

AccuRev

The TimeSafe[®] Configuration Management System

AccuRev Installation and Release Notes

Version 5.0

December, 2009

6-January-2010

AccuRev Installation and Release Notes

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AccuRev Installation Notes

Overview

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.

Introducing AccuRev 5.0

AccuRev 5.0 introduces the use of a third-party database. Before installing this version of AccuRev, you must upgrade to a 4.7.x version of AccuRev (both clients and servers). Refer to the *AccuRev Installation and Release Notes* for the version you are upgrading to.

If you are upgrading to AccuRev 5.0 from another version, you must migrate your data to the new database before starting the AccuRev Server.

Compatibility between AccuRev 4.7.x and AccuRev 5.0 is limited. See the [AccuRev 5.0 Release Notes](#) for more information on this release.

Please note that 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](#).

Generic Name	Description
installer-loc	Location of the downloaded AccuRev installation package.
install-cmd	Command to run the AccuRev installer from the command line. (Windows) AccuRev_5_0_0_Windows.exe (Unix/Linux) sh AccuRevInstall.bin

This table contains the generic names and defaults for the values configurable via the installation program. Fill in the values for your installation in the Actual Name column.

Generic Name	Actual Name	Description/Defaults
ac-install		Location that AccuRev is installed to. Defaults to: (Windows) C:\Program Files\AccuRev (Unix/Linux) /opt/accurev
ac-storage		Location of the AccuRev database and container files. Defaults to: (Windows) C:\Program Files\AccuRev\storage (Unix/Linux) /opt/accurev/storage
ac-host		Hostname of the AccuRev Server.
ac-port		Port number that the AccuRev Server runs on. Defaults to 5050 .

Generic Name	Actual Name	Description/Defaults
<code>ac-user</code>		Name of the operating-system user that runs the AccuRev Server. Defaults to: acserver .
<code>ac-pass</code>		Password for the <code>ac-user</code> .
<code>db-port</code>		Port number that the database server runs on. Defaults to 5075 .
<code>db-admin-name</code>		Name of the database superuser. Defaults to postgres .
<code>db-admin-pass</code>		Password for the <code>db-admin-name</code> .

Downloading the Installation Packages

On the Downloads page of the AccuRev, Inc. Web site (<http://www.accurev.com/download.htm>), download the appropriate AccuRev installation packages for your operating system (referred to as `installer-loc` throughout this document).

If you downloaded a compressed package (`.zip` or `.gz` file), first extract the files from the package. Many extraction tools are freely available. There are handy links to such tools on AccuRev's Downloads page; and the **unzip** and **gunzip** programs are standard on many Unix/Linux systems.

For installation instructions, proceed to the appropriate section below:

- *Installing or Upgrading an AccuRev 5.0 Server*
- *Installing or Upgrading an AccuRev 5.0 Client*

Installing or Upgrading an AccuRev 5.0 Server

Before you begin

Before you install AccuRev 5.0, perform the following steps:

1. Read the *Platform Support Notes* for your operating system before proceeding, and follow the instructions given there.
2. If you are installing a new AccuRev 5.0 server on a Unix/Linux machine, run the **adduser** command to make an OS-level user (`ac-user`). You must set a home directory for this user.
3. If you are upgrading an existing AccuRev server:
 - Check the second date in your **keys.txt** file to verify that you are still on maintenance. If not, contact **renewals@accurev.com** to renew before upgrading.
 - Upgrade your existing AccuRev Server installation to Version 4.7.x. See the instructions in the *AccuRev 4.7 Installation and Release Notes*.
 - Perform a full backup of your AccuRev data. For detailed instructions, see the section titled *Backing Up the Repository* (on page 3 of the *AccuRev 4.7 Administrator's Guide*).

- 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 5.0 Administrator’s Guide*, and the documentation for the **backup** command in the *AccuRev CLI User’s Guide*.
4. For *each* AccuRev 5.0 Server you plan to run, obtain a **keys.txt** file from **http://www.accurev.com/license-request.shtml** containing a license to run the software. The server will not start if you have a 3.x or 4.x license key file.

