

**AccuRev®**

**Version 5.5d**

## **Installation and Release Notes**

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# Introduction

Welcome to AccuRev®, the best software configuration management (SCM) system available today.

## Highlights of this Release

AccuRev Version 5.5d is a patch release that address issues discovered after the release of Version 5.5:

AccuRev Version 5.5 provides important new functionality, and numerous performance improvements and bug fixes including:

- Dramatic improvement in performance between master and replica servers over high-latency networks. A new setting on replica servers, `COMPRESSION_ENABLED=TRUE`, lets you specify whether or not to use file compression to tune performance on low bandwidth networks. See [25094 -- Performance improvements over high-latency, low-bandwidth WAN](#) on page 41 for more information.
- Numerous usability enhancements to the File Browser, including:
  - Simplified, more intuitive layout of buttons for frequently performed operations like Update.
  - Improved search and result filtering tools.
  - A displayed “count” of the number of elements returned by a workspace search.
  - Support for Ctrl+x, Ctrl+c, Ctrl+v shortcut keys for Cut, Copy, and Paste operations.
- Numerous usability enhancements to the StreamBrowser, including:
  - A replacement for stream filters: *Stream Favorites*. Stream Favorites are easier to use and more intuitive to create and manage. Also, Stream Favorites can be shared with other users in your AccuRev depot.
  - The ability to navigate the StreamBrowser by dragging the background; this feature is also supported in the Version Browser.
  - Features to help distinguish workspaces from other streams.
  - The display of workflow rules that have been set for a stream.
  - The display of Kando™ information for AccuRev streams that are backed by a Git repository.
- The ability to display third-party ITS keys, AccuWork issue keys, both, or neither, in the History Browser.
- A new *Close Others* option on the tab shortcut menu in the AccuRev Java GUI.
- New commands to help you create and manage properties on users, groups, and streams -- **setproperty**, **getproperty**, and **rmproperty**. The **show** command has a new option that allows you to display properties for users, groups, and streams.
- A new **readonly** privilege for the **eacl** command that prevents the user from modifying the element or its ACL during **add**, **keep**, **move**, **defunct**, and **revert** commands.
- Streamlined promote procedure allows you to first select issues and then enter a comment when change packages are enabled.

- A new command, **upgrade\_client**, that will allow users of AccuRev 5.5x and later to download and install the latest AccuRev client software directly from an upgraded AccuRev server.

## Deprecated Features and Platforms

Some deprecated features and platforms are no longer available as of this release. For details about the specific changes introduced in this release, please see *AccuRev 5.5 Release Notes* on page 37.

## Upgrading from Earlier Versions

If you are upgrading from a release prior to 5.5, make sure to read the *AccuRev 5.4 Release Notes* on page 49 as well as the Release Notes for any other releases that have occurred since your last installation.

To install AccuRev, please see *AccuRev Installation Notes* on page 3.

**Note:** If you are a user of AccuWorkflow (not to be confused with AccuWork) in earlier versions of AccuRev, please contact AccuRev Support Services (<http://support.accurev.com>).



# AccuRev Installation Notes

## Overview

This chapter describes how to install or upgrade AccuRev software at your site.

Installing AccuRev involves downloading an installation program from the AccuRev Web site and running it on the target machine(s) at your site. One machine should be the AccuRev Server machine — the one that runs the AccuRev Server process and hosts the AccuRev data repository. Other machines can access the AccuRev Server after you install the AccuRev Client software on them. You can also have one or more replica servers.

## Introducing AccuRev 5.5

AccuRev Release 5.5 is intended for new customers and all existing customers who wish to upgrade to the latest 5.x release.

Upgrades from existing 4.x, 5.0.x, 5.1, 5.2, 5.3, and 5.4x. installations are supported. Since AccuRev 5.0 introduced a third-party database, upgrading from a pre-5.0 version of AccuRev has special requirements and procedures. Upgrades from 5.0.x, 5.1, 5.2, or 5.3 also require a database upgrade, although these are much quicker. The following table summarizes the upgrade requirements.

*Table 1. Upgrading to AccuRev 5.5*

If you are upgrading from:	You must:	Notes:
pre-4.7	1. First perform an upgrade installation to 4.7.x, 4.8.x, or 4.9.x. 2. Upgrade to 5.5 and run <b>maintain dbupgrade</b> .	You cannot directly upgrade to any 5.x release from a version prior to 4.7.
4.7.x, 4.8.x, 4.9.x	Perform an upgrade installation to 5.5, tune the database, and run <b>maintain dbupgrade</b> .	Since 5.0 introduced a new third-party database, plan sufficient time and disk space for the <b>dbupgrade</b> process to convert your existing data.
5.0.x (not including 5.0.5)	Perform an upgrade installation to 5.5 and run <b>maintain dbupgrade</b> .	5.0.x uses an older version of PostgreSQL than is required by AccuRev 5.5. The AccuRev installer will prompt you through the procedure. <b>Note:</b> 5.0.5 is a Japanese-localized version of AccuRev, and must be updated to 5.2.1 (not 5.2 or 5.3 or higher).

Table 1. Upgrading to AccuRev 5.5

If you are upgrading from:	You must:	Notes:
5.1, 5.2, or 5.3	Perform an upgrade installation to 5.5 and run <b>maintain dbupgrade</b> .	Since 5.1, 5.2, and 5.3 are already based on the third-party database, the <b>dbupgrade</b> process is relatively quick. <b>Note:</b> 5.2.1 is a Japanese-localized version of AccuRev, and cannot currently be updated to 5.5.
5.4 or 5.4.1	Perform an upgrade installation to 5.5 and run <b>maintain dbupgrade</b> .	None

When upgrading from most previous releases, the 5.5 AccuRev Server will not start until after you have run **maintain dbupgrade**.

**Note:** If you are upgrading an existing installation and plan to change from 32-bit to 64-bit, or from 64-bit to 32-bit, as part of the upgrade, see [Table 4](#) on page 8 to confirm whether this requires assistance from AccuRev Support Services.

## Recent Changes to the Installers

If you are upgrading from an older release of AccuRev, you may notice the following new features or changes in the installation process which have been introduced either in AccuRev 5.5 or other recent 5.x releases:

- Support has been discontinued for the traditional named “keys.txt” license manager. As of AccuRev 5.5, you must install the Standard/Flexible License Manager for all platforms. This license manager requires a new license, **accurev.lic**, and offers the choice of local or remote managers. See [Get an AccuRev License](#) on page 5 for more information.
- The option to install the AccuRev Web UI server (see [Installing a Web UI Server](#) on page 13). The standalone Web UI installation is still available, but this new option allows you to install the Web UI server as part of the main AccuRev installation.
- The option to install a 64-bit version of AccuRev when installing onto a 64-bit x86 UNIX/Linux or Windows system with a 64-bit operating system. (See [Table 4](#) on page 8 for limitations for non-Windows upgrades.)
- The availability of a client-only unattended (or “silent”) installer.
- Users installing on Windows may notice a new “Checking for necessary Microsoft DLLs” message. The installer ensures that you have a current copy of the Microsoft Visual C++ Redistributable Package installed.
- You are no longer prompted to choose a Java Runtime Environment (JRE).
- You are no longer prompted to choose between a “typical” or “custom” installation.
- The “Server/Client” only option is no longer available. Whenever you install the AccuRev Server, the AccuRev WebUI server is now also installed along with the AccuRev client.

For a high level summary of new features in Release 5.5, see [Highlights of this Release](#) on page 1. For a detailed list of changes, see [AccuRev 5.5 Release Notes](#) on page 37.

## Compatibility with Previous Versions

AccuRev 5.5 is not compatible with any earlier versions of AccuRev. You must use a 5.5 client with AccuRev 5.5 servers and replicas, and you must upgrade your database with the **maintain dbupgrade** command if you are upgrading from any earlier version.

**Note:** If you are a user of AccuWorkflow in AccuRev 5.4 or earlier, please contact AccuRev Support Services (<http://support.accurev.com>). (This note applies only to AccuWorkflow, not AccuWork.)

## Preparing for Installation

This section summarizes the steps to take to prepare for installing AccuRev 5.5.

### Get an AccuRev License

In order to install AccuRev 5.5, you need an **accurev.lic** license file, which is required by the Standard/Flexible License Manager that is installed with AccuRev. You cannot install AccuRev 5.5 using a **keys.txt** file.

The process for getting an **accurev.lic** license file varies based on several factors, summarized in the following table.

Table 2. Getting an AccuRev License (**accurev.lic**)

Type of Installation	Current License	Procedure	Comments
New	n/a	Use the License Request form at <a href="http://www.accurev.com/license-request.shtml">http://www.accurev.com/license-request.shtml</a> to get an AccuRev license for any new AccuRev installation.	None
Upgrade	<b>keys.txt</b>	Contact AccuRev Sales at <a href="mailto:sales@accurev.com">sales@accurev.com</a> .	Before contacting Sales, determine whether or not you are still under maintenance by checking the second date in the <b>keys.txt</b> file.
	<b>accurev.lic</b>	Determine whether or not your license has expired. If your license is: <ul style="list-style-type: none"><li>▪ Current, you can use it to install AccuRev 5.5</li><li>▪ Expired, contact AccuRev Sales at <a href="mailto:sales@accurev.com">sales@accurev.com</a>.</li></ul>	To determine whether or not your license is expired, check the expiration date on the first line of each license section in the <b>accurev.lic</b> file.

#### Notes:

- You need to obtain an **accurev.lic** file for *each* AccuRev 5.5 Server you plan to run.
- If you will be installing a trial server on a test machine before upgrading your production servers, use the URL above to request a test key.
- If you will be installing a replica server, your master **accurev.lic** file will work for the replica, but you must ensure that you have enough licenses for all users. See “Replication Server

Licenses” in the “License Management” chapter of the AccuRev 5.5 *Administrator’s Guide* for more information.

## Download the Installation Packages

On the AccuRev Software Download section of the AccuRev download page (<http://www.accurev.com/download.htm>), download the appropriate AccuRev installation package for your operating system to a local directory (referred to as *installer-loc* throughout this document).

If you download a compressed package (.zip or .gz file), extract the files from the package before continuing. Many extraction tools are freely available. There are links to such tools on the AccuRev download page; and the **unzip** and **gunzip** programs are standard on many UNIX/Linux systems.

## Determine Configurable Elements

The setup process involves a number of configurable elements. For simplicity and clarity, the instructions consistently use a set of generic names, using *this font*. When you see a generic name in a procedure, you must replace that name with the value that is appropriate for your site. For example, you might replace *ac-install* with `C:\Program Files\AccuRev`.

Table 3. Generic and actual names used during installation

Generic Name	Description
<i>installer-loc</i>	Location of the downloaded AccuRev installation package.
<i>install-cmd</i>	<p>Command to run the AccuRev installer from the command line:</p> <p>(Windows, graphical wizard)  <b>AccuRev_n_n_n_Windows.exe</b>            where <i>n_n_n</i> is the version number, such as <b>AccuRev_5_5_0_Windows.exe</b></p> <p>(Windows, text-based console wizard)  <b>AccuRev_n_n_n_Windows.exe -i console</b></p> <p>(UNIX/Linux, graphical wizard)  <b>sh AccuRev_n_n_n_Linux_x86_m_m.bin</b>            where <i>n_n_n</i> is the version number and <i>_m_m</i> is the OS version number, such as <b>AccuRev_5_5_0_Linux_x86_2_4.exe</b></p> <p>(UNIX/Linux, text-based console wizard)  <b>sh AccuRev_n_n_n_Linux_x86_m_m.bin -i console</b></p> <p>(OS X, client only, graphical wizard only)  <b>AccuRevInstall.app</b></p> <hr/> <p><b>Note:</b> As of Release 5.3, AccuRev also provides a client-only installer for Windows and Linux. Like the full installer above, this lightweight installer can also be used in graphical mode or text-based console mode. For example:  <b>AccuRev_n_n_n_WindowsClientOnly.exe</b>  <b>AccuRev_n_n_n_LinuxClientOnly_x86_m_m.exe -i console</b>            For more information, see <i>Client-only Installer and Unattended AccuRev Installations</i> on page 15.</p>

Generic Name	Description
<i>ac-install</i>	Location that AccuRev is installed to. Defaults to: (Windows) <b>C:\Program Files\AccuRev</b> (UNIX/Linux) <i>&lt;homeDirectory&gt;/accurev</i>
<i>ac-storage</i>	Location of the AccuRev database and container files. Defaults to: (Windows) <b>C:\Program Files\AccuRev\storage</b> (UNIX/Linux) <i>&lt;homeDirectory&gt;/accurev/storage</i>
<i>ac-host</i>	Hostname of the AccuRev Server.
<i>ac-port</i>	Port number that the AccuRev Server runs on. Defaults to <b>5050</b> .
<i>ac-user</i>	Name of the operating-system user that runs the AccuRev Server. Defaults to: <b>acserver</b> .
<i>ac-pass</i>	Password for <i>ac-user</i> .
<i>db-port</i>	Port number that the database server runs on. Defaults to <b>5075</b> .
<i>db-admin-name</i>	Name of the database superuser. Defaults to <b>postgres</b> .
<i>db-admin-pass</i>	Password for <i>db-admin-name</i> .

## Considerations for AccuRev Replication Servers

AccuRev *replica servers* enable you to provide access to remote users spread across multiple geographic sites. Replication can also enable you to distribute the load off a single server. Before deciding to install a replica server, see the “Replication of the AccuRev Repository” and “License Management” chapters in the AccuRev 5.5 *Administrator’s Guide*. Before proceeding with replica server installation, contact AccuRev Support Services (<http://support.accurev.com>) for more information.

## Before You Begin

Before you install AccuRev 5.5, perform the following steps:

1. Read the *Platform Support Notes* on page 30 for your operating system before proceeding, and follow the instructions there.
2. Check the *Known Issues* on page 65 for any issues that might apply to your site.
3. If you are installing a new AccuRev server on a UNIX/Linux machine, run the **adduser** command to make an OS-level user (*ac-user*). You should set *ac-install* as the home directory for this user. The AccuRev server cannot be installed by root on UNIX/Linux platforms. (This restriction applies only to the full installer. It does not apply to the client-only installer.)
4. Acquire a standard/flexible license file, **accurev.lic**. See *Get an AccuRev License* on page 5 for more information.

**Note:** You *must* have an **accurev.lic** file in order to install AccuRev 5.5.

5. If you are upgrading an existing AccuRev server:
  - Read through the upgrade information that applies to your installation in *Server and Database Upgrades* on page 18 *before* you start the installation process.
  - Plan a maintenance window during which you will perform this upgrade and data migration, when clients will not be able to connect to the server. See the instructions at *Upgrading an Existing Replica Server to 5.5* on page 21 for running a trial upgrade and estimating the time to complete the process.

- If you are upgrading from 4.x: Make arrangements to upgrade any scripts you have created to back up and restore AccuRev data. Refer to the chapter titled “The AccuRev Repository” in the *AccuRev Administrator’s Guide*, and the documentation for the **backup** command in the *AccuRev CLI User’s Guide*.
- **IMPORTANT: Perform a full backup of your AccuRev data.** This includes backing up any replica servers. For detailed instructions, see the section titled “Backing Up the Repository” in the *AccuRev Administrator’s Guide* for your existing release. **MAKE SURE TO USE THE CORRECT BACK UP PROCEDURES FOR YOUR EXISTING INSTALLATION.** (In other words, do not use the back up procedures documented in the new 5.5 *Administrator’s Guide* to back up your 4.x data.)
- If you are upgrading from 4.x, plan to have enough disk space available to accommodate the increase in size required by the 5.x database. (See the note under *Performing an Upgrade “In Place”* on page 19 for more details.)
- If you are upgrading from 5.0.x, plan to have enough disk space available to make at least one copy of your AccuRev database. During the upgrade process, you will be prompted to export your existing database to a temporary location prior to upgrading it. (This does not apply to upgrades from 4.x or 5.1.x and higher.)
- If you are upgrading an existing installation and plan to change from 32-bit to 64-bit, or from 64-bit to 32-bit, as part of the upgrade, confirm that you can do so in the following table:

Table 4. Possible to change from 32-bit to 64-bit, or from 64-bit to 32-bit, as part of upgrade?

Platform	Upgrading from 4.x	Upgrading from 5.x
Windows	Yes	Yes
UNIX/Linux	Yes	NO -- If you wish to change between 32- and 64-bit when performing the upgrade, please contact AccuRev Support Services ( <a href="http://support.accurev.com">http://support.accurev.com</a> ) for procedures.

6. Before starting the installation on UNIX/Linux, ensure that the LC\_ALL environment variable is set to a UTF-8 locale (such as “en\_US.UTF-8”, NOT “en\_US.latin”.) Windows installations are not affected, however proceeding with a non UTF-8 locale on UNIX/Linux can lead to a failed, partially- complete installation. Use the **locale** command to determine your current locale setting, and **locale -a** to determine what locales are available. See the documentation for your operating system for details about how to install and change locale settings.
7. After installing an AccuRev Server (and before running the **maintain dbupgrade** command if you are upgrading from a previous version of AccuRev), ensure that your database parameters have been tuned as described in *Configuring Database Tuning Parameters* on page 21. The Installation Wizard prompts you to do this when required.

## Determining the Type of Installation You Require

AccuRev provides two types of installation:

- Full, interactive, Installation Wizard (both graphical and text-only console modes)
- [*Linux and Windows only*] Client-only, interactive, Installation Wizard (both graphical and text-only console modes), with unattended installation option.



