

AccuSync™

Installation and Release Notes

Version 2015.1

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U.S. Patent Numbers: 7,437,722; 7,614,038; 8,341,590; 8,473,893; 8,548,967.

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Preface

This book is your guide to installing AccuSync™. It is intended for the AccuRev system administrator. Once deployed, AccuSync does not affect or impose itself on day-to-day usage of AccuRev, AccuWork™, or your issue tracking system (ITS). Users of these products should refer to their product documentation for help with any questions.

Administrator's Role

The role of the AccuSync administrator is to install, configure, and maintain AccuSync. Installation procedures and release notes are described in the remaining chapters in this book. See the *AccuSync™ Management Console Help* to learn how to configure, run, and maintain AccuSync.

Using This Book

This book assumes you are familiar with your operating system and its commands, as well as with AccuRev, AccuWork, and your ITS. It contains the following chapters:

Chapter	Description
Chapter 1 Introduction	Describes the highlights of the current AccuSync release, including news about supported ITSs.
Chapter 2 Installing AccuSync	Describes how to install AccuSync, including prerequisites and supported versions.
Chapter 3 Release Notes	Describes new features, enhancements, fixes, and known issues with the current release.

Typographical Conventions

This book uses the following typographical conventions:

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

Contacting Technical Support

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

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

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

- The version of AccuRev and any other AccuRev products you are using (AccuSync or GitCentric, for example).
- Your operating system.
- The version of relevant third-party software (if you are using AccuSync, for example, the version of your ITS).
- A brief description of the problem you are experiencing. Be sure to include which AccuRev interface you were using (Web user interface, Java GUI, or CLI), any error messages you received, what you were doing when the error occurred, whether the problem is reproducible, and so on.
- A description of any attempts you have made to resolve the issue.
- A simple assessment of how the issue affects your organization.

1. Introduction

AccuSync is a fully bidirectional utility that synchronizes AccuWork issues in an AccuRev depot with issues in other issue tracking systems (ITSs). This book describes how to install and configure AccuSync and provides information about new features in the current release.

Supported ITSs

AccuSync supports the following ITSs:

- Atlassian JIRA 4.x, 5.x, 6.x
Note: Support for JIRA 4.x is deprecated and will be dropped in a future release.
- BMC Remedy ITSM 8
- HP Quality Center 9.x, 10.x, 11.x
- IBM Rational ClearQuest 8.x
- Rally Enterprise Edition

Highlights of this Release

AccuSync 2015.1 provides several new features and enhancements, including:

- **Improved UI performance on systems with multiple configurations** -- AccuSync UI performance has been improved for users with multiple configurations.
- **Improved performance with large transaction ranges** -- AccuSync performance has been improved when synchronizing AccuWork issues with large transaction ranges.
- **The `accusync.properties` file no longer requires blank entries for unused ITSs** -- Blank entries for unused ITSs are no longer required in the `accusync.properties` file to run auto-start.
- **(HP-QC only) New: change package synchronization** -- AccuSync can now synchronize change packages for HP Quality Center.

See [Chapter 3 Release Notes](#) for a complete list of enhancements, fixes, and known issues.

AccuSync Compared to AccuBridge

AccuSync is AccuRev's second-generation tool for integrating AccuWork with issue tracking systems from Atlassian, BMC, HP, IBM, and Rally. The following table summarizes some of the main differences between the AccuSync and AccuBridge families of integration tools.

Feature	AccuSync	AccuBridge
Installation	Installation wizard with graphic and console user interfaces	Manual installation of compressed files

Feature	AccuSync	AccuBridge
Configuration	<ul style="list-style-type: none"> ▪ Web user interface for all configuration and set-up activities ▪ Default configurations for BMC Remedy, HP QC, ClearQuest, JIRA, and Rally ▪ For most ITSs, an AccuSync plugin that automatically adds custom fields to ITS screens 	<ul style="list-style-type: none"> ▪ Manual editing of XML files ▪ Configurations must be specified manually ▪ No plug-ins available to help with required ITS customizations
Synchronization	Fully bidirectional (two-way) issue synchronization, with the ability to specify one-way synchronization on a per-field basis	One-way only (changes to issues made in your ITS are reflected in AccuWork)

Considerations for JIRA Workflow Users

It is possible to set values for an issue in AccuWork that conflict with your JIRA workflow rules. For example, in AccuWork, you might be able to change an issue's **Status** field value from Open to Reviewed. If your JIRA workflow rules specify that an issue's status can change from Open to only In Progress, Resolved, or Closed, however, the synchronization for that issue will fail because the issue's status violates the JIRA workflow rule.

You can work around potential JIRA workflow rule conflicts in one of these ways:

- **Use one-way synchronization for specific fields.** By default, AccuSync performs two-way synchronization for all issue data—changes made to an issue in AccuWork are written to the JIRA issue each time synchronization is performed, and vice versa. You can override the synchronization type on a field-by-field basis if you choose. For example, you might decide that you do not want changes made to an issue's **Status** field in AccuWork to be written to the JIRA record during synchronization. In this case, you could set the synchronization type for the **Status** field to one-way, specifying JIRA as the *master server*. Once you do this, changes made to the issue's **Status** field in JIRA will be written to AccuWork when the issues are synchronized, but not vice versa. AccuRev recommends using per-field one-way synchronization to avoid JIRA workflow rule conflicts.

Tip: If you use one-way synchronization for fields related to your JIRA workflow (like **Status**, for example), consider defining that field as read-only in the AccuWork schema. This will prevent users from manually changing the value of the field in AccuWork and ensure that the field always displays the correct and current value.
- **Emulate AccuBridge behavior in AccuSync.** As mentioned previously AccuSync is fully bidirectional; its predecessor, AccuBridge, performs one-way synchronizations, writing JIRA issue data to AccuWork, but not vice versa. If you want, you can configure AccuSync to emulate AccuBridge functionality by changing the default synchronization type from two-way to one-way for all of the synchronization patterns defined for your AccuSync configurations.
- **Replicate your workflow logic in AccuWork.** Finally, you can use AccuWork schema validation to allow only certain values for a given field or setting certain fields to required to enforce JIRA workflow restrictions in AccuWork. This approach, however, can be more time-consuming to implement than the other two, and you should consider whether one of the other approaches might provide the functionality you require.

