AccuRev®

Web Interface
Administrator's Guide

Version 6.2

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Preface

This book is your guide to administering and configuring the AccuRev® Web Interface (Web UI) from AccuRev, Inc. It is intended for the AccuRev system administrator. This book assumes that the AccuRev Web UI has already been installed, as described in the *AccuRev Installation and Release Notes*.

Using This Book

This book assumes you are familiar with your operating system and its commands, as well as with AccuRev and AccuWork. The following table summarizes how the chapters in the book are organized.

Chapter	Description
Chapter 1 Configuring the AccuRev® Web Interface	Provides background information and procedures for managing Tomcat and AccuRev Server sessions and security.
Chapter 2 Testing the AccuRev® Web Interface Installation	Describes testing and troubleshooting techniques for Web UI installations.
Chapter 3 Integrating the AccuRev® Web Interface with other Applications	Describes features and procedures for integrating the Web UI with third-party applications.
Chapter 4 Setting Up End Users	Describes how to set up Web UI end users following a successful Web UI installation.
Chapter 5 Installing Apache Tomcat	Describes how to install Apache Tomcat manually.

Typographical Conventions

This book uses the following typographical conventions:

Convention	Description
`blue sans-serif`	Used for sample code or output.
`red monospace`	Used for examples.
bold	Used for command names, and button names in the AccuSync Web user interface
light italic	Used for emphasis, book titles, and for first use of important terms
blue italic	Identifies a hyperlink (to a page or Web URL, for example)

Contacting Technical Support

Micro Focus offers a variety of options to meet your technical support needs as summarized in the following table.

For	Visit
Information about technical support services	*http://supportline.microfocus.com/*
Information about platforms support	*http://supportline.microfocus.com/prodavail.aspx*
Product downloads and installations	*http://supportline.microfocus.com/websync/ productupdatessearch.aspx*
Product documentation	*http://supportline.microfocus.com/productdoc.aspx*
SupportLine phone numbers, listed by country	*http://www.microfocus.com/about/contact/support/ assistance.aspx*

When you contact Micro Focus technical support, please include the following information:

- The version of AccuRev and any other AccuRev products you are using (AccuSync or GitCentric, for example).

- Your operating system.

- The version of relevant third-party software (if you are using AccuSync, for example, the version of your ITS).

- A brief description of the problem you are experiencing. Be sure to include which AccuRev interface you were using (Web user interface, Java GUI, or CLI), any error messages you received, what you were doing when the error occurred, whether the problem is reproducible, and so on.

- A description of any attempts you have made to resolve the issue.

- A simple assessment of how the issue affects your organization.

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1. Configuring the AccuRev® Web Interface

This chapter describes security, session, and access settings you can use to configure the AccuRev® Web Interface (Web UI).

* Security Considerations for Web Applications

Like other client/server applications, AccuRev takes advantage of two layers of security – the organization's network security measures, and AccuRev's own security settings.

Network and application security measures are typical for applications accessing data within an organization's LAN, or over a VPN or similar secure connection, but Web applications, like the AccuRev Web Interface, present a unique set of security issues common to applications accessing data directly over the Internet.

At a minimum, we recommend you take the following measures to secure your use of the Web UI:

* Install an SSL certificate on the machine running Tomcat to encrypt Web traffic.
  See *http://tomcat.apache.org/tomcat-5.5-doc/ssl-howto.html* for information on installing and configuring SSL certificates on Tomcat. If you are using Tomcat 6.0, see *http://tomcat.apache.org/tomcat-6.0-doc/ssl-howto.html*.

* Implement password strength checking for the Web UI. See *Setting Login Security* for more information.

* Review your existing AccuRev security measures. Consider the implications of an outsider gaining access to data stored in AccuRev. Set strong passwords for all AccuRev users, regardless of how they log in to AccuRev. Take advantage of AccuRev user and group permissions, and set ACL permissions to restrict user access by depot and stream to further secure the environment.

* Consult with your local system administrator to determine the best way to run the Tomcat server securely within your organization's network.