The full Installation Wizard walks you through the steps for all types of AccuRev Server and client installations. It is appropriate for any installation involving the AccuRev Server or AccuRev Web UI server, and is the correct choice for a new customer setting up the AccuRev infrastructure for the first time.

The client-only Installation Wizard is useful if you just need to perform a simple client installation on Windows or Linux, to use with an existing, up-to-date server. The “unattended installation” option is especially useful if you need to deploy many clients across your enterprise.

**Note:** Because of the introduction of the new unattended client installer, the “Typical” and “Custom” installation options found in previous AccuRev releases are no longer offered. Experienced AccuRev users will recognize that the full Installation Wizard procedure now most closely resembles what was formerly known as the “Custom” installation.

## Getting Started

1. **Log in** — Log in to your target machine. If you will be installing a server, log in as *ac-user* (UNIX/Linux) or a user with installation privileges (Windows). (See *Before You Begin* on page 7 above about creating *ac-user* on UNIX/Linux machines.)

**Note:** For server installations, do not attempt to install as user **root** on UNIX/Linux. For security reasons, the full installer does not allow a root installation to occur. This restriction does not apply to the client-only installer.

2. **Back up!** — If you will be upgrading an existing server, perform a full backup and ensure that you have enough disk space as discussed above in *Before You Begin* on page 7. This includes backing up any replica server that you will be upgrading.
3. **Decide whether to use the full or client-only Installation Wizard** — If you:
  - are a new customer installing AccuRev for the first time and do not have any servers installed, or if you are an existing customer installing or upgrading an AccuRev Server or AccuRev Web UI server, proceed to *Using the AccuRev Installation Wizard* on page 9 and start the Installation Wizard.
  - already have up-to-date AccuRev servers installed and wish to perform a simple client installation on Windows or Linux, or if you need to deploy multiple AccuRev clients using the unattended client installation utility, see *Client-only Installer and Unattended AccuRev Installations* on page 15.

## Using the AccuRev Installation Wizard

**Note:** The specific prompts that you see and the order in which you see them can vary depending on your particular installation and the options that you select. All users will not see all prompts described in the following procedure, which focuses on the graphical version of the Installation Wizard but provides information about console mode in *[brackets]*.

1. **Start the Installation Wizard** — Start the AccuRev Installation Wizard you downloaded from the AccuRev web site by double-clicking the installer icon, or enter the installer name on the command line. You can choose to use the Wizard in either graphical mode (default) or specify the text-only console mode. (See *Table 3* on page 6 for the specific syntax.)

*!install -cmd*

2. **License Agreement** — Before you can proceed, you must click “I accept the terms of the license agreement.” Note that you must scroll all the way to the bottom before this button becomes active. [*Console: Press **Enter** until you get to the bottom, then enter “y”.*]
3. **Confirm Administrator Privileges** — If the installer prompts you for this information:
  - Windows: Specify whether or not the current user has Administrator privileges on the current machine. Note that Windows requires that you have Administrator privileges
  - UNIX/Linux: Specify whether the current user is **root**. Note that for security reasons, you CANNOT install the AccuRev server on UNIX/Linux if you are logged in as **root**. (This restriction applies only to the full installer. It does not apply to the client-only installer.)
4. **Choose Install Folder** — Specify a different directory if you do not want to use the *ac-install* defaults (*<homeDirectory>/accurev* on Linux/UNIX, *C: \Program Files\AccuRev* on Windows).
  - If you are installing software for the first time, and do not wish to use the default location, specify a location where you have write permission.
  - If you are upgrading and the existing installation is not at the default location, specify your existing AccuRev installation directory.
5. **Choose Product Features** — Select one of the following:
  - **Server/Client/WebUIServer** — Install the AccuRev Server, the AccuRev Client, and the AccuRev Web UI Server. **Note:** If this option is selected by default, make sure that you really want to have both the AccuRev Server and the AccuRev Web UI server (with included Apache Tomcat web server) running on the same host. This can be fine for evaluation installations, but is not recommended for production installations without careful sizing and load considerations. See the note below in *Installing a Web UI Server* for more information.

Proceed to the following sections as needed:

    - *Installing or Upgrading an AccuRev Server* on page 11
    - *Installing or Upgrading an AccuRev Client* on page 13
    - *Installing a Web UI Server* on page 13
  - **Server/Client** — Install the AccuRev Server and the AccuRev Client.

Proceed to the following sections as needed:

    - *Installing or Upgrading an AccuRev Server* on page 11
    - *Installing or Upgrading an AccuRev Client* on page 13
  - **WebUIServer** — Install *only* the AccuRev Web UI Server (includes an Apache Tomcat web server installation). Proceed to *Installing a Web UI Server* on page 13.
  - **Client** — Install *only* the AccuRev Client. Proceed to *Installing or Upgrading an AccuRev Client* on page 13. **Note:** AccuRev 5.3 introduced the ability to perform unattended client installations. For more information, see *Client-only Installer and Unattended AccuRev Installations* on page 15.

After proceeding through the various server, WebUI server, and/or client steps described at the links listed above, the Installation Wizard will prompt you for the following information before completing:



1. **Adjust System PATH Variable** [*Console: “Adjust System PATH Variable”*].— Responding **Yes** enables the AccuRev Installation Wizard to modify the PATH environment variable on your system so that you do not need to specify a full path on the command line when using AccuRev commands. **Note:** You may need to reboot after installation before changes to the PATH environment variable take effect.
2. **32- or 64-bit AccuRev on Linux or Windows** — If the AccuRev Installation Wizard determines that you are installing on 64-bit X86 hardware running a 64-bit Linux or Windows operating system, it offers you the option of installing either a 32- or 64-bit version of AccuRev. In all other situations, it installs the 32-bit version by default. (Important: See [Table 4](#) on page 8 for limitations.)

**Note:** On 64-bit Linux and Windows, the AccuRev installer ALWAYS installs a 32-bit Java runtime environment (JRE) for use by AccuRev. This means that even if you choose to install 64-bit AccuRev on Linux, the Linux 32-bit compatibility libraries must always be installed. If this is not the case, the AccuRev installation will fail. See [Platform Support Notes, Linux](#) on page 31 for more information.

## Installing or Upgrading an AccuRev Server

The AccuRev wizard will guide you through steps for installing a new AccuRev Server or upgrading an existing server. At the end of the installation, make sure that you tune your database parameters as described in [Configuring Database Tuning Parameters](#) on page 21. You must reboot the database for the tuning parameters to take effect.

If the Installation Wizard discovers that an AccuRev server already exists in the location you specify, it will prompt you through an upgrade.

Upgrading to 5.5 from any previous release requires a database upgrade. The complexity of the database upgrade depends on the release from which you are upgrading (see [Table 1](#) on page 3).

If the Installation Wizard determines that you have an existing, *nonstandard* 5.x database installation (for example, if you installed your own copy of PostgreSQL, or you have multiple instances running on the same machine), the installer will not continue. Nonstandard database installations are not supported. You need to contact AccuRev Support Services (<http://support.accurev.com>) to continue.

As you proceed through this part of the installation, you may encounter some or all of the following prompts. The specific prompts that you see and the order in which you see them can vary depending on your particular installation and the options that you select. All users will not see all prompts described below.

1. **Install Replication** [*Console: “Choose Replication Type”*] — Choose “No replication” [*Console: “None”*] unless you have already determined (along with AccuRev Support Services) that your site will be implementing one or more replica servers. If you have any questions about AccuRev replication servers, refer to [Considerations for AccuRev Replication Servers](#) on page 7 before continuing.

If you know for a fact that your site is implementing replica servers, select either:

- “Yes, this is the master” for the site that will be sending elements out to the replica
- “Yes, this is a replica” for the site (typically remote) that will be connecting to a master server to receive files

Proceed through the remainder of the installation program. When prompted for replication options, confirm your choice of master server or replica server as appropriate.

To upgrade an existing replica server, see *Upgrading an Existing Replica Server to 5.5* on page 21.

**Note:** Installing the replica software is only part of the process. Before you can use a newly-installed replica server, you need to configure both it and the master server. Configuration and licensing information about replica servers is located in the “Replication of the AccuRev Repository” and “License Management” chapters in the *AccuRev Administrator’s Guide*.

2. **Customize: Choose a Folder for AccuRev Server Data Storage** [Console: “Choose a Directory for AccuRev Server Data Storage”.] — Specify a different directory in the **Please Choose a Folder** field if you do not want to use the *ac-storage* default (`<homeDirectory>/accurev/storage` on Linux/UNIX, `C:\Program Files\AccuRev\storage` on Windows). **Note:** Ensure that the path you specify is LOCAL disk storage (not a network drive) and that it has plenty of space.
3. **Install new AccuRev config files?** — If the Installation Wizard discovers existing configuration files, it gives you the option of retaining them. Retaining them is generally the right choice, unless you want to reinstall your client or server from scratch or are otherwise making major changes to your existing installation. The AccuRev 5.5 installer will append any new required fields to your existing configuration files.
4. **Configure Database Port and User** — *db-port* and *db-admin-name*. [Console: prompts for these values individually.] Unless the default database port “5075” conflicts with something else on your machine, you should not change the value in the **Database Port** field.

Likewise, we recommend that you keep the default value “postgres” for the **Superuser Name** *db-admin-name* unless you have a specific reason to change it.

5. **Configure Database Password** [Console: “Set Database Superuser Password”.]— *db-admin-pass*. In the **Superuser Password** field, enter the value for *db-admin-pass* that you chose in *Table 3* on page 6. Enter it again in the **Confirm Superuser Password** field. Make sure that you record this password in a secure location for later use.
6. **Product Licensing**

You have two choices for licensing:

- **Local Standard/Flexible Licensing** — If you do not have an existing Standard/Flexible License Manager on another machine that you want to use, choose this option.
- **Remote Standard/Flexible Licensing** — If you DO have an existing license manager on another machine that you want to use, choose this option. This will cause the display of an additional installer page, “**Reprise License Manager Configuration**”, which requires that you enter the following:
  - **Host** — Enter the network name of the server where the remote standard/flexible license manager exists.
  - **Port** — Keep the default value of 2375, unless you know that the remote RLM is running on a different port.

For more information about standard/flexible licensing, see the following:

- The “License Management” chapter in the *AccuRev Administrator’s Guide*.
- An example script for automatically starting the standard/flexible license server at boot time on UNIX/Linux systems (automatically done for Windows installations):  
*ac-install/extras/unix/accurev\_rlm*
- “The License Server” section of the on-line *Reprise License Manager End-User Guide* at [http://www.reprisesoftware.com/RLM\\_Enduser.html](http://www.reprisesoftware.com/RLM_Enduser.html)

7. **Select Reprise License Key File** — Specify a valid **accurev.lic** license file that you have received from AccuRev. See *Enabling the Standard/Flexible License Manager* on page 30 for more information.
8. **Configure: Set Host and Port** — Specify the values for the **Host** and **Port** fields for the AccuRev Server. You should accept the default values chosen by the Installation Wizard unless you have a good reason to change them.
9. **Database Tuning** — The Installation Wizard reminds you that you can use database tuning parameters to improve performance. See *Configuring Database Tuning Parameters* on page 21 for more information.
10. **Configure: Start AccuRev Server** — The Installation Wizard prompts you to start the AccuRev Server, reminding you that the client cannot run unless the AccuRev Server is started. Accept the default value (**Yes**) unless you want to start it later. (See *Starting and Stopping AccuRev Servers* on page 28 to learn how to manually start and stop the AccuRev Server.)
11. **Configure: Start AccuRev WebUI Server** — If you chose either **Server/Client/WebUIServer** or **WebUIServer** from the Choose Product Feature page, the Installation Wizard prompts you to start the AccuRev Web UI Server. Accept the default value (**Yes**) unless you want to start it later. (See *Installing a Web UI Server* on page 13 for more information on Web UI Server installation and configuration.)

If you are upgrading an AccuRev Server and need to upgrade an existing database, see *Server and Database Upgrades* on page 18.

## Installing or Upgrading an AccuRev Client

**Note:** AccuRev 5.4 introduced the ability to perform unattended client installations. For more information, see *Client-only Installer and Unattended AccuRev Installations* on page 15.

If you are upgrading an AccuRev client, you do not need to uninstall any existing software. The AccuRev Installation Wizard lets you preserve your development data and configuration files, and installs the upgrade in the same place as your existing version.

1. The Installation Wizard will guide you through steps for installing or upgrading the AccuRev client.
2. On the **Set Host and Port** screen, enter the **ac-host** and **ac-port** of an AccuRev Server. The default **ac-host** value is set to the current machine. This is fine if the server is in fact installed on this system, but if not, change this value to the host where the AccuRev server is installed. The default **ac-port** value of 5050 is typically correct unless it has been changed to avoid conflict with another server.

**Note:** [Console] If you are performing a console installation using the text-based Installation Wizard, be careful to enter only numeric characters for **ac-port**. If you enter non-numeric characters, the text-based Installation Wizard displays Java-level error data and proceeds to the next prompt. Enter **back** at that prompt, then re-enter the port number correctly.

## Installing a Web UI Server

If you wish to install the AccuRev Web UI Server, during the installation process choose either **Server/Client/WebUIServer** (if you also want to install or upgrade an AccuRev server and client), or **WebUIServer** (if all you want is the Web UI Server).

**Note:** The Web UI options are for administrators who need to install the Web UI *server*. If you are an end user just looking to use the Web UI *client*, do NOT use these options. To use the Web UI client, you simply need to bring up a supported browser and point it to an existing Web UI server using URL information provided to you by your administrator.

The Web UI server installation options install an Apache Tomcat web server plus AccuRev Web UI Server software. If you wish to use a standalone Apache Tomcat (Version 5.5 or later), you should download and install the standalone Web UI installation package from the AccuRev web site and follow the instructions in “Installing Apache Tomcat” in the *AccuRev® Web Interface Installation and Release Notes*.

Make sure to consider variables such as disk space and system performance before deciding to add a web server to this machine.

**Notes:**

1. The AccuRev Java GUI provides tight integration with the AccuRev Web UI. If you choose to not install the Web UI server on the AccuRev server, we strongly recommend that you install it on its own server, and configure the AccuRev server to point to it, using the standalone download and documentation (*AccuRev® Web Interface Installation and Release Notes*).
2. If you choose to install and use the Web UI with the Java GUI, you should ensure that the AccuRev installation is included in your PATH setting. If you try to use the Web UI from the Java GUI and the Web UI login screen comes up without a valid server to connect to, your PATH is probably not set correctly.
3. If you install the Web UI server on a Linux or UNIX host, please see *Known Issues* on page 54.

## **settings.xml file for integrations and Web UI**

After you install AccuRev, you must create a **settings.xml** file on the AccuRev Server. This is necessary for the features in the Java GUI that call the Web UI, and if you are using AccuRev integrations to third-party IDE packages such as Eclipse or Visual Studio.

Instructions for creating this file are found in the AccuRev *Installation and Release Notes* for each integration, but in summary:

1. Shut down any third-party packages.
2. Create a file called `settings.xml` in the `ac-Instal//storage/site/patches/config` directory.
3. Edit the file to add the lines shown below (replacing `webui -host` with the actual name of the host providing access to the Web UI), and save it.

```
<settings>
  <webui url="https://webui -host: 8080/accurev"/>
</settings>
```

(If necessary, change the port from “8080” to the value in use at your site.)

4. Restart any third-party packages shut down in Step 1.

## **Starting, stopping, and testing the AccuRev Web UI server**

Linux shell (.sh) and Windows batch (.bat) scripts are provided for stopping and starting the Tomcat web server for the AccuRev Web UI:

```
ac-Instal//WebUI/tomcat/bin/[ startup | shutdown ].[ sh | bat ]
```

To test the Web UI, open a browser and enter the following URL:

<http://localhost:8080/accurev>

If this does not display an AccuRev login window, try restarting the Tomcat server. For more information, see the “Testing the AccuRev Web Interface Installation” chapter of the *AccuRev Web Interface Installation and Release Notes* described in the next section.

## Web UI Release Notes

After the installation is complete, see the installation directory for the *AccuRev Web Interface Installation and Release Notes*, typically:

[\*ac-install/WebUI/AccuRevWebGUI\\_Install\\_Release\\_Notes.pdf\*](#)

**Note:** The installation section of the *AccuRev Web Interface Installation and Release Notes* applies only to standalone installations, and does not apply to a Web UI installation done with the AccuRev Installation Wizard. However, post-installation information found in this document, such as configuring Linux servers to automatically run Tomcat and the Web UI server upon boot-up, is still valid for AccuRev wizard installations.

## Client-only Installer and Unattended AccuRev Installations

AccuRev Versions 5.3 and higher provide two installer executables:

- AccuRevInstall [.exe | .bin]: A full client/server installer which can be used for all installations: client, server, replication server, and Web UI Server.
- AccuRevClientInstall [.exe | .bin]: A lightweight client-only installer, which can be used interactively, and also non-interactively as a "silent" installer.

The client-only installer is currently provided for Windows and Linux platforms only. While either installer image can be used for AccuRev client installations, the client-only installer has several potential advantages over the full client/server installer:

- The image size of the client-only installer is smaller, making it easier to distribute over finite bandwidth networks.
- The client-only installer provides a more simplistic interactive installation experience for client-only users, since no server-related choices are involved.
- The client-only installer supports “silent install” mode in addition to the graphical and console interactive install modes.