2. Installing AccuSync

This chapter describes the process and procedures for installing AccuSync.

Installation Overview

The AccuSync installation process varies slightly for new installations and upgrades.

New Installations

If you are installing AccuSync for the first time:

Step	Description	For More Information
1	Identify the machine on which you plan to install AccuSync. Make sure that it meets the requirements as described in Verify Prerequisites on page 4.	Verify Prerequisites on page 4
2	Download the AccuSync installation package from the AccuRev web site.	Download AccuSync Installation Packages on page 6
3	Run the AccuSync installation wizard.	Run the AccuSync Installation Wizard on page 7
4	<i>Linux users only:</i> Start the AccuSync services.	Start AccuSync Services on page 11

Upgrade Installations

If you are upgrading an existing AccuSync installation:

Step	Description	For More Information
1	Identify the machine on which you plan to install AccuSync. Make sure that it meets the requirements as described in Verify Prerequisites on page 4.	Verify Prerequisites on page 4
2	Back up the AccuSync database or existing AccuBridge™ configurations.	Back Up AccuSync and AccuBridge on page 5
3	Download the AccuSync installation package from the AccuRev web site.	Download AccuSync Installation Packages on page 6
4	Stop the AccuSync Server and AccuSyncTomcat Server.	Stop AccuSync Servers on page 6
5	Run the AccuSync installation wizard.	Run the AccuSync Installation Wizard on page 7
6	<i>Linux users only:</i> Start the AccuSync services.	Start AccuSync Services on page 11

Note: Do not uninstall AccuSync if it is already installed. Install the later version in the same directory as your existing AccuSync. See [Upgrading AccuSync from a Previous Version](#) on page 7 for more information.

Verify Prerequisites

Note: If you are upgrading an existing AccuSync installation, you can skip this step.

This section summarizes the system requirements and prerequisites that must be met in order to successfully install AccuSync.

- **Privileges.** If you are installing AccuSync on Windows, you must have administrator privileges. No special privileges are required if you are installing on Linux or Solaris.
- **Tomcat.** The AccuSync installation installs its own Apache Tomcat version 6.0 server. AccuSync does not use the Apache Tomcat server that is installed with AccuRev.
- **AccuRev.** AccuSync is supported on AccuRev 4.9.1 and higher.

In addition, the AccuRev installation must have one license available for the “AccuSync” user. AccuSync performs all synchronization activity as this user. See the *AccuSync™ Management Console Help* for more information on the role of the AccuSync user.

Tip: If CPU resources allow, AccuRev recommends that you install AccuSync on the same machine as AccuRev. Minimizing the number of separate machines involved in synchronization activity typically reduces network traffic which can result in better performance.

- **Issue Tracking System (ITS) Support.** AccuSync supports the following ITSs:

- Atlassian JIRA 4.x, 5.x, 6.x

Note: Support for JIRA 4.x is deprecated and will be dropped in a future release.

- BMC Remedy ITSM 8
- HP Quality Center 9.x, 10.x, 11.x
- IBM Rational ClearQuest 8.x
- Rally Enterprise Edition

Your ITS must have one license available for the “AccuSync” user. AccuSync performs all synchronization activity as this user. See the *AccuSync™ Management Console Help* for more information on the role of the AccuSync user.

Note: AccuSync licences for supported ITSs are sold separately. Contact AccuRev sales for more information: sales@accurev.com.

- **Web Browsers.** The AccuSync Management Console is supported on these web browsers:

Web Browser	Version
Microsoft Internet Explorer	IE11
Mozilla Firefox	Latest
Google Chrome	Latest

Note: Mac users should use Mozilla Firefox.

Back Up AccuSync and AccuBridge

IMPORTANT: AccuSync and AccuBridge users should back up existing configurations before installing AccuSync. Backup procedures differ for AccuSync and AccuBridge users. If you are installing AccuSync for the first time and do not currently use AccuBridge, you can skip this step. Go to [Download AccuSync Installation Packages](#) on page 6.

Backing Up AccuSync

The AccuSync database contains all the information about your AccuSync Configurations—connection settings, synchronization patterns, mapping definitions, and so on. The AccuSync database is created in the `db` directory where you installed AccuSync (`c:\Program Files (x86)\AccuSync\db`, for example). The backup process creates a backup of the AccuSync database. The backup utility does not back up other AccuSync directories like `bin`, `conf`, and `transformers`.

When you back up the AccuSync database, AccuSync creates a `backup` directory where you installed AccuSync (`c:\Program Files (x86)\AccuSync\backup`, for example). Each backup is created in its own directory with the name `<timestamp>_<name>`, using a *name* you give it. For example, `2012-03-14_13-52.28_acme`, where *acme* is the name you provided to the backup utility. The `<timestamp>` has the format `yyyy-mm-dd_hh-mm.ss`.

Note: The `backup` directory is not removed when you uninstall AccuSync, nor is it overwritten during a new AccuSync installation.

Running the Backup Utility

Note: The location of the Backup command assumes that you accepted the Shortcut Folder default values during your previous AccuSync installation.

To run the backup utility:

1. Stop the AccuSync server.
See [Stopping the AccuSync Server](#) on page 7 if you need help with this step.
2. Start the backup utility:
 - **In Windows:** Click **Start > All Programs > AccuSync > AccuSync Backup**.
 - **In Linux and Solaris:** Click the `AccuSync_Backup` link on your desktop.
 - **From the console:** Navigate to the `bin` directory where you installed AccuSync and run the `backup.bat` (Windows) or `backup.sh` (Linux/Solaris) file.

