



*PCS Survey Manager*

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# Release History

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Revised October 2021

# PCS Survey Manager Improvements

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American Innovations is committed to continuously improving our PCS Survey Manager through feature enhancements and upgrades. The details about improvements made in this and previous releases, are listed below. For questions or additional information, contact AI Support at [support@aiworldwide.com](mailto:support@aiworldwide.com)

For comments or questions regarding any content on this site, contact the [webmaster](#).

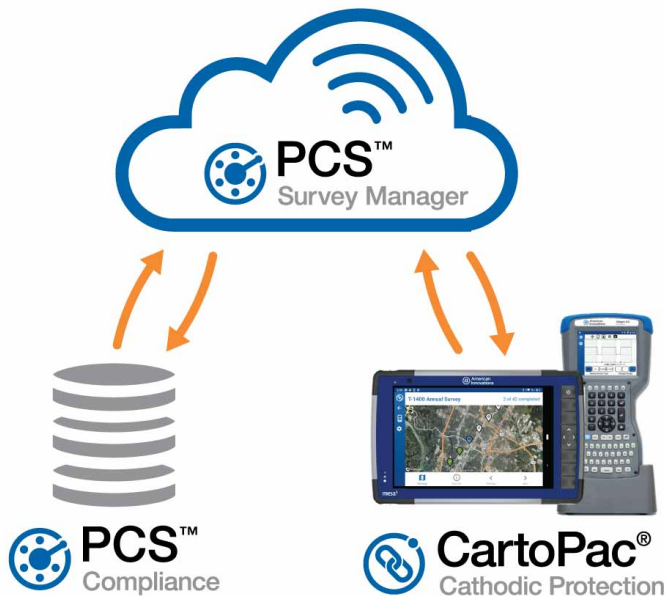
## PCS Survey Manager v20 Updates

*October 2021*

The updates included in Survey Manager v20 are described below.

### Support for PCS Wireless Sync

PCS Survey Manager v20 introduces support for wireless syncing of survey data between PCS and the CartoPac Cathodic Protection app.



American Innovations' proprietary cloud integration technology allows you to increase operational efficiency by:

- Securely syncing PCS field survey data to and from CartoPac Cathodic Protection software
- Eliminating the need to connect your field data PCs over USB or Bluetooth for file-based transfers
- Visualizing survey data and monitoring survey status in near-real time to know who is working on what surveys and assess progress
- Verifying field data before committing it to a compliance database of record

For PCS Wireless Sync requirements and FAQs, refer to the [PCS Wireless Sync data sheet](#).

## PCS Integration

PCS Survey Manager is linked to a PCS v2.2 database using an Integration Token originating in PCS Survey Manager. Once an admin enters the token into PCS v2.2, survey data can be sent to or received from PCS wirelessly.



Figure 2-1. Integration Window

## PCS Survey Manager v19 Updates

*March 2021*

The updates included in Survey Manager v19 are described below.

### Database Migration

[[[Undefined variable productsInfo\_ai/cn/sm.softwareName]]] databases will be migrated from Google Cloud Service to Microsoft Azure. This migration will create a more secure and reliable environment for [[[Undefined variable productsInfo\_ai/cn/sm.softwareName]]] while maintaining all current functionality. The main benefits from moving to Microsoft Azure include the following:

- Enhanced vulnerability protection
- Zero-day attacks protection
- Continued anti-virus and malware protection
- Data-at-Rest encryption
- Maximized up-time availability

## Configurable Shift Lines in SnapView

Within SnapView, users can create shift lines to display in the SnapView Chart to see if their surveys are meeting the 100mV (or other millivolt value) protection criteria. The most common application is evaluating your surveys to ensure at least 100mV of polarization over a Native/Depol survey to provide adequate protection from corrosion. Shift lines can be created off any of the potential lines in the Chart, which will persist to the Chart PDF reports.

The Shift Lines can be customized through the *SnapView Chart Options* window.