Notes:

- If you will be installing a test server before upgrading your production servers, use the URL above to request a test key.
 - If you will be installing a replica server, you will need to obtain a separate **keys.txt** file with the same license count as the file used by the master server. You cannot use the license key file used for the master server.
5. Decide what method you will use to upgrade your AccuRev installation to Version 5.0. There are four options to choose from:
 - *Install a new AccuRev 5.0 server*
 - *Install AccuRev 5.0 for use in replication* (Obtain a copy of the *AccuRev 5.0 Administrator’s Guide* to refer to if you choose this option.)
 - *Upgrade to AccuRev 5.0 ‘in place’*
 - *Upgrade to AccuRev 5.0 on a separate machine*

Install a new AccuRev 5.0 server

Use these instructions to perform a standard installation of the AccuRev 5.0 Server. Before continuing, please make sure you have performed the necessary steps from *Before you begin* on page 2.

1. Log in as **ac-user** (Unix/Linux) or a user with installation privileges (Windows).

*Important! Do not attempt to install as user **root** on Unix/Linux. The installation will not complete correctly.*

2. Navigate to the **installer-loc** directory and locate the downloaded AccuRev installer.
3. 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**.
4. On the **Choose Install Type** screen, select **Typical**.

The Typical installation uses the default values listed at the beginning of this chapter. To specify different values, use the Custom (Full) installation instead of Typical.

5. On the **Set Host and Port** screen, select **this machine** to install both the client and server software.
6. Proceed through the installation program. The AccuRev and database servers will start after the installation is complete.

Install AccuRev 5.0 for use in replication

Use these instructions to configure an AccuRev 5.0 server as a replica or master server.

Note: An existing AccuRev 4.7.x installation may be used as the master server. We recommend reviewing the chapter titled *Replication of the AccuRev Repository* in the *AccuRev 4.7 Administrator's Guide* before choosing this option.

Before continuing, please make sure you have performed the necessary steps from *Before you begin* on page 2.

Configure an existing AccuRev Server as a master server

1. Stop the AccuRev Server according to the instructions in *Starting and stopping AccuRev* on page 7.
2. Edit the **acserver.cnf** file, located in the AccuRev **bin** directory. Add the following line:

```
REPLICATION_ENABLED = true
```
3. If you would like the master server (V4.7.3 or later) to authenticate logins on the replica, add the following line to the **acserver.cnf** file:

```
MASTER_AUTHENTICATES_LOGIN = true
```
4. Restart the AccuRev Server process.
5. Create a new AccuRev username (**replica-user**) that will be used as the user identity for requests from a replica server.

Install an AccuRev 5.0 Server as a master server

1. Follow the instructions in *Install a new AccuRev 5.0 server* on page 3, except:
 - On the **Choose Install Type** screen, select **Custom**, then select **Full** at the **Choose Product Features** screen.
 - Proceed through the installation program. When prompted for replication options, confirm that this server will be a master server.
2. If you would like the master server to authenticate logins on the replica:
 - Stop the AccuRev Server according to the instructions in *Starting and stopping AccuRev* on page 7.
 - Add the following line to the **acserver.cnf** file:

```
MASTER_AUTHENTICATES_LOGIN = true
```

- Restart the AccuRev Server process.
3. After the installation is complete, create an AccuRev username (**replica-user**) that will be used as the user identity for requests from a replica server.

Install an AccuRev 5.0 Server as a replica server

1. Follow the instructions in *Install a new AccuRev 5.0 server* on page 3, except:
 - On the **Choose Install Type** screen, select **Custom**, then select **Full** at the **Choose Product Features** screen.
 - Proceed through the installation program. When prompted for replication options, confirm that this server will be a replica server.

Caution: The AccuRev 5.0 server will not start. Continue with the remainder of this procedure to successfully install AccuRev as a replica server.

2. If the master server is running AccuRev 4.7.x, add the following line to **ac-install/bin/acserver.cnf**:

```
MASTER_SERVER_IS_V47 = true
```

3. Start the AccuRev Server according to the instructions in *Starting and stopping AccuRev* on page 7.
4. Log in to the replica server using username **admin** and a blank password, and create at least one user, which will be used to access AccuRev locally. This username is distinct from the **replica-user** (created on the master server) referenced in step 5, below.
5. From the replica server, log in to the master server as **replica-user** with a permanent session file. If you are using an existing master server, this user may already exist, or you may wish to create another user to communicate with the replica.

```
accurev login -n -H <mast-server-host>:<mast-server-port> replica-user  
Password: *****
```

6. Set up replication as described in the sections titled “Synchronize the Site Slice” and “Configure the Replica Server to Include the Desired Depots” in the *AccuRev 5.0 Administrator’s Guide*.