Setting Login Security. AccuRev recommends that you implement user name and password strength checking for users logging in to the AccuRev Server using the Web UI. Using the **wui_config.xml** configuration file, you can specify the following for both user name and password:

* Minimum length

* Minimum number of digits

* Minimum number of letters

Note: AccuRev uses a single user/password combination for all interfaces, so any password change made to conform to WebUI security parameters specified in the **wui_config.xml** also affects your password for the AccuRev GUI and the CLI.

To change Web UI login settings:

1. Stop the Tomcat server.

2. Navigate to the **.accurev** subdirectory under the home directory of the user running Tomcat:

- *(Windows users)* **C:\Documents and Settings\\<*user name*>**, or **C:\Users\\<*user name*>**, for example

- *(Linux users)* The user's login directory

3. Check the **.accurev** subdirectory for a customized version of **wui_config.xml**. If there is no file by that name, copy **<*CATALINA_HOME*>\webapps\accurev\wui_config.xml**, where *<CATALINA_HOME>* is the Tomcat installation directory, to the **.accurev** subdirectory.

4. Edit the **<security>** element to conform to your site's security requirements.

    ```
    <security>
      <userName minLength = "0" minDigitCount = "0" minLetterCount = "0"/>
      <password minLength = "0" minDigitCount = "0" minLetterCount = "0"/>
    </security>
    ```

5. Save the **wui_config.xml** file.

6. Restart the Tomcat server.

Changing the Default Tomcat Session Timeout

By default, the Tomcat session times out after 30 minutes. You can change the session timeout by editing the value of the **<session-timeout>** element in the **web.xml** file:

```
<session-config>
  <session-timeout>30</session-timeout>
</session-config>
```

The **web.xml** file is located in *<CATALINA_HOME>***conf**, where *<CATALINA_HOME>* is the Tomcat installation directory.

Note: Restart the Tomcat server after saving changes to the **web.xml** file.

Changing the Default AccuRev Session Timeout

By default, the AccuRev session times out after 4 hours (240 minutes), measured from the time of the last AccuRev command execution. You can change session timeout by creating or modifying the SESSION_TIMEOUT setting in **acserver.cnf**. Set this value to 0 to prevent expiration.

```
SESSION_TIMEOUT = <number-of-minutes>
```

The **acserver.cnf** file is located in the **\bin** directory where you installed the Web UI, **C:\Program Files\MyAccuRev\bin**, for example.

On Unix/Linux systems, a user can control the timeout for an individual session by setting the SESSION_TIMEOUT environment variable before logging in. For example, to set a 15-minute timeout interval for a single session:

```
export SESSION_TIMEOUT=15
accurev login derek    # limits derek's login to 15 minutes
```

Note: Restart the AccuRev Server after saving changes to the **acserver.cnf** file.

Avoiding AccuRev Session Timeouts

Web UI users can avoid default session timeouts established in the **acserver.cnf** file by checking the **Remember my login on this computer** checkbox in the Login to AccuRev Server dialog box. Checking this box stores a session ID in the browser.

Setting Access to AccuRev Servers

By default, the host machine running the Tomcat Server maps to a single machine running the AccuRev Server. You provide users with access to AccuRev by providing them with the URL to the Tomcat Server. See *Setting Up End Users* on page 11 for more information on this topic.

If you want, you can specify additional host machine-AccuRev Server mappings to provide access to AccuRev from the Web UI. This allows you to:

*   Map multiple host names to the same AccuRev Server

*   Map multiple host names to different AccuRev Servers

You might want to specify alternate mappings to allow for the use of domain names for the host server URL, for example.

The <serverMap> Element

AccuRev Server mappings are specified using the **<serverMap>** element in the **wui_config.xml** file:

```
<serverMap>
  <serverMapEntry host = "host_name:port" accurevServer = "server:port"/>
</serverMap>
```

where:

*   *host_name:port* is the URL used to access the machine on which the Tomcat Server is running, and the port on which Tomcat is listening. The default Tomcat Server port is 8080.

