deployment user and password in these fields:
 - Deployment user
 - Deployment password
 - Confirm Deployment password
- 4 Ensure that field Application Server URL is specified with http://localhost.
- 5 Ensure that the **Port number** field contains the correct value; when the Tomcat web server is used, it must be equal to the configured HTTP port number.
 When the JBoss web server is used, it must be equal to the configured port for the native management interface (default 9999).
- 6 Specify the Application Server username in the corresponding Application Server username field.
- 7 Specify the Application Server password in these fields:
 - Application Server password
 - Confirm Application Server password
- 8 Optional: Specify the server name on the **Server specifics** tab. You can specify the server name when running on WebLogic, and you want to deploy to a specific server.
- 9 Save the changes.
- 10 Click Test to verify the changes.

The **Log** field must display output similar to:

```
The following applications are installed on your Application Server: manager webui
```

Troubleshooting

When testing the Workbench Web Server's LN UI configuration, these messages can display:

- Failed to ping the server, check Application Server URL and Port number.
 Solution: check the fields Application Server URL and Port number.
- Failed to login, check Application Server username and password.
 Solution: check the fields Application Server username and Application Server password. Ensure that the values are consistent with the specified values.

Configuring Workbench Deployment URL

Configure the Enterprise Server with the network location and credentials required during Workbench deployment.

To configure the workbench deployment URL:

- 1 Start the general purpose LN UI.
- 2 Start the Workbench Deployment URLs (ttaad7140m000) session.
- 3 Create a new Deployment URL, specify this information:
 - **Deployment**: an appropriate description.
 - **Deployment URL**: **<Workbench Web Server Base URL>/webui/servlet/deploy**, for example: https://nlbavwhtml5wb.infor.com:8445/webui/servlet/deploy
 - User: <deployment user>
 - Password: <deployment password>.
- 4 Save changes.
- 5 Verify the changes. Select the new entry > Actions > Test URL.

Troubleshooting

When testing the Deployment URL, these messages can display:

URL http://... not correct (Not Found)

Solution: check and correct the **Deployment URL** field.

URL http://... not correct (Couldn't connect to server)

Solution 1: check and correct the **Deployment URL** field, especially the port value.

Solution 2: ensure that the Workbench Web Server is operational.

URL http://... not correct (Couldn't resolve the host name)

Solution: check and correct the **Deployment URL** field, especially the host name.

URL http://... not correct (Unauthorized)

Solution: ensure that Deployment user and password match the values specified earlier. See "Configuring Workbench Web Server's LN UI Instance" on page 14.

URL http://... not correct (Service Unavailable)

Solution: check the log files of the Workbench Web Server's LN UI instance and correct errors.

Configuring Workbench Web Server Base URL

Configure the Enterprise Server with the network location of the Workbench Web Server at which Workbenches are started.

Complete these steps:

- 1 Start the general purpose LN UI.
- 2 Start the Workbench Parameters (HTML-based) (ttaad7131m000) session.
- **3** Specify this information:
 - Workbench Web Server ID: WBWAR
 - Workbench Web Server Base URL: <Workbench Web Server Base URL>, for example: https://nlbavwhtml5wb.infor.com:8445
- 4 Click **OK** to save the changes.

Configuration of Workbench Web Server (WebSphere)

This section is applicable when the Workbench Web Server employs the WebSphere Application Server.

Prepare the LN UI instance at the Workbench Web Server to support the deployment of Workbenches.

These tasks are involved:

- Retrieving WebSphere configuration details.
- Configuring the LN UI web application of the Workbench Web Server.
- On the Enterprise Server, add the Deployment URL and specify the Workbench Web Server Base
 URL

When the described steps are successfully completed, the Workbench Web Server and the Enterprise Server are ready to deploy a Workbench web application from its Additional File.

Prerequisites

Meet these requirements:

- The WebSphere application server is operational and its Administrator GUI can be accessed, for example from URL https://myserver.mydomain:9060/ibm/console
- The WebSphere application server is configured to use HTTPS using a CA signed or self-signed certificate.
- You can start the Workbench Deployment URLs (ttaad7140m000) session and the Workbench Parameters (HTML-based) (ttaad7131m000) session.