Upgrade an existing AccuRev 4.7.x replica server to 5.0

1. Verify that the master server for this replica has been correctly upgraded to AccuRev 5.0.
2. Verify that no one is logged onto the replica server.
3. Remove the AccuRev 4.7.x installation on the replica server machine, and follow the steps under *Install an AccuRev 5.0 Server as a replica server* to install a new AccuRev 5.0 replica server.

Upgrade to AccuRev 5.0 ‘in place’

Use these instructions to perform a standard upgrade of your AccuRev Server from Version 4.7.x to Version 5.0.

Notes:

- We strongly recommend that you perform a test upgrade of your production data using the instructions in *Upgrade to AccuRev 5.0 on a separate machine* on page 7 before using this procedure to upgrade ‘in place’. This extra step will ensure that the production server upgrade goes smoothly.
- If you have previously installed on Unix/Linux as user **root**, the upgrade will not complete correctly. You will need to back up your database and install AccuRev 5.0 in another location.

Before continuing, please make sure you have performed the necessary steps from *Before you begin* on page 2.

1. Stop the AccuRev Server process according to the instructions in *Starting and stopping AccuRev* on page 7.
2. Navigate to the **installer-loc** directory and locate the downloaded AccuRev installer.
3. 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**.
4. On the **Choose Install Type** screen, select **Typical**.

Important! If there are multiple AccuRev installations on the machine, the one installed most recently will be upgraded.

5. Proceed through the upgrade program.

Caution: The AccuRev 5.0 server will not start after the AccuRev upgrade. Continue with the remainder of this procedure to successfully complete the installation.

6. After the installation is complete, run the following command at the command line to upgrade your AccuRev 4.7.x database to AccuRev 5.0:

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

See *Running the ‘maintain dbupgrade’ Command* on page 12 for descriptions of messages that appear during the upgrade. Note that the 4.7.x metadata is not deleted from the disk after AccuRev is upgraded.

The upgrade process will require additional disk space of up to three times the total used by the 4.7.x metadata. The size of the upgraded 5.0 database may be as much as 25%-30% larger than the 4.7.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 5.0 metadata: 1GB

Total metadata size after upgrade: 1.8 GB (1GB – 5.0 metadata, 800MB – 4.7.x metadata, which can be safely removed)

7. Put the new 5.0 **keys.txt** file in `ac-install\storage\site_slice`.
8. Start the AccuRev Server process according to the instructions in *Starting and stopping AccuRev* on page 7.

Upgrade to AccuRev 5.0 on a separate machine

Use these instructions to back up your existing AccuRev 4.7.x system and restore it onto a new system before upgrading to AccuRev 5.0. Before continuing, please make sure you have performed the necessary steps from *Before you begin* on page 2.

1. Move the files created during the full backup of AccuRev 4.7.x to your test machine.
2. Log in as `ac-user` (Unix/Linux) or a user with installation privileges (Windows).

Important! Do not attempt to install as user `root` on Unix/Linux. The installation will not complete correctly.

3. Install AccuRev 4.7.x on your test machine. See the *AccuRev 4.7 Installation and Release Notes* for instructions.
4. Perform a full restore of the backed-up data as described in *Restoring the AccuRev Repository* on page 4 of the *AccuRev 4.7 Administrator's Guide*.
5. Follow the instructions under *Upgrade to AccuRev 5.0 'in place'* on your test machine to complete the AccuRev 5.0 installation and migrate your data to the new database.

Starting and stopping AccuRev

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

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

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

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

When the AccuRev Database Server is shut down, the AccuRev Server will automatically shut down as well. See “Controlling Server Operations” in the *AccuRev 5.0 Administrator’s Guide* for more information.

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.

1. Log in as **ac-user**.
2. 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/8.3/static/kernel-resources.html> for more information.
 - `shared_buffers` – Change to 512MB if the machine running AccuRev has more than 4GB of RAM.
 - `effective_cache_size` – Subtract the `shared_buffers` setting from the amount of free physical memory on the system when AccuRev is not running, then take 75% of that value.

Free physical memory can be estimated as follows:

- Unix/Linux (expressed in MB):

```
free -m | awk '/buffers.cache/{print $4}'
```
- Windows (expressed in KB): Access the Performance tab on the Windows Task Manager. Add up the *Available* and *System Cache* values under “Physical Memory”.
- 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.