Regardless of how you start the backup utility, AccuSync opens a console. The console displays a message reminding you to stop the AccuSync server and then displays the following prompt:

```
Enter Y to specify the path to the /db folder; enter N to use the default /db location:
```

3. Type `n` at the prompt and press Enter.
The backup utility displays the prompt:

```
Enter the name for the backup.
```
4. Type a name for the backup and press Enter to continue.

The backup utility creates the database backup in the AccuSync `backup` directory (`c:\Program Files (x86)\AccuSync\backup\2012-03-14_13-52.28_acme`, for example).

Backing Up AccuBridge

If you are currently using an AccuBridge product for the same ITS for which you plan to install AccuSync, back up your AccuBridge configurations before installing AccuSync:

1. Stop any synchronizations that are currently running.
2. Back up the AccuBridge configuration files:

- [IssueTrackingsSystemMap.xml](#)
- [LastModified.xml](#)

For AccuBridge for Rally, also back up these configuration files:

- [RallyConfiguration.xml](#)
- [RallyWorkspace.xml](#)

For AccuBridge for JIRA, also back up these configuration files:

- [JiraConfiguration.xml](#)
- [JiraFilters.xml](#)

Refer to your AccuBridge documentation if you need help with any of these steps.

Download AccuSync Installation Packages

To download an AccuSync installation package:

1. Verify that the machine on which you will be installing AccuSync meets the requirements specified in [Verify Prerequisites](#) on page 4.
2. Go to the AccuSync Integrations section on the downloads page of the AccuRev, Inc. web site:

http://www.accurev.com/download_ab.htm

There are different installation packages for supported operating systems.

3. Download the appropriate installation package to the machine on which you plan to install AccuSync.
4. If you download a compressed package (.zip or .gz file), extract the files from the package.

Tip: **unzip** and **gunzip** extraction tools are standard on many systems. However, if you need to acquire an extraction tool, many are freely available. There are links to such tools in the Other Downloads section on the AccuRev downloads page.

Stop AccuSync Servers

Note: If you are installing AccuSync for the first time, you can skip this step. Go to [Run the AccuSync Installation Wizard](#) on page 7.

If you are upgrading from a current AccuSync release, you must stop the services (Windows) or processes (Linux and Solaris) that run both the AccuSync server and Apache Tomcat server for AccuSync before you install AccuSync.

Stopping the AccuSync Server

To stop the AccuSync server:

In Windows:

1. Open the Services window.
For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.
2. Select the AccuSync service.
3. Click **Stop the service**.

In Linux and Solaris:

Run `shutdown.sh` in the `/bin` directory where you installed AccuSync.

Stopping the Tomcat Server for AccuSync

To stop the Tomcat server for AccuSync:

In Windows:

1. Open the Services window.
For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.
2. Select the AccuSync Tomcat service.
3. Click **Stop the service**.

In Linux and Solaris:

Run `shutdown.sh` in the `/tomcat/bin` directory where you installed AccuSync.

Run the AccuSync Installation Wizard

AccuSync uses an installation wizard to guide you through the installation process -- it prompts you to provide information concerning setup options (where to install AccuSync, for example), allows you to review your decisions prior to installation, and provides you with confirmation when the installation finishes.

Upgrading AccuSync from a Previous Version

IMPORTANT: If you are upgrading AccuSync from a previous version, do not uninstall the version that is currently installed. Install the later version in the same directory as your existing AccuSync, without making any changes to the existing AccuSync directory.

If you uninstall your current AccuSync and then install the current version, you may experience problems. In this case, delete or rename your existing AccuSync directory and install AccuSync again, as if it were a first-time installation.

Ways to Run the AccuSync Installation Wizard

You can run the AccuSync installation wizard in one of two ways:

- As a GUI application
- As a console application

Both the GUI and console applications can be started by running a command from a system console, as summarized in the following table. (On Windows, you can also start the GUI application by double-clicking the executable in a file browser.)

Operating System	To Install Using the GUI Run	To Install Using the Console Run
Windows	AccuSyncInstall.exe	AccuSyncInstall.exe -i console
Linux and Solaris	sh AccuSyncInstall.bin	sh AccuSyncInstall.bin -i console

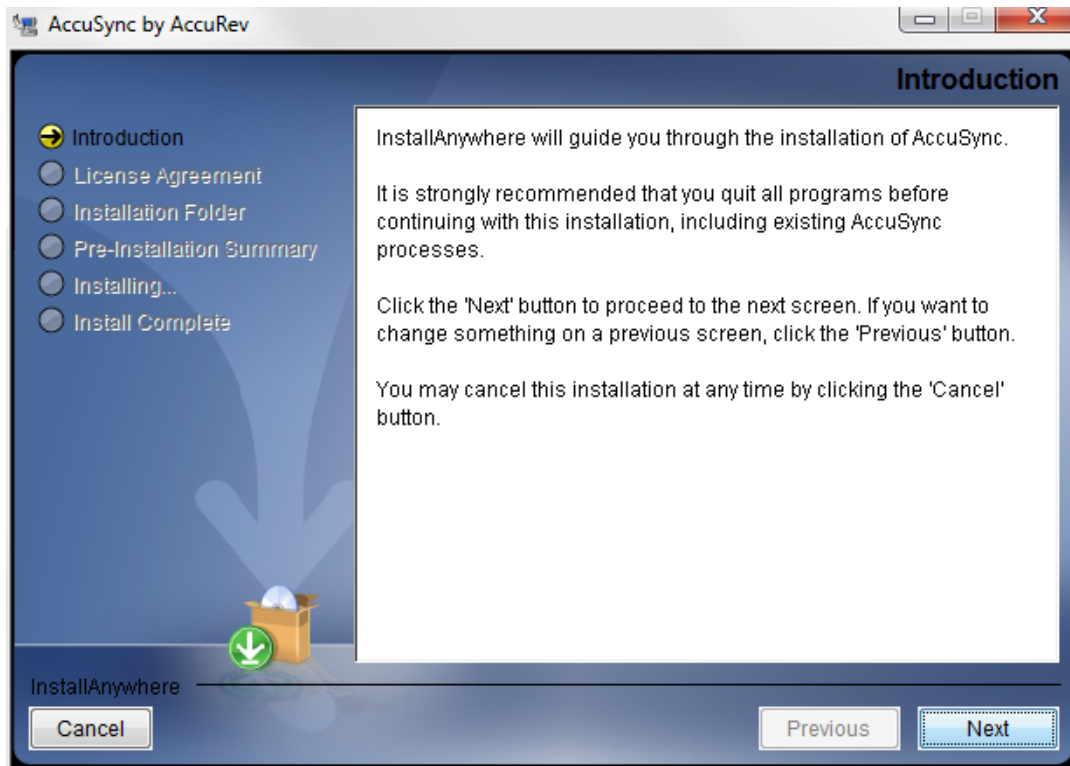
The executable files for your operating system will be in the local directory to which you downloaded and unpacked the AccuSync installation package ([Download AccuSync Installation Packages](#) on page 6).