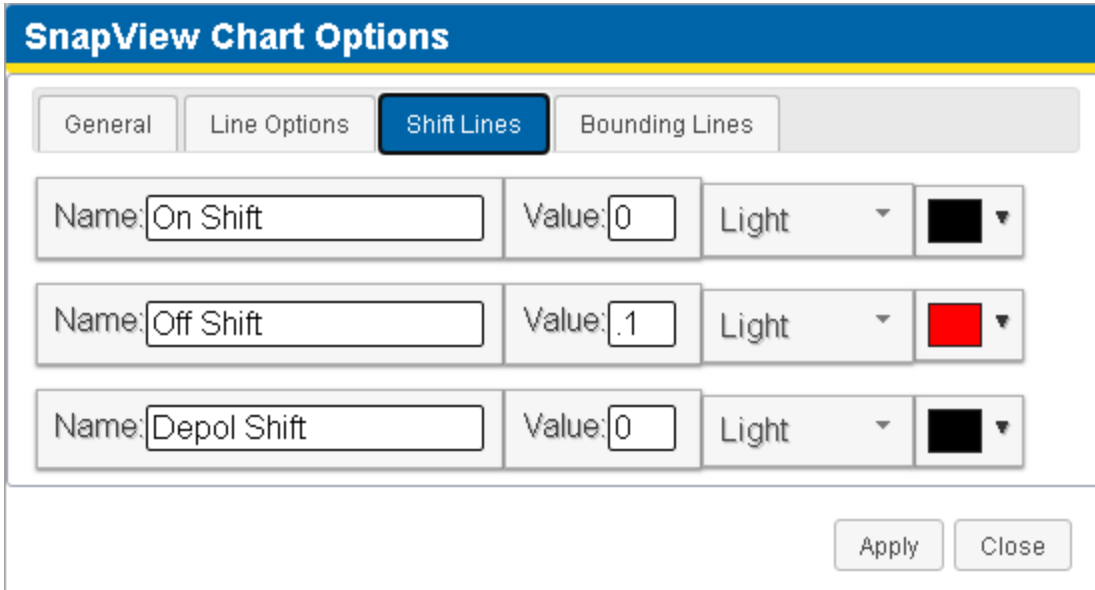


Figure 2-2. SnapView Chart Options Window

## Improved Performance and Miscellaneous Updates

The following update was made in PCS Survey Manager v19 to improve performance and reliability:

- Fixed an issue with a keyboard shortcut that can be used to navigate surveys in the Indirect Survey app (ISA). The <shift>+<arrow key> shortcut will now move through a survey in ISA.

# PCS Survey Manager 18 Updates

*August 2020*

## *Major Enhancements*

### **User Type Management**

The functions for Admins and Managers users were enhanced. These changes include the following:

- Users are now alerted when the maximum number of seats allocated for their user type has been reached. If an Admin or Manager tries to assign a new user to a user type that has reached the maximum number of seats allocated for that user type, a warning message will display. The warning message instructs the user to contact the Account Representative for more information.

Since allocated seats are based on currently active users, if an Admin or Manager wishes to re-assign allocated seat assignments, the Admin or Manager can deactivate a user and then re-assign the seat to another user without having the error message display.

- Admin and Manager user types can now deactivate or reactivate the following user types:
  - **Admin** users can deactivate or re-assign **Manager**, **Tech**, and **Read-Only** user types.
  - **Manager** user types can deactivate or re-assign **Tech** and **Ready-Only** user types.

### **Warning If All Groups Are Not Completed Before Export**

In the Facility Survey module, a warning message displays if any group associated with a survey that the user is trying to export has not been completed. The user can continue the export if desired.

## *Improved Performance and Miscellaneous Updates*

The following updates were made in PCS Survey Manager v18 to improve performance and reliability:

- Two new shortcut keys:
  - Press the **Enter** key instead of clicking **OK** in windows with an OK button.
  - Press the **Esc** key instead of clicking **Cancel** in windows with a Cancel button.
- Fixed an issue that caused Chart PDF reports to fail to generate when the reporting engine received undefined stationing units.

- More precise Y-axis range on Chart reports – PCS Survey Manager was enhanced to support up to the hundredth decimal place when configuring the y-axis. Previously, the y-axis setting was rounded to the nearest whole number.
- Enhanced Map views in SnapView, Indirect Survey, and Facility Survey – the mapping engine was upgraded to take advantage of the latest features and security improvements.

