



Getting Acquainted

with AccuRev




(AccuRev 4.5.2)

This guide gets you acquainted, quickly and easily, with AccuRev — the new generation configuration management software with integrated issue management (“AccuWork”) — from AccuRev, Inc. Please note that a “Full” product installation of AccuRev should be completed prior to using this guide.

You will first learn how to populate a “depot” — a repository of files under AccuRev version control. You will then go through typical Developer and Release Engineer experiences using AccuRev configuration management, followed by setup of AccuWork, AccuRev’s integrated issue management system.

This guide does not attempt to provide exhaustive explanations of product features. For full details, see the AccuRev documentation set, which you can download from <http://www.accurev.com>. The manuals are in PDF format, and can be viewed using Acrobat Reader. AccuRev’s graphical user interface has a context-sensitive help system.

The support team at AccuRev, Inc. is available to help you at any time as you get acquainted with our software. So please don’t hesitate to contact us with any questions and/or comments via email at support@accurev.com.


Throughout this guide, the symbol “” denotes a command or set of commands to be selected from the AccuRev GUI’s main command menu, one of the GUI’s toolbars, or an individual object’s context (“right-click”) menu. For example: “ **Help**  **Quick Setup**” indicates that you should select the **Help** command from the main menu and then select **Quick Setup**.



A. Initial Setup

In this section, we'll use AccuRev's "Quick Setup Wizard" for initial data setup. If you prefer the do-it-yourself approach, using individual AccuRev commands, please follow the procedure in Appendix A.

Operation A1: Starting the AccuRev Graphical User Interface

- Step 1:** Double-click the AccuRev icon  on your desktop,
or
In a command shell (or "DOS") window: **acgui**

Operation A2: Using the Quick Setup Wizard

- Step 1:** Find a directory of files that you'd like to place under version control. (It's OK if it has subdirectories.) This data won't be modified — the Wizard will make a copy of it. Note the pathname of this directory for use in the next step.

- Step 2:** Enter command:  **Help**  **Quick Setup**

AccuRev's Quick Setup Wizard walks you through the following steps:

Step 2a: Creating an AccuRev username

Step 2b: Creating a new storage repository (depot)

Step 2c: Creating a workspace for yourself, and copying data files to the workspace. Make these choices:

- Select **Yes** when asked "Do you have files that you would like to import into AccuRev?"
- Select **Yes** when asked "Do you want to create a workspace in a new location ...?"
- Indicate the directory you selected in Step 1 when prompted "Where are the files stored ..."
- Accept AccuRev's suggestion for the location of the new workspace

Step 2d: Adding the files in your workspace to the depot:

- Click **Promote** in the Promote window

After completing the initial setup, you can proceed to use any of the remaining three sections of this guide:

Section B: Perform the AccuRev operations that a Developer uses most frequently

Section C: Perform the AccuRev operations that a Release Engineer or Quality Engineer uses most frequently

Section D: Work with AccuWork issue management



B. Developer Experience

The Developer experience includes accessing workspaces, creating new versions of files (edit/keep/promote), updating workspaces, and merging two versions of a file.

Operation B1: Going to your workspace

Perform this step if your workspace is not already open in the AccuRev GUI

Step 1: ↵ File ↵ Open Workspace

Step 2: Select the workspace that you created in Operation A1 above

All of the files in your workspace have a status of “backed”. This means that you have not yet modified these files.

Operation B2: Editing one of your source files

Step 1: If necessary, navigate through folders in the Folders pane (upper left); then select a file to edit

Step 2: ↵ Right-Click ↵ Edit

Step 3: Make some changes to your source file

Step 4: Save the file, and close the editor

You did not have to “check out” the file before editing it. The status of the file is now “modified”.

Operation B3: Keeping your modified file

The “Keep” operation is a “private checkin”. It makes a copy of your modified file in secure storage maintained by the AccuRev Server process. It also records the creation of a new “version” of the file in the Server’s database. Keeping new versions in the workspace enables you to checkpoint and backup your own code, while preventing your changes from being seen by other developers.