How to Install AccuSync

To install AccuSync:

1. **Important:** If you are currently using AccuSync, make sure you back up the AccuSync database before installing the new version. See [Backing Up AccuSync](#) on page 5 if you need help with this step.
2. Verify that the machine on which you are installing AccuSync meets the requirements specified in [Verify Prerequisites](#) on page 4.
3. Locate the local directory to which you downloaded and unpacked the AccuSync installation package ([Download AccuSync Installation Packages](#) on page 6).
4. Start the AccuSync installation wizard. See [Ways to Run the AccuSync Installation Wizard](#) on page 8 if you need help with this step.

The installation wizard prepares for installation. When it is finished, it displays the Introduction to the AccuSync installation. An example of the GUI installation wizard is shown here:



5. Begin the AccuSync installation process:

In the GUI Installation Wizard	In the Console Installation Wizard
Click the Next button	Press the Enter key

At this point, the installation wizard displays a series of pages that help you configure the AccuSync installation and provide installation status. These pages are summarized here:

- **License Agreement** – You must accept the terms of the license agreement before you can proceed with the installation.
- **Choose Install Folder** – You can use the default installation folder chosen by the installation wizard, or you can specify your own.
- **Choose Shortcut Folder** – You can choose whether or not you want to create shortcuts for AccuSync and where you want them displayed.
- **Pre-Installation Summary** – You can review your installation settings before the installation wizard installs AccuSync.
- **Installing AccuSync** – The installation wizard displays the progress of the AccuSync installation; you can cancel the installation at any time.
- **Using AccuSync** – Displays a brief summary of commands you can use to start AccuSync following installation.
- **Install Complete** – The installation wizard displays a message indicating whether or not the installation was successful. See [What Gets Installed](#) on page 10 for more information.

What Gets Installed

A successful AccuSync installation results in the following files and directories being created in the installation directory you specify:

File or Directory	Description
_AccuSync_installation	Contains files used to uninstall AccuSync and logs of AccuSync installations.
backup	Contains files used to create the default configurations for supported ITSs.
bin	Contains startup, backup, and restore utilities.
conf	Contains a configuration file used internally by AccuSync.
db	Contains the AccuSync database, including configuration settings, watermarks, and errors.
defaultAccuworkSchema	Contains default AccuWork schema for supported ITSs.
doc	Contains AccuSync user documentation.
import	Contains files used to create the default configurations for supported ITSs.
jiraPlugin	Contains the AccuSync plugins required for JIRA installations.
jre	Contains the Java™ Platform, Standard Edition Runtime Environment.
lib	Contains AccuSync .jar files, including those used by the custom transformer.
plugins	Contains plugins for supported ITSs.
sdk	Contains source code and documentation directories that help you use the AccuSync API to develop custom configurations.
tomcat	Contains the Apache Tomcat server for AccuSync.
transformers	Contains AccuSync transformers.
userTransformersSampleProject	Contains a sample Java project you can use to create custom transformers.
www	Contains the accusync.war file used by the Tomcat Server.
version.txt	A text file stating the AccuSync version.

What to Do Next

If you are installing AccuSync for the first time, verify that the AccuSync services are running or start them, as needed. Go to [Start AccuSync Services](#) on page 11.

If you are upgrading an existing AccuSync installation, go to [Post-Installation Procedures](#) on page 12.

Start AccuSync Services

When the installation is complete, AccuSync services (and processes) must be running before you can start the AccuSync Management Console. Installations behave differently in this regard based on your operating system:

- **Windows:** AccuSync services are started automatically. See [Windows Services Started After Install](#) on page 11 for more information.
- **Linux and Solaris:** AccuSync processes must be started manually. See [Starting Linux and Solaris Processes](#) on page 11 for more information.

Windows Services Started After Install

The following services are started after you install AccuSync on Windows:

- **AccuSync Tomcat.** This service starts the Apache Tomcat server for AccuSync.
- **AccuSync.** This service starts the AccuSync server.

Both of these services must be running in order for AccuSync users to start the AccuSync Management Console.

Tip: Both of these services have a Startup Type of Manual. You might want to change the Startup Type to Automatic if you want these services to be started automatically any time you restart or reboot your system.

Starting Linux and Solaris Processes

After completing installation on Linux or Solaris, you need to start the following processes:

- **AccuSync_Tomcat.** This process starts the Apache Tomcat server for AccuSync.
- **AccuSync_Server.** This process starts the AccuSync server.

Both of these processes must be running in order for AccuSync users to start the AccuSync Management Console.

How to Start AccuSync_Tomcat

To start AccuSync_Tomcat, double-click the **AccuSync_Tomcat** link on your desktop.

Alternative:

Run `startup.sh` in the `/tomcat/bin` directory where you installed AccuSync.

How to Start AccuSync_Server

To start AccuSync_Server, double-click the **AccuSync_Server** link on your desktop.

Alternative:

Run `startup.sh` in the `/bin` directory where you installed AccuSync.

