

Infor LN HTML5 Workbench Administration Guide

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Publication information

Infor LN Release: 10.5.1

Publication Date: March 27, 2017

Document code: ttworkbenchag (U9858)

Contents

About this guide	5
Contacting Infor	5
	_
Chapter 1: Introduction	
Software prerequisites	
Workbench operation	
Workbench deployment	8
Chapter 2: Configuration of Workbench Web Server	11
Prerequisites	11
Determine the value of configuration items	11
Configuring Application Server username and password (Tomcat)	12
Creating / verifying Tomcat user account	13
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	
Determine the value of configuration items	
Retrieving WebSphere configuration details	
Configuring Workbench Web Server's LN UI Instance	
Troubleshooting	
Configuring the Enterprise Server for Workbench Deployment	22
Chapter 4: Workbench installation	23
Deploying an Additional File	
Troubleshooting	
Creating or updating an Additional File	
Troubleshooting	
Chapter 5: Workbench diagnostic information	27
Configuration of the Workbench log file	

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.

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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 http:// www.infor.com/inforxtreme.

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.

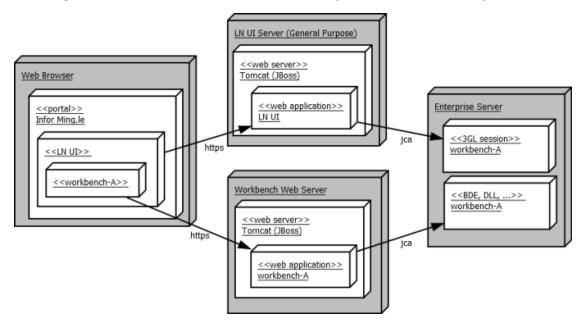
There are various subsystems relevant to the operation of a Workbench. The subsystems are:

- · 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.

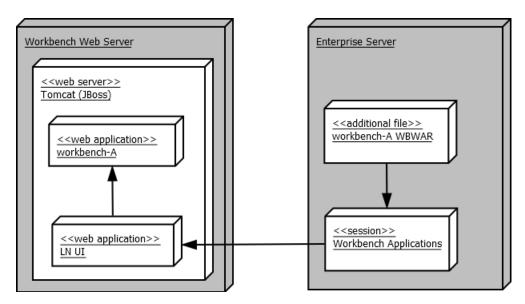
This diagram shows an overview of the various subsystems relevant to the operation of a Workbench:



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.
- 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.

Introduction			

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)

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 running at the Workbench Web Server, for example https://myserver.yourdomain.com:8312.	
Deployment user	This is the Workbench Web Server user account used by the Enterprise Server to run the Workbench deployment. For example: deployer.	
Deployment password	This is the password of the Deployment user. For example: deployer.	
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. Example: deploy123</application>	
Tomcat Home	This item is relevant when the Workbench Web Server is using Tomcat. This is the installation directory of the Tomcat web server on the UI Server for Workbenches, for example: 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>. See the configuration values in the table in Determine the value of configuration items, and 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:

- 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

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.

See the configuration values in the table in Determine the value of configuration items and complete these steps:

- 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 <Deployment 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
- 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.

See the configuration values in the table in Determine the value of configuration items and complete these steps:

- 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.

```
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.

See the configuration values in the table in Determine the value of configuration items and 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	

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

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 running at the Workbench Web Server, for example https://myserver.yourdomain:9080.	
Deployment user	This is the Workbench Web Server user account used by the Enterprise Server to run the Workbench deployment. For example: deployer.	
Deployment password	This is the password of the Deployment user. For example: deployer.	
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 Determine the value of configuration items.

The Workbench web application is deployed by LN UI 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

See the configuration values in the table in Determine the value of configuration items, and 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 <Deployment 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 This step is only applicable for IBM WebSphere Application Server. Specify this information:

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

14 This step is only applicable for IBM WebSphere Application Server Network Deployment.

- a Select Network Deployment
- b Specify a value for the **Application Server Target**.
- c Specify a value for the **Web Server Target**, if the cluster includes the IBM HTTP Web Server.

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
- Configuring Workbench Web Server Base URL

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.
- 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: http://hovenko.no/blog/2008/10/28/howto-bypass-weblogic-security-model/

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 \dots has already been imported for VRC \dots

Solution: ensure to update instead of creating the Additional File (step 6).

Vorkbench installation

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><|> (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