## Unattended “Silent” Installations

The client-only installer is particularly suitable when AccuRev client installs or upgrades are being performed automatically by a centralized software distribution mechanism. In a typical scenario, the installer image is pushed to each of the client machines and then run silently with a response file which provides information required by the installer at install time. This provides a highly efficient mechanism for large AccuRev deployments to keep pace with current versions of AccuRev.

## Creating the Response File

For silent installs, the easiest way to create the response file is to run the client-only installer once interactively with the “-r <fullpath/responseFilename>” command-line parameters, on each of the target platforms. For example:

### Windows

```
installer\oc\AccuRevClientInstall.exe -r c:\tmp\ac_win_install.out
```

### Linux

```
installer/oc/AccuRevClientInstall.bin -r /tmp/ac_linux_install.out
```

This creates a platform-specific response file based upon your interactive choices. Note that you must specify the full path for the response file so that you can easily locate it.

The interactive choices to be made during installation include:

- Installation directory
- The host (or IP address) and port number associated with the AccuRev Server
- Whether or not “<*ac\_install*>/bin” should be added to the user’s path

**Sample Response File.** An example response file is show below:

```
# Wed May 30 17:50:06 EDT 2012
# Replay feature output
# -----
# This file was built by the Replay feature of InstallAnywhere.
# It contains variables that were set by Panels, Consoles or Custom Code.

#Choose Install Folder
#-----
USER_INSTALL_DIR=C:\Program Files\myAccuRev

#Configure: Set Host and Port
#-----
HOST_NAME_INPUT=local host
HOST_PORT_INPUT=5050

#Adjust System PATH Variable
#-----
ADD_TO_PATH_INPUT_RESULTS="\Yes\", \"\"
ADD_TO_PATH_INPUT_RESULTS_1=Yes
ADD_TO_PATH_INPUT_RESULTS_2=
ADD_TO_PATH_INPUT_RESULTS_BOOLEAN_1=1
ADD_TO_PATH_INPUT_RESULTS_BOOLEAN_2=0
```



```
#Install
#-----
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\UninstallerData\Uninstall\
AccuRev.Iax=Yes
-f ileOverwrite_C\:\Program\
Files\myAccuRev\bin\UninstallerData\resource\iawin32.dll=Yes
-f ileOverwrite_C\:\Program\
Files\myAccuRev\bin\UninstallerData\resource\win64_32_x64.exe=Yes
-f ileOverwrite_C\:\Program\
Files\myAccuRev\bin\UninstallerData\resource\remove.exe=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\vccredit_x86_2010.exe=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\vccredit_x64_2010.exe=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\acgui.Iax=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\acdi ffgui.Iax=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\bin\acclient.cnf=Yes
-f ileOverwrite_C\:\Program\ Files\myAccuRev\LICENSE.TXT=Yes

#Start AccuRev User Interface
#-----
START_UI_INPUT_RESULTS="\\" , "\No\"
START_UI_INPUT_RESULTS_1=
START_UI_INPUT_RESULTS_2=No
START_UI_INPUT_RESULTS_BOOLEAN_1=0
START_UI_INPUT_RESULTS_BOOLEAN_2=1
```

## Running the Silent Installation

Once the response file for a given platform is created, it can be used to perform automated silent installs on numerous like-platform clients. Silent installs can be invoked with the “-i silent -f <fullpath/responseFilename>” command-line parameters. For example:

Windows

```
!install er_locAccuRevClientInstall.exe -i silent -f c:\tmp\ac_win_install.out
```

Linux

```
!install er_loc/AccuRevClientInstall.bin -i silent -f /tmp/ac_linux_install.out
```

## Post-installation Administrative Scripts

The AccuRev installers (both full and client-only) provide the ability to invoke a script or executable. To configure this feature you simply set environment variable ACCUREV\_POST\_INSTALL to the fully-qualified path of the script or executable, which the AccuRev installer will execute as the last step of the installation.

# Server and Database Upgrades

This section contains instructions for upgrading existing AccuRev databases from various releases to 5.5. Note that if you have existing replica servers, you must also follow the instructions in *Upgrading an Existing Replica Server to 5.5* on page 21. AccuRev strongly recommends that you first perform database upgrades in “trial mode” before attempting the actual upgrade on a production server, to determine if you will encounter any issues, and to estimate how long the upgrade is likely to take so that you will know how long your servers will be unavailable to your users.

## Upgrading an AccuRev Server from pre-4.7 to 5.5

If you have an existing AccuRev server that is older than 4.7, you *must* first upgrade to 4.7.x, 4.8.x, or 4.9.x. Make sure that you have performed the necessary steps from *Before You Begin* on page 7.

Download one of these releases (4.7.x, 4.8.x, or 4.9.x) and follow the upgrade procedures documented in the appropriate *AccuRev Installation and Release Notes* document.

Once you have done this, proceed to the next section (*Upgrading an AccuRev Server from 4.7.x, 4.8.x, or 4.9.x to 5.5*).

## Upgrading an AccuRev Server from 4.7.x, 4.8.x, or 4.9.x to 5.5

We strongly recommend that you perform a trial upgrade of your production data on a separate test machine before using the procedure in this section to upgrade ‘in place’. This extra step will ensure that the production server upgrade goes smoothly.

**Note:** If the test machine hardware is not up to the same specifications of your production server, the trial upgrade procedures may take significantly longer to complete.

### Performing a Trial Upgrade on a Test Machine

1. Make sure that you have performed the necessary steps from *Before You Begin* on page 7.
2. If you have not already done so (as specified in *Getting Started* on page 9), perform an AccuRev back-up of the master or replica machine as described in the “Backing Up the Repository” section of the AccuRev 4.x *Administrator's Guide*.
3. Move the files created during the full backup of AccuRev 4.x to your test machine.
4. On the test machine, log in as *ac-user* (UNIX/Linux) or a user with installation privileges (Windows).

*Important! Do not attempt to install the server as user **root** on UNIX/Linux. The installation will not complete correctly. (This restriction applies only to the full installer. It does not apply to the client-only installer.)*

5. Install AccuRev 4.7.x, 4.8.x, or 4.9.x on your test machine. See the *AccuRev Installation and Release Notes* for that release for instructions.
6. Perform a full restore of the backed-up data on the test machine as described in the “Restoring the Repository” section of the AccuRev 4.x *Administrator's Guide*.
7. Stop the AccuRev Server process on the test machine according to the instructions in *Starting and Stopping AccuRev Servers* on page 28.



8. Navigate to the `installer-loc` directory and locate the downloaded AccuRev 5.5 installer.
9. Double-click the installer's icon to launch it, or enter `install -cmd` on the command line. To run the installer in console (i.e., text) mode, add a space and **-i console** to the end of the `install -cmd`.
10. Proceed through the upgrade program.

**Caution:** The AccuRev 5.5 server does not start automatically after the AccuRev server upgrade. Do not start the server until you have completed the database upgrade as described below.

11. After the AccuRev Server installation is complete, tune your database (see *Configuring Database Tuning Parameters* on page 21) and then go to *Using the 'maintain dbupgrade' Command* on page 22 and run the **maintain dbupgrade** command (first in “trial run” mode and then “for real”) to upgrade your AccuRev 4.7.x database to AccuRev 5.5. Return here when done.
12. Ensure that the new **accurev.lic** license file exists in `ac-install/storage/si te_sl i ce`.
13. Start the AccuRev Server process according to the instructions in *Starting and Stopping AccuRev Servers* on page 28. Test your installation and ensure that all data have been upgraded correctly.

## Performing an Upgrade “In Place”

When you have successfully completed the trial upgrade on the test machine, perform the upgrade procedure “for real” on your existing production installation. Make sure that you choose a sufficient window of “quiet” time to perform the upgrade.

### Notes:

- The upgrade process will require additional disk space of up to twice the total used by the 4.x metadata. (Note that metadata is only a fraction of your total AccuRev storage, as it does not include your source files in the `data` directories.) The size of the upgraded 5.5 database may be as much as two times that of the 4.x database.

**Example:** Consider an AccuRev 4.7.x installation with 800MB of metadata.

Disk space needed during the upgrade: up to 2.4 GB

Size of 5.x metadata: 1GB

Total metadata size after upgrade: 1.8 GB (1GB – 5.x metadata, 800MB – 4.7.x metadata)

**Note:** After a successful upgrade, you should back up your 4.x \*.ndb files, then remove them along with their corresponding \*.ndx files from the `ac-storage` directory to free up disk space.

- If you have previously installed the AccuRev Server on UNIX/Linux as user **root**, the upgrade will not complete correctly. You will need to first `(sudo) chown -R ac-user ac-install` the old directory.
- When upgrading from 4.x to 5.5 all active sessions are lost. All users will have to re-login, including those who have previously done a “login -n”. Attention needs to be paid to the logins for triggers, continuous integration, or build processes.

## Rolling back a 5.5 upgrade to 4.7.x, 4.8.x, or 4.9.x

**Important:** Rolling back a 5.5 upgrade that you have made from 4.7.x, 4.8.x, or 4.9.x will lose any changes that have occurred in the AccuRev repository between the upgrade and the rollback.

To roll back a non-trial upgrade and start a fresh upgrade from the original 4.7.x, 4.8.x, or 4.9.x metadata, make sure that all 4.x \*.ndb files are still present on the system, then perform the following commands:

```
maintain rmsite db-admin-name  
maintain dbupgrade db-admin-name
```

## Upgrading an AccuRev Server from 5.0.x to 5.5

To upgrade from AccuRev Release 5.0.x to 5.5, the AccuRev Installation Wizard lets you preserve your development data and configuration files, and installs the upgrade in the same place as your existing version.

The wizard will prompt you for a folder that it can use to export/import your current database and upgrade it for the updated version of PostgreSQL. Make sure that you choose a location that has ample disk space to do this: the amount of space required is roughly equivalent to your current AccuRev repository size. Although the default value of *ac-storage* may be fine for small databases, you will probably want to change this for larger installations.

**Important:** When upgrading an existing 5.0.x installation, be sure to specify the same database password (*db-admin-pass*) that is used by your existing database.

The upgrade process includes a PostgreSQL update. The data migration must be finalized by manually running the **maintain dbupgrade** command (see *Using the 'maintain dbupgrade' Command* on page 22) after the installer completes. The AccuRev Installation Wizard prompts you through these steps.

1. Make sure that you have performed the log in and back up steps described in *Before You Begin* on page 7 and *Getting Started* on page 9.
2. Stop the AccuRev Server and PostgreSQL database processes as described in *Starting and Stopping AccuRev Servers* on page 28.
3. See the *Using the AccuRev Installation Wizard* on page 9 to proceed through the remainder of the Wizard.

The update process includes the following steps:

- Exporting your existing database from *ac-storage* to a temporary location.
  - Updating PostgreSQL from Release 8.3 (used by AccuRev Release 5.0.x) to Release 8.4 (used by AccuRev Releases 5.1, 5.2, 5.3, 5.4, and 5.4.1).
  - Importing your database from the temporary location back into *ac-storage*.
4. After the import has completed successfully, you will be prompted to run the **maintain dbupgrade** command on your database to upgrade the schema. See *Using the 'maintain dbupgrade' Command* on page 22.
  5. Start the AccuRev Server and AccuRev DB Server processes as described in *Starting and Stopping AccuRev Servers* on page 28.

## Upgrading an AccuRev Server from 5.1 or higher to 5.5

To upgrade from AccuRev 5.1, 5.2, 5.3, 5.4, or 5.4.1 to 5.5, you must upgrade your database schema by manually running the **maintain dbupgrade** command (see *Using the 'maintain dbupgrade' Command* on page 22) after the installer completes. Fortunately, versions 5.1 and higher use the same version of the third-party database, so the database upgrade is relatively quick. The AccuRev Installation Wizard prompts you through these steps.

**Important:** When upgrading an existing installation, be sure to specify the same database password (*db-admin-pass*) that is used by your existing database.

1. Make sure that you have performed the log in and back up steps described in *Before You Begin* on page 7 and *Getting Started* on page 9.
2. Stop the AccuRev Server and PostgreSQL database processes as described in *Starting and Stopping AccuRev Servers* on page 28.
3. See *Using the AccuRev Installation Wizard* on page 9 to proceed through the remainder of the Wizard.

The update process includes converting the metadata to UTF-8 for proper internationalization (I18N) support.

4. Start the AccuRev Server and AccuRev DB Server processes as described in *Starting and Stopping AccuRev Servers* on page 28.

## Upgrading an Existing Replica Server to 5.5

Use these instructions to upgrade an existing AccuRev replica server:

1. Perform a full backup and ensure that you have enough disk space as discussed above in *Before You Begin* on page 7.
2. **If your site uses AccuWork:** For every replicated depot that has AccuWork issues, copy the up-to-date issue schema file from the master to the replica server. Issue schema files are found in the following locations:

*ac-storage/depots/depot-name/di spatch/confi g/schema.xml*

*Tip:* Run "*accurev show slices*" to see the exact locations of your depots.

3. Proceed with the installation as if the replica server were a master server. Refer to the section appropriate for your current installation:
  - *Upgrading an AccuRev Server from pre-4.7 to 5.5* on page 18
  - *Upgrading an AccuRev Server from 4.7.x, 4.8.x, or 4.9.x to 5.5* on page 18
  - *Upgrading an AccuRev Server from 5.0.x to 5.5* on page 20
  - *Upgrading an AccuRev Server from 5.1 or higher to 5.5* on page 20)
4. After the upgraded replica server has started, execute the following command against the replica server:

```
accurev replica sync
```

## Configuring Database Tuning Parameters

Use these instructions to set the database tuning parameters to allow the database to make the best use of your system resources. You should do this after installing AccuRev but before starting the server or before running the **maintain dbupgrade** command.

1. Log in as *ac-user*.
2. Ensure that the database server is stopped using the procedures described in *Starting and Stopping AccuRev Servers* on page 28.

3. To improve database performance you may elect to increase the amount of memory allocated exclusively to PostgreSQL by editing *ac-storage/db/postgresql.conf*.
  - (non-Windows platforms) Please note that editing **postgresql.conf** could also require you to alter part of your operating system's kernel configuration and possibly reboot your system. Please read the section applicable to your operating system at <http://www.postgresql.org/docs/8.4/static/kernel-resources.html> for more information.
  - **shared\_buffers** – Change to 512MB or 25% of total physical memory installed on the machine running AccuRev, whichever is less.
  - **effective\_cache\_size** – Set to 75% of free physical memory reported by the operating system when both AccuRev and the database are stopped (see *Starting and Stopping AccuRev Servers* on page 28).

Free physical memory can be estimated as follows:

- UNIX/Linux (expressed in MB):

```
free -m | awk '/buffers.cache/{print $4}'
```
- Windows Server 2008/Windows 7 or later (expressed in MB): Access the Performance tab on the Windows Task Manager. Use only the Available value under “Physical Memory”.

Physical Memory (MB)	
Total	8181
Cached	3731
Available	3887
Free	189

- Other operating systems: You may be able to use the **top** command; please refer to your operating system vendor’s documentation.
- Note:** On 64-bit operating systems with more than 4GB of memory, the **effective\_cache\_size** is not limited to 4GB, as it does not reflect memory allocated by PostgreSQL. This setting is an estimate of the amount of memory available to the operating system for filesystem caching.
4. Start the AccuRev Database Server process according to the instructions in *Starting and Stopping AccuRev Servers* on page 28.

## Using the ‘maintain dbupgrade’ Command

This section details the use of the **maintain dbupgrade** command to upgrade your existing AccuRev database to 5.5.

For 4.x databases (4.7 or higher), **dbupgrade** performs these tasks:

- Performs validation and cleanup of 4.x metadata records.
- Converts the metadata to UTF-8 for proper internationalization support.
- Imports the metadata to the third-party database used with AccuRev 5.x.

For 5.0.1 and 5.1.x databases, **dbupgrade** upgrades the AccuRev database schema. (5.0.5 and 5.2 databases are already internationalized, so they do not require UTF-8 conversion.)

**IMPORTANT:** Before performing the **dbupgrade** operation, ensure that you have tuned your database as described in *Configuring Database Tuning Parameters* on page 21, and have restarted your database so that the tuning parameters take effect. Also ensure that you have left yourself an adequate window of time: each **dbupgrade** run can take several hours, particularly if you are performing trial runs and upgrades on a test machine that is not particularly fast.

You will be prompted to perform the **dbupgrade** process in two steps:

1. In “trial run” mode, to evaluate how the upgrade process will succeed.
2. In “force” mode, where your database will actually be converted.

(See the “The ‘maintain’ Utility” chapter of the AccuRev 5.5 *Administrator’s Guide* for more details about this utility.)

## Performing a “Trial Run” Upgrade

To begin the upgrade process, change to the `ac-install/bin` directory and enter the following at the command line:

```
maintain dbupgrade db-admin-name
```

You will be prompted for `db-admin-pass`, and then asked whether to run the upgrade as a “trial run”, using a default codepage of “CP1252” (a superset of ISO-8859-1). Performing the conversion as a trial run means that your database will not be changed, but you will be notified of any issues so you can determine whether or not to repeat the upgrade in non-trial mode (and actually convert your database).

The codepage specification allows **dbupgrade** to attempt a reasonable conversion of your existing data to UTF-8. The default CP1252 codepage (“Western European”), although considered as “Windows” codepage, is a superset of ISO-8859-1 and is a reasonable starting point for both Windows and Linux servers, especially in mixed environments. Only specify a different codepage if you know for certain that you use a different one at your site.

When prompted whether or not you wish to proceed with a trial run, answer **Y** to perform the trial upgrade. (**N** performs a real upgrade that will modify your data.)