*   *server:port* is the URL of the machine on which the AccuRev Server is running, and the port on which AccuRev is listening. The default AccuRev Server port is 5050.

Examples of *host_name* values include:

*   The DNS for the server

*   *localhost*

*   The machine name

Example

The following example shows how the **<serverMap>** element in the **wui_config.xml** file is used to specify alternate host mappings to the same AccuRev Server:

```
<serverMap>

  <serverMapEntry host = "accurev-web:8080" accurevServer =
        "accurev.ent.org:5050"/>

  <serverMapEntry host = "accurev-web.ent.org:8080" accurevServer =
        "accurev.ent.org:5050"/>

</serverMap>
```

Modifying wui_config.xml

To modify the **wui_config.xml** file to specify one or more host machine-AccuRev Server mappings:

1. Stop the Tomcat server.

2. Navigate to the **.accurev** subdirectory under the home directory of the user running Tomcat:

    *   *(Windows users)* **C:\Documents and Settings\<user name>**, or **C:\Users\<user name>**, for example

    *   *(Linux users)* The user's login directory

3. Check the **.accurev** subdirectory for a customized version of **wui_config.xml**. If there is no file by that name, copy **<CATALINA_HOME>\webapps\accurev\wui_config.xml**, where *<CATALINA_HOME>* is the Tomcat installation directory, to the **.accurev** subdirectory.

4. Edit the **<serverMap>** element:

```
<serverMap>

  <serverMapEntry host = "host_name:port" accurevServer = "server:port"/>

</serverMap>
```

    Note that you can specify as many **<serverMapEntry>** elements as needed for your environment.

5. Save the **wui_config.xml** file.

6. Restart the Tomcat server.

2. Testing the AccuRev® Web Interface Installation

This chapter describes how to test the AccuRev® Web Interface (Web UI) installation and how to troubleshoot issues that you might encounter.

Note: Throughout this chapter, *<CATALINA_HOME>* refers to the Tomcat installation directory.

Testing the Web UI Installation

Use the following simple procedure to test the Web UI installation. You should test the installation before making the Web UI available to your end users. (See *Chapter 4 Setting Up End Users* for more information about notifying end users.)

To test that the AccuRev Web UI installation is functioning correctly:

1. Obtain a user name and password for the AccuRev Server that the Web UI will access.

2. Test browser access to the AccuRev Web UI from these locations:

    • The machine on which you installed Tomcat

    • Another machine in your organization's internal network

    • An Internet-connected machine outside your organization's internal network.

    To do this, open a browser and navigate to the URL used to access the Web UI (*http://<tomcat_server_host>:8080/accurev*, for example).

    If the installation was successful, a dialog box prompting you to log in to the AccuRev Server should appear. If it does not, use the following sections, *Troubleshooting Tomcat Issues* and *Troubleshooting Web UI Issues*, to resolve any issues.

Troubleshooting Tomcat Issues

The following issues might arise during the Web UI installation and testing process.

• *Another Web server (or other process) uses port 8080.*

    By default, Tomcat attempts to bind to port 8080 at startup. To change this value, open **<CATALINA_HOME>\conf\server.xml**, and search for **8080**. Change that number to a port (higher than 1024) that is not in use. Save your changes and restart Tomcat.

• *The Tomcat server fails to start due to port conflicts, or because another Tomcat instance is already running.*

    When the Tomcat server starts, it binds two ports (HTTP and Server Shutdown), which are configurable in **<CATALINA_HOME>\conf\server.xml**. These bindings prevent more than one instance of the Tomcat server from starting unless each instance is configured to run on a separate port. The details of configuring multiple Tomcat server instances are beyond the scope of this document.

• *The Tomcat application tries to use the wrong JRE/JDK.*

(Windows users) Follow these instructions to set the default JRE or JDK:

1. Right-click the Tomcat icon in the taskbar, and choose **Configure** from the menu.

   The Configuration dialog box appears.