Determine the value of configuration items

Some configuration items such as usernames and passwords are used in one or more steps. Use this table to determine and record the value for later usage:

Configuration Item	Description	Chosen Value
Workbench Web Server Base URL	This is the base URL of the web server run- ning at the Workbench Web Server, for exam- ple https://myserver.yourdomain: 9080.	
Deployment user	This is the user account used by the Enter- prise Server to gain access to the LN UI dur- ing Workbench deployment.	
Deployment password	This is the password used by the Enterprise Server to gain access to the LN UI during Workbench deployment	
Application Server username	The web server's account, this is an account that has administrator rights on the web server. This account is used by the LN UI during Workbench deployment.	
Application Server password	This is the password for the <application Server Username> mentioned earlier.</application 	

Retrieving WebSphere configuration details

The retrieved data is used in subsequent configuration steps.

To retrieve WebSphere specific settings:

- 1 Use the browser to start the WebSphere Administration GUI.
- 2 Start the Certificate Export Wizard using the padlock shown in the browser's address bar.
- 3 Export the certificate in the Base-64 encoded X.509 file format (.cer file) and make a note of the file location for later usage.
- 4 In WebSphere Administrator GUI, select Servers > Server Types > WebSphere application servers.
- 5 Make a note of the name of the server as <Server name>.
- 6 Select the <Server name> and select Communication > Ports > SOAP_CONNECTOR_ADDRESS
- 7 Make a note of the values in the <Host> and <Port> fields.
- 8 Select Servers > Server Types > WebSphere application servers.
- 9 Select <Server name> and click Runtime
- 10 Make a note of the <Cell name> and <Node name>.

Configuring Workbench Web Server's LN UI Instance

The Workbench Web Server's LN UI must be configured with the settings from the previous section, see "Retrieving WebSphere configuration details" on page 20

This allows LN UI to deploy the Workbench web application using the WebSphere's internal management interface.

These settings are required:

Item	Example
Server name	Server1
Host	myhost.mydomain.com
Port	8880
Cell name	myhostNode01Cell
Node name	myhostNode01

To configure the Workbench Web Server's LN UI:

- 1 Start the Workbench Web Server's LN UI administrative web application. Use the browser with URL: <Workbench Web Server Base URL>/webui/servlet/admin
- 2 Select Infor LN > SSL Truststore.
- 3 Click Import certificate and import the exported SSL Certificate (.cer file).
- 4 Select Infor LN > Workbench Deployer.
- 5 Specify the Deployment user and password in these fields:
 - Deployment user
 - Deployment password
 - Confirm Deployment password
- 6 Ensure that field Application Server URL is specified with: https://<Host>. For example https://myhost.domain.com
- 7 Ensure that the **Port number** field is equal to <Port>.
- 8 Specify the <Application Server username> in the corresponding Application Server username field.

This is an account that has sufficient rights, otherwise use the administrator login.

- 9 Specify the password, for the user you login with on the Application Server, in these fields:
 - Application Server password
 - Confirm Application Server password

10 Save the changes.

11 Click **Test** to verify the changes.

The Log field must display output similar to:

```
The following applications are installed on your Application Server:
DefaultApplication
webui
ivtApp
```

12 Select the Server specifics tab.

13 Specify this information:

- Server name: <Server name>
- Cell name: <Cell name>
- Node name: <Node name>

Troubleshooting

When testing the Workbench Web Server's LN UI configuration, these messages can display:

Failed to ping the server, check Application Server URL and Port number.

Solution: check the Application Server URL and Port number fields.

Failed to login, check Application Server username and password.

Solution: check the **Application Server username** and **Application Server password** fields . Ensure that the values are consistent with the specified values.

SSL Trust not, or incorrectly defined

Solution 1: An SSL Certificate is not imported in the session SSL Truststore.

Solution 2: An incorrect SSL certificate is uploaded, not belonging to the web server on which WebSphere is running.

Configuring the Enterprise Server for Workbench Deployment

Complete the required configuration using the steps described in these sections:

- "Configuring Workbench Deployment URL" on page 16
- "Configuring Workbench Web Server Base URL" on page 17

Workbench installation

These steps are described:

- Installing a Workbench by deploying it on the Workbench Web Server.
- Deploying an (existing) Additional File to the Workbench Web Server.
- Creating / updating an Additional File of a Workbench.