The upgrade process can take several hours, depending on factors such as your hardware, the size of your database, system load, etc. All information is captured in the following log files:

- `ac-storage/site/logs/dbupgrade.log`
- `ac-storage/site/logs/dbupgrade_18n_report.html`

If you make multiple **dbupgrade** runs, any existing log files are backed up with time-stamp names. It is critical that you get a successful trial run, and review the logs for any problems prior to performing an actual database upgrade. If you have any questions about the results, you should contact AccuRev Support Services (<http://support.accurev.com>).

See *Understanding maintain dbupgrade Messages* on page 24 for descriptions of messages that appear during the upgrade.

# Understanding maintain dbupgrade Messages

During the data migration, several AccuRev tables will be altered, resulting in some or all of the messages described in this section.

## Messages from maintain dbupgrade

When the upgrade completes successfully, the following message appears at the end of the output:

```
AccuRev 4.x to 5.x metadata migration completed without errors in 0.11
minutes.
```

```
*** The AccuRev database has been upgraded.
```

```
The AccuRev Server is ready to be started.
```

If errors are detected during the migration, a message similar to the one shown below will appear at the end of the output:

```
AccuRev 4.x to 5.x metadata migration completed with errors in 0.11 minutes.
```

```
*** Errors were detected during the 4.x to 5.x metadata migration
processing.
```

```
See /opt/accurev/storage/site_slice/logs/dbupgrade.log for details.
```

```
The AccuRev Server WILL NOT start until the upgrade is successful.
```

```
Please contact AccuRev Service for assistance.
```

Additional details are available in the file [ac-storage/site\\_slice/logs/dbupgrade.log](#).

See the following section, *Messages from the dbupgrade.log file*, for details on locating and interpreting the reasons for any failures.

## Messages from the dbupgrade.log file

**Note:** Please store the [ac-storage/site\\_slice/logs/dbupgrade.log](#) file in a safe place. It contains information that could assist AccuRev Support Services with troubleshooting any data migration or database upgrade issues.

The [dbupgrade.log](#) file consists of log entries of the following severity levels, in ascending order:

- **INFO** — Status messages indicating what the **dbupgrade** utility is doing at a particular point in time. The intended audience for this category of messages is primarily AccuRev Support Services.
- **NOTICE** — Messages that record information about the **dbupgrade** operation that might be of interest to the user. Example: [Translations of non-ASCII characters from CP1252 to UTF-8 will be reported in C:/Program Files/AccuRev/storage/site\\_slice/logs/dbupgrade\\_i18n\\_report.html](#)



- **WARNING** — These messages indicate that **maintain dbupgrade** encountered an issue that may require your attention but does not necessarily constitute a reason to fail the data migration/upgrade. You must evaluate any WARNING messages and determine if you can proceed with the results of the **dbupgrade** operation. See the examples and additional information in *Warning Messages* on page 25.
- **FATAL** — These messages indicate that **maintain dbupgrade** encountered a serious problem that prevented it from completing. You must address any FATAL issue (usually with the help of AccuRev Support Services) and rerun **dbupgrade** before proceeding.

As an end-user, you should only be concerned with WARNING and FATAL entries.

## Warning Messages

### Warning message example #1:

```
0 Unable to find storage location for depot: depot_name: /path-to-storage/depots/
depot_name
-Error- 1 - prj.c:211 - Unable to initialize depot - System Error: 2 No such file or
directory
WARNING: Depot 'depot_name' skipped: Unable to initialize: No such file or
directory: OS error: see above
```

#### Explanation:

Ensure that the depot is supposed to still be active, and that the data for the depot is actually present on the system. You may need to use either the **chslice** or **rmdepot** AccuRev commands to remedy the problem. This condition is most likely to occur during a trial run on a test machine (as opposed to "in-place" -- see *Performing a Trial Upgrade on a Test Machine* on page 18.)

### Warning message example #2:

```
WARNING: Would migrate site... FAILED
WARNING: Would migrate depot 'depot_name' ... FAILED
WARNING: Migrating site... FAILED
WARNING: Migrating depot 'depot_name' ... FAILED
WARNING: Would upgrade site... FAILED
WARNING: Would upgrade depot 'depot_name' ... FAILED
WARNING: Upgrading site... FAILED
WARNING: Upgrading depot 'depot_name' ... FAILED
```

#### Explanation:

One or more errors have occurred which prevented the site **slice/depot** in question from being migrated or upgraded. One or more corresponding log entries with severity FATAL should be present in **dbupgrade.log** prior to this WARNING entry, with the specific reasons for the errors.

### Warning message example #3:

```
WARNING: AccuRev 4.x to 5.x metadata migration trial run completed without errors in
X minutes. *** The AccuRev Server WILL NOT start after the migration trial run.
```

#### Explanation:

You have successfully completed a trial migration from AccuRev 4.x to 5.5, but you must analyze the results and re-run the migration "for real" in order for the AccuRev Server to start. You must now review the **dbupgrade\_i18n\_report.html** file for correctness (see the "*Messages from dbupgrade\_i18n\_report.html*" on page 27). Then, if all highlighted characters in **dbupgrade\_i18n\_report.html** are correct, proceed to perform the actual migration as described in *Performing the Actual Database Upgrade* on page 28. Test your installation. If you were doing the upgrade on a test machine, return to *Performing an Upgrade "In Place"* on page 19 to complete the upgrade on your production machine.

#### Warning message example #4:

```
WARNING: Would change database encoding to UTF-8: cannot proceed any further without
making changes to the database, stopping
WARNING: Would create a UTF-8 case-insensitive index: cannot proceed any further
without a UTF-8 database, stopping
WARNING: AccuRev database upgrade trial run completed without errors in X minutes.
*** No changes were made to the database during the upgrade trial run.
```

#### Explanation:

You are performing a trial upgrade from 5.0.x/5.1 to 5.5, which adds internationalization (I18N) support. Everything up to the point where the database is switched to UTF-8 has completed successfully, but the actual switch cannot occur during a "trial" run. You must now review the [dbupgrade\\_i18n\\_report.html](#) file for correctness (see *Messages from dbupgrade\_i18n\_report.html* on page 27). Then, if all highlighted characters in [dbupgrade\\_i18n\\_report.html](#) are valid, proceed to perform the migration "for real" (see *Performing the Actual Database Upgrade* on page 28, and *Upgrading an AccuRev Server from 5.0.x to 5.5* on page 20 or *Upgrading an AccuRev Server from 5.1 or higher to 5.5* on page 20.)

### Fatal Messages

#### Fatal message example #1:

```
FATAL: AccuRev 4.x to 5.x metadata migration completed with errors in X minutes. ***
Errors were detected during the 4.x to 5.x metadata migration processing. See /path-
to-/dbupgrade.log for details. The AccuRev Server WILL NOT start until the upgrade
is successful. Please contact AccuRev Service for assistance.
```

```
FATAL: AccuRev database upgrade completed with errors in X minutes. *** Errors were
detected during the database upgrade processing. See %s/%s for details. No changes
were made to the database. Please contact AccuRev Service for assistance.
```

#### Explanation:

One or more errors have occurred which prevented the migration or upgrade from completing. Additional log entries with severity FATAL should be present in [dbupgrade.log](#) with the specific reasons for the errors.

#### Fatal message example #2:

```
FATAL: File not found - /path-to-storage/depots/depot-name/table-name.ndb
```

#### Explanation:

You are migrating from 4.x to 5.5 and the 4.x ndb file in question cannot be found. If the file is part of a depot that is no longer active, you may want to first **rmdepot depot-name** in 4.x, then retry the migration.

#### Fatal message example #3:

```
FATAL: Depot contains AccuWork issues, but the corresponding schema.xml definition
could not be found or loaded
```

#### Explanation:

The AccuWork [schema.xml](#) file is missing from the [ac-storage/depots/depot-name/di spatch/config](#) directory.

#### Fatal message example #4:

```
FATAL: Database error: ...
```

```
FATAL: Retrieving list of depots from database: Database error: ...
```

```
FATAL: table 'X' rowcount mismatch: expected Y, got Z
```



FATAL: LOC width X not supported!

### Explanation:

If you receive any of these errors, contact AccuRev Support Services (<http://support.accurev.com>).

## Messages from dbupgrade\_i18n\_report.html

**Note:** Please store the [ac-storage/site/logs/dbupgrade\\_i18n\\_report.html](#) file in a safe place. It contains information that could assist AccuRev Support Services with troubleshooting any data migration or database upgrade issues.

The information in dbupgrade\_i18n\_report.htm contains the results of the UTF-8 conversion based on the code page that you specified. Open this report in a web browser and look for any highlighted characters -- these represent non-ASCII characters found during the conversion.

Some highlighted characters can be ignored. For example, accents and umlauts may have been introduced when adding a foreign document to the depot. Likewise, some highlighted characters may be simple non-ASCII punctuation characters like em dashes (“—”). However, if a highlighted character does not look valid, it probably needs to be corrected.

To research the origin of suspect entries, use the information in the report to find the characters in your existing, running AccuRev installation (4.x, 5.0.x, or 5.1):

1. Click on the triangular handle next to any highlighted entry to see where it is being referenced (depot, stream, etc.). For example, in the illustration below, clicking on the handle next to “Stream name” reveals that two non-ASCII characters appear in the stream name that begins “LINE tests bld 1.7ý (RUN, 10-07-07)ý”. Clicking on the handle for this entry narrows down the location to depot\_id 13 and stream\_id 2802.

### ▼ Stream name

#### ▼ LINE tests bld 1.7ý (RUN, 10-07-07)ý

depot\_id: 13, stream\_id: 2802, time: 1178784798

2. Use the displayed information (depot\_id, stream\_id, issue\_num, etc.) to navigate to the suspect entry in your existing (4.9, 5.0.x, or 5.1) AccuRev UI.
3. Compare the appearance of the suspect entry in the report against how it appears in your existing AccuRev installation.

Here are some general rules for interpreting these results:

- **All highlighted characters are correct.** Congratulations! Your data will convert cleanly, and you can proceed to perform the actual upgrade without a trial run:

```
maintain dbupgrade -f -E CP1252 db-admin-name
```

(**Note:** Use the exact same maintain **dbupgrade** command on the replica servers, if any.)

- **Some highlighted characters are incorrect.** Determine whether or not these characters are acceptable, or if you can fix them after the upgrade. For example, you might be able to rename a stream or a file. **Note:** Because of AccuRev’s TimeSafe® feature, snapshots and time-based

streams will preserve the pre-rename, incorrect information.) If in doubt about how to proceed, please contact AccuRev Support Services (<http://support.accurev.com>).

- **There are many incorrect highlighted characters and the problem seems to be consistent.** If you can identify a recurring, common problem, you probably need to use a different code page. For more information about code pages, start with [http://en.wikipedia.org/wiki/Character\\_encoding](http://en.wikipedia.org/wiki/Character_encoding).

## Performing the Actual Database Upgrade

Once you have fixed any issues reported by the “trial run” upgrade, you can perform the actual database upgrade by re-running the **maintain dbupgrade** command as described in the previous section, but responding **N** when prompted whether or not you wish to run in trial mode, and confirm your choice.

## Starting and Stopping AccuRev Servers

This section describes the procedures you can use to start and stop the AccuRev Server and the AccuRev Database Server.

### Starting and Stopping the AccuRev Server

Use the procedures below to start and stop the AccuRev Server. (The Windows operations can also be performed from the GUI Services Control Panel.)

Start	Stop
Windows:  <code>net start accurev</code> UNIX/Linux:  <code>cd ac-install/bin</code> <code>./acserverctl start</code>	Windows:  <code>net stop accurev</code> UNIX/Linux:  <code>cd ac-install/bin</code> <code>./acserverctl stop</code>

When you start the AccuRev Server, the database is automatically started first.

### Starting and Stopping the AccuRev Database Server

Use the procedures below to start and stop the AccuRev Database Server.

Start	Stop
Windows:  <code>net start "accurev db server"</code> UNIX/Linux:  <code>cd ac-install/bin</code> <code>./acserverctl dbstart</code>	Windows:  <code>net stop "accurev db server"</code> UNIX/Linux:  <code>cd ac-install/bin</code> <code>./acserverctl dbstop</code>

When you stop the AccuRev Database, the AccuRev Server is automatically shut down first.

## Summary of Start and Stop Operations

In summary:

- Starting the AccuRev Server will automatically start the AccuRev Database if it is not already running.
- Stopping the AccuRev Server will NOT automatically stop the AccuRev Database.
- Starting the AccuRev Database will NOT automatically start the AccuRev Server.
- Stopping the AccuRev Database will also stop the AccuRev Server, but only if you say "Y" to the prompt. Otherwise, neither will be stopped.

See “Controlling Server Operations” in the AccuRev 5.5 *Administrator’s Guide* for more information, and for setting up your system to automatically start the AccuRev processes at boot time.

## Enabling the Standard/Flexible License Manager

Previous AccuRev releases installed both the now-deprecated named “keys.txt” license manager, as well as the newer Standard/Flexible License Manager, which supports 24-hour flexible licenses and 7-day standard licenses using the **accurev.lic** license file.

The AccuRev 5.5 installation process should automatically configure your system correctly, assuming you have a valid **accurev.lic** file, even if you installed the named “keys.txt” manager in a previous release. See the “License Management” chapter of the AccuRev 5.5 *Administrator’s Guide* for more details.

**Note:** “keys.txt” is still supported for Mac OS installations.

## Platform Support Notes

The following sections contain important information about installing AccuRev software on specific hardware/software platforms.

### Platform Support Matrix

For the most up-to-date list of supported platforms, go to the Customer Downloads section of the AccuRev web site at <http://www.accurev.com> and click on the Platform Support Matrix link.

#### Important Notes:

1. The Platform Support Matrix lists the platforms that have been tested for the AccuRev 5.5 server and client. We will investigate and attempt to address issues reported on other platforms, but we reserve the right to request that you reproduce the problem on a supported platform.
2. Virtualization environment support: We will investigate and attempt to address issues reported on virtualization platforms not supported by AccuRev, but we reserve the right to request that you reproduce the problem on one of the supported OS platforms listed in the Platform Support Matrix, running in a non-virtualization environment.
3. See *Deprecated Features* on page 59 for platforms that are no longer be supported.

### Java Compatibility

AccuRev 5.5 is compatible with the Java 2 Runtime Environment (JRE), Versions 1.6.x and higher. These Java versions are also labeled “J2SE Version 6” and higher.

### (UNIX/Linux only) Workaround for Java Runtime Library Problems

The AccuRev Installation Wizard and the AccuRev GUI fail on some UNIX/Linux platforms because of Java library problems. Use this procedure to work around these problems:

1. Run the Installation Wizard with environment variable LIBXCB\_ALLOW\_SLOPPY\_LOCK set to the value 1.
2. Fix the runtime library file in the new AccuRev installation area:

```
> cd ac-install/jre/lib/i386/xawt
> sed -i 's/XLIB/FAKEEXTN/g' ./libmawt.so
```

## Linux

- PostgreSQL may fail to function properly when SELinux mode is set to “Enforcing”. See [http://docs.fedoraproject.org/en-US/Fedora/13/html/SELinux\\_FAQ/#id2963608](http://docs.fedoraproject.org/en-US/Fedora/13/html/SELinux_FAQ/#id2963608) for more information. To find out the current SELinux mode run **getenforce** (as **root**). To set SELinux mode to “Permissive”, run **setenforce PermissiveEdit**.
- Linux systems require **glibc** version 2.3.4 or higher. To determine your **glibc** version, run **rpm -qi glibc** in a command shell. Ubuntu systems require **libc6-i386**.
- The AccuRev Installation program and the AccuRev GUI fail on some older UNIX/Linux platforms because of Java library problems. Use this procedure to work around these problems:
  - Set the environment variable **LIBXCB\_ALLOW\_SLOPPY\_LOCK** to the value 1.
  - Run the installation program.
  - Fix the runtime library file in the new AccuRev installation area:

```
> cd ac-install/jre/lib/i386/xawt
> sed -i 's/XINERAMA/FAKEEXTN/g' ./libmawt.so
```

- (64-bit Linux) If the 32-bit versions of the packages listed below are not present on your system, download and install them (and their dependencies) prior to running the installer.

**Note:** You must have the 32-bit compatibility libs installed even if you are installing the 64-bit version of AccuRev.

```
glibc.i386 (version 2.3.4 or higher)
xorg-x11-libs.i386 (version 6.8 or higher)
```

For Ubuntu:

```
libc6-i386
libxtst6
ia32-libs
```

- (64-bit Linux) If you are installing a 32-bit version of AccuRev, and if you are using NSS or PAM authentication modules (e.g. for LDAP, NIS, etc.), you must ensure that the corresponding 32-bit versions of those authentication modules are also installed.

For example:

```
> arch
x86_64

> rpm -q --queryformat "%{n}-%{arch}\n" nss_ldap
nss_ldap-x86_64
nss_ldap-i386
```

If only the **x86\_64** architecture is installed on your system, please update to a “biarch” version of the package, or download and install the 32-bit version of the package (in addition to the 64-bit version already installed on your system).

## AIX

- Only the AccuRev client software is supported on this platform.
- The following shared libraries must be accessible, both by the AccuRev Installation Wizard and by the installed AccuRev executables. The pathnames below show typical locations for these shared libraries

```
/usr/freeware/lib/libcrypto.a  
/usr/freeware/lib/libintl.a  
/usr/lib/libc.a  
/usr/lib/libcrypt.a  
/usr/lib/libdl.a  
/usr/lib/libpthread.a  
/usr/lib/libpthreads.a
```

**Note:** It is recommended that the LIBPATH environment variable *not* be set, as it can interfere with the loading of libraries from `/opt/accurev/bin`.

