Using Bridge

Bridge is an optional add-on feature that allows you to transfer data between PCS Axis and an external system, such as a GIS (geographic information system) or work management system. If you have an account on American Innovations' Bullhorn® Asset Tracker (BAT™) website, you can transfer facility survey data to PCS Axis, such as rectifier, bond, or test point inspection readings.

If your company purchased the optional Bridge add-on or you plan to transfer data from BAT in PCS Axis, running Bridge for the first time requires you to enter a Bridge activation key. If you are unable to locate your Bridge activation key, contact PCS Technical services for assistance at pcstechservices@aiworldwide.com. For more information, refer to *Activating Bridge Import for Operation* (page 15).

Topics in this section include those in the following list:

- *Understanding the Bridge Transition File*

- *Using a Facility Key in Bridge* (page 492)

- *Adding a Bridge Definition* (page 494)

- *Viewing Bridge Job Status and Log* (page 556)

- *Icons and Colors Used in Bridge Job Status* (page 559)

Understanding the Bridge Transition File

Bridge uses a transition file to import and export data. The import file is in a format that both Bridge and the external system can read and write. File formats supported by Bridge include those in the following list:

- Excel Spreadsheet 2007 or higher (.xlsx)

- ASCII, comma-delimited (.txt or .csv)

- Extensible Markup Language (.xml)

Using a Facility Key in Bridge

Bridge provides the option of associating a facility key in PCS Axis with an external system ID when setting up a Bridge import definition. The facility key must be unique for each facility. It is used to update mileposts, ROWs, or facility IDs for existing facilities.

A facility key is a user-defined field set up in PCS Axis. An external system ID is typically a unique identifier generated by an external system, such as a GIS or work management system. The facility key is used in place of the PCS Axis fields labeled *ROW Code* or *Milepost* when setting up the Bridge import definition. The facility key allows you to map (or link) facilities between PCS Axis and the external system.

NOTE: The *Facility Key* feature applies only to a Bridge Import.

To add a facility key for an external system ID, follow these steps:

1   Click **Tools** > **Field and UDF Customizations** to open the *Field and UDF Customizations* window (Figure 10-1, page 493).

2   Open the folders labeled **Facility Surveys** and **Common to All Facilities** in the selection tree. Then click **ROW and Pipeline** to display related fields in the grid.

NOTE: Clicking the *Properties* bar collapses the *Properties* panel allowing you to view more of the grid. Clicking the bar again expands the panel.
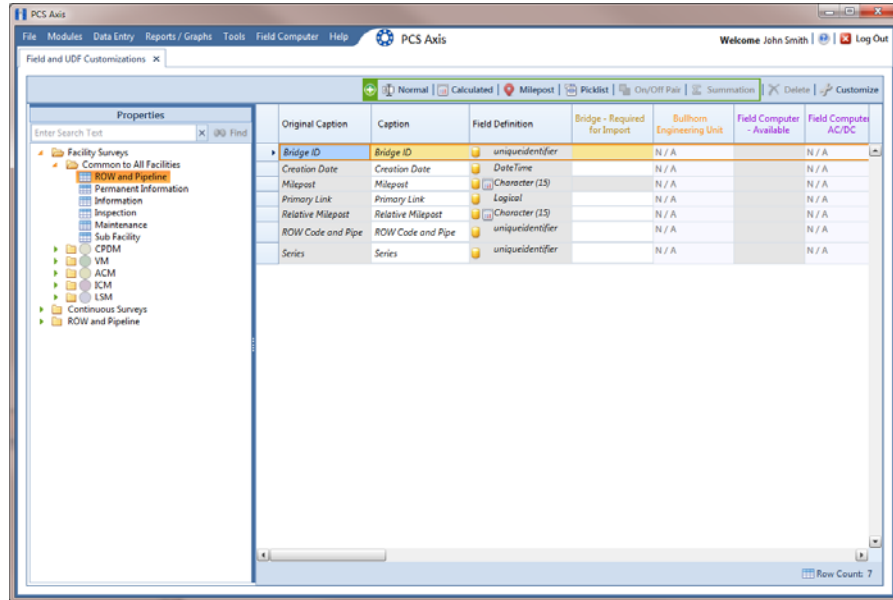
Figure 10-1. Field and UDF Customizations

3   Click **Normal** in the toolbar to open the *Add Normal Field* dialog box (Figure 10-2).

4   Type a unique name for the UDF in the **Caption** field. Then click **Save** to save changes and close the dialog box.