Prerequisites

Meet these prerequisites:

- The configuration of Workbench Web Server is successfully completed. See "Configuration of Workbench Web Server" on page 11.
- You can start these sessions:
 - Import Workbench Application (ttadv2570m200)
 - Workbench Applications (ttadv2570m100)

Deploying an Additional File

Perform this step when the Workbench is deployed for the first time or when the Workbench Additional File was updated by a PMC solution.

To deploy the Additional File of a Workbench:

- 1 Start the general purpose LN UI.
- 2 Optional: Start the Additional Files (ttadv2570m000) session to check the presence or history of the Workbench Additional File to deploy.
- 3 Start the Workbench Applications (ttadv2570m100) session.
- 4 Select Actions > Select URLs

Use the **Selected** column to select the Workbench Web Server.

- **5** Save and exit.
- 6 Select the row with the Additional File (extension .wbwar) of the desired Workbench.

7 Select Actions > Deploy

Wait for the Workbench deployment to complete.

8 Close the Workbench Applications session.

Troubleshooting

These messages can display when running the Workbench Applications session.

• Deployment is performed by other user.

Solution: wait until another user has completed the deployment and closes the Workbench Applications session.

• Deployment FAILED; see logfile ... for detailed information.

Solution: select Actions > Logfiles > View Log (HTML)

When running on WebLogic, check if error 401, Unauthorized is shown in this log file. This error means that the WebLogic server is missing a configuration parameter. To add this parameter go to: <u>http://hovenko.no/blog/2008/10/28/howto-bypass-weblogic-security-model/</u>

Creating or updating an Additional File

Creating or updating an additional file is required when you are developing your own workbench.

To create or update the Additional File of a Workbench:

- 1 Download the Workbench web archive (extension .war) to the local computer.
- 2 Start the general purpose LN UI.
- 3 Start the Import Workbench Application (ttadv2570m200) session.
- 4 Specify the **Package**, **VRC** and **Session** fields pertaining to the Workbench Additional File.
- 5 Select Import From > Client.
- 6 When updating instead of creating an Additional File select **Options > Overwrite existing entry**.
- 7 Select Import and browse to the Workbench web archive file on the local computer.
- 8 Click **OK** to start the file upload.
- **9** Optional: use the Additional Files (ttadv2570m000) session to verify the history of the Additional File.

Troubleshooting

These message can display during the import of the web archive.

Workbench application ... has already been imported for VRC ... Solution: ensure to update instead of creating the Additional File (step 6).

Workbench diagnostic information

To help solve operational problems of a Workbench, diagnostic information is available. You can find information through:

- Client tracing
- Workbench log file

Client Tracing

You can start client tracing in these ways:

- Press <Shift><I> (capital letter 'L'), messages and events in the browser and at the UI server are captured in a trace file. A new browser window is created that shows a button to download the trace file. After download, the captured events can be examined off-line.
- Select Options > Activate trace mode to start the LN UI trace mode. Then start the Workbench. The Workbench will automatically start capturing messages and events in a trace file, as described earlier. This will show the browser window to download the trace file.

Workbench Log File

Each Workbench web application generates a log file with message and logic events at the UI server side of the Workbench. The messages, with increasing degrees of verbosity, can have the severity ERROR, INFO or DEBUG.

The name of the Workbench log file contains the session code and version, release and customer of the corresponding 3GL session. For example; tdpur8360m000 B60 a sy82.txt.

When the Tomcat web server is used, the file can be found in this folder:

\${catalina.base}/logs

When the JBoss web server is used, the file can be found in this folder:

\${jboss.server.log.dir}

For web servers other than Tomcat or JBoss, the file is stored in this folder:

\${java.io.tmpdir}

To find the value of:

\${catalina.base}

- \${jboss.server.log.dir}
- \${java.io.tmpdir}

Start the LN UI Administration Webapp, navigate to Infor LN UI Administration > Diagnostics > System Properties.

Configuration of the Workbench log file

The severity of the emitted log messages and the directory and filename of the Workbench log file are configured in the log4j.xml file. The configuration file is maintained for each Workbench separately and it is created during the first deployment of the Workbench.

You can find the file on the file system of the Workbench Web Server in this folder:

C:\Infor\ese\lnui\config\workbenches\<workbench-name>.

Replace <workbench-name> with the actual workbench name derived from the session code and version, release and customer of the corresponding 3GL session, for example:tdpur8360m000_B60_ a_sy82