2. Navigate to the Java tab on the Configuration dialog box, and select the **Use default** checkbox.

3. Click **OK** to save the change.

(Linux users) Check that the JRE_HOME (if using the JRE) or JAVA_HOME (if using the full JDK) environment variable indicates the version specified in *Setting Up the Java Environment* on page 13.

Troubleshooting Web UI Issues

The following issues might arise when first starting the Web UI after installation:

- *My changes to the Web UI* **wui_config.xml** *configuration file are not being recognized.*

  You must save the edited **wui_config.xml** configuration file to an **.accurev** subdirectory under the home directory of the user who started Tomcat; this might not be the current user. If you are running the Tomcat Windows service as the "Local System account" user, this file should be placed in **C:\.accurev**.

- *The Login dialog box does not respond after I enter a user name and password.*

  This can happen if the AccuRev Server is not responding or running. Verify that the AccuRev Server is responding by logging in using either the AccuRev GUI or the command line interface (CLI).

- *No server appears in the Login dialog box.*

  This can happen if the AccuRev Server has not been identified:

  - Verify that the AccuRev **bin** directory has been appended to the PATH environment variable.

  - Verify that a **<serverMap>** element has been fully described in the **wui_config.xml** configuration file.

- *When attempting to access the Web UI, I get a message stating that the 'localhost' machine could not be found.*

  This can happen if your machine uses a proxy for network access. If it does, change the proxy configuration options for your browser so that it does now use the proxy to access 'localhost'. The location for proxy configuration options varies by browser. For example:

  - In Firefox, choose **Tools > Options > Advanced**, and then click the **Network** tab.

  - In Internet Explorer, choose **Tools > Internet Options > Connections**, and then click the **LAN Settings** button.

  - In Google Chrome, choose **Customize and Control Google Chrome > Options > Under the Hood**, then click the **Change proxy settings** button. On the Internet Properties dialog box that appears, click **LAN settings**.

3. Integrating the AccuRev® Web UI with other Applications

This chapter describes features for integrating the AccuRev® Web Interface (Web UI) with other applications.

Accessing a Third-Party Issue Tracking System

The AccuRev Web UI allows click-through access to a third-party issue tracking system (ITS) such as JIRA. In order to do this, you need to:

- Configure the AccuWork™ schema
- Configure the Web UI **wui_config.xml** file

Each of these steps is described in the following sections.

Configuring the AccuWork™ Schema

During configuration of the AccuBridge™ product for your ITS, you modify the AccuWork issue database schema by adding a field to store the unique key for each issue record. This field is referred to as the *issue identifier*. You might name the issue identifier field **issueKey**, for example. See your AccuBridge documentation for more information on this topic.

Once the issue identifier has been specified in AccuBridge, you must set the AccuWork schema 3pty ITS Key property to that value, as described here.

To set the AccuWork schema 3pty ITS Key property:

1. As the Admin user, start the AccuRev GUI.

2. Select **Admin** > **Schema Editor** from the AccuRev GUI toolbar.

   The Schema Editor tab appears. The Schema subtab should be open by default, as shown in the following illustration. If it is not, click the Schema subtab to open it.
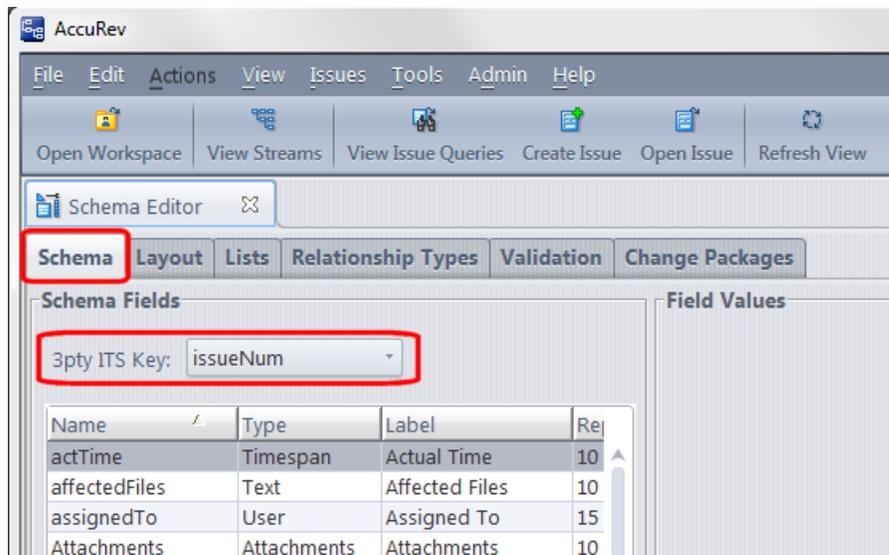
3. In the **3pty ITS Key** drop-down list, choose the issue identifier you created when configuring AccuBridge (**issueKey**, for example).