The UDF is now ready to be used as the *Facility Key* in a Bridge import or export definition file.
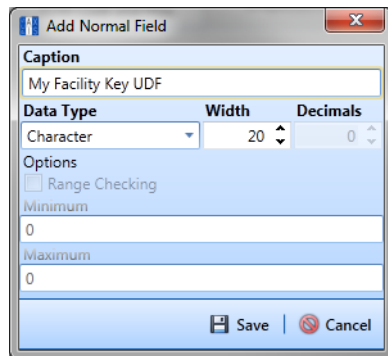

Figure 10-2. Add Normal Field

Adding a Bridge Definition

Information in this section explains how to add a Bridge import, export, import/export, and Bullhorn definition. Topics include those in the following list:

- *Adding a Bridge Import Definition*

- *Adding a Bridge Import Definition for an SDL Survey File*

- *Adding a Bridge Export Definition* (page 513)

- *Adding a Bridge Import/Export Definition* (page 527)

- *Adding a Bullhorn Bridge Definition* (page 543)

Adding a Bridge Import Definition

A Bridge import definition specifies the property settings and options for importing data in PCS Axis. It defines the data transfer options; location of the import file; and field mappings in PCS Axis and the import file.

To add a Bridge import definition, follow these steps:

1 Select one or more pipeline segments in the *Select ROWs* window (Figure 10-3). Select pipeline segment(s) with facilities you want to include in the Bridge definition. Click ![save icon] **Save** to close the window.
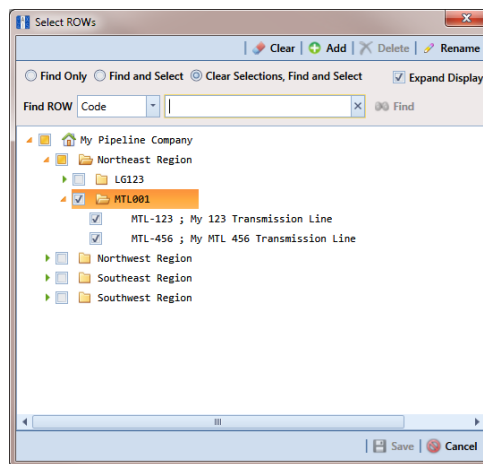
Figure 10-3. Select ROWs

2 Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-4).

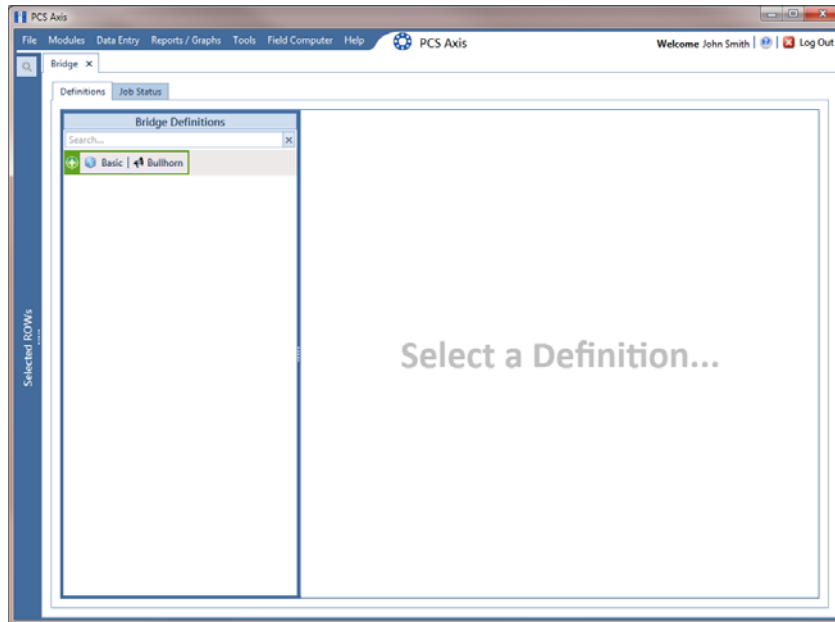**Figure 10-4. Bridge Definitions**

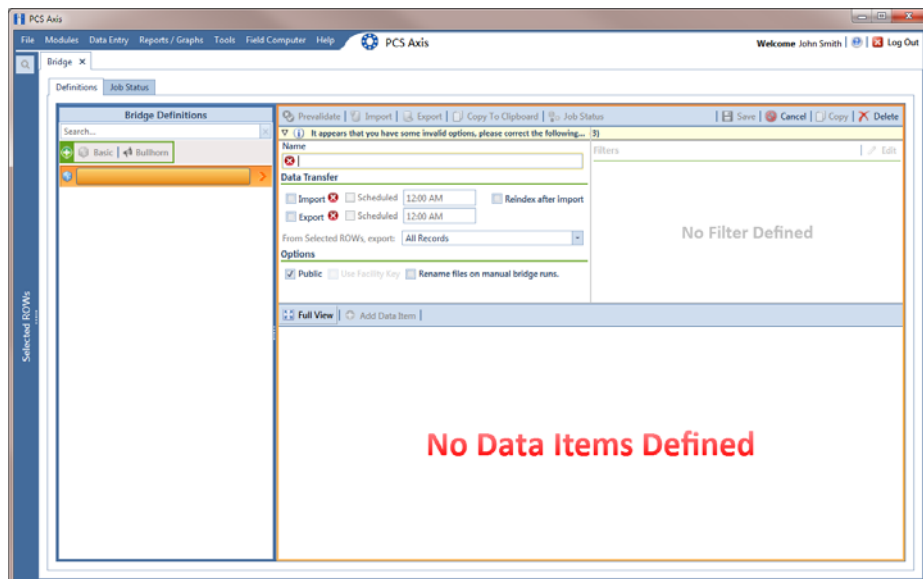**3** Click ⬙ **Basic** to open the basic definition panel (Figure 10-5).