3. Stop, then start the AccuRev Database Server process according to the instructions in *Starting and stopping AccuRev* on page 7.

Installing or Upgrading an AccuRev 5.0 Client

If you are upgrading, you don't need to uninstall any existing software. The AccuRev Installation program lets you preserve your development data and configuration files, and installs the new version in the same place as your existing version.

1. Navigate to the `installer-loc` directory and locate the downloaded installer.
2. 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`.
3. On the **Choose Install Type** screen, select **Typical**.
4. On the **Set Host and Port** screen, select **another machine**, and enter the hostname and port number of an AccuRev Server.
5. Proceed through the installation program.

Installation Program Notes

Use these notes to determine which installer options to choose for your installation type.

- On the **Set Host and Port** screen:
 - If you wish to install the AccuRev Server on this machine, or create a test installation, select **this machine**. The wizard will install both the client and server software.
 - If there is already an AccuRev Server on your network, select **another host** and enter the `ac-host` and `ac-port` to connect to.

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

- On the **Choose Install Directory** screen:
 - *(all upgrades)* Specify your existing AccuRev installation directory.
 - *(all other installation types)* Specify a location where you have write permission.
- *(Unix/Linux only)* On the **Choose Link Location** screen, if you choose to create symbolic links to the AccuRev client programs, specify a location where you have write permission.

Platform Support Notes

The following sections contain important notes on installing AccuRev software on specific hardware/software platforms:

Java Compatibility

AccuRev 5.0 is compatible with the Java 2 Runtime Environment (JRE), Versions 1.5.x and higher. These Java versions are also labeled “J2SE Version 5” and higher.

Windows

- Download and install the *Microsoft Visual C++ 2005 SP1 Redistributable Package (x86)* using the instructions at <http://www.microsoft.com/downloads/details.aspx?FamilyID=200b2fd9-ae1a-4a14-984d-389c36f85647>.
- Machines running Windows Server 2003 must be upgraded to SP2 before installing AccuRev 5.0.
- Disable anti-virus checking for the **ac-storage** directory and all directories beneath it to avoid performance problems associated with anti-virus checks.

Mac OS X

- AccuRev 5.0 is supported on Mac OS X 10.5 (Leopard). AccuRev versions prior to 4.6.2 did not install successfully on this platform.
- Be sure you have JRE 1.5 or higher installed. AccuRev does not install its own JRE on OS X, because Java is included with the OS X installation.
- An administrative user can choose either **Typical** or **Custom** in the AccuRev Installation Wizard. A non-administrative user must perform a **Custom** installation.
- Only the AccuRev client software is supported on this platform.

Linux

- PostgreSQL may fail to function properly when SELinux mode is set to “Enforcing”. See <http://docs.fedoraproject.org/selinux-faq-fc5/#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 or higher. To determine your `glibc` version, run **rpm -qi glibc** in a command shell.
- The AccuRev Installation program and the AccuRev GUI fail on some 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.

```
glibc.i386 (version 2.3 or later)
xorg-x11-libs.i386 (version 6.8 or later)
```

- (64-bit Linux) 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).

SunOS / Solaris

Solaris users running AccuRev 5.0 may need to increase the TCP buffer size using the **ndd** command. See the **Solaris Tunable Parameters Reference Manual** for details of TCP tunable parameters. The recommended minimum sizes (in bytes) are:

```
/dev/tcp tcp_xmit_hiwat 131072
/dev/tcp tcp_recv_hiwat 131072
/dev/tcp tcp_max_buf    131072
```

Log in as the **root** user, and use the **ndd /dev/tcp \?** command to check the current settings. If any of the buffer sizes are smaller than the recommended minimums above, use **ndd -set** to change the value:

```
ndd -set /dev/tcp tcp_xmit_hiwat 131072 (for example)
```

The values you set are only in effect until the machine is rebooted. To set these values on startup, add them to the **accurev** startup script. (A sample script is provided in **ac-install/extras/unix**.)

Restrictions on the Use of AccuRev in Solaris Zones

The following restrictions apply to the use of AccuRev 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.

Running the ‘maintain dbupgrade’ Command

This section details the messages that may appear when upgrading your AccuRev 4.7.x database using the **maintain dbupgrade** command. For 4.7.x databases, the upgrade is a two-step process:

- Migrating the metadata to the third-party database used with AccuRev 5.0.
- Performing the database upgrade, which alters the AccuRev database schema and cleans up the records in the database.