4. Click the **Save** button on the bottom right of the Schema subtab.

Configuring the wui_config.xml

Use the procedure described in this section to modify the AccuRev Web UI **wui_config.xml** file. Specifically, you edit the **<issueURLMap>** element to specify:

- An AccuRev Server
- Depot name
- URL of the issue tracking system you want to access

1. Stop the Tomcat server.

2. Navigate to the **.accurev** subdirectory under the home directory of the user running Tomcat:
    - *(Windows users)* **C:\Documents and Settings\<*user name*>**, or **C:\Users\<*user name*>**, for example
    - *(Linux users)* The user's login directory

3. Check the **.accurev** subdirectory for a customized version of **wui_config.xml**. If there is no file by that name, copy **<*CATALINA_HOME*>\webapps\accurev\wui_config.xml**, where *<CATALINA_HOME>* is the Tomcat installation directory, to the **.accurev** subdirectory.

4. Edit the **<issueURLMap>** element.

```
<issueURLMap>
  <issueURLMapEntry
    accurevServer = "accu3:5050"
    depotName = "accurev"
    issueURL = "http://<its_server>:<port>/browse/*ISSUE_KEY*" />
</issueURLMap>
```

Note: Set the *ISSUE_KEY* parameter to the value of the issue identifier you used to configure the AccuWork schema (issueKey, for example). See *Configuring the wui_config.xml* for more information.

---

5. Save the **wui_config.xml** file.

6. Restart the Tomcat server.

Suppressing the AccuRev Toolbar Display

You can turn off the display of the AccuRev toolbar when integrating the Web UI with another application.

To turn off the AccuRev toolbar, append the embedded argument with a value of yes to the Web UI URL. For example:

```
http://<server:port>/accurev?embedded=yes
```

Remember that the question mark (?) must precede the first argument in the URL.

POST Method Login Servlet

The Web UI provides a login servlet you can use to pass login credentials via the POST method. This gives you the ability to create your own customized Web UI login dialog box, or to log in programmatically using, for example, an Apache HttpClient PostMethod routine.

Here is an example of an HTML form implementing this login POST method:

```
<FORM ACTION="/accurev/login"
      METHOD="POST">

  User ID:
  <INPUT TYPE="TEXT" NAME="userid"><BR>
  Password:
  <INPUT TYPE="PASSWORD" NAME="password"><BR>


  Server:
  <INPUT TYPE="TEXT" NAME="server" VALUE="server:port"><BR>
  <INPUT TYPE=CHECKBOX NAME="remember_session">Pass Cookie
  <HR>
  <INPUT TYPE="SUBMIT" VALUE="Login">
</FORM>
```

4. Setting Up End Users

This chapter describes the process for setting up end users of the AccuRev® Web Interface (Web UI) after you have successfully installed the Web UI. See *Chapter 2 Testing the AccuRev® Web Interface Installation* for information about testing Web UI installations.

Creating AccuRev Users and Groups

Each Web UI end user needs to be created as an AccuRev user in order to access AccuRev. An AccuRev user is defined by a user name, password, and a set of permissions. You create users (and, optionally, groups) on the AccuRev Server using either the AccuRev GUI or the command line interface (CLI).