Post-Installation Procedures

The following table summarizes additional procedures that must be performed following both new AccuSync installations and upgrades:

Previous AccuSync Version	Required Procedures	Go To
None (new AccuSync installations)	JIRA users only: Install the most recent version of the JIRA plugin for AccuSync.	Installing JIRA Plugins for AccuSync on page 14
2012.1 and later	JIRA users only: Install the most recent version of the JIRA plugin for AccuSync.	Installing JIRA Plugins for AccuSync on page 14
2011.3	<ul style="list-style-type: none"> ▪ Migrate your backed up database to the database installed with your new AccuSync installation. ▪ JIRA users only: Install the latest JIRA plugins for AccuSync. 	<ul style="list-style-type: none"> ▪ Migrating Backed Up Databases on page 13 ▪ Installing JIRA Plugins for AccuSync on page 14
2011.2 or earlier	<ul style="list-style-type: none"> ▪ Migrate your backed up database to the database installed with your new AccuSync installation. ▪ Rally users only: Update change package field names to conform to values in your new AccuSync installation. ▪ JIRA users only: Install the latest JIRA plugin for AccuSync. 	<ul style="list-style-type: none"> ▪ Migrating Backed Up Databases on page 13 ▪ Updating Mapping Definition Field Names in Rally on page 13 ▪ Installing JIRA Plugins for AccuSync on page 14

Any AccuSync Installation Using AccuRev 6.1 or Higher

AccuRev 6.1 introduced support for the Secure Sockets Layer (SSL) protocol to provide encrypted communication between AccuRev clients and the AccuRev server. In addition to the required procedures summarized in the preceding table, if you are using AccuRev 6.1 or higher *and* SSL has been enabled on the AccuRev server, you must perform the following procedure or AccuSync will not be able to connect to the AccuRev server:

1. From a shell or console on the machine on which AccuSync is installed, set the environment variable `ACCUREV_HOME=` to the root of your AccuSync installation directory (`ACCUREV_HOME="c:\Program Files (x86)\AccuSync\"`, for example).
2. From the same shell or console as in [Step 1](#), run the command:
`accurev enable_ssl -H <server_name:port>`
 where `<server_name:port>` is the server name and port of the AccuRev server that you used to configure AccuSync.
3. When prompted, review and accept the certificate.

Note: You must accept the certificate to be able to use AccuSync.

For more information on SSL and how it is implemented in AccuRev, see Chapter 9, “AccuRev Security Overview” in the *AccuRev Administrator’s Guide*.

Migrating Backed Up Databases

Note: If you are installing AccuSync for the first time you can skip this section.

If you are upgrading from AccuSync 2011.3 or earlier, you must use the AccuSync Database Migration Tool (migration tool) to migrate your backed up AccuSync database to the database installed with your new AccuSync installation.

The migration tool is a separate download, available from the downloads page on the AccuRev web site:

http://www.accurev.com/download_ab.htm

The migration tool download includes both executables and instructions for its use.

Updating Mapping Definition Field Names in Rally

Note: If you are installing AccuSync for the first time you can skip this section.

This procedure is required for Rally users only.

Field names in the basicCpk mapping definition changed in AccuSync Version 2012.1. If you are upgrading from AccuSync 2011.2 or earlier, you must change the ChangePackageInfo and CpkPromoteData field names in your issue tracking system (ITS) as described in this section.

How to Change Field Names

To change field names:

1. Stop the AccuSync server if it is running.

In Windows:

- a. Open the Services window.

For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.

- b. Select the AccuSync service.
- c. Click **Stop the service**.

In Linux or Solaris:

Run [shutdown.sh](#) in the `/bin` directory where you installed AccuSync.

2. Back up any existing AccuSync Configurations.

Tip: This should have been done as part of the AccuSync installation process. See [Back Up AccuSync and AccuBridge](#) on page 5 for more information.

3. Run the utility to update the AccuSync database.

In Windows:

Run [update_db.bat](#) in the `\bin` directory where you installed AccuSync.

In Linux or Solaris:

Run [update_db.sh](#) in the `/bin` directory where you installed AccuSync.

- In Rally, change the names of the ChangePackageInfo and CpkPromoteData fields as follows:

Existing Field Name	Change to
ChangePackageInfo	AccuWorkChangePackage
CpkPromoteData	AccuWorkChangePackageHistory

- Start the AccuSync server:

In Windows:

- Open the Services window.

For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.

- Select the AccuSync service.
- Click **Start the service**.

Tip: If you have not already done so, consider changing the Startup Type to Automatic.

In Linux or Solaris:

Click the AccuSync_Server shortcut on your desktop.

Note: If shortcuts are not available on your desktop, start the AccuSync server manually by running [startup.sh](#) in the `/bin` directory where you installed AccuSync.

Installing JIRA Plugins for AccuSync

This procedure is required for JIRA users only. It is required regardless of whether you are upgrading from a previous release of AccuSync or are installing AccuSync for the first time.

Purpose of the JIRA Plugins for AccuSync

JIRA plugins for AccuSync automatically add the following custom fields to JIRA:

- AccuWorkIssueLink -- Stores the URL that JIRA users can use to open a web browser and display the issue in the AccuRev Web UI.
- AccuWorkKey -- Stores the unique alphanumeric key for each AccuWork issue record.
- AccuWorkChangePackage -- Stores summary AccuWork issue change package information.
- AccuWorkChangePackageHistory -- Stores detailed AccuWork issue change package information.

These fields appear on the JIRA View Custom Fields page only after AccuSync has performed a synchronization task.

Different Plugins for JIRA 4 and JIRA 5

Note: Support for JIRA 4.x is deprecated and will be dropped in a future release.

AccuRev provides plugins for JIRA 4 and JIRA 5, named **AccuSyncJiraPlugin4.jar** and **AccuSyncJiraPlugin5.jar**, respectively. These files are installed to the `\jiraPlugin` directory where you installed AccuSync (`c:\Program Files (x86)\AccuSync\jiraPlugin\`, for example).