At the start of the upgrade process, you will be presented with the following messages:

```
AccuRev 4.7.x is required for migration to AccuRev 5.x.  
Please confirm your AccuRev version is 4.7.x (Y/N)? []  
  
The migration from 4.7.x to 5.x may take some time.  
Please confirm the start of the migration (Y/N)? []
```

When you type **Y** to both questions, the application will begin migrating the AccuRev metadata, starting with data from the 4.7.x site-slice tables.

```
AccuRev metadata migration started...
```

Migrating the Site Slice

The message that appears at the start of the site-slice migration will look like:

```
Starting Pools/Slices upgrade...  
Found 62 rows to upgrade  
In progress -      0% complete
```

Data from each table in the site-slice will be migrated before continuing to the depot tables. During the migration, warnings may appear to indicate that corrections have been made to the data before writing to the 5.0 database. These warnings are informational only and need no user action. Some examples:

```
Warning: The ws.ws_type field has an out-of-range value:
  Original value: 2147483657 (0x80000009)
  Written value: 9 (0x00000009)
```

```
Warning: The lock.comment field was truncated to its maximum size of 79
bytes.
  Written value: 'Locks out all non-essential personnel from promoting any
changes to the full-re'
```

```
Warning: The is_member field has an invalid boolean value:
  Original value: 256 (0x00000100)
  Written value: 1
```

When all the records in the table have been processed, a summary of the pools/slices migration will appear:

```
Table upgrade - 100% complete
  Committing changes to the database
  Number of rows in the table: 62
```

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

```
AccuRev metadata migration completed with errors in 13.97 minutes.

Removing the AccuRev database: accurev

*** Errors were detected during the 4.7.x to 5.x metadata migration
processing.
  The AccuRev Server WILL NOT start until the upgrade is successful.
  Please contact AccuRev Service for assistance.
```

Migrating the Depots

When the site slice has been migrated, the program begins to migrate all active and available data from the depots. Each depot will be migrated in its entirety before moving on to the next depot. The progress is displayed in the same way as the site-slice migration.

Warning messages will appear when the depot is not active or the database files are not on the local file system. The warning messages look like:

```
WARNING: Depot QATest was not upgraded because it is hidden.

WARNING: Depot QATest was not upgraded because its directory
'/opt/accurev/storage/depot/QATest' is missing.

WARNING: Depot QATest was not found.
```

An error may also occur when the slice number of the depot does not exist in the **pools** table. The error message looks like:

```
ERROR: Depot: QATest, Slice: 5 was not found.
```

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

```
*** The following depot(s) had metadata migration failures:
current_dev

AccuRev metadata migration completed with errors in 13.97 minutes.

Removing the AccuRev database: accurev

*** Errors were detected during the 4.7.x to 5.x metadata migration
processing.
The AccuRev Server WILL NOT start until the upgrade is successful.
Please contact AccuRev Service for assistance.
```

Once the site-slice and depot metadata have been successfully migrated, a summary message will appear in the output:

```
AccuRev metadata migration completed without errors in 37.92 minutes.

#
# The 4.7.x to 5.x metadata migration processing completed successfully.
# Starting the 5.x database upgrade processing.
#
```

Upgrading the AccuRev Database

During the database upgrade, several AccuRev tables will be altered, resulting in some or all of the messages described in the sections below.

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

```
*** The following depot(s) had upgrade failures and were hidden:
current_qa

AccuRev database upgrade completed with errors in 11.54 minutes.

*** Errors were detected during the database upgrade processing.
The depot(s) containing errors (see list above) were marked as hidden
and WILL NOT be accessible when the AccuRev Server is started.
Please contact AccuRev Service for assistance.
```

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

```
AccuRev database upgrade completed without errors in 17.64 minutes.  
  
*** The AccuRev database has been upgraded.  
    The AccuRev Server is ready to be started.
```

Element Location Upgrade Messages

Changes made to records in the element-location table consist of fixing records that have been stranded by moving other elements. These fixes involve creating a new indexes and fixing the table records. When the indexes have been created, the following message appears:

```
Upgrading Loc table index - Complete.
```

When a record is fixed, a message similar to the one below appears:

```
Fixing (trans=7295, eid=859, parent_eid=831, location='DBQuery.java',  
member=1)  
  stranded by  
    (trans=9167, eid=726, parent_eid=612, location='database', member=1)
```