Step 1: Select the file you modified

Step 2: ↵ Right-Click ↵ Keep

Step 3: Enter a comment, and click **Ok**

Note: The status of the file is now “kept”

Operation B4: Promoting your kept file to share your changes with the rest of the group

The “Promote” operation allows you to share your changed file with other users.

Step 1: Select the file you just modified and kept

Step 2: ↵ Right-Click ↵ Promote



Step 3: Enter a comment, and click **Promote**

Promote makes the version that you created with “Keep” available to be copied into other users’ workspaces. The status of the file is once again “backed”.

Operation B5: Creating a second workspace

Step 1: **File** **New** **Workspace**

Step 2: From the List of Depots, select your depot

Step 3: As the Basis Stream, select the stream with the same name as the depot

Step 4: Click **Next**

Step 5: As the Name of Workspace to Create, enter a new name (example: **acme2**)

Step 6: Click **Next**

Step 7: Click **Next** again (to accept various defaults)

Step 8: As the Physical Location for the new workspace, choose an existing directory (example: **C:\Documents and Settings\Derek** or **/usr/home/derek**)

Step 9: Click **Next**

Step 10: Select the second pathname, to create a new directory with the name you chose for the workspace

Step 11: Click **Finish**

Step 12: Click **Close**

Operation B6: Working on additional files in the second workspace

You can perform a search to list all the files that you are currently working on.

Step 1: Select a text file to edit in your second workspace

Step 2: **Right-Click** **Edit**

Step 3: Make some changes to your text file

Step 4: Save the file, and close the editor

Step 5: Repeat steps 1-4 on one or more additional files

Step 6: Select the **Pending** search in the Searches pane (lower-left)

Step 7: Select the file(s) you modified

Step 8: **Right-Click** **Keep**

Step 9: Select the same file(s)

Step 10: **Right-Click** **Promote**

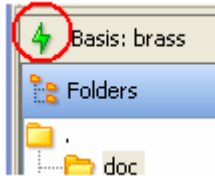
Operation B7: Switching back to your first workspace

Step 1: Click the tab in the GUI window that contains your first workspace

If you have closed that tab, re-open the workspace using:

↳ File ↳ Open Workspace.

Step 2: Click the **Update** toolbar button



This brings the changes you promoted while working in your second workspace into your first workspace.

Operation B8: Merging two versions of a file

Step 1: In your first workspace select a file to edit

Step 2: ↳ Right-Click ↳ Edit

Step 3: Make some changes to your text file, save the file, and close the editor

Step 4: Select the file

Step 5: ↳ Right-Click ↳ Keep

Step 6: Select the file

Step 7: ↳ Right-Click ↳ Promote

Step 8: Switch to your second workspace; don't perform an Update

Step 9: Edit the *same* file in the second workspace

The file's status is now "overlap". (The yellow highlight emphasizes this.) This means that someone else has promoted a version before you did. The "someone else" is you, working in your first workspace. The file in your second workspace requires a merge before you can promote it.

Step 10: Select the file

Step 11: ↳ Right-Click ↳ Merge

Step 12: Proceed to merge the file, using the graphical Merge tool. The only toolbar buttons you need are ⬇ and ⬆ (to navigate from conflict to conflict), along with ⬅ and ➡ (to resolve the current conflict, by selecting text from one of the versions). You finish the Merge by preserving the merged file, selecting **Keep & Exit** when all the conflicts have been resolved.

For more guidance, see chapter "The AccuRev Diff and Merge Tools" in the AccuRev User's Guide (GUI).

Step 13: Select the file

Step 14: ↳ Right-Click ↳ Promote



C. Release Engineer / Quality Engineer Experience:

The AccuRev experience for a Release Engineer or Quality Engineer includes working with the StreamBrowser™, creating new streams and snapshots, comparing streams, and rearranging the stream hierarchy.

Operation C1: Launching the Stream Browser

This allows you to easily see and control your development stream hierarchy graphically using AccuRev's "Total Graphical Control" capability.

Step 1: ↵ View ↵ Streams

Step 2: In the choice box at the bottom of the window, make sure that **All Workspaces** is selected. This includes your "private" workspace streams in the display.

At this point there is only one "public" development stream. It has the same name as your depot and is known as the depot's "base stream" or "root stream".