Both plugins are what Atlassian refers to as Version 2 plugins. Version 2 plugins have different installation procedures than Version 1 plugins. For more information, refer to your JIRA documentation:

- For JIRA 4: <http://confluence.atlassian.com/display/JIRA040/Managing+JIRA's+Plugins>

- For JIRA 5: <http://confluence.atlassian.com/display/JIRA050/Managing+JIRA's+Plugins>
JIRA 6 users should use the JIRA 5 plugin.

How to Install the JIRA Plugin for AccuSync

1. Stop the AccuSync server if it is running.

In Windows:

- a. Open the Services window.
For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.
- b. Select the AccuSync service.
- c. Click **Stop the service**.

In Linux or Solaris:

Run [shutdown.sh](#) in the `/bin` directory where you installed AccuSync.

2. Back up any existing AccuSync Configurations.

Tip: This should have been done as part of the AccuSync installation process. See [Back Up AccuSync and AccuBridge](#) on page 5 for more information.

3. Run the utility to update the AccuSync database.

In Windows:

Run [update_db.bat](#) in the `\bin` directory where you installed AccuSync.

In Linux or Solaris:

Run [update_db.sh](#) in the `/bin` directory where you installed AccuSync.

4. Follow the instructions in your JIRA documentation for installing plugins.

Refer to your JIRA documentation if you need help with this step:

- For JIRA 4: <http://confluence.atlassian.com/display/JIRA040/Managing+JIRA's+Plugins>
- For JIRA 5: <http://confluence.atlassian.com/display/JIRA050/Managing+JIRA's+Plugins>
JIRA 6 users should use the JIRA 5 plugin.

5. Start the AccuSync server:

In Windows:

- a. Open the Services window.
For example: Type *services.msc* in the Windows **Start Search** box and then press Enter.
- b. Select the AccuSync service.
- c. Click **Start the service**.

Tip: If you have not already done so, consider changing the Startup Type to Automatic.

In Linux or Solaris:

Click the `AccuSync_Server` shortcut on your desktop.

Note: If shortcuts are not available on your desktop, start the AccuSync server manually by running `startup.sh` in the `/bin` directory where you installed AccuSync.

What to Do Next

After you have installed AccuSync and performed any required post-installation procedures, you can begin setting up the default configuration or creating a new configuration from scratch. See the *AccuSync™ Management Console Help* for more information.

3. Release Notes

This chapter describes the changes and enhancements to AccuSync version 2015.1 and previous AccuSync releases.

Note: Note: In cases where an issue is identified with two numbers, such as 36779 (1098217), the first represents the issue number in the AccuWork issue tracking system; the second, in parentheses, is the issue number in the SupportLine system used by Customer Care.

Version 2015.1

General AccuSync Enhancements

These changes apply to all ITSs supported by AccuSync.

35835, 35857 -- Sample transformers do not compile

In previous releases, AccuSync sample transformers did not compile. This problem has been corrected in the current release.

35941 (1096715) -- Shipped Java version should be updated to 1.7

AccuSync leverages the security features of Java. The more recent versions of AccuSync (including the current release) now ship with Java 1.7, which supports all the current TLS variants. Users may need to include the security certification within the JRE themselves.

36108 -- Performance degrades with large transaction ranges

In previous releases, AccuSync performance degraded when synchronizing AccuWork issues with large transaction ranges. The performance with AccuWork issues has been improved in the current release.

36417 -- UI performance degrades on systems with multiple configurations

In previous releases, AccuSync UI performance degraded when users had multiple configurations. This problem has been corrected in the current release.

36498 -- Initialization and scheduling can fail on systems with multiple configurations

In previous releases, AccuSync initialization and scheduling processes could sometimes fail for users with several configurations. This problem has been corrected in the current release.

36520 -- Users with multiple configurations can encounter race conditions

In previous releases, AccuSync users with several configurations could encounter race conditions and resource allocation issues. This problem has been corrected in the current release.

36779 (1098217) -- The `accusync.properties` file contains blank entries

In previous releases, the `accusync.properties` file contained listings for unused ITS systems so that auto-start would run. This requirement has been removed in the current release.

HP QC Enhancements

These changes apply to AccuSync for HP QC only.

34597 -- Sync with search criteria fails to paginate properly and produces an infinite loop

In previous releases, performing a synch operation with a search criteria filter produced a result which failed to paginate correctly and went into an infinite loop. This problem has been corrected in the current release.

35724 -- Synchronization produces error message stating that AccuSync cannot resolve type hp_cpk_promote_data

In previous releases, a synch operation involving type hp_cpk_promote_data returned the following error message: “Cannot resolve type hp_cpk_promote_data for field AccuWorkChangePackageHistory.” This problem has been corrected in the current release.

35946 -- New: change package synchronization

Change package synchronization has been added for HP-QC.

JIRA Enhancements

These changes apply to AccuSync for JIRA only.

36332 -- Custom fields not using value keys

In previous releases, custom fields in JIRA were not using value keys for JSONObjects or for walk arrays. This problem has been corrected in the current release.

36353 (1097379) -- Sync process adds invalid characters

In previous releases, the process of synchronizing a multi-line field from JIRA to AccuRev incorrectly added carriage return escape sequences to the value. This problem has been corrected in the current release.

36598 (1097822) -- AccuSync Test Connection to JIRA 5.2 fails

In the previous release, running the test connection to JIRA 5.2 returned a JSONException error. This problem has been corrected in the current release.

36879 -- Cannot use quotation marks in descriptions

In previous releases, users could not use quotation marks in the description field. This problem has been corrected in the current release.

36923 -- Issue update time not accounting for different time zones

In previous releases, issue update times did not account for different time zones. If the JIRA and AccuSync machines resided in different time zones, some issues might have been omitted during synchronization. This problem has been corrected in the current release.

Rally Enhancements

This change applies to AccuSync for Rally only.

36924 -- Query for Rally project not accounting for pagination

In previous releases, project queries for Rally 2.0 failed to account for pagination. By default, 20 results are listed per page. If the query produced more than 20 results, the full list was not returned. This problem has been corrected in the current release.