The libraries above are typically part of the following AIX filesets and/or open-source RPM packages:

- bos.loc.utf.EN\_US (or any other non-EN\_US UTF locales)
  - bos.rte.bind\_cmds
  - bos.rte.libc
  - bos.rte.libpthreads
  - bos.rte.security
  - openssl-0.9.7X
  - gettext-0.17-1 (or later)
  - AIX 5.3: fix pack 5300-07 or newer required
  - AIX 6.1: fix pack 6100-GOLD or newer required
  - AIX 7.1: fix pack 7100-GOLD or newer required
- The installer mistakenly warns you that you have not chosen the bundled JRE. Complete the installation, then change this setting in `/opt/accurev/bin/acgui.lax`:

```
lax.nl.current.vm=../jre/bin/java
```

## HP-UX

- Only the AccuRev client software is supported on this platform.
- The value of the tunable system parameter **maxssiz** (maximum stack size) for the HP-UX kernel must be at least 0x2000000, rather than the default of 0x800000.

Use this command to determine the current setting:

```
grep maxssiz /stand/system
```

If you must increase the value, use the SAM utility, as described on the “Reconfiguring the Kernel” page at:

```
http://docs.hp.com/en/5185-6559/ch01s01.html#cihehjcc
```

- The following shared libraries must be accessible, both by the AccuRev Installation Wizard and by the installed AccuRev executables:

```
/usr/lib/libpthread.1
/usr/local/lib/libintl.sl
/usr/local/lib/libiconv.sl
/usr/local/lib/libcrypto.sl
```

The pathnames above show the typical locations for these shared libraries.

**Note:** It is recommended that the SHLIB\_PATH environment variable *not* be set, as it can interfere with the loading of libraries from [ac-\*install\*/bin](#).

The libraries above are typically part of the OS core, or of the following HP-UX packages:

- gettext
- libiconv
- openssl

## SunOS / Solaris

The AccuRev server and client are supported on both Solaris Sparc and Solaris x86.

The following shared library must be accessible, both by the AccuRev Installation Wizard and by the installed AccuRev executables. The pathname below shows the typical location for this shared library.

```
/usr/sfw/lib/libgcc_s.so.1
```

**Note:** It is recommended that the LD\_LIBRARY\_PATH environment variable *not* be set, as it can interfere with the loading of libraries from [ac-\*install\*/bin](#).

The library above is typically part of the following SUN package:

- SUNWgccruntime

## Restrictions on the Use of AccuRev Clients in Solaris Zones

The following restrictions apply to the use of AccuRev clients in Solaris zones:

- The AccuRev Server should be run from a global zone. If you want to run an AccuRev Server from a non-global zone, you should give that zone a private disk volume and not use a loopback mount to the global zone for any of the AccuRev Server metadata or storage files.
- Workspaces can only be created on zones with private host names.
- Workspaces in the non-global zone cannot be used from the global zone.
- Workspaces on NFS mounts (not recommended) must be NFS-mounted directly from the non-global zone, not through a loopback mount in the non-global zone to an NFS mount in the global zone.
- Solaris requires operating system patches, as described on the Oracle Technology Network (<http://www.oracle.com/technetwork/systems/patches/index.html>).

## Windows

- Disable anti-virus checking for the **ac-storage** directory and all directories beneath it to avoid performance problems associated with anti-virus checks.
- Machines running Windows 7 should be upgraded to SP1 if you will be using mounted workspaces. For example, assume that you have the logical drive **P:** mapped to a path similar to `\\rai d\publ i c`, and your workspace is in `p: \myuser\myworkspace`. If you try to issue an **accurev info** command in that directory, you may see an exception from "aos.c" that displays the error message - "no mounted filesystem matched path ...".

## Mac OS X

- AccuRev Release 5.5 supports only the AccuRev client software on the Mac OS X platform.
- For AccuRev Release 5.5, Mac OS still uses the named "keys.txt" license manager; this license manager is no longer supported on any other platform.
- Be sure you have JRE 1.6 or higher installed. AccuRev does not install its own JRE on OS X, because Java is included with the OS X installation.
- To install the server, you must be a non-**root** user. This restriction does not apply to installations performed with the client-only installer.
- The following is a recommended method for getting all required executables into the PATH for Mac OS X:

Create the following three files using "sudo":

```
sudo echo "/Applications/AccuRev/bin" > /etc/paths.d/AccuRev
sudo echo "/Applications/AccuRev/bin/acdiffgui.app/Contents/MacOS" >
/etc/paths.d/Acdiffgui
sudo echo "/Applications/AccuRev/bin/acgui.app/Contents/MacOS" >
/etc/paths.d/Acgui
```

- To enable the AccuRev **diff** GUI tool (`acdiffgui`) to work stand-alone as well as from an IDE integration such as Eclipse, do the following:

1. Make a backup copy of `acdiffgui`:

```
cd /Applications/AccuRev/bin/acdiffgui.app/Contents/MacOS
mv acdiffgui acdiffgui.orig
```

2. Create a new `acdiffgui` file with the following content:

```
#!/usr/bin/perl
my $acbin = '/Applications/AccuRev/bin';
my @jars = qw(oro.jar xercesImpl.jar xml-api-s.jar fw.jar werken.opt.jar diff.jar);
my $cp = join(':', map {"$acbin/$_"} @jars);
my @args = ('java', "-Duser.dir=$acbin", '-Xms32M', '-Xmx512M', '-classpath', $cp,
'diff.DiffApp', @ARGV);
system (@args);
```

3. Create the following link:

```
ln -s /Applications/AccuRev/bin/acdiffgui.app/Contents/MacOS/acdiffgui
/Applications/AccuRev/bin/acdiffgui
```

4. Close any shells.
5. Open a new shell.



Running `acdifffgui` should now bring up the AccuRev graphical **diff** tool, and it should also work from within any integrated IDE.

## Uninstalling AccuRev

On Windows, we recommend that you run

`ac-install\bin\Uninstall\erData\Uninstall\AccuRev.exe` to ensure that the AccuRev services and registry entries are removed cleanly. Back up and remove any folders and files left under `ac-install`.

On UNIX/Linux, simply halt and remove any AccuRev services, and back up and remove any folders and files left under `ac-install`.



# AccuRev 5.5 Release Notes

This chapter describes changes and other information related to AccuRev Release 5.5.

## Source Code Availability

AccuRev uses third-party code from GNU. In accordance with their open-source policy, this section describes what code is used and where you can find it.

### Diff and Merge

AccuRev `acdiff` and `acdifff3` programs implement text-file comparison and merging operations. The source code for the AccuRev programs `acdiff` and `acdifff3` is available here:

[http://www.accurev.com/download/open-source/acdiff\\_source.zip](http://www.accurev.com/download/open-source/acdiff_source.zip)

### Character Set Encoding Conversions

AccuRev uses GNU `libiconv` for character set encoding conversions. You can find the `libiconv` source code here:

[http://www.accurev.com/download/open-source/accurev\\_gettext\\_iconv.zip](http://www.accurev.com/download/open-source/accurev_gettext_iconv.zip)

## Deprecated Features

This section describes deprecated features in AccuRev 5.5.

1. The traditional AccuRev “named” license manager (`keys.txt`) is no longer supported as of AccuRev Release 5.4, EXCEPT for Mac OS.
2. The following server platforms are no longer supported as of AccuRev Release 5.4:
  - 32 bit: XP, Vista, Windows server 2003, RedHat 4
  - 64 bit: XP, Vista, Windows server 2003, RedHat 4
3. In the Schema Editor, the “Stream” datatype was deprecated as of AccuRev Release 5.4.1.
4. Starting in AccuRev Release 5.6 (currently scheduled for Q3 2012), the AccuRev *server* will no longer be supported on 32-bit Solaris operating systems, on either Sparc or Intel platforms. The AccuRev server will only be supported on 64-bit Solaris operating systems, version 10 or higher. Note that the AccuRev *client* will continue to be supported on both 32- and 64-bit Solaris operating systems, version 10 or higher, on both Sparc and Intel platforms.

## Changes in Release 5.5d

AccuRev Release 5.5d is a patch release for Version 5.5 that addresses the following issues:

### **26356 -- New version of GNU diff3 resolves merge operation errors**

AccuRev updated the version of GNU diff3, the third-party diff tool used by AccuRev merge and diff operations. This upgrade resolves errors some users experienced when running **diff** from the AccuRev CLI.

### **26711 -- Java GUI no longer crashes trying to open obsolete depots or streams**

In previous releases, the Java GUI would crash if depots and streams identified in **preferences.xml** were not present in the new installation (as could happen after performing a **maintain rmsite**, **maintain mksite**, for example). This problem has been corrected in the current release: the Java GUI will render tabs for obsolete depots and streams, which you can safely close.

### **26870 -- Correction to behavior when reparenting a time basis stream**

In previous releases, if you attempted to reparent a time basis stream with a date earlier than that of the target backing stream AccuRev prompted you to either remove or retain the time basis. If you chose to retain the time basis, AccuRev completed the reparenting operation and displayed the error message "Unknown stream or ver spec". This problem has been corrected in the current release -- if you opt to retain the time basis, AccuRev displays a clearer message and the reparenting operation does not proceed.

### **26911 -- Master server crashes under heavy load from replica servers**

In previous releases, heavy activity from one or more replica servers sometimes crashed the master AccuRev Server. This problem has been corrected in the current release.

### **26945 -- setValue clause fails when validation includes date field comparison**

AccuRev 5.5 caused the setValue clause for a date (`setValue (submittedBy , "CUR_DATE")`, for example) to fail if the validation logic included a date field comparison that used that value. This problem has been corrected in the current release.

### **26955 -- Merge view sometimes displayed conflicts incorrectly**

The AccuRev Merge view uses color-coding to identify differences between versions of a file in the workspace, the backing stream, and those files' common ancestor. These files are passed as parameters to the underlying diff tool for comparison. Under certain circumstances, the order in which the diff tool expected these files was different from the order in which they were actually passed, resulting in the incorrect display of conflicts, making merging difficult. This problem has been corrected in the current release.

### **27035 -- CLI commands fail with multiple mount points to the same path**

In previous releases, if you had multiple mount points that referred to the same path, AccuRev CLI commands would fail. This problem has been corrected in the current release.

### **27040 -- 5.5 upgrade installation fails when license server is remote**

The upgrade installation to AccuRev 5.5 would fail if the AccuRev license server was on a machine other than the one on which the AccuRev Server was installed. Specifically, the DB\_PASS property in the acserver.cnf configuration file was not getting set correctly. This problem has been corrected in the current release.

### **27077 -- Files with ptext file type cannot be annotated in the Java GUI**

In AccuRev 5.5, files that were specified as ptext files when added to the depot could not be annotated using the Java GUI. This problem has been corrected in the current release.

### **27126 -- Workspace Explorer pane cannot manage large stream names**

In previous releases, long basis stream names created the following problems in the File Browser:

- The Workspace Explorer could not display names longer than 40 characters
- The splitter between the Workspace Explorer panel and the File Browser would automatically expand to show as much of the basis stream name as possible, but it could not be collapsed, which could make working in the File Browser difficult

These problems have been corrected in the current release -- the Workspace Explorer accommodates basis stream names up to 79 characters, and the splitter can be collapsed to show as little of the Workspace Explorer as you wish.

### **27129 -- Workspace actions disabled for streams**

In previous releases, AccuRev allowed you to perform workspace actions such as creating a new file or new folder when the focus was on a stream. Menu choices and other actions applicable to workspaces (such as Include/Exclude Mode) are now disabled when you are on a stream.

### **27160 -- WIP not applicable for external files**

In the previous release, AccuRev incorrectly allowed you to choose **WIP** from the shortcut menu (right-click) for external files, which then also incorrectly enabled cut/copy/paste operations on those files. This problem has been corrected in the current release, and the **WIP** choice is now disabled for external files.

### **27175 -- Rename should be disabled when multiple elements are selected**

In the previous release, if you selected multiple elements from the File Browser, the **Rename** and **Edit** choices in the shortcut menu (right-click) were available. This problem has been corrected in the current release, and the **Rename** and **Edit** choices are now disabled when multiple files have been selected.

### **27190 -- Shortcut menus persist for previously selected stream**

In previous releases, the shortcut menu (right-click) displayed for *stream\_a* would appear even after displaying the shortcut menu for *stream\_b*. In some cases, this behavior would result in the shortcut menu for a workspace being displayed after selecting the shortcut menu for a stream. This problem has been corrected in the current release.

# Changes in Release 5.5

AccuRev Release 5.5 includes the following features and bug fixes:

## **13484, 23875 -- Depot name now passed to server\_preop\_trig**

The depot name is now passed to the `server_preop_trig` trigger for `cpkadd` and `cpkremove` operations.

## **16288 -- New: Shortcut keys for Cut/Copy/Paste supported in File Browser**

Shortcut keys Ctrl+x (Cut), Ctrl+c (Copy), Ctrl+v (Paste) are now supported in the File Browser. In addition, a paste operation, whether performed using shortcut keys or the Paste context menu, now performs a “Paste Link” if the Copy operation was used to place the element on the clipboard.

In addition to shortcut keys, Cut, Copy, and Paste operations are also available from the Edit menu. Note, however, that buttons for these operations have been removed from the AccuRev toolbar.

## **18348 -- History Browser shows incomplete transaction history**

In previous releases, the History Browser did not display the complete depot transaction history for a user. This problem has been corrected in the current release.

## **19896 -- Nested groups cannot be added to other groups**

In previous releases, you could not add a group that included another group as one of its members to another group. This problem has been corrected in the current release.

## **20809 -- diff command with -a and -1 or -j restarts AccuRev Server**

In previous releases, running the `diff -a` command with either `-1` or `-j` options caused the AccuRev Server to restart. The `-1` or `-j` options are no longer supported with the `diff -a` command.

## **22505 -- Third-party issue keys displayed in History View**

If you have implemented third-party issue tracking system support in AccuRev, you now have the option of displaying third-party issue keys in addition to, or instead of, AccuWork issue numbers in History View.

## **22661 -- Improvements to session management**

In previous releases, an AccuRev user session was logged out when another user logged in to AccuRev on the same machine. This prevented “user1”, for example, from remaining logged in to the AccuRev Web UI if another “user2” later logged in to AccuRev (via the CLI or the Java GUI, for example) on that machine. This problem has been corrected in the current release.

## **24053 -- New: eacl command -i option shows element access for a user**

A new `eacl` command option, `-i`, displays all the elements that have the privilege for the principal specified in the ACE in XML format.

## **24194 - UTF8 support on Windows**

AccuRev Windows clients now support arbitrary Unicode in repositories irrespective of system codepage.

## 24458 -- New: eacI command “readonly” privilege

A new **eacI** command privilege, **readonly**, prevents the specified user from modifying the element during **add**, **keep**, **move**, **defunct**, and **revert** commands.

## 24476, 26364 -- New: feature to speed AccuRev client upgrades in the enterprise

Starting with AccuRev 5.6, AccuRev users will be able to download and install the AccuRev client installation package that the AccuRev administrator has placed on the AccuRev Server. These installation packages can be run manually, or unattended (sometimes called a “silent install”). While the upgrade client feature will not be fully supported until AccuRev 5.6, AccuRev 5.5 users might notice it in two places:

- CLI -- a new command, **upgrade\_client**, has been added to the AccuRev command line interface.
- Java GUI -- a new choice, **Upgrade Client**, appears on the **Help** menu.

Again, this feature will not perform any client upgrade or installation activities until the AccuRev Server itself is upgraded to Version 5.6.

## 24520 -- Memory required for initial update and stat -a commands reduced

In previous releases, the initial **update** of a workspace and **stat -a** commands required significant amounts of memory which negatively affected performance on the AccuRev Server. The memory required for these operations has been dramatically reduced in the current release. For example, performing **stat -a** on a depot with 400,000 streams in AccuRev 5.4.1 and earlier took 1 gigabyte of memory. The same operation in AccuRev 5.5 takes only 74 megabytes of memory.

## 24567 -- pre-promote-trig passes incorrect change package information to server-preop-trig

In previous releases, if both **pre-promote-trig** and **server-preop-trig** triggers were implemented, AccuRev would pass incorrect change package information from the **pre-promote-trig** to the **server-preop-trig** trigger during the promote operation. AccuRev now correctly traps the issue number in a **<changePackageID>** element and passes it to the **server-preop-trig** trigger.

## 24647 -- Web UI server logins cause AccuRev Server session expiration

A problem has been corrected which could cause an AccuRev Server session to expire prematurely if another login occurred on a Web UI server located on the same machine.

## 25094 -- Performance improvements over high-latency, low-bandwidth WAN

In previous releases, populating and updating a workspace could take a long time over a WAN, especially when the initial **update** or **pop** operation involved large amounts of data over networks with high latency and/or low bandwidth. New streaming algorithms, and a new compression option for replica servers, dramatically improve **update** and **pop**.

Consider the following figures comparing the initial **update** and **pop** of 3.0 GB of data on AccuRev 5.4.1 and earlier with AccuRev 5.5 using the new **COMPRESSION\_ENABLED=TRUE** setting on the replica server:

Initial update or pop	Bandwidth (Mbps)	Latency (ms)	5.4.1 and Earlier	5.5
<b>update</b>	.12	220	10h 53min 35sec	4h 55min 24sec
<b>pop</b>	.12	220	9h 21min 9sec	4h 55min 50sec



See the chapter “Replication of the AccuRev Repository” in the *AccuRev® Administrator’s Guide* for more information.