Operation C2: Creating a snapshot stream to capture the current state of development

Step 1: Select the depot's base stream

Step 2: ↵ Right-Click ↵ New Snapshot

Step 3: Give the new snapshot a name (example: **acme_1.0**)

Step 4: Leave the Basis Time set to **Now**

Step 5: Click **Ok**

The newly created snapshot stream appears in the Stream Browser.

Operation C3: Creating an integration stream based on the base stream

Now, rather than having to promote directly into the base stream you can promote to an integration stream below the base stream.

Step 1: Select the base stream

Step 2: ↵ Right-Click ↵ New Stream

Step 3: Give the new stream a name (example: **acme_int**)

Step 4: Leave the Stream Type set to **Regular stream**.

Step 5: Leave the Basis Time set to **None**

Step 6: Click **Ok**

The newly created integration stream appears in the Stream Browser, as a direct "child" of the base stream.



Operation C4: Reparenting your workspaces

*Using AccuRev's Total Graphical Control capability you can easily "reparent" your workspaces, so that they are based on the integration stream, rather than the base stream. (example: reparent them from **acme** to **acme_int**)*

Step 1: Drag-and-drop one of your workspaces onto the integration stream

Step 2: Drag-and-drop the other workspace stream onto the integration stream

The Stream Browser shows that your workspace streams are now based on the integration stream.

Operation C5: Updating your workspace

Execute the following steps for each workspace that you have just reparented. Work with different files in the two workspaces.

Step 1: Double-click the workspace to open it

Step 2: Click the **Update**  toolbar button




An Update is always required after reparenting a workspace.

Step 3: Select a file in your workspace

Step 4:  **Right-Click**  **Edit**


Step 5:  **Right-Click**  **Keep**


Step 6:  **Right-Click**  **Promote**

*This promotes the new version of the file to the integration stream. The development process remains the same no matter which stream the workspace is based on:  **Edit**;  **Keep**;  **Promote**.*

Step 7: (optional) Edit/Keep/Promote additional files

Operation C6: Promoting your changes from the integration stream to the base stream

Step 1: Switch back to the Stream Browser tab (example:  **acme**)

Step 2: Click the icon  just below the integration stream (example: **acme_int**)

This opens a subwindow showing the file(s) you just promoted to the integration stream.

Step 3: Select all of the files

Step 4:  **Right-Click**  **Promote**

The files have now been promoted from the integration stream to the base stream.



Operation C7: Creating a second snapshot of the base stream

- Step 1:** Select the base stream
- Step 2:** **Right-Click** **New Snapshot**
- Step 3:** Give the second snapshot stream a name (example: **acme_2.0**)
- Step 4:** Leave the Basis Time set to **Now**
- Step 5:** Click **Ok**

The newly created snapshot stream appears in the Stream Browser.

Operation C8: Comparing the contents of the two snapshot streams

- Step 1:** Select the first snapshot stream (example: **acme_1.0**)
- Step 2:** **Right-Click** **Show Diff By Files**

A “show difference” icon is added to the mouse pointer.

- Step 3:** Click on the second snapshot stream (example: **acme_2.0**)

A list appears, containing the files you promoted from the first snapshot stream.

Operation C9: Observing the differences between snapshots at the individual-file level

- Step 1:** Select a file from the differences list you just generated
- Step 2:** **Right Click** **Show Difference**

Operation C10: Seeing inheritance in the stream hierarchy

- Step 1:** Go to the Stream Browser tab (example: **acme**)
- Step 2:** Drag-and-drop one workspace from its current parent, the integration stream, to the base stream. (Leave the other workspace under the integration stream.)
- Step 3:** Double-click the workspace you just “reparented” to open it, then click the **Update** toolbar button

*Note the version-ID of a file in the workspace (example: **acme/12**)*

- Step 4:** Modify that file (**Right-Click** **Edit**)
- Step 5:** Select the same file, then **Right-Click** **Promote**

- Step 6:** Switch back to the Stream Browser tab

- Step 7:** Double-click the base stream to open it, then navigate to the file that you just promoted

*Note the new version of the file in the stream (example: **acme/13**)*

- Step 8:** Switch back to the Stream Browser tab

- Step 9:** Double-click the integration stream to open it, then navigate to the file that you just promoted to the base stream.