Version 2014.3

General AccuSync Enhancements

These changes apply to all ITSs supported by AccuSync.

32221 -- Synchronizations restart after rebooting

In previous releases, AccuSync would restart after the server on which it was running was rebooted, but any synchronizations that were running at the time would then have to be restarted manually. This situation has been improved in the current release, and you can configure AccuSync to automatically restart any synchronizations that are running when the server is rebooted. See Chapter 3, Working with AccuSync Configurations, in the *Management Console Help* for more information.

32241 -- Unicode supported for project names

In previous releases, AccuSync did not properly handle unicode characters in project names, which resulted in synchronization errors. This problem has been corrected in the current release.

35288 -- Improved logging

AccuSync logging has been improved to make it easier to identify projects that cannot be found by their reference. This can make it easier for Support to troubleshoot and resolve synchronization pattern configuration errors.

HP QC Enhancements

This change applies to AccuSync for HP QC only.

34597 -- Comment fields now sync

In the previous release, AccuSync did not synchronize the Comment field. This problem has been corrected in the current release.

35321 -- Issue filtering error corrected

In the previous release, AccuSync was not using filters when determining whether or not to synchronize issues that had not been synchronized previously. This problem has been corrected in the current release.

JIRA Enhancements

These changes apply to AccuSync for JIRA only.

33745 -- AccuWork fields not created for copied configurations

The AccuWorkIssue, AccuWorkIssueLink, AccuWorkChangePackage, and AccuWorkChangePackageHistory fields required to synchronize AccuWork issues with JIRA were not created in JIRA for copied configurations. This problem has been corrected in the current release.

34200 -- Support for JIRA 4.x is deprecated

Support for JIRA 4.x is deprecated in AccuSync 2014.3 and will be dropped in a future release.

34251 -- ID is added to the component field name

In previous releases, AccuSync used to add an ID to every component field name when it was downloaded from JIRA. A component named **apptest** in JIRA would be named **apptest-10234** by AccuSync, for example. This problem has been corrected in the current release, and AccuSync now respects the JIRA component name.

35125 -- Test connection error corrected

In previous releases, the test connection credentials were hard-coded to admin/admin, which caused most JIRA test connections to throw an error. This problem has been corrected in the current release.

35156 -- Fix Version and Affected Version fields now sync

In previous releases, JIRA Fix Version and Affected Version fields were not synced with AccuWork. This problem has been corrected in the current release.

35328 -- AccuSync logs in automatically after JIRA is restarted

In previous releases, if JIRA was stopped and restarted, AccuSync would not log in automatically, causing subsequent synchronizations to fail. This problem has been corrected in the current release, and AccuSync now logs in after the underlying JIRA system has been stopped and restarted, allowing scheduled synchronizations to continue without manual intervention.

Rally Enhancements

This change applies to AccuSync for Rally only.

35328 -- Large number of projects causes search error

In the previous release, if you had twenty or more projects in a single workspace, AccuSync would go into an infinite loop when executing a search. This problem has been corrected in the current release.

Version 2014.2

General AccuSync Enhancements

This change applies to all ITs supported by AccuSync.

33283 -- Copying a mapping definition no longer renames the source definition

In previous releases, when you copied a mapping definition AccuSync renamed the source mapping definition using the name you provided for the copy. This problem has been corrected in the current release, and AccuSync now creates a copy of the mapping definition using the name you provide.

HP QC Enhancements

This change applies to AccuSync for HP QC only.

33664, 34300 -- Custom fields now sync bi-directionally

In previous releases, AccuSync did not synchronize changes made to custom fields in HP QC with the corresponding issue in AccuWork. This problem has been corrected in the current release.

IBM ClearQuest Enhancements

These changes apply to AccuSync for IBM ClearQuest only.

33904 -- Support for SSL

AccuSync now supports HTTPS to allow you to connect to the ClearQuest server using the Secure Sockets Layer (SSL) protocol.

33905 -- Custom fields support

AccuSync now supports custom fields in ClearQuest 8.x. You can create up to 30 custom fields. The names, which are case-sensitive, need to adhere to the following convention: **customField<number>**. For example, **customField1**, **customField2**, and so on, up to **customField30**.

JIRA Enhancements

These changes apply to AccuSync for JIRA only.

32318 -- Field names are properly escaped

In previous releases, AccuSync did not properly escape field names containing spaces in the JQL query it created. This caused an error to be thrown during synchronization if a mapping definition filter had been created which used such a field name. This problem has been corrected in the current release.

33606 -- Full REST Implementation

Previous releases of AccuSync used both the REST API and SOAP for its JIRA implementation. AccuSync for JIRA now uses the REST API exclusively.

34236 -- Filter conditions are properly escaped

In previous releases, AccuSync used unnecessary quotes to escape the conditions specified for mapping definition filters in the JQL it created; the resulting JQL clauses (`(AccuRevStreamName is "EMPTY")`, for example) caused an error to be thrown during synchronization. This problem has been corrected in the current release.

34541 -- Priority field values now displayed on AccuWork issue form

In previous releases, values for the **Priority** field set in JIRA were not displayed on the AccuWork issue form -- the **Priority** field value appeared only on the Issue History tab. This problem has been corrected in the current release.

Rally Enhancements

This change applies to AccuSync for Rally only.

32862 -- Support for Rally 2.0 API

AccuSync for Rally supports the current Rally API, Rally 2.0.

Version 2014.1

General AccuSync Enhancements

These changes apply to all ITSs supported by AccuSync.

28838 -- Issues can no longer be updated during synchronization

In previous releases, it was possible for users to change the status of issues displayed in the Errors table while a synchronization task was running. Deleting or ignoring an issue in this situation sometimes resulted in a database corruption. This problem has been corrected in the current release, and the **Ignore Issue** checkbox and the **Delete** are now disabled when a synchronization task is running.