Figure 10-5. Basic Definition Panel

4   Type a unique name for the definition in the **Name** field.

> **NOTE:** Clicking the *Bridge Definitions* bar collapses the panel allowing you to view more of the definition panel. Clicking the bar again expands the panel.

5   To set properties in the *Data Transfer* group box, follow these steps (Figure 10-6):
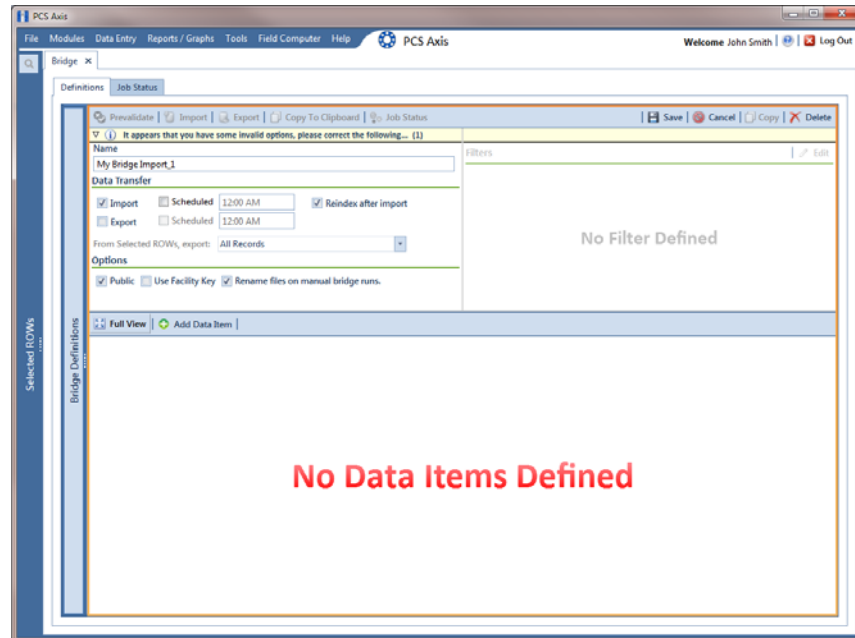
Figure 10-6. Bridge Import Definition

a   Click the **Import** check box.

b   If you are importing large amounts of data, click the check box **Reindex after import** to reindex the PCS Axis database after the import process completes.

> **NOTE:** Enabling this option prevents index fragmentation from occurring in the PCS Axis database, which in turn may result in slow system performance. Index fragmentation may occur after importing large amounts of data in PCS Axis using *Bridge Import*, *Bullhorn Bridge*, or *Field Computer*. You can also reindex the database using the option *Reindex Database* in J*ob Service Viewer* (Tools > Job Service Viewer).

c If you want PCS Axis to automatically run the import file at a scheduled time, click the **Scheduled** check box and then type a scheduled time in the adjacent field. Enter a scheduled time using 12-hour time format to specify the hour, minute, and AM/PM setting (HH:MM AM or PM).

When the import file is not scheduled to run automatically, you can run it manually by clicking the 📁 **Import** button.

IMPORTANT: When scheduling a time to run *Bridge*, choose a time that does not impact other network services or computer resources. For example, consider a staggered time schedule instead of running *Bridge* at the same time as other scheduled network services.

---

6 To set properties in the *Options* group box (Figure 10-6), follow these steps:

a Click the **Public** check box if you want the import definition file available for use by all PCS Axis users. When the check box is empty, the definition file is available only to the user who creates it.

b Click the check box **Use Facility Key** if you plan to map facilities to a user defined field (UDF) set up previously for an external system ID. See *Using a Facility Key in Bridge* (page 492) for more information if needed.

When facilities are not mapped to a facility key, they are mapped to the following required fields: *ROW Code*, *Milepost*, and *Facility ID*.

c If you plan to run the Bridge definition manually and want Bridge to rename the file after importing data, click the check box **Rename files on manual bridge runs**.