*The version of the file in the integration stream (example: **acme/13**) is the same as the version in the base stream. This version has been automatically inherited from the base stream.*

Step 10: Switch back to the Stream Browser tab

Step 11: Double-click the second workspace (the one you didn't "reparent") to open it, and navigate to the same file.

*The version-ID of the file in this workspace is **not** the same as in its parent, the integration stream. This fact is reflected in the file's (**stale**) status indicator. Inheritance by workspaces is not automatic, but occurs only when you Update the workspace.*

Step 12: Click the **Update**  toolbar button

*The same file version (example: **acme/13**) has now been loaded into (or "inherited by") the workspace. The file's status no longer includes the (**stale**) indicator.*

Operation C11: Using a basis time to block inheritance

Step 1: Go to the Stream Browser tab (example:  **acme**)



Step 2: Select the integration stream

Step 3:  **Right-Click**  **Change Stream**

Step 4: Select a Basis Time of **Now**, then click **Ok**

Step 5: Double-click the workspace below the base stream to open it

Step 6: Modify a file in the workspace ( **Right-Click**  **Edit**)

Step 7: Select the same file, then  **Right-Click**  **Promote**

Step 8: Switch back to the Stream Browser tab

Step 9: Double-click the base stream to open it, then navigate to the file that you just promoted.


*Note the version of the file in the stream (example: **acme/8**)*

Step 10: Switch back to the Stream Browser tab



Step 11: Double-click the integration stream to open it, then navigate to the file that you just promoted to the base stream.

*The version of the file in the integration stream is **not** the same as the version in the base stream. The basis time prevents automatic inheritance from the base stream.*


Step 12: Switch back to the Stream Browser tab

Step 13: Double-click the workspace below the integration stream to open it, then click the **Update**  toolbar button. Then click **View Full Log**.

No new file versions are loaded into the workspace.





- Step 14:** Switch back to the Stream Browser tab
- Step 15:** Select the integration stream
- Step 16:**  **Right-Click**  **Change Stream**
- Step 17:** Select a Basis Time of **None** (cancelling the basis time setting), then click **Ok**
- Step 18:** Double-click the integration stream to open it, then navigate to the file that you just promoted to the base stream.

*The version of the file in the integration stream (example: **acme/8**) is the same as the version in the base stream. As soon as the basis time is removed from the integration stream, it inherits the new file version from the base stream.*

- Step 19:** Double-click the workspace below the integration stream, then click the **Update**  toolbar button. Then click **View Full Log**.




The new file version is loaded into the workspace.

Operation C12: Using a time-based stream to reproduce the last good build









- Step 1:** Go to the Stream Browser tab (example:  **acme**)
- Step 2:** Select the integration stream
- Step 3:**  **Right-Click**  **New Stream**
- Step 4:** Specify the name (example: **acme_last_good_build**) and the date and time of the last good build; then click **Ok**
- Step 5:** Drag-and-drop the workspace from the integration stream to the last-good-build stream
- Step 6:** Double-click the workspace to open it, then click the **Update**  toolbar button. Then click **View Full Log**.

Older versions of files are loaded into the workspace.









Operation C13: Viewing the history of a stream

- Step 1:** Go to the Stream Browser tab (example:  **acme**)
- Step 2:** Select the base stream
- Step 3:**  **Right-Click**  **Show History**
- Step 4:** Select the most recent **promote** transaction.
The file versions involved in the transaction appear in the bottom pane of the History Browser.
- Step 5:** Experiment with changing the transaction range, searching for a comment stream, etc.