Once all of the changes have been made, a summary message will appear:

```
Loc record fixup: 29746 rows traversed, 15 rows fixed.
```

Ancestor and Transaction Upgrade Messages

During the upgrade, changes are made to the tables associated with the element versions, ancestors, and associated transactions. The upgrade program searches the transaction-entries table for all records containing a transaction or element-ID with a zero value. These records are deleted from the table. The message will look like:

```
- Searching for Transaction-Entries with zero transaction/eid numbers.  
  The number of rows found: 12  
  Deleted 12 rows.
```

The upgrade program searches virtual-versions table for records appearing there, but not in the transaction-entries table. It adds the missing records to the transaction-entries table. The message will look like:

```
- Searching for missing Transaction-Entries.  
  The number of rows found: 2.  
  List of missing Transaction-Entries to be inserted.  
    Transaction Number: 8254, EID: 517  
    Transaction Number: 17254, EID: 2718  
  Inserted 2 rows.
```

The upgrade program searches the transaction-entries table for records that appear there, but not in the virtual-versions table. It deletes the invalid entries from the transaction-entries table. The message will look like:

```
- Searching for invalid Transaction-Entries.  
The number of rows found: 2.  
List of invalid Transaction-Entries to be deleted.  
Transaction Number: 8564, EID: 527  
Transaction Number: 12854, EID: 1469  
Deleted 2 rows.
```

The upgrade program searches the transaction and virtual-versions tables for records that are missing an appropriate record in the element-ancestor table. It adds the missing records to the element-ancestor table. The message will look like:

```
- Searching for missing ancestor entries.  
The number of rows found: 2.  
List of missing ancestor entries to be inserted.  
  
Transaction Number: 7435, EID: 295  
VVR Stream: 87, VVR Version: 7, Stream: 53, Version: 4  
Transaction Number: 15469, EID: 1630  
VVR Stream: 125, VVR Version: 17, Stream: 93, Version: 11  
Inserted 2 rows.
```

The upgrade program searches the transaction table for records that do not match the number of elements associated with the transaction in the transaction-entries table. It updates the invalid total in the transactions table. The message will look like:

```
- Searching for mismatch transaction entry totals.  
The number of rows found: 13.  
Updated 13 rows.
```

Workspace Upgrade Messages

The message below appears if the directory path to a workspace has been specified using a relative path, and the length of the absolute path to the workspace exceeds 127 bytes.

```
Warning: The ws.storage field was truncated to its maximum size of 127  
bytes.
```

Any workspace that causes this message was not accessible in AccuRev 4.7.x, producing the message “You are not in a directory associated with a workspace” when AccuRev commands were issued from that directory.

After the upgrade, use the **chws** command to change the location of the workspace to regain access to it.

AccuRev 5.0 Release Notes

This document will familiarize you with the changes in this beta release of AccuRev 5.0.

Installing AccuRev 5.0

AccuRev 5.0 introduces the use of a third-party database. Before installing this version of AccuRev, you must upgrade to a 4.7.x version of AccuRev (both clients and servers).

See the [AccuRev Installation Notes](#) for full instructions on installing AccuRev 5.0. After AccuRev 5.0 is installed, you must upgrade the existing AccuRev database for use with the new third-party database before starting the AccuRev Server.

Compatibility with Prior Versions

Compatibility between AccuRev 4.7.x and AccuRev 5.0 installations is limited. The compatibility matrix for this release is shown below.

	4.7.x Server	5.0 Server
4.7.x Client	OK	OK
5.0 Client	<i>not allowed</i>	OK

	4.7.x Replica	5.0 Replica
4.7.x Master	OK	OK
5.0 Master	<i>not allowed</i>	OK

In addition to any other version compatibility restrictions that may apply, an AccuRev Server cannot have a lower minor release (N.N.N) than the clients that access it.

Example: 4.7.3 was a minor release. For an AccuRev Server running 4.7.3, all clients that contact it cannot run any version higher than 4.7.3.

Limitations

The following limitations apply to this release of AccuRev 5.0:

- Only one AccuRev 5.0 server may be installed per machine.
- Unix/Linux users should not install AccuRev 5.0 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 prior AccuRev 5.0 version, you must uninstall it, then reinstall the new version, and upgrade your database from 4.7.x as before.

If you encounter any issues with this release, please contact AccuRev Support Services (support@accurev.com).

Added Platform Support

AccuRev 5.0 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.

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.