## PCS Survey Manager 17 Updates

*January 2020*

### *Major Enhancements*

#### Creating Custom Surveys

Updates in version 17 of PCS Survey Manager include the ability to create your own surveys and define your own survey structure and facility data. Your survey structure or schema can be created based on your company's exact needs, with custom facility types, facility subtypes, record types, and record subtypes, each made up of their own set of custom fields. Once you have defined the structure of your surveys, you can create new facilities directly in PCS Survey Manager or upload existing facilities from a properly formatted .csv file.

#### Export Custom Surveys to Excel

If you use third party applications to store, analyze, or report on survey data, PCS Survey Manager allows you to export your custom surveys to be easily imported into another database. Custom surveys exported from PCS Survey Manager are saved as Excel .xlsx file formats that can then be imported into your preferred enterprise resource planning, geographic information system, or asset management application.

#### Control Which Readings Are Included in ZDVA Exports

You can now select which readings from DAT files will be exported as a ZDVA file, which allows you to only include those inspections that need to be stored in your database of record to be included in your export. Select readings by clicking on the colored circle next to the ID. Red indicates that the record will not be included in your export; green indicates that it will. When you export to ZDVA, all selected (green) readings are exported and included in your exported survey. Survey metadata, such as the header file, for each survey will be maintained in separate folders in the zipped file to ensure that the metadata is associated with its related inspections.



## Improved Performance and Miscellaneous Updates

The following update was made in PCS Survey Manager 17 to improve performance and reliability:

- Ensured the measure and chainage values are accurately calculated in the Summary tab of the Exception reports.

## PCS Survey Manager 16 Updates

### September 2019

PCS Survey Manager version 16 introduces new survey workflow elements and a grouping feature to the Allegro File module. You can take facilities exported from PCS and group the facilities based on their properties, such as geographic location. Those grouped sets of facilities can be exported as new, more efficient surveys.

After reviewing the facilities exported from PCS, you can group the facilities into surveys based on their geographic location, ensuring you don't miss a nearby facility. Or you group them into survey files based on facility type or other criteria. The new *Groups* pane allows you to add individual facilities to a group and export the group as a more efficient DAT file.

The updates included in the version 16 release of PCS Survey Manager to support the new survey workflow and grouping feature are described below.

### Major Enhancements

#### Creating Groups in the *Groups* Pane

A new *Groups* pane was created to allow you to group facilities together based on their location on the map, their facility type, or other criteria. Using the *Group* pane, you can create, review, modify, and remove groups. Facilities can be added to a group from either the *Maps* or *Table* pane, providing you the freedom to locate records based on geolocation or other properties, such as facility type. Saved groups can be exported as individual survey files and managed in the *Saved Groups* pane.

Four filter and select buttons are available to aid in quickly identifying the current group's facilities in the *Table* and *Map* panes by highlighting the group in other panes or filtering the panes to show just the data from the group. A zoom button is also available to zoom the map to the full extent of the geolocated data in the current group.

#### Managing Survey Files in the *Groups* Pane

Once groups have been created and saved, you can export groups as survey files, import modified survey files, and manage those survey files with the *Saved Groups* section in the *Groups* pane.

The *Saved Groups* pane also allows you to track the progress of your survey with the group's status, select a group for review in the *Currently Viewing* section, or delete unneeded groups from the *Saved Groups* section.

## Enhanced Filtering in the Table Pane

New filters were added to the *Table* pane to help find the facilities you wish to add to a group. The Survey Type column's filter now lists all facility types in the selected survey, allowing you to filter the table based on facility type(s). The new Groups column lists what groups the facilities are already a member of. The Groups column filter allows you to filter the table based on membership to specific group(s) or to show only facilities that have not been assigned to a group.

## Improved Performance and Miscellaneous Updates

The following update was made in PCS Survey Manager 16 to improve performance and reliability:

- Waveforms that have been assigned to a location in PCS Survey Manager are now reliably added to ChartPDF reports. When a ChartPDF report includes data that has associated waveforms, those waveforms will be appended to the end of the report.

# PCS Survey Manager 14 Updates

## July 2019

The updates included in the version 14 release of PCS Survey Manager are described below.