Operation C14: Making fixes to a previous release

- Step 1:** Select the second snapshot created (example: **acme_2.0**)
- Step 2:**  **Right-Click**  **New Stream**
- Step 3:** Enter a name for the new maintenance stream (example: **acme_2.0_maint**) and click **Ok**
- Step 4:** Drag-and-drop the workspace from the base stream to the maintenance stream
- Step 5:** Double-click the workspace to open it, then click the **Update**  toolbar button
- Step 6:** Modify some files in the workspace
- Step 7:** Select the  **Modified** search in the Searches pane.
*All files in the workspace with (**modified**) status appear in the Details pane.*
- Step 8:** Select all the modified files
- Step 9:**  **Right-Click**  **Promote**
A default group icon  appears below the new maintenance stream.
- Step 10:** Switch back to the Stream Browser tab
- Step 11:** Click the  icon to display the versions that were promoted to the maintenance stream

Operation C15: Promoting changes from the maintenance stream to the integration stream

- Step 1:** Make sure you have a workspace below the integration stream (drag-and-drop one to the integration stream, if necessary)
- Step 2:** Double-click the workspace to open it
- Step 3:** Select the  **Default Group** search in the Searches pane
- Step 4:** If any files appear in the Details pane, select them and  **Right-Click**  **Revert to Backed**
- Step 5:** Click the **Update**  toolbar button
- Step 6:** Switch to the Stream Browser tab
- Step 7:** Drag-and-drop the  icon below the maintenance stream to the workspace
A Change Palette tab opens.
- Step 8:** Select all the files in the Change Palette tab, then  **Right-Click**  **Send to Workspace**
- Step 9:** Close the Change Palette tab, and switch back to the workspace tab
- Step 10:** Select the  **Overlap** search in the Searches pane



- Step 11:** If any files appear in the Details pane, select them and click the **Merge**  button in the File Browser toolbar
- Step 12:** Select the  **Default Group** search in the Searches pane
- Step 13:** Select all the files, then  **Right-Click**  **Promote**
- Step 14:** Once again, drag-and-drop the  icon below the maintenance stream to the integration stream.

No files are displayed, verifying that all the change in the maintenance stream have already been promoted to the integration stream.



AccuWork Example Usage

The AccuWork experience includes setting up an issues database format (“schema”), creating issue records, querying the issues database, and using the “change package” integration between configuration management and issue management.

Operation C16: Setting up the default schema

- Step 1: **Admin** **Schema Editor**
- Step 2: Click **Yes** (“Do you want to use the default schema?”)
- Step 3: Click **Ok** (“Please note ...”)
- Step 4: Click **Save** (lower right-corner of Schema Editor tab)

Operation C17: Creating a few new issues

- Step 1: **Issues** **New Issue**
- Step 2: Enter data in all of the required fields (red labels)
- Step 3: Experiment with how the different types of fields manage various types of data
- Step 4: Click **Save & Close** to save the issue record and close the tab
- Step 5: Repeat this process a few times so you have a few issues to work with


Operation C18: Creating a query and making it your default query

- Step 1: Enter command: **Issues** **Queries**
- Step 2: Click **New Query** to create an empty new query
- Step 3: Give your query a name by clicking its name "New Query 1" twice (with a short pause in between) and then typing the name (e.g. **All Defects**)
- Step 4: Click **Click here to add...**
- Step 5: Set the first choice box value to **issueNum**
- Step 6: Set the second choice box value to **greater than or equal to**
- Step 7: Enter the number **1** in the third query box
- Step 8: Click **Ok**

The name of the new query appears in the left (Query List) pane, which lists all the queries that you’ve created. The right (Query Results) pane shows the results of running the query against the issues database.

- Step 9: In the Query List pane, with the query you just created ...
 Right-Click **Set as Default**
- Step 10: Click the **Columns** toolbar button in the Query Results pane
- Step 11: Select additional fields to appear in the Query Results pane:

Step 11a: Select a field from the **Available** list (Ex: **shortDescription**)

Step 11b: Click the right-arrow button  to move the field to the **Selected** list

Step 11c: Repeat the steps above for all of the fields you wish to add to the query results output

Step 11d: Click **Ok**



Step 12: Click **Save all queries**  above the left pane to save your query

Step 13: Close the query tab


Step 14: Reopen a query tab:  **Issues**  **Queries**


The query you just created runs automatically, because you set it as your default query.

Operation C19: Enabling the built-in integration between AccuRev configuration management and AccuWork issue management


Step 1:  **Admin**  **Schema Editor** (or return to the existing Schema Editor tab)

Step 2: Go to the **Change Packages** tab

Step 3: In the Change Package Results section (top part), click  **Setup Columns**

Step 4: Select some fields from the **Available** list (Ex: **issueNum**, **shortDescription**), and click the right-arrow button  to move the fields to the **Selected** list

Step 5: Click **Ok**

Step 6: In the Change Package Triggers section (bottom part), click **New trigger**  in the toolbar

A new window opens, in which you specify a condition, along with a query to be performed if that condition is satisfied when the integration is invoked.