7 Click 💾 **Save**.

8 Click 🔳 **Full View** to hide the group boxes *Data Transfer* and *Options*. Clicking *Full View* again displays these group boxes.

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.

---

9 Select the data item(s) you want to import in PCS Axis. Click ⊕ **Add Data Item** to open the *Data Items* window (Figure 10-7), and then complete the following steps:

a Open the folder(s) containing the data item(s) you want to import. Repeat this step as needed for other folders. For example, the folders *CPDM* and *Rectifier* are selected in Figure 10-7.
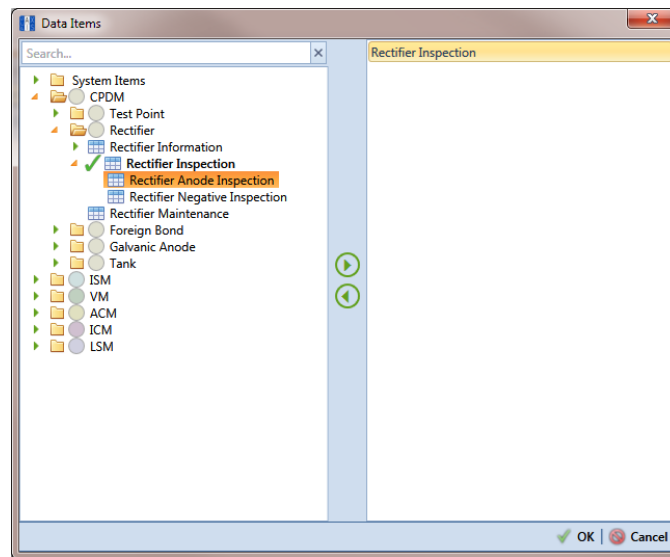

Figure 10-7. Data Items Selected

NOTE: The right pane of the *Data Items* window lists all selected data items for import. To remove a data item for import, double-click the data item in the right pane to move it back to the left pane.

---

b Double-click to select a data item and move it to the right pane of the window. Repeat this step as needed for other data items. For example, the data item *Rectifier Inspection* is selected in Figure 10-7.

c Click ✔ **OK** to close the dialog box and return to the definition panel.

d Click 💾 **Save**.

10 Identify the location of the import file using the following steps:

a Click the ellipsis button **...** in the field **Import File Name** to open the *Import File* dialog box. Navigate to the import file and then select it.

b Click **Open** to close the dialog box and return to the definition panel. The path to the import file displays in the field *Import File Name*.

11 To assign inspections to a survey folder based on the inspection date, complete one or both of the following steps in the *Options* group box as required (Figure 10-8):

a If you want to assign inspections to an annual survey folder, click the check box **Assign inspections to an Annual Survey**.

b If you want to assign inspections to a periodic survey folder, click the check box **Assign inspections to a Periodic Survey**.
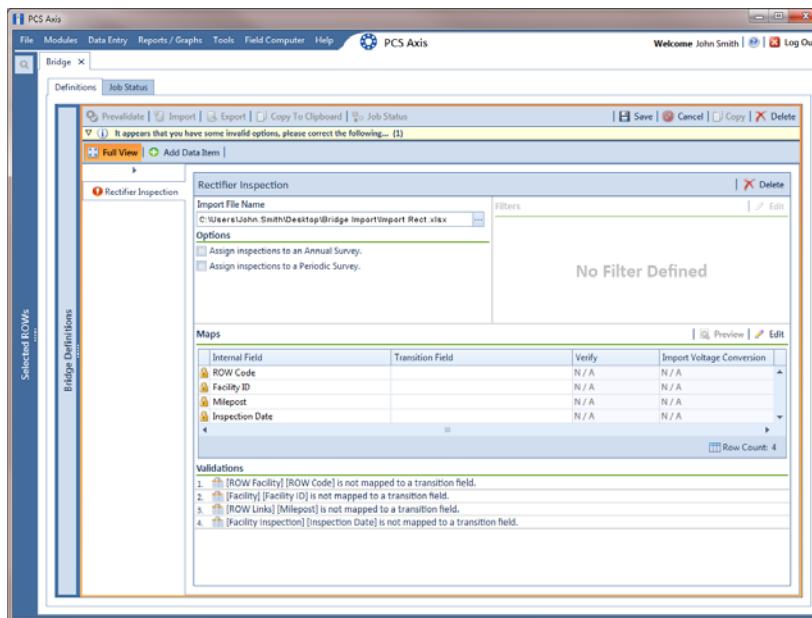

Figure 10-8. Definition

12 To map fields in PCS Axis with fields in the import file, follow these steps:

a Click ![pencil] **Edit** in the *Maps* group box to open a field mapping window (Figure 10-9).