#### **25403 -- Annotate now correctly handles UTF-8**

In previous releases, Annotate was unable to handle content with UTF-8 character encoding. This problem has been corrected in the current release.

#### **25482 -- Reserved accurev-ent licences ignored by AccuRev**

The RLM Standard/Flexible License Manager used by AccuRev 5.5 allows administrators to reserve licenses for specific users and groups. In previous releases, AccuRev incorrectly excluded any reserved licences from the count when determining license availability, regardless of whether or not a reserved license was currently in use. This problem has been corrected in the current release.

#### **25658 -- EACL changes to file access not reflected during Update**

In the previous release, if an EACL (element access control list) denied you access to a file currently in your workspace, the next time you updated the workspace the file would correctly no longer appear in the AccuRev GUI. However, the file would remain in your physical workspace. This problem has been corrected in the current release.

#### **25850 -- New: acserver.cnf setting to log read operations**

A new setting in the `acserver.cnf` file, `LOG_FILE_READS = true`, logs all read operations to `site_slice/logs/acfiles.log`. Information for each read operation includes the user name, the client machine’s IP address, time of the operation, ID of the affected element, version, and path name. Write operations remain available through the `hist` command.

#### **25855 -- AccuRev misinterpreting uppercase letters in eacl command**

In previous releases, AccuRev did not correctly interpret the privilege string values (`full` and `deny`) when they were specified using any uppercase letters, causing AccuRev to default to the deny privilege. This problem has been corrected in the current release.

#### **25859 -- Installation failures on Linux and UNIX**

In previous releases, the AccuRev installer relied on the `$USER` environment variable to perform installations on Linux and UNIX platforms, and fresh installations would fail if this environment variable was not set. The installer now uses the Java property `prop.user.name` and prompts you to provide it if it is missing or unspecified.

#### **25880 -- Improved testing for existing PostgreSQL database during installation**

AccuRev installs a pre-configured copy of the PostgreSQL database; the installer attempts to verify this PostgreSQL variant during subsequent installations. In previous releases, AccuRev could fail to verify a valid PostgreSQL installation, causing the installation to fail. This problem has been corrected in the current release.

#### **25950 -- Client hangs when trying to connect to a mismatched AccuRev Server**

In previous releases, the AccuRev client would sometimes hang when trying to connect to a mismatched AccuRev Server. This problem has been corrected in the current release, and AccuRev now displays a warning message in this situation.

## **25972 -- New: Changes to Promote sequence with change packages**

If you have implemented Change Packages, you will notice that AccuRev now prompts you to first select the issue against which you are promoting your changes, and then displays the dialog box allowing you to enter a comment.

## **25976 -- New: File Browser usability enhancements**

The File Browser includes several enhancements resulting from feedback gathered by a usability study. Notable changes include the following:

- The Update button is larger, has a different graphic, a label, and a new tool tip.
- Tool tips have been added for workspace search filters; these tool tips state the types of elements returned by the search.
- Existing tool tips for File Browser tool bar buttons have been enhanced to provide more information, rather than simply naming the operation performed by the button.
- When you search your workspace -- for all pending elements, for example -- AccuRev now displays a count value that indicates the number of elements returned by the search.

## **26000 -- AccuRev 5.4 did not support Windows Universal Naming Convention**

Support for Windows Universal Naming Convention (UNC) is restored in the current release.

## **26025 -- Server crashed on promote by transaction when an element ID could not be resolved**

In previous releases, the AccuRev Server would crash during a promote by transaction if the transaction contained at least one element ID (eid) that AccuRev could not resolve. This problem has been corrected in the current release.

## **26038, 26155-- Include rule now correctly populates a workspace**

In previous releases, the include rule (**incl**) did not populate a workspace if an **incldo /./** was either:

- Set on the workspace (using the pick and choose option on the workspace creation), or
- Inherited from another stream in the hierarchy

This problem has been corrected in the current release.

## **26052, 26451-- Errors setting depot-wide EACLs corrected**

In previous releases, a network error ([network error - Connection lost while receiving data. Error 6 - acp.c: 81 - Communications failure](#)) could occur when setting depot-wide EACLs. Because EACLs did not get written to the database, AccuRev users for whom EACLs were set were inappropriately denied access to their files. This problem has been corrected in the current release.

## **26072 -- New: Move the StreamBrowser and Version Browser by dragging**

You can now move the StreamBrowser and Version Browser diagrams by dragging (press and hold mouse button, then move the mouse) the diagram background, much as you might in a mapping application. Horizontal and vertical scroll bars can also be used in these views.

## 26073 -- Stream name now displayed in Active stream issues tab

In previous releases, the string *Stream Issues*, along with the generic issue form icon, was displayed on the Active Issues tab. This tab now displays the stream name and the icon associated with the active issues mode.

## 26149 -- New: Support for stream, user/group properties

You can now specify properties as name/value pairs for streams, users, and groups. Property values can include simple strings or physical files. For example, you might want to specify the value of a *profile* property for a user as an image (*joe\_headshot.jpg*, for example). Using the CLI you can:

- Specify a property (**setproperty** is the CLI command)
- Retrieve a property (**getproperty**, and **show...properties**)
- Delete a property (**rmproperty**)

For more information, see the *CLI User's Guide*.

## 26176 -- New: Workflow rules summary in StreamBrowser

A new feature in the AccuRev 5.5 StreamBrowser allows you to display a summary of workflow rules for any streams for which workflow rules have been set. AccuRev displays a workflow icon for such streams in the StreamBrowser, and clicking the icon displays a read-only summary of the workflow rules that have been set for it. As with AccuRev 5.4.1 and earlier, workflow rules continue to be defined and managed using the AccuRev Web Interface.

## 26178 -- Spaces in date in hist -t command work again

In AccuRev Version 4.x, the **hist** command accepted spaces for the value specified for the **-t** option (**-t "2012/02/28 15:31:12 - 2012/02/28 15:31:12"**, for example). In AccuRev Version 5.x, AccuRev would throw an error if the value specified for the **-t** option included spaces. This has been corrected in the current release: you can specify the value for the **-t** option with or without spaces.

## 26203 -- Replica licenses no longer assigned to AccuWork users connecting to master

In previous releases, the RLM Standard/Flexible License Manager assigned both AccuWork and replica licenses to AccuWork users when they connected to the AccuRev master server through the replica server, reducing the pool of available replica licenses. This problem has been corrected in the current release.

## 26260 -- New: "Close Others" choice for tab management

A **Close Others** choice has been added to the tab shortcut menu (right mouse-click) allowing you to easily close all other currently open tabs. **Close** and **Close All** are also available.

## 26266 -- Improper error handling running maintain dbupgrade

AccuRev improperly handled the error created when a user without the appropriate privileges ran **maintain dbupgrade**: the **maintain dbupgrade** operation would later fail, but AccuRev generated an irrelevant error message that masked the real reason for the failure. This problem has been corrected in the current release.

## 26322 -- New: Stream Favorites

*Stream Favorites* replace the stream filters in AccuRev 5.4.1 and earlier. Stream Favorites are easier to create and manage, and they can be selected by simply double-clicking them from the new

Stream Favorites panel. Additional benefits of Stream Favorites include the ability to make a Stream Favorite public so that it can be used by other users associated with the depot. Existing stream filters are converted automatically to Stream Favorites when you upgrade to AccuRev 5.5; AccuRev reminds you of this by displaying a message the first time you open the StreamBrowser.

## 26328 -- Standard/Flexible License Manager improvements

In previous releases, AccuRev required that the Standard/Flexible License Manager license file, **accurev.lic**, be located on the same machine on which the AccuRev Server was running. This requirement has been relaxed in the current release. Now, as long as value of the `LICENSE_SERVER` = setting in the AccuRev Server's **acserver.cnf** file matches the value of the `HOST` setting in the **accurev.lic** file, the **accurev.lic** can reside on either the AccuRev Server or Standard/Flexible License Manager server.

For general information about standard/flexible licenses, see the “License Management” chapter in the AccuRev *Administrator's Guide*. To learn how to install and configure the Standard/Flexible License Manager, see *Installing or Upgrading an AccuRev Server* on page 11.

## 26332 -- Improved performance of Select Issue (Change Package) dialog box

If you have implemented change packages, AccuRev executes the query you specify on the Change Packages tab of the Schema Editor when fetching issues to display on the Select Issue (Change Package) dialog box, which is used during the promote operation in the Java GUI. Such queries can potentially return hundreds of issues, and in previous releases, you could use the value in the optional **Issue Owner Field** to filter issues on the client, only *after* they had been fetched from the AccuRev Server.

In the current release, AccuRev uses the value of the **Issue Owner Field** (assignedTo, submittedBy, or closedBy) to essentially add another clause to the query used to fetch issues from the server; because the issues are now filtered initially on the server, rendering the issue list on the Select Issue (Change Package) dialog box is now more efficient.

## 26352 -- Stream diff could silently fail in some cases

If an element with the same eid ended up in two streams as the result of a cross-link, and a stream diff was performed on those two streams, the stream diff would fail on that element. This problem has been corrected in the current release.

## 26398 -- Installing a replica server creates java.lang.StackOverflowError

In the previous release, performing an installation of an AccuRev replica server generated a `java.lang.StackOverflowError` error during installation of InstallAnywhere Variables. This problem has been corrected in the current release.

## 26514 -- StreamBrowser performance improvement

In previous releases, AccuRev calculated requirements for all streams in a depot, regardless of whether or not they would actually be displayed. For example, if your depot contained thousands of snapshot streams, AccuRev accounted for those streams before rendering the display in the StreamBrowser even if your StreamBrowser display filter was set to **No Snapshots**. This problem has been corrected in the current release.

## 26541 -- update -s -fx now outputs old and new version on a content change

In previous releases, the XML output by the **update -s -fx** command contained only the new version when content changed. This omission has been corrected in the current release, and the old version content is now output to the `<stream1>` tag.

## 26592 -- Write operations managed on a per-depot basis

In previous releases, time-consuming write operations occurring in one depot could affect the performance of other depots on the same AccuRev Server. This problem has been corrected in the current release.

## 26639 -- New: Display information on Kando-backed streams

Each stream may be mapped to a branch in a Git repository, via the optional AccuRev Kando™ product. If a stream is mapped to a Git branch, AccuRev displays a Kando icon on the stream. Clicking the Kando icon displays information about any Git branches and their repositories that are mapped to this stream via Kando.

## 26724 -- Running database analyze no longer required

In previous releases, users who migrated to AccuRev 5.x experienced performance problems on the AccuRev Server, usually starting a couple of days following the migration to the 5.x release. The workaround to resolve these problems was to run `psql analyze` on a daily basis. These performance issues have been addressed in the current release, and you no longer have to run `psql analyze` on a scheduled basis.

## 26801 -- Unexpected behavior for mismatched clients and replica servers

In previous releases, when an out-of-date AccuRev client executed a command against a replica server, the command would sometimes appear as `*null` on the server. For example:

```
2012/05/21 03:44:55.499+02:00 1251 (not logged in) *null 0x411a5940 xx.xxx.xxx.xxx
```

where `xx.xxx.xxx.xxx` is the server's IP address. This problem has been corrected in the current release.

## Corrections to the documentation

- **23786** -- Difference between 'time' and 'startTime' were clarified in the **show** command description in the *CLI User's Guide*.
- **24535** -- The requirement that the `\site_slice` and `\db` directories must both be located under the same parent directory was clarified in the *Administrator's Guide*.
- **26077** -- The relationship between the **update** command and the `USE_IGNORE_ELEMS_OPTIMIZATION` was clarified in the *CLI User's Guide*, *Technical Notes*, and *Online Help Guide*.
- **26129** -- Previous versions of the documentation included statements announcing AccuRev's deprecation of support for reference trees. AccuRev currently has no intention to deprecate support for reference trees, and these statements have been removed from the documentation.
- **26181** -- The CLI help was not updated in the previous AccuRev release, Version 5.4.1; it has been updated for Version 5.5.
- **26189** -- The *Administrator's Guide* referred to the file `acerver.cnf`, and not `acserver.cnf`.
- **26253** -- An error in the XML sample in the **mkrules** command in the *CLI User's Guide* was corrected.
- **26431** -- The note in the **eacl** command concerning the use of the **add -d** option in the *CLI User's Guide* was clarified.
- **26680** -- Generic values used in AccuRev examples and procedures are now called out more clearly.

- **26760** -- Several **pop** examples in the *CLI User's Guide* incorrectly showed the **-v** and **-D** options out of sequence. The **-v** option always needs to precede the path to the element.

## Known Issues

### 25851 — Web UI Tomcat server must be restarted on UNIX/Linux servers

After installing the AccuRev Web UI server on a Linux or UNIX host, you must manually restart the Tomcat server even if the AccuRev installer starts it automatically. (Tomcat must be restarted by the same user that performed the installation.)

### 26661 — Installation failure upgrading AccuRev Server from 4.8 and 4.9 -- Windows only

If you are upgrading the AccuRev Server from version 4.8 or 4.9 to either 5.5 or 5.4.1, the AccuRev installation can fail under the following circumstances:

- You are installing the AccuRev Server on Windows 2008 Server or Windows 7 Server
- Windows User Account Control (UAC) is enabled
- You choose a location for your AccuRev installation directory that is on a disk that differs from the Windows OS installation disk (D:\AccuRev, instead of the C:\Program Files (x86)\AccuRev, for example)
- One or more of the directories leading up to and including the AccuRev \storage directory is not readable or traversable by the user who invoked the installer

In this situation, AccuRev displays the following error message:

```
The database initialization failed. The installer will now exit.
```

```
initdb: could not create directory "d:/AccuRev/storage": File exists
initdb: removing contents of data directory "d:/AccuRev/storage/db"
```

**Workaround:** To work around this problem, before upgrading the AccuRev Server first check permissions for the current user using the Microsoft Windows **AccessChk** utility available at <http://technet.microsoft.com/en-us/sysinternals>.

For example, to check permissions for the current user on D:\, run:

```
accesschk %USERNAME% -q -d "D:\"
```

The sample output might look like the following:

```
C:\>accesschk %USERNAME% -q -d "D:\"
R   D:\
C:\>accesschk %USERNAME% -q -d "D:\AccuRev"
R   D:\AccuRev
C:\>accesschk %USERNAME% -q -d "D:\AccuRev\storage"
D:\AccuRev\storage
```

In the sample output, the current user has read/traversal permissions (R) on D:\ and D:\AccuRev, but no permissions at all on D:\AccuRev\Storage.

After correcting the permissions on D:\AccuRev\Storage, the expected output should be:

```
C:\>accesschk %USERNAME% -q -d "D:\AccuRev\storage"
R   D:\AccuRev\storage
```





# AccuRev 5.4 Release Notes

## Deprecated Features

1. The traditional AccuRev “named” license manager (keys.txt) is no longer supported as of AccuRev Release 5.4, EXCEPT for Mac OS.
2. The following server platforms are no longer supported as of AccuRev Release 5.4:
  - 32 bit: XP, Vista, Windows server 2003, RedHat 4
  - 64 bit: XP, Vista, Windows server 2003, RedHat 4
3. In the Schema Editor, the “Stream” datatype was deprecated as of this release (5.4.1).
4. Starting in AccuRev Release 5.6 (currently scheduled for Q3 2012), the AccuRev *server* will no longer be supported on 32-bit Solaris operating systems, on either Sparc or Intel platforms. The AccuRev server will only be supported on 64-bit Solaris operating systems, version 10 or higher. Note that the AccuRev *client* will continue to be supported on both 32- and 64-bit Solaris operating systems, version 10 or higher, on both Sparc and Intel platforms.

## Changes in this Release (5.4.1)

AccuRev Release 5.4.1 includes the following features and bug fixes:

### 23843 — Support AccuRev Workflow Edition in AccuRev 5.4.1

AccuRev Workflow Edition is now supported in AccuRev 5.4.1. This support includes:

- New features in the Java GUI for automating issue processing and inspecting the workflow
- New command line options for the **promote**, **cpkdepend**, **hist**, and **show streams** commands
- New parameters in the **server\_preop\_trig** trigger input XML for working with issues that are subject to workflow rules

### 25040 — Third-party ITS key support in the Java GUI

If you have enabled the use of third-party issue tracking system (ITS) keys in the AccuWork schema, the *Select Issue (Change Package)* dialog and the *Look Up Issue* dialog display additional controls that let you indicate whether you want to use AccuWork issue numbers or third-party keys when specifying issues. See the section “Using Third-Party Keys in the Java GUI” in the *AccuRev® Technical Notes* for more information.

### 25149 — New -q option for the promote command

The new **-q** option for the **promote** command suppresses the execution of a workflow transition that would otherwise be executed when an issue enters a stream. This option is applicable only if the stream into which the issue is being promoted has a workflow rule restricting entry to issues in a specific workflow stage and a transition has been specified for that stage in the workflow rule. See the *AccuRev® Web User Interface User's Guide* for more information on implementing a workflow.

## 25150 — New attributes for the <issue> subelement generated for server\_preop\_trig

Several new attributes have been added to the <issue> subelement in the trigger input XML generated by the **server\_preop\_trig** trigger. The complete list of attributes for the <issue> subelement are:

- **id** – The issue number.
- **destination\_stage** – The workflow stage with which the issue will be associated after transitioning from the current stage (that is, after the **promote** operation).
- **current\_stage** – The workflow stage with which the issue is currently associated.
- **workflow** – The name of the workflow whose rules the issue is currently subject to.
- **complete** – Whether or not the issue will be complete in the destination stream upon completion of the **promote** operation.

