

## Introduction

American Innovations is pleased to announce version 1.4 of our Pipeline Compliance System Axis® (PCS Axis®) software. This document identifies enhancements available in PCS Axis 1.4. If you have questions or need additional information, contact PCS Technical Support at [pcstechservices@aiworldwide.com](mailto:pcstechservices@aiworldwide.com).

## Enhancements

### Performance

Improved performance system-wide with significant improvements in Bridge, Hierarchy Selection, and User Management performance.

### User Interface

Improved user interface for better usability.

## Release History

PCS Axis v1.3 Release:

### Connection Manager

Connection Manager is a utility that installs during the PCS Axis software installation. You can use Connection Manager to switch database connections; upgrade a PCS Axis database; and create a new database, such as a training database (*Start > PCS Axis > Connection Manager*).

### Job Service Viewer

Job Service Viewer provides two functions. One allows you to activate the optional Bridge Import add-on while the other provides status information for the following PCS Axis jobs: Bridge Import, Bridge Export, Bridge Import/Export, Email Notification, and Field Computer Receive. Status information identifies which of these jobs are currently running; those that are waiting in the queue to run; and a history of completed jobs (*Tools > Job Service Viewer*).

### Pipeline Series

Pipeline Series is a feature that allows you to adjust facility numbers on a pipeline when discontinuities occur. Discontinuities can occur when an extension is added to the pipeline; the pipeline is re-routed; or when a company designates two pipelines as parallel lines. Instead of physically renumbering pipeline location numbers on-site, Pipeline Series allows you to shift pipeline numbering in PCS Axis. Each Pipeline Series joins together, end-to-end, to make up the entire pipeline. The starting and ending milepost for each segment in a Pipeline Series is used by PCS Axis to calculate a Relative Milepost for the entire distance of the pipeline (*Data Entry > Pipeline Series*).

### System Options

- **Disable Link Attachments:** This system option applies when attaching a document to a record in a data grid. When the option is enabled, a document can be embedded but not linked to a record. A copy of an embedded document stores in the PCS Axis database and can be accessed by all PCS Axis users. A linked document stores on the local computer of the user who linked the document and can only be accessed by that user. If your company prefers that users embed documents instead of linking to documents, enable this option by clicking the check box. A check mark inside the check box indicates the option is enabled (*Tools > Options > General*).
- **Disable Synchronization:** This system option allows you to disable the synchronization feature. When disabled, the Synchronization menu command is not included in the Tools menu, which prevents creating the publication and subscription databases. You can however activate Synchronization at anytime if your company decides later to use the feature (*Tools > Options > Synchronization*).

### System Options, continued

- **Disable Attached Document Preview:** This system option applies to documents that have previously been attached to a record in a data grid. When the option is enabled, users are unable to preview an attached document in the *Preview Attached Documents* window. When the option is disabled, users can open an attached document for editing or viewing purposes if the file type of the attached document is associated with a default software program on their computer (*Tools > Options > General*).

## Synchronization / Server Authentication Mode

Creating the publisher and subscriber databases now requires that you identify the authentication mode used by the server to validate user names and passwords for users connecting to the server. Based on how your company has set up the server, the authentication mode is either *Windows Authentication* or *Sql Server Authentication*. If needed, contact your company's IT department to determine which authentication mode to select when creating the PCS Axis publisher and subscriber databases (*Tools > Synchronization*).

## Bridge Import

- License Activation: If your company purchased the optional Bridge Import add-on, activate the feature for operation using Job Service Viewer to select the license file provided by American Innovations (*Tools > Job Service Viewer*).
- Pipeline Series: Improvements in Bridge Import allow you to import pipeline series. Bridge Import includes a new data item labeled Series that is available for selection in the System Items folder when adding data items for mapping. Adding the Series data item provides the following PCS Axis fields required for mapping pipeline series: *ROW Code*, *Series Number*, *Start Milepost*, and *End Milepost*. These same fields must also be included in the import transition file you use to import data in PCS Axis.

## Reports/Graphs

- Data Collection Report: The data collection report is a blank report used by technicians and vendors to record survey readings in the field. It is available for selection in all modules except ISM. The report uses a columnar report style and includes survey information by module, such as the CPDM Data Collection Report. Based on the survey type selected when setting up the report, it includes a list of facilities and other optional data, such as previous survey readings (*Reports/Graphs > Module Reports > Data Collection Report*).
- Summary Report Layout Theme: A layout theme is a group of named settings saved for later use. You can now define a Summary layout theme with report settings that define the table row, column, and data fields as well as the aggregate functions (average, sum, count, and percentage) used to calculate data fields in a Summary report. Summation fields, field operators, filters, drilldown fields, drilldown sorting fields, horizontal and vertical field groupings, as well as paper settings can all be saved in a Summary layout theme. A Summary report presents data in a cross tab table view. It provides a "big picture" of pipeline and facility data by summarizing and analyzing the data. You can control how PCS Axis summarizes the data, for example by sum, average, count, or percentage. Using a Summary report can help with analyzing data, making comparisons, and detecting patterns in the pipeline system (*Reports/Graphs > PCS, Module, or ROW Report > Customize > Summary Layouts*).

PCS Axis v1.2 Release:

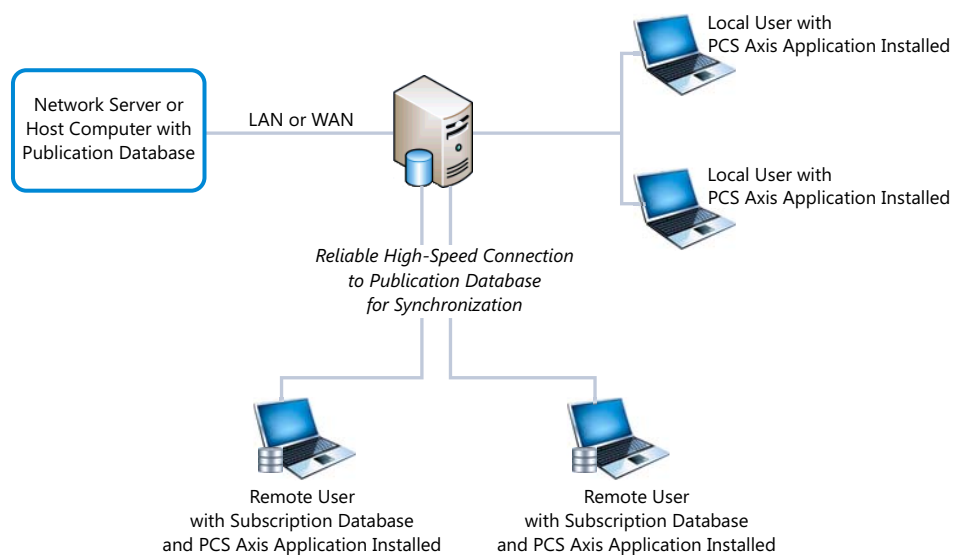
### Synchronization (Tools menu)

PCS Axis Synchronization uses a Microsoft SQL Server publisher/subscriber database model. The Publication database is the primary database on a network server or host computer. Each Subscription database is a copy of the Publication database. Remote users who do not have access to the Publication database can update data in a Subscription database on their local computer.

Synchronization supports one publisher with multiple subscribers running in a client-server network. Synchronizing data between the publisher and subscribers is achieved using merge/pull replication. Merge replication is used with the publisher database. Pull replication is used with subscriber databases.

Features of Synchronization include:

- Creating the Publication database (primary PCS Axis database).
- Setting up one or more subscribers (remote users).
- Synchronizing and re-initializing a Subscription database.
- Switching database connections at a subscriber.



PCS Axis v1.1 Release:

■ **Indirect Survey Manager (ISM)**

*(Modules > Indirect Survey Manager)*

ISM includes the following features for working with continuous survey data:

- Data Entry Grid and Themes  
*(Data Entry > Edit ISM Data)*
- Survey Folders and Themes  
*(Data Entry > Survey Folder Maintenance)*
- Reports, Graphs, and Themes  
*(Reports/Graphs menu)*

ISM reports and graphs include: CIS Reports (Close Interval Survey Reports); AC CIS Reports (AC Close Interval Survey Reports); DCVG Reports (DC Voltage Gradient Reports); ACVG Reports (AC Voltage Gradient Reports); ACCA Reports (AC Current Attenuation Reports); Soil Resistivity Reports; and Pearson Reports.

- User Defined Fields  
*(Tools > Field and UDF Customizations > Continuous Surveys)*
- Field Computer and Themes  
*(Field Computer > Send, Receive)*
- Themes Management  
*(Tools > Themes Management; Tools > Facility Type Themes)*

■ **Custom Module Management (CMM)**

*(Modules > Custom Module Management)*

CMM is an optional add-on available for purchase. CMM allows users to work with facility types not included with PCS Axis by creating a user defined module with up to six user defined facility types. CMM includes the following features:

- Data Entry Grid and Themes  
*(Data Entry > Edit <module> Data)*
- Survey Folders and Themes  
*(Data Entry > Survey Folder Maintenance)*
- Schedules, Routes, and Themes  
*(Data Entry > Define Schedules, Edit Schedule Settings and Data Entry > Define Routes)*
- Reports, Graphs, and Themes  
*(Reports/Graphs menu)*
- User Defined Fields  
*(Tools > Field and UDF Customizations)*
- Themes Management  
*(Tools > Themes Management and Tools > Facility Type Themes)*

- **Email Notification**

*(Tools > Email Notification)*

Email Notification is a feature for sending columnar reports as an attachment in an email at a regularly scheduled time to recipients. Recipients include PCS Axis users as well as non-PCS Axis users.

- **Field Computer**

*(Field Computer menu)*

Send and receive continuous survey data for use in the ISM module.

## Product Support and Training

If you have a suggestion, question, feature request, or a bug to report-your feedback would be appreciated. Also if you have a training need for your organization or would like to know more about upcoming PCS Axis training classes, please use any of the following contact information to reach PCS Technical Services:

Support E-mail: [pcstechservices@aiworldwide.com](mailto:pcstechservices@aiworldwide.com)

Support Telephone: 1-800-229-3404 (select 1, then press 2)

American Innovations: <http://www.aiworldwide.com>