See the *AccuRev® Administrator's Guide* for more information on creating users and groups.

Note: You can specify user name and password settings (minimum length, whether or not a numeric value is required, and so on) that conform to your site's security requirements. See *Setting Login Security* on page 1 for more information.

Browser Requirements

The following table identifies the minimum required version for Web browsers supported by the AccuRev Web UI:

Browser	Minimum Version
Microsoft Internet Explorer	IE7
Mozilla Firefox*	7.0
Google Chrome	5.0

   *Mac users should use Mozilla Firefox.

Note that the Adobe® Flash® Player plug-in is also required.

Generally speaking, AccuRev recommends that you use current Web browser versions as they are updated frequently and may address issues unrelated to AccuRev that you experience when using the AccuRev Web UI.

Informing Web UI Users

When the Web UI has been installed, configured, and tested, you should:

- Inform each user of his or her user name and password. (End users can modify their passwords using the Web UI if they choose.)

- Distribute the URL used to access the Web UI (*http://<tomcat_server_host>:8080/accurev*, for example) to your users. Remember to use the new port assignment if you changed it from the default of 8080 as described in *Troubleshooting Tomcat Issues* on page 5.

- Consider making the Web UI information in the *AccuRev Installation and Release Notes* available to them.

5. Installing Apache Tomcat

The AccuRev® Web Interface (Web UI) requires Apache Tomcat version 5.5 or higher to be installed on the same machine as the Web UI. Tomcat version 6.0 is installed with AccuRev.

Use the procedures described in this chapter to install Tomcat version 5.5 manually.

Setting Up the Java Environment

Tomcat requires a Java Runtime Environment (JRE) from J2SE version 6 or later.

To install and set up a JRE on the target machine:

1. Download the Java 2 Standard Edition JRE 6, from *http://www.oracle.com/technetwork/java/javase/downloads/index.html*.

2. Install the JRE on the target machine according to the instructions in the download package.

3. Set an environment variable named JRE_HOME to the directory into which you installed the JRE. The default installation locations are:

   - *(Windows users)* **C:\Program Files\Java\<*JRE_version*>**, for example

   - *(Linux users)* **<*JRE_version*>** in the directory where the JRE self-extracting binary was run.

4. Append **JRE_HOME/bin** to the PATH environment variable.

Note: You can use the full Java Development Kit (JDK) rather than just the JRE. In this case, set the JAVA_HOME environment variable (*not* JRE_HOME) to the directory into which you installed the JDK, and append **JAVA_HOME/bin** to the PATH environment variable.

Installing Apache Tomcat

To install Tomcat, download an Apache Tomcat 5.5 installer from *http://tomcat.apache.org/download-55.cgi*. Follow the instructions in *http://tomcat.apache.org/tomcat-5.5-doc/setup.html* to complete the installation.

Considerations for Windows Users

If you are installing Tomcat on a Windows machine, consider the following:

- **Installing a Windows service.** During Tomcat installation, select the **Service Startup** box under Tomcat on the Choose Components pane. This option automatically installs and runs the Windows service to control Tomcat.

- **Running the Tomcat service.** After installing Tomcat on Windows, ensure that the Tomcat service is not running as the Local System account. Right-click on the Tomcat icon in the System Tray, and choose **Configure** from the menu. On the Log on tab, specify a user name and password to log on as, and click **OK** to save the changes.

Running Tomcat Automatically on Startup

Because the Web UI requires Tomcat, consider setting Tomcat to run automatically on startup:

- *(Windows users)* Configure the Tomcat service to start automatically using the Services control panel. You can access the Services control panel from the **Start** menu by choosing **Settings > Control Panel > Administrative Tools > Services**, for example. (Specific procedures vary based on Windows operating system.)

- *(Linux users)* Add the following line to **/etc/rc.d/rc.local**:

  ```
  <CATALINA_HOME>/bin/startup.sh &
  ```

  where *<CATALINA_HOME>* is the Tomcat installation directory.