For example:

```
<ISSUES>
  <ISSUE id="11" destination_stage="WIP" current_stage="NEW"
    workflow="Enhancement" complete="true"/>
  <ISSUE id="12" destination_stage="WIP" current_stage="NEW"
    workflow="Enhancement" complete="false"/>
</ISSUES>
```

The <issues> parameter includes <issue> subelements for all issues being promoted, whether or not the issue was explicitly selected for the promote (as can be the case when promoting by file, when one or more issues can be implicitly selected).

**Suppressing Transitions** — Your script can use the XML in the file specified by the **output\_file** parameter to indicate whether or not you want the workflow transition associated with the destination stage to be executed for complete issues when they are promoted. For example:

```
<ISSUES>
  <ISSUE id="11" apply_transition="true" />
  <ISSUE id="12" apply_transition="true" />
</ISSUES>
```

Note that transitions are applied to complete issues only. In addition, the **apply\_transition** attribute is ignored if you use the **-q** option for the **promote** command.

See the *AccuRev® Administrator's Guide* for more information on using the **server\_preop\_trig** trigger.

## 25263, 25897 — cpkdepend and hist commands now return third-party keys in XML output

The XML output of the **hist** and **cpkdepend** commands now includes third-party key information where appropriate:

- **cpkdepend** – By default, the standard output and XML (**-fx**) returned by the **cpkdepend** include both AccuWork issue numbers and third-party keys if you have third-party keys enabled. If you want the output to include *only* third-party keys, you must use the **-3** option; in this case, both the input (**-I**) and the output use third-party keys.

- **hist** – To include third-party key information in the XML returned by the **hist** command, specify the output format option as **-fx**. Specifying **-fx** displays only AccuWork issue numbers in the standard output.

See “Using Third-Party ITS Keys” in the 5.4.1 edition of the *Technical Notes* for more information.

## 25555 — New **stream\_rules** option for **show streams** command

A new **stream\_rules** option for the **show streams** command lists the workflows and workflow rules associated with the stream that dictate:

- What workflow an issue must be in before it can enter or leave a stream
- Optionally, what workflow stage an issue must be in before it can enter or leave a stream
- Whether or not to allow incomplete issues or individual files to be promoted.

By default, output is in XML format, regardless of whether or not the **-fx** option is used.

## 25849 — The **-t** option for **stat** and **pop** commands now produce correct results

In previous 5.x releases, **pop -t** and **stat -t** commands produced different results when run on a parent stream and on a time-based child stream. This problem has been fixed in the current release.

## 25886 — Content of cross-link streams is now correct

In previous 5.x releases, cross-linking streams (**incl -b**) did not always result in the correct content in the target stream because the time-basis in the target or source stream was not applied correctly. This problem has been corrected in the current release.

## 25923 — Documentation error fixed in *Administrator's Guide*

The Linux procedure in the section “Changing the Per-Process Open File Descriptor Limit” in the *AccuRev® Administrator's Guide* used to instruct readers to specify a path for **pam\_limits.so**:

...

2. Add this line to file **/etc/pam.d/login**:

```
session required /lib/security/pam_limits.so
```

...

Specifying the path in this fashion prevented logging in to the machine console in some environments. The proper syntax is as follows:

```
session required pam_limits.so
```

## 25951 — The **-D** option for the **pop** command creates the correct element structure

In previous 5.x releases, the **-D** option for the **pop** command incorrectly created a new directory at the root for each subelement of the element specified as a parameter in the **-L** option. Consider the following example, where **\sub\_folder** is a subelement of **\folder**:

```
accurev pop -R -D -v Depot_Dev -L C:\my_pop folder
Creating dir: \.\folder
Populating element \.\folder\file.txt
Populating element \.\folder\bar.java
Populating element \.\folder\foo.java
```

```
Creating dir: \. \sub_folder
Populating element \. \sub_folder\acme.txt
Populating element \. \sub_folder\coyote.txt
Populating element \. \sub_folder\roadrunner.txt
```

This command now correctly creates **\folder\sub\_folder** directory structure, instead of creating **\folder** and **\sub\_folder** as siblings.

## Changes in 5.4

AccuRev Release 5.4 included the following features and bug fixes:

### 18865, 25172, — New stream and workspace search, find, and filter features

Several enhancements have been made to the search and find capabilities of the Java GUI:

- In the StreamBrowser, the **Find** command has been enhanced to list all results in a table display. It is also possible to limit the **Find** results to streams below the current one by right-clicking on a stream and invoking **Find** from the context menu.
- A new **Search** feature is available in the Workspace display, allowing you to locate all elements whose names include the specified string in locally-accessible workspaces.
- A new Filter capability to refine search results has been added to several dialogs (such as “Choose Depot” and “Change Palette Destination Stream”) throughout the GUI, as well as to both the stream **Find** and workspace **Search** features described in the previous two bullets.

For details about these new features, see the AccuRev 5.4 on-line help (*On-Line Help Guide*), starting at the “Find, Search, and Filter Features” section in the chapter “Using the AccuRev GUI”.

### 22914— New, optional Timestamp Optimization behavior

A new Timestamp Optimization (TSO) feature is now optionally available. The traditional TSO provides good performance when identifying modified files, but can miss files with older time stamps that have been copied into the workspace from another directory. The new TSO maintains a small local database cache on the client which allows all modified files to be identified without a significant impact to performance. For details, see the “File Browser” chapter of the AccuRev *On-Line Help Guide*.

**Note:** Because this new Time Stamp Optimization feature requires a one-time, full scan of the workspace, the first **accurev stat** or **accurev update** CLI command, or the first GUI **Update** or search command such as **Pending** or **Modified**, that your users perform may take up to several minutes to complete. After this one-time scan has been completed, these commands will behave with performance that is equivalent or better than prior releases.

### n/a — acserver.log entries now include time zone offset

The format of **acserver.log** entries has been expanded to include a time zone offset. For example:

```
2011/12/20 14:33:41.329-05:00 Server locale is C
```

where “-05:00” is the ISO-8601 TZ offset with respect to GMT.

This enables you or AccuRev Support to correlate logs from masters, replicas, and clients spread across different time zones.

### **25139 — Mac OS X Lion (10.7) support for AccuRev Clients**

AccuRev clients are now supported on Mac OS X Lion (10.7). (This platform is not officially supported for AccuRev servers, but can be installed on a Beta-release basis.)

### **24663 — Diff Against Backed error in Java GUI**

A problem has been corrected which could cause the following error message to appear when performing a “Diff Against Backed” operation in the Java GUI: “No authorization for access to selected version: eid xxxx”.

### **24972 — “accurev hostinfo” now returns host name value in usable format**

The **accurev hostinfo** command has been updated to return the host name value in a form that is compatible with standard/flexible license manager.

### **24977 — AccuRev Installer no longer prompts for JRE version**

The full AccuRev installer no longer asks if you wish to use an existing Java Runtime Environment (JRE). It now always installs its own version.

### **24979 — AccuRev Installer no longer prompts for type of installation**

Because the full AccuRev Installer has been streamlined, the prompt to choose between “typical” and “custom” installations has been removed.

### **25057 — “unaffiliated changes” after merges**

A problem has been fixed which could cause deep overlap merges to result in “unaffiliated changes”.

### **25128 — “accurev eacI” command and renamed elements**

A problem has been corrected with the **accurev eacI** command which allowed it to operate on renamed elements by specifying the old element name.

### **25209 — Bug fixed with “accurev cat” and cross-links in snapshots**

A problem has been fixed which could cause the **accurev cat** command to return the wrong version of a cross-linked element in a snapshot.

### **25254 — Native Windows 64-bit support**

The full AccuRev installer now provides the option for installing a native 64-bit version of AccuRev when it detects a Windows 64-bit operating system. You can also choose to install the 32-bit version on 64-bit machines.

The client-only installer automatically installs the 64-bit version of the client when it detects a Windows 64-bit operating system.

### **25292 — Client-only installation failure when installing on top of existing installation**

A problem has been fixed with the AccuRev client-only installer which could cause it to fail when performing an installation over a previous installation.

### **25462 — AccuRev Installer no longer supports Named (“keys.txt”) licenses**

The traditional Named AccuRev license manager (“keys.txt”) is no longer supported as of AccuRev 5.4. You can only install the standard/flexible license manager (“accurev.lic”).

### 25518, 25733— Installer no longer overwrites LD\_LIBRARY\_PATH

A problem has been fixed which, under certain circumstances, could cause the AccuRev installer to overwrite rather than prepend the value of LD\_LIBRARY\_PATH (DYLD\_LIBRARY\_PATH on the Mac).

### 25522 — Exclude rules and “accurev update”

An issue has been corrected which caused excluded elements in the workspace to be incorrectly updated.

### 25573 — Windows 64 stack size increased to 10MB

The stack size of 64-bit AccuRev installations on Windows x64 machines has been increased to 10 MB to prevent overflows. (32-bit AccuRev installations on x64 Windows machines are unchanged.)

### 25607 — Server crash and “mem.c” error message

A problem has been corrected which could cause a server crash and an error message: “mem.c:xxx Attempt to allocate chunk of size 0”.

### 25748 — Chained crosslinks cause problems with “accurev update” and “accurev stat”

A problem has been corrected where, under certain circumstances, having two or more cross-linked directories nested in a path in a Workspace could result in incorrect behavior under that path, from **update** (files missed) or **stat** (incorrect results).

### 24657, 25257, 25276, 25413 — Doc fixes

- Several notes have been added to the *Administrator’s Guide* reminding users to run the **maintain server\_properties update** command after making changes to the values of SITE\_SLICE\_LOC, MASTER\_SERVER, or PORT in the acserver.cnf file. This step has also been added to the section “Moving the AccuRev Server”.
- Installation documentation has been updated to reflect that Web UI and client-only installations on UNIX/Linux can be installed by user root, unlike the server installation which is restricted to non-root users.
- Installation documentation has been updated to ensure that the locale setting on an AccuRev server host is UTF-8 compliant prior to beginning the installation.

## Known Issues

### 25851 — Web UI Tomcat server must be restarted on UNIX/Linux servers

After installing the AccuRev Web UI server on a Linux or UNIX host, you must manually restart the Tomcat server even if the AccuRev installer starts it automatically. (Tomcat must be restarted by the same user that performed the installation.)

### 25930 — 5.4 client with 5.4.1. server compatibility

If you are using a 5.4 client with a 5.4.1 server, you might notice some changes in behavior and functionality. See *Compatibility with Previous Versions* on page 5 for more information.

## **26181 — CLI Help was not updated for 5.4.1**

The CLI Help accessible from the command line was not updated for Version 5.4.1. Complete CLI reference and usage information is available in the *AccuRev® CLI User's Guide* in both PDF and the AccuRev online help.





# AccuRev 5.3 Release Notes

## Changes in 5.3b

AccuRev Release 5.3b was a patch release for 5.3 that addressed the following issues:

### 25289 — "accurev update" performance fix for cross-links

A bug has been fixed with the **update** command which could cause excessive delays in workspaces with no cross-links but where include/exclude rules were defined.

### 25362 — Bug fix for issues caused by "evil twins" on Windows servers

A bug has been fixed which could cause the following issues on AccuRev Windows servers when listing directories with "evil twins" (two or more elements with the same pathname in a dynamic stream ):

- "Network Error 6" errors on AccuRev clients
- "SAException(7): ERROR: invalid byte sequence for encoding ..." error messages in acserver.log

### 25405 — Bug fix for cross-links in snapshot streams

A bug has been fixed that could allow cross-linked files in a snapshot stream to change if they were defuncted or edited.

## Changes in 5.3a

AccuRev Release 5.3a was a patch release for 5.3 that addressed the following issues:

### 11039, 13317 — 3rd Party ITS keys and XML files

The option of using the new third-party ITS key feature in XML files with the -Fx switch (as described at the end of the new "Using Third-Party ITS Keys" chapter of the *AccuRev Technical Notes*) is now implemented.

### 24546— AccuWorkflow support: transitions and conditions

AccuRev now supports the following AccuWorkflow transition features: Create a new issue, modify issue without a transition, transition without promote, and transition and promote with conditions. (For more information about AccuWorkflow, see the Version 2011.3 editions of the *AccuRev Web Interface Installation and Release Notes* and the *AccuRev Web Interface User's Guide*.)

### 25014, 25017 — Question marks in UNIX/Linux supported

AccuRev now allows question mark characters (?) to be used in UNIX/Linux element names.

### 25102 — maintain dbupgrade

An issue has been corrected which could allow **maintain dbupgrade** to partially succeed when it reported that the upgrade had failed.

## 25103, 25087 — Release Notes

Cross-references to external documents no longer appear as non-functional hyperlinks. Also, the platform support information for SunOS, HP-UX, and AIX has been updated and expanded in the AccuRev *Installation and Release Notes*. (See *Platform Support Notes* on page 30.)

## Changes in Release 5.3

AccuRev Release 5.3 includes the following features and bug fixes:

### 11039 — Client-only installer, and unattended install for Windows and Linux

AccuRev 5.3 introduces a lightweight client-only installer, which also provides the option for configuring unattended installations on Windows and Linux hosts. See *Client-only Installer and Unattended AccuRev Installations* on page 15 for details.

### 13317, 16158 — Third-party ITS keys

Some AccuRev commands can now support issue numbers (or “keys”) from third-party issue tracking systems (ITS). For information about configuring AccuRev to use this feature, see the new “Using Third-Party ITS Keys” chapter of the AccuRev *Technical Notes*.

### 16277 — server\_auth\_trig enhancement

The server\_auth\_trig trigger has been enhanced with a third exit state (“2”) so that you can write the trigger script to first try to authenticate a user with a custom authentication (such as LDAP, if you have configured such a system), and if that fails, authenticate against AccuRev. The server\_auth\_trig exit codes are now:

0=login succeeded

1=login failed

2=Accurev should validate the user's password instead of this trigger script (implies that the initial custom authentication failed).

Any other return code is the same as returning “1”.

### 17631 — Invalid Relationship error

When you modify your schema to use a third-party ITS key for the “3pty ITS Key” field, linking to a tracking issue no longer fails with the error “Invalid Relationship”.

### 20783 — Workspace not recognized on Linux if created on Windows

A problem has been fixed which could prevent AccuRev on Linux from recognizing a workspace created on a Windows client when the storage location was on the Linux file system.

### 21005 — server\_post\_promote trigger and purge

A problem has been fixed which could cause the server\_post\_promote trigger to enter incorrect stream values after a **purge** operation.

### 22680 — Non-expiring login sessions

A non-expiring login session is no longer replaced by an expiring session after a subsequent login. Note that an incorrect login no longer logs out the previously active session. (A correct login still replaces any previously active session.) Script writers should check the exit status of “accurev login” to determine whether or not a login succeeded, instead of possibly relying on subsequent commands to fail.

### **24418 — AccuRev installer on Windows can take a long time to complete**

An issue has been corrected that could cause the final step of an AccuRev installation on Windows to take up to 30 minutes or more to complete if you were installing on a virtual machine (VM) with storage area network (SAN) disk space, with a large number of existing files.

### **24581 — Post-installation administrative scripts**

You can now configure the AccuRev installers to invoke a user-defined script or executable. See *Running the Silent Installation* on page 17 for more details.

### **24728 — StreamBrowser performance**

The performance of the StreamBrowser has been improved when displaying depots with many streams.

### **24715 — SESSION\_TIMEOUT enforcement**

A problem has been fixed with SESSION\_TIMEOUT, which allowed commands to be executed without a fresh login after the session had timed out.

### **24783 — File Browser performance**

The refresh performance of the AccuRev GUI File Browser has been improved when viewing a directory that's many levels from the root.

### **24787 — Session tokens on restarted replica server**

The session tokens on a replica server are no longer lost in the event of a replica server restart.

### **24893 — StreamBrowser and snapshots**

A problem has been corrected which could cause the StreamBrowser to incorrectly display snapshot streams after their view setting was toggled.

## **Deprecated Features**

The following server platforms will no longer be supported in AccuRev V5.x versions released after January of 2012.

- 32 bit: XP, Vista, Windows server 2003, RedHat 4
- 64 bit: XP, Vista, Windows server 2003, RedHat 4

Also see *Deprecated Features* on page 61 of *AccuRev 5.2 Release Notes*



# AccuRev 5.2 Release Notes

## Deprecated Features

The traditional AccuRev “named” license manager (keys.txt) will not be offered in future releases. Plan to switch to the “standard/flexible” license manager (accurev.lic).

## Changes in Release 5.2.1

AccuRev Release 5.2.1 was a Japanese localization release which included the following features and bug fixes:

### **24194, 24195—Improved I18N encoding support**

Release 5.2.1 provides improved encoding support for UTF-8 on Windows and EUCJP on Linux.

### **24468—AccuWork problem with new depot and schema**

A problem has been corrected which could cause a new depot schema to be inaccessible if the depot was created after logging into the GUI.

### **24525—Stream names in Japan are restricted to ASCII characters**

To address issues in Japanese installations, stream names are now restricted to ASCII characters when the locale is set to “ja\_JP”. In all other locales, non-ASCII characters are still allowed.

### **24616—Server installer permissions**

The AccuRev installer has been updated to better handle permissions when installing the AccuRev server in Japan.