## Major Enhancements

### Updates to the Map

#### *New Base Maps Available*

The maps in PCS Survey Manager have been updated to include an option to change the base map to a terrain or streets view. If you prefer, you can still view your survey data with just satellite imagery as the base map, which is helpful in the country. However, your survey was taken in a city and road information provides a clearer picture than satellite data as to where the survey was taken, you can change the base map to use the Streets view. If seeing elevation information overlaid on top of satellite imagery is more helpful to understanding the survey data, you can change the base map to use the Terrain view.

### *Clustered Data Points*

When a large number of points that are plotted on the map close enough to each other, the points start to overlap. This makes it difficult to distinguish between the points or even know how many points are plotted in that location. To improve map clarity, PCS Survey Manager now groups points that have a close proximity to show a simpler display of points on the map. Points on the map that are clustered into a group are represented by a circle, labeled with the total number of points the cluster contains. As you zoom in on the map, the plotted points will display divided into more clustered groups. However when you zoom out on the map, fewer clustered groups will show and those clusters will have more points contained within.

### *All Geolocated Facilities Shown*

Previously, the map in PCS Survey Manager only showed survey data that had location data and was currently visible in the table. If the data in the table was broken into pages of data, only the current page's data could be seen on the map. Now when you access a survey in version 14, PCS Survey Manager's map plots all geolocated points for the selected survey type. A legend is available to identify how many total data points exist for the selected survey type, how many have location data, how many are plotted on the map after the filter is applied, and how many data points have been selected on the map.

### *Improved Performance and Miscellaneous Updates*

Several updates were made in PCS Survey Manager 14 to improve performance and reliability, including:

- Ensured maps and charts do not cover parts of the footer in the ChartPDF report.
- Verified that ChartPDFs will always generate, even when survey data has gaps in it.

## PCS Survey Manager 13 Updates

### *June 2019*

The updates included in the version 13 release of PCS Survey Manager are described below.

### *Major Enhancements*

#### **Comment Icon Mapping**

Now with PCS Survey Manager version 13, administrators can map custom phrases in *Survey Comments* to specific icons used in the *Chart*. This expands the chart icons' capabilities to accommodate company-specific terms and definitions. A new *Icon Maps Admin* option is available for administrators in the user menu, allowing an administrator to map new terms to an icon or remove existing icon mappings.

When comment icons cluster close enough to each other on the map that they overlap, the overlapping icons will display as a single icon with a number indicating how many comment icons are bundled as one.

## Button and Icon Updates

PCS Survey Manager has been updated to use similar icons that exist in PCS 2.0 and that all American Innovations products will adopt. The icons used throughout PCS Survey Manager have moved closer to the new American Innovations standard.

## Company Logo Improvements

The use of logos in PCS Survey Manager has been improved to allow users to upload and use multiple logos on a single report. Instead of associating logos with the hierarchy, they have been decoupled to allow for greater flexibility. You can now assign a different logo to the cover page, right-side of the footer, and the left-side of the footer. The recall last feature implemented in version 11 allows you to reapply the logos previously used in the cover page and footer, if you do not need to customize the logos per report.

# PCS Survey Manager 12 Updates

*May 2019*

The updates included in the version 12 release of PCS Survey Manager are described below.

## *Major Enhancements*

### Performance Upgrade

Importing surveys in PCS Survey Manager are significantly faster in version 12 than in previous iterations of PCS Survey Manager. Surveys that previously took several minutes to import can now be imported in seconds.

### Upgraded Architecture

PCS Survey Manager underwent an upgrade to the back end architecture so future updates to PCS Survey Manager can take advantage of the latest advances in web technologies.

# PCS Survey Manager 11 Updates

*April 2019*

The updates included in the version 11 release of PCS Survey Manager are described below.

## Major Enhancements

### Supported Browsers

We are no longer including Internet Explorer as a supported browser for PCS Survey Manager. Microsoft is not going to update Internet Explorer with new features or release new versions of the browser; instead, Microsoft has announced that Internet Explorer will only receive security updates and compatibility fixes. In order to take advantage of newer web technology, American Innovations is focusing on browsers that will be able to support recent and future technology advances.

New PCS Survey Manager functionality may not work in Internet Explorer and bugs or cosmetic issues will not be fixed for Internet Explorer. The officially supported browsers include Google Chrome and Microsoft Edge.