31387 -- Support for IBM Rational ClearQuest

AccuSync now supports IBM Rational ClearQuest 8.x. AccuSync synchronizes ClearQuest tasks and requests; change package synchronization will be supported in a future release.

32098 -- Search errors by ID

Pagination was introduced to the Errors table on the Status page of the AccuSync Management Console in the previous release. To this feature, AccuSync 2013.1 adds the ability to search errors by the issue ID. This allows you to quickly locate a synchronization error, rather than scrolling through pages of errors.

32507 -- SDK enhancements

The AccuSync SDK, which was introduced in AccuSync 2013.4, has been updated for AccuSync 2014.1. Improvements include increased automation in the build and deploy process, and the SDK documentation has been enhanced with more robust procedures.

HP QC Enhancements

These changes apply to AccuSync for HP QC only.

32126, 32144, 32675 -- Filtering corrections

Several corrections were made to the mapping definition filter, which allows you to specify the conditions that AccuSync uses to select the issue records you want to synchronize. In the current release:

- OR clauses are now constructed correctly
- Dashes are now converted to – in those ITSs that require it
- Filters created with only conditions (no AND/OR clauses) no longer cause exceptions

32547 -- Support for HTTPS

You can now use the HTTPS protocol to specify a connection to HP QC.

JIRA Enhancements

These changes apply to AccuSync for JIRA only.

32408, 32410 -- Improved SOAP session management

In previous releases, AccuSync managed SOAP sessions inefficiently -- creating new sessions for each login, instead of pooling and reusing existing sessions, and not closing sessions that were opened

during specific synchronization tasks. Problems with AccuSync SOAP session management have been addressed in the current release.

Note, however, that there are known issues with JIRA REST session management, which can be rectified by using JIRA versions 6.0.4 and later. (See <https://jira.atlassian.com/browse/JRA-31322> for more information.)

33313 -- User name restrictions removed

In previous releases, AccuSync unnecessarily limited JIRA usernames to alphanumeric characters. These restrictions have been removed in the current release, and AccuSync now supports JIRA username naming conventions.

Rally Enhancements

This change applies to AccuSync for Rally only.

32391 -- Parent and child issues can be synched independently

In previous releases, if you were using nested projects and synched a parent issue, all of that issue's children were synched as well; similarly, if you synched a child issue, its parent was automatically synched. Working around this limitation required creating a filter. This problem has been corrected in the current release, and you can now select and synchronize parent and child issues independently.

Known Issues

This section describes known issues in AccuSync and available workarounds.

27546 -- Install after uninstall disables AccuSync Server service

If a user runs uninstall for an existing version of AccuSync and then installs AccuSync again, the AccuSync Server service does not start automatically and cannot be started manually. If you accidentally run uninstall, either delete or rename your AccuSync directory and then re-install AccuSync as a new installation.

33743 -- Synchronizing ClearQuest "State" fields

If you are using Rational ClearQuest, you need to take additional steps if you wish to synchronize the **State** field for ALMTasks and ALMRequests.

ALMTasks

If you want to synchronize the **State** field for ALMTasks, you need to:

- Ensure that you are synchronizing the AccuWork **assignedTo** field with the ClearQuest **Owner** field. If this field does not have a value, AccuSync cannot update the value of the **State** field.
- Add the following fields to the AccuWork schema:

Field Name	Label	Type	Description
resolutionCode		Choose	Stores the Resolution Code (Complete, Duplicate, Fixed, Rejected, and so on) of the ALMTask associated with the AccuWork issue.
resolutionSummary		Text	Stores the Resolution Summary (a description of the steps taken to address the ALMTask).

Tip: The Label column has been left empty; consider using it to record the name you plan to use for the field's label in the AccuWork Issue Edit Form.

- Create field mappings for these additional fields:

AccuWork Field	Type	ClearQuest Field	Type	Synchronization Type
resolutionCode	Choose	ResolutionCode	Reference	two-way
resolutionSummary	String	ResolutionSummary	multilineString	two-way

Tip: Consider adding these field mappings to the Basic field mapping, rather than creating the same field mappings for both the TaskMapping and RequestMapping mapping definitions.

- For **State** fields updated from AccuWork, follow the rules for the order of **State** field values established in ClearQuest. See [Updating the State Field from AccuWork](#) on page 24 for more information.

ALMRequests

No changes to the AccuWork schema or ClearQuest configuration are required to synchronize the ClearQuest **State** field. Note, however, that for **State** field values updated from AccuWork you must follow the rules for the order of **State** field values established in ClearQuest. See [Updating the State Field from AccuWork](#) on page 24 for more information.

Updating the State Field from AccuWork

Changes to the **State** field value made in ClearQuest are updated in AccuWork when you synchronize. However, if you want to change the **State** field value from AccuWork, you must ensure that you follow the rules for the order that **State** field values can assume as defined in ClearQuest. For example, if you want to change the **State** field value for an ALMRequest from *Completed* to either *Rejected* or *Withdrawn*, you must:

1. Change the **State** field value from *Completed* to *Opened*. (You cannot directly change the state of an ALMRequest from *Completed* to *Rejected*.)
2. Run the synchronization pattern that synchronizes ALMRequests.
3. Change the **State** field value from *Open* to *Rejected* or *Withdrawn*, as appropriate.
4. Run the synchronization again.

The following tables summarize the order for **State** field values for ALMTasks and ALMRequests.

State Field Value Sequence for ALMTasks

From State Value...	To State value...	Other Fields that Require Values
Opened	Activated	assignedTo
	Completed	resolutionCode and resolutionSummary
Activated	Completed	resolutionCode and resolutionSummary
	Opened	<i>None</i>
Completed	Activated	assignedTo
	Opened	<i>None</i>

State Field Value Sequence for ALMRequests

From State Value...	To State value...
Opened	Completed
	Rejected
	Withdrawn
Completed	Opened
Rejected	Completed
	Opened

Note: Unlike ALMTasks, changing the **State** field value for ALMRequests does not require values in other fields.