## Changes in Release 5.2e

AccuRev Release 5.2e was a cumulative patch release for Version 5.2 that addressed the following issue, as well as issues from Releases 5.2a, 5.2b, 5.2c, and 5.2d:

### **24802, 24803 — Performance improvements**

The performance of **show members** and **show wspaces** has been improved.

### **24510 — maintain restore**

The **maintain restore** command has been modified to allow sites with a large number of depots to restore without making PostgreSQL configuration changes.

## Changes in Release 5.2d

AccuRev Release 5.2d was a cumulative patch release for Version 5.2 that addressed the following issues, as well as issues from Releases 5.2a, 5.2b, and 5.2c:

### 24709 — Running a command against one depot from another depot's workspace

A problem has been corrected which could cause a segmentation fault or access violation error when executed an AccuRev command against one depot while you were in the workspace of a different depot (for example, running "`hist -p B`" from a workspace in depot "A").

## Changes in Release 5.2c

AccuRev Release 5.2c was a cumulative patch release for Version 5.2 that addressed the following issues, as well as issues from Release 5.2a and Release 5.2b:

### 24471 — basis version for reverted change packages incorrect

Previously, when reverting a change package AccuRev set the basis to the version before the one being reverted instead of to the current version at the time the revert was performed. This problem has been corrected in the current release.

### 24553 — basis version for patch records incorrect

When using the `-O` option for the `patch` command, AccuRev did not correctly record the basis version for the patch record. This problem has been corrected in the current release.

### 24556 — 4GB address space support for 64-bit Windows

Several AccuRev binaries (`accurev`, `accurev_server`, and `maintain`) have been modified to handle address spaces larger than 2GB in 64-bit Windows environments.

## Changes in Release 5.2b

AccuRev Release 5.2b was a cumulative patch release for Version 5.2 that addressed the following issues, as well as an issue from Release 5.2a:

### 24501 — pop dialog never completes

When performing a `pop` command in the GUI, with both `recursive` and `overwrite` options set, the dialog would not disappear even after a successful completion of the operation. This has been corrected.

### 24506 — pop and stat crash

A problem has been fixed which caused a crash when `pop` or `stat` were used with nested paths (for example, "`accurev [pop|stat] -R path1 path1/path2`").

### 24511 — empty values are passed to commands

A problem has been fixed which could cause a server crash when empty values were passed to a command (for example, "`accurev lsrules -s`").

### 24539 — update failures due to `ac_tmp_map.txt` move-aside file

A problem has been corrected which could cause `update` to fail with the message "Move aside directory not usable", when a workspace is at the partition root level of a second drive.

### 24548 — annotate crash

A problem has been fixed which caused `annotate` to crash with an "Unknown exception(0, 0)" error, when used with a non-ASCII file that had been kept with "`accurev keep -E text`".



## Changes in Release 5.2a

AccuRev Release 5.2a was a patch release for Version 5.2 that addressed the following issue:

### 24491 — ACLs after migration

A problem has been fixed which caused depot and stream ACLs applied to *authuser* and *anyuser* to be lost after upgrading from version 4.x to 5.2. This issue does not affect upgrading from 5.0.x or 5.1 to 5.2.

## Changes in Release 5.2

AccuRev Release 5.2 included the following features and bug fixes:

### 10313, 23905, 23916, 23962 — New Element-level security (“EACL”s) feature

This release introduces the ability to set Access Control Lists (“ACL”s) on individual elements. See the “AccuRev Security Overview” chapter of the AccuRev 5.2 *Administrator’s Guide* for details about this new feature.

### 23333 — New “Revert Change Package Directly in Stream” feature

It is now possible to revert a change package without using a workspace for conflict resolution. See the “The Stream Issues and Stream Diff (Issues) Tabs” section of the “StreamBrowser” chapter of the new AccuRev 5.2 *On-Line Help Guide*, and the “direct revert” discussion in the **revert** command section of the AccuRev 5.2 *CLI User’s Guide* for more details.

### 21359, 22805 — Make AccuRev I18N (Internationalization) Compliant

AccuRev 5.2 has been rewritten to allow it to be localized for foreign languages.

### 23000, 24003 — Installer changes

The AccuRev 5.2 Installation Wizard has been upgraded to handle:

- the “standard/flexible” license manager
- 64-bit AccuRev installations on 64-bit hardware running a 64-bit operating system

### 23657 — AccuWorkflow has been improved and moved to the Web UI

The optionally licensed AccuWorkflow product has been completely rewritten and is now available exclusively through the AccuRev Web UI client.

### 23410, 24184 — Tighter integration between Java GUI client and WebUI client

The AccuRev Java GUI has several links that invoke the Web UI, or copy URLs to the clipboard that allows a user to bring up a particular screen in the Web UI. It is also possible to set a preference so that any time an AccuWork issue gets displayed, it automatically comes up in the Web UI rather than in the Java GUI. For more details, see “Configuring the Web User Interface (Web UI)” in the “AccuRev Server” chapter of the AccuRev *Administrator’s Guide*.

**Note:** In summary, there are three ways for the Web UI to be invoked when you open an AccuWork issue:

- If you have an AccuWorkflow license installed, the Web UI will automatically be invoked for any AccuWork issue. Please note that the license mentioned in the previous sentence is for AccuWorkflow, not AccuWork.

- If the AccuRev administrator configures the server as described in the Administrator's Guide to use the Web UI for all AccuWork requests.
- If an individual user configures the client preferences to use the Web UI for all AccuWork requests.

## **20985, 22902 — New archive options**

It is now possible to use the **archive -I** option to force the archive of an initial/only version.

It is also now possible to archive an entire stream hierarchy in one of two ways, using a new **-I allInHierarchy** option:

- Find all versions for the specified elements in the specified stream and its descendant streams, that don't exist in any other stream, and archive them.
- Find all versions for the elements ever in the specified stream and its descendant streams, that don't exist in any other stream, and archive them.

Any versions found outside the stream and its descendant hierarchy will not be archived.

## **12227, 20324, 20880, 22774, 22884 — New documentation and on-line help system**

AccuRev 5.2 replaces the old context-sensitive on-line help system by combining help content with the documentation mechanism first introduced in 4.9. This means that the entire AccuRev 5.2 documentation set (except *Installation & Release Notes*, AccuBridge, and WebUI documents) is now searchable and viewable from a single browser. This also helps address the following customer requests:

- All documentation (including the on-line help) is now available in PDF.
- It is now possible to hyperlink between different books.
- The doc is now more consolidated, making it easier to find information.

## **17047, 20749 — Error 6 on promote and purge**

A crash has been fixed which displayed an “Error 6” message with 'duplicate key constraint violation' when performing **promote** and **purge** operations that involved renames of multiple elements to the same name.

## **17945 — merge now handles overlapped, renamed folders**

The merge command now correctly handles folders that have been renamed both in your own workspace and another workspace, causing an overlap condition.

## **22541 — Redundant data transmitted as part of show -s command**

The communications between server and client have been refactored so that significantly less redundant data are transferred during a **show -s** operation.

## **23198 — Diff for streams with xlinks**

The performance of the **Diff** command has been improved when working with streams containing cross links.

## **23240 — No-op updates**

The **update** command has been improved so that operations that result in no update do not take excessive time to complete.

### 23354 — Changing depot case sensitivity causes performance issue

A problem has been corrected where changing depot case sensitivity via the **chdepot -C** command would fail to recreate loc indices, resulting in severe performance degradation.

### 23546 — Promotions of stranded elements or “evil twins”

A problem has been fixed with promoting stranded elements or “evil twins”, which could result in element appearing to be archived, or in a “multiple versions specified for element” message.

### 23618 — deep overlap performance

Upgrading your database to 5.2 improves the performance of **deep overlap**.

### 24088,24089 — I18N long file names

Long file name handling has been corrected to work with internationalization (I18N).

### 23964 — Memory footprint of the pop command

The **pop** command has been updated to make better use of system memory.

### 24222 — maintain command behavior has been improved

The behavior of the administrative **maintain** command has been improved to make it prompt the user for necessary information, and to make it more secure by disallowing database admin passwords to be specified as part of the **maintain** command line. See the “The maintain Utility” chapter of the 5.2 AccuRev *Administrator’s Guide* for updated command syntax.

### 6722 — Doc for chws -s and changing principal names

The documentation for **chws -s** has been updated to explain how to change a workspace name to reflect a change in a principalname.

### 21008, 23882, 24150 — Updates to the triggers documentation

In the “AccuRev Triggers” chapter of the *Administrator’s Guide*, the sections covering `server_post_promote` trigger, multiple-platform environments, and disabling triggers have been rewritten or updated.

## Changes from Releases 4.9.1

AccuRev Release 4.9.1 was released after 5.1, and the changes from that release have been merged into 5.2.

## Known Issues

Also see *Known Issues* on page 67, in the *AccuRev 5.1 Release Notes*, and *Known Issues* on page 71, in the *AccuRev 5.0/5.0.1 Release Notes*

### 24418 — AccuRev installer on Windows can take a long time to complete [FIXED 5.3]

Under certain circumstances, the AccuRev installer on Windows can take up to 30 minutes or more to complete. If you are installing on a virtual machine (VM) with storage area network (SAN) disk space, and you have a large number of existing files, the final step of the installation (setting default permissions) can take a long time. Do not kill the process; allow it time to finish.

## 24248 — Depot names must be ASCII.

Only stream and workspace names can be non-ascii, not depot names.

## 23564 — Delete preferences.xml when switching locales

If you switch between the Japanese and English versions of AccuRev, you must delete the **preferences.xml** file located in `<homeDirectory>/.accurev`. When switching between locales, your preferences file can be left in the state where there is no UTF-8 header, but there are Japanese characters which cause Exceptions when you try to login to AccuRev.

## 15780 — hist -t can return transactions outside of limits

If you specify a date range such as:

```
accurev hist -s "Mystream" -t "2010/12/12 07:30:49 - 2010/12/13 07:30:49"
```

AccuRev can return transactions that precede the start time. In the CLI, you can work around this issue by reversing the start and end values to the **-t** option.

# AccuRev 5.1 Release Notes

## Performance Improvements

AccuRev Release 5.1 was a limited-availability release for existing 5.0.x customers requiring specific performance improvements. The release made more efficient use of the third-party relational database management system (RDBMS), resulting in substantial improvements in overall performance and end-user productivity.

Scalability issues in 5.0.x have been corrected so that the performance of most commands in 5.1 is now a function of how many elements they are working with, rather than being affected by other factors such as where in the stream hierarchy the command is operating. In other words, command performance in 5.1 is predictably linear or proportional based on the number of elements the command is operating upon.

Also, some commands such as **diff** and **update** are now faster in 5.1 than in previous versions (including 4.x) due to improved business logic that takes advantage of the new capabilities provided by the RDBMS.

Along with the performance improvements, peak memory usage of many commands has also been reduced compared to 5.0.1.

## Deprecated Features

### Old licensing features

Because of the introduction of the new standard/flexible license manager, the “traditional” authentication method is no longer available as of AccuRev Release 5.1. If you still use traditional authentication, you must switch to “accurev\_login” or “custom” authentication.

Note that this also means that the environment variables `ACCUREV_PRINCIPAL` and `AC_PRINCIPAL`—which were used to retrieve the user name for the traditional login method—are deprecated. (AccuRev also no longer makes use of the common “USER”, “LOGNAME” and “USER-NAME” environment variables, although other programs on your system may continue to use them.)

Additionally, the `authn` file, which formerly held the encrypted password on the client, is no longer used. Finally, the `setlocalpasswd` command which could be used to update that file has also been removed.

Please see the “AccuRev Security Overview” chapter of the *AccuRev Administrator’s Guide* for information about authentication methods.

## Known Issues

Also see *Known Issues* on page 71, in the *AccuRev 5.0/5.0.1 Release Notes*

## 23297 — mkreplica and replica sync performance

The **mkreplica** and **replica sync** commands are slow when used with a large transaction range.

## 23354 — Changing depot case sensitivity impacts performance

Changing depot case sensitivity via the **chdepot -C** command fails to recreate loc indices, resulting in severe performance degradation.

## 21829 — Chrome browsers and Help

Recent Chrome browsers do not work with on-line Help systems (see <http://code.google.com/p/chromium/issues/detail?id=47416>). A security enhancement to Chrome browsers in June 2010 has caused problems in several on-line Help systems. In AccuRev's case, the left-hand navigation pane is blank, and it is impossible to display the Table of Contents, Search, and Glossary tabs. Possible workarounds include:

- rolling back to an older version of Chrome
- using a different browser
- disabling the security feature in the AccuRev preferences
- disabling the security feature system-wide

Google has provided a command line switch to disable this new security feature. You can try disabling this feature just for AccuRev Help, by using the following procedure:

1. In the AccuRev GUI, go to **Tools, Preferences**
2. In the On-line Help Browser field, specify the start-up command line for Chrome with the "--allow-file-access-from-files" argument (Windows XP and 7 examples shown):

### Windows XP:

```
"C:\Documents and Settings\<user>\Local Settings\Application  
Data\Google\Chrome\Application\chrome.exe"  
--allow-file-access-from-files "%1"
```

### Windows 7:

```
"C:\Users\<user>\AppData\local\Google\Chrome\Application\chrome.exe"  
--allow-file-access-from-files "%1"
```

If this does not work for your installation, another option is to try using this switch as the default for all instance of Chrome on your system. The following example shows how to use this fix in Windows. Adjust appropriately for other operating systems. The following procedure assumes that you have Chrome set as your default .htm/.html browser:

1. Open Windows Explorer.
2. Navigate to **Tools => Folder Options => File Types**
3. Select "HTM" or "HTML", then click Advanced.
4. Select **Open**, then click **Edit...**
5. In the "Application used to perform action:" field, you should see a line similar to:

**Windows XP:**

```
"C:\Documents and Settings\<user>\Local Settings\Application  
Data\Google\Chrome\Application\chrome.exe" -- "%1"
```

**Windows 7:**

```
"C:\Users\<user>\AppData\local\Google\Chrome\Application\chrome.exe"  
-- "%1"
```

6. Replace the empty "--" with "--allow-file-access-from-files":

**Windows XP:**

```
"C:\Documents and Settings\<user>\Local Settings\Application  
Data\Google\Chrome\Application\chrome.exe"  
--allow-file-access-from-files "%1"
```

**Windows 7:**

```
"C:\Users\<user>\AppData\local\Google\Chrome\Application\chrome.exe"  
--allow-file-access-from-files "%1"
```

7. Click **OK**, **OK**, and **Close** to save your changes and exit out of the dialogs.

Of course, if this line has already been customized at your site, you will need to adjust the above instructions as needed.

Also, note that implementing this fix will disable a security change introduced with Chrome, so the security policies of some organizations may prohibit them from doing this.

## Changes in this Release (5.1)

AccuRev Release 5.1 includes the following features and bug fixes:

**20405, 20406 — server\_admin\_trig now gets mkgroup and mkuser values**

When you use the **mkuser** or **mkgroup** commands, the **\$user** and **\$group** input parameters for **server\_admin\_trig** now get populated, making it possible to put naming convention logic around the creation of group and user names

**18915, 21219, 21521 — Stranded elements and incomplete issues**

A problem has been fixed which could cause an issue to not appear if it consisted of only a stranded element.

**21222 — 64-bit Linux Server**

If the AccuRev installer wizard determines that it is installing on 64-bit x86 hardware with a 64-bit Linux operating system, it will present the option of installing either 32- or 64-bit AccuRev software.



## Changes from Releases 4.7.4, 4.8, and 4.9

AccuRev Releases 4.7.4, 4.8, and 4.9 were released after 5.0, and the changes from those releases were merged into 5.1.

# AccuRev 5.0/5.0.1 Release Notes

## Limitations

The following limitations apply to this release of AccuRev 5.0.x:

- Only one AccuRev 5.0.x server may be installed per machine.
- UNIX/Linux users should not install AccuRev 5.0.x as user **root**, as the installation will not complete correctly.
- Upgrades from AccuRev 5.0 pre-release versions are not supported. If you have a pre-release AccuRev 5.0 version, you must uninstall it, then reinstall the new version, and upgrade your database from 4.7.x as described in *Server and Database Upgrades* on page 18.

If you encounter any issues with this release, please contact AccuRev Support Services (<http://support.accurev.com>).

## Added Platform Support

AccuRev 5.0.x has added support for the following platforms:

- **Microsoft Windows:** Windows 7
- **Linux:** Fedora 10 and 11, SUSE 10.2, 11.0, and 11.1, Ubuntu 8.10 and 9.04

## Deprecated Features

- Link-based workspaces are not supported in AccuRev 5.0. If you are using link-based workspaces and would like to upgrade to AccuRev 5.0, please contact Customer Support.
- The “traditional” authentication method will no longer be available in the next release of AccuRev. If you still use traditional authentication, please switch to “accurev\_login” or “custom” authentication. Please see the “AccuRev Security Overview” chapter of the *AccuRev Administrator’s Guide* for information about authentication methods.

## Known Issues

- The **-G** option for the **revert** command returns XML to the command line instead of displaying the information in the defined graphical Merge tool.
- The **maintain vercheck** command incorrectly reports that archived **.sto** files are missing.

## Changes in this Release (5.0.1)

AccuRev Release 5.0.1 includes the following features and bug fixes:

## 20980

An issue with **purge** has been fixed, which caused purged files to sporadically have incorrect element type or modification times set.

## 21018

It is no longer possible to change the time basis of a stream to any time before its backing stream was created.

## 21074

An issue has been fixed which caused `Update -s <stream> -t <t1-t2>` to crash `accurev_server` if `<stream>` did not exist at the time of the **update** transaction.