Step 7: In the Condition section (top part), click **Click here to add...**

Step 8: Use the three choice boxes to form this condition:

PROMOTE_DEST_STREAM is in hierarchy <depot>

... where <depot> is the name of your depot.

Step 9: In the Query section (top part), click **Click here to add...**

Step 10: Use the choice boxes and the text field to form this condition:

issueNum greater than 0

This query selects all issue records.

Step 11: Click **Ok**

Step 12: Click **Save** (lower right-corner of Schema Editor tab)

Step 13: Open a workspace (or go to one that is already open)

Step 14: Edit and Keep several files



Step 15: Promote all those files

The integration evaluates the condition you defined in Step 8 (it's TRUE), then runs the query you defined in Step 10. The selected records are presented as a list of issues to choose from.

Step 16: Select the issue that you want to associate the promoted files with, and click **Ok**

Step 17: **Issues** **Look Up**

Step 18: Enter the number of the issue you chose when promoted by the integration (Step 16), and click **Ok**

The issue appears in an edit form.

Step 19: Go to the **Changes** tab

*The files that you promoted are listed on this tab. The specific versions that you promoted are listed in the **Version** column.*

Operation C20: Turning off the integration between configuration management and issue management

Step 1: **Admin** **Schema Editor** (or return to the existing Schema Editor tab)

Step 2: In the **Change Packages** tab, click the condition/query pair to select it

Step 3: Click **Delete trigger** **X**.

Step 4: Click **Save** (lower right-corner of Schema Editor tab)

With no query to be invoked at Promote time, the integration is effectively disabled.



Appendix A

D. Initial Setup Without Using the Quick Setup Wizard

Operation D1: Create an AccuRev username and password

- Step 1: ↪ Admin ↪ Security
- Step 2: ↪ Add User
- Step 3: Enter a username, but do not enter the optional password.
- Step 4: Click **Ok**
- Step 5: ↪ Tools ↪ Change Active User
- Step 6: Select your newly created user
- Step 7: Click **Ok**

Operation D2: Create a new storage depot (a repository of files under AccuRev control)

- Step 1: ↪ File ↪ New ↪ Depot
- Step 2: Give the depot a name (example: **widget**)
- Step 3: Click **Ok** (and continue to the next operation)

Operation D3: Create a workspace to store your work

- Step 1: Click **Yes** (“Do you want to create a workspace for the depot?”)
- Step 2: Click **Next** to select your newly created depot, and the stream that has the same name as the depot
- Step 3: Click **Next** to accept the default name for the workspace
- Step 4: Click **Next** to accept defaults for the new workspace
- Step 5: Choose a physical location for the workspace (example: **C:\ws\widget**)
- Step 6: Click **Next**
- Step 7: Select the pathname you prefer from the two pathnames offered
- Step 8: Click **Finish**


Operation D4: Import files into your workspace

- Step 1: Use operating system commands to copy some sample files into workspace. (example: **xcopy /E /Y c:\myfiles\src* c:\ws\acme**)

Operation D5: Add the files in your workspace to the depot

Comment: If your newly created workspace is not already open in the AccuRev GUI, open it: ↪ File ↪ Open Workspace

AccuRev

- Step 1:** Select the **External** search in the Searches pane (lower-left)
- Step 2:** Select one of the files in the search results
- Step 3:** ↵ **Edit** ↵ **Select All**
- Step 4:** ↵ **Right-Click** ↵ **Add to Depot**
- Step 5:** (optional) Enter a comment string
- Step 6:** Click **Ok**
- Step 7:** Select the **Pending** filter
- Step 8:** As above, select all the files listed in the details pane
- Step 9:** ↵ **Right-Click** ↵ **Promote**
- Step 10:** (optional) Enter a comment string
- Step 11:** Click **Promote**
- Step 12:** Click the Update  button to update your workspace
Updating often greatly improves workspace-search performance.