### Column Mapping - Click to Map

The column mapping feature has been improved to allow a user to map column headers by selecting column headers in addition to the drag and drop functionality introduced in version 10. If you find it difficult to drag and drop items with your mouse, you can now double-click to select a row in the Transition Fields column, then click the Mappings cell that corresponds to the PCS Survey Manager field in the Internal Fields column.

### Column Mapping - DCVG Surveys

The column mapping feature introduced in version 10 is now available for DCVG survey files. Now CIS, DCVG, or Depol survey files saved in comma separated value (.csv) formats can be included in PCS Survey Manager. Now you can import CIS, Depol, or DCVG data where the column headers do not match PCS Survey Manager fields.

Once imported column headers have been mapped to PCS Survey Manager headers, PCS Survey Manager will remember those mappings and suggest those mappings the next time a survey file with the same column headers is imported. A *Column Maps* cleanup option is available for administrators in the user menu, allowing an administrator to review existing saved mappings and remove mappings as necessary.

### Chart PDF Improvements

The following enhancements were made to improve the Chart PDF report:

- **Hide Flag Spike Strings** – "On Spike" and "Off Spike" comments that were automatically added to flag spikes will be hidden from the Chart PDF. This reduces the amount of unnecessary information cluttering the Chart PDF report.

- **Recall Last** – A new option is available that allows you to automatically fill the Chart PDF settings with the settings from the last time the report was run. This helps you easily run the previous report again or make minor modifications to the previously run report. To automatically fill the Chart PDF settings with the previously ran report's settings, click **Recall Last** in the Chart PDF Report Tool.
- **Clear Settings** – A new button is available that allows you to clear any entered Chart PDF settings and return all fields to the default values. Click **Clear** to revert modified Chart PDF settings to the default values.
- **Updated Subject Line for Emailed Reports** – The survey type and survey name are now added to the beginning of the subject line of the emailed report. This allows you to set up rules in your email application for moving or forwarding emailed reports based on the type or name of the survey.
- **Cancel Report** – You can now cancel a report that is in the process of being created. This saves valuable time when you ran a report but realized that you included the wrong data or entered incorrect report settings mistakenly.

## Show or Hide Depth of Cover Information

For users who do not need to include depth of cover information in the PCS Survey Manager Chart, a toggle option is now available to show or hide the depth of cover information. By default, the Toggle Chart option is selected and depth of cover information is displayed. To hide the depth of cover information from the *Chart*, open **Chart Options**, select the **DOC** tab, and deselect **Toggle Chart**.

# PCS Survey Manager 10 Updates

## March 2019

The updates included in the version 10 release of PCS Survey Manager are described below.

## Major Enhancements

### Column Mapping

Column mapping in PCS Survey Manager allows you to import CIS and Depol survey files from various sources, including those that do not format their data according to PCS Survey Manager's exact specifications. Similar to the Bridge feature in PCS, column mapping allows you to import data where the column headers do not match PCS Survey Manager fields.

Once imported column headers have been mapped to PCS Survey Manager headers, PCS Survey Manager will remember those mappings and suggest those mappings the next time a survey file with the same column headers is imported. A *Column Maps* cleanup option is available for administrators in the user menu, allowing an administrator to review existing saved mappings and remove mappings as necessary.

## Customizable Hierarchy Levels

With PCS Survey Manager version 10, you are no longer restricted to a rigid hierarchy definition. Now when creating a new company folder, there is a customizable set of sub-folders followed by three reserved folders. You can rename or remove default sub-folders and add new sub-folders to the hierarchy, while the reserved folders are not modifiable.

## Control ISA Segment Visibility

Now you can review and accept your ISA segment data before allowing read-only users to see the segment data. Not ready to share data yet with your read-only users? Leave the toggle button to the left of the segment name in the unapproved state to disable data visibility for your read-only users and continue to work on your survey. When you're ready, toggle the button to accepted state to grant access to the survey segment for your read-only users to get started.

## *Improved Performance and Miscellaneous Updates*

Several updates were made in PCS Survey Manager 10 to improve performance and reliability, including:

- Improved the company logo search feature.
- Refined survey segment search results for the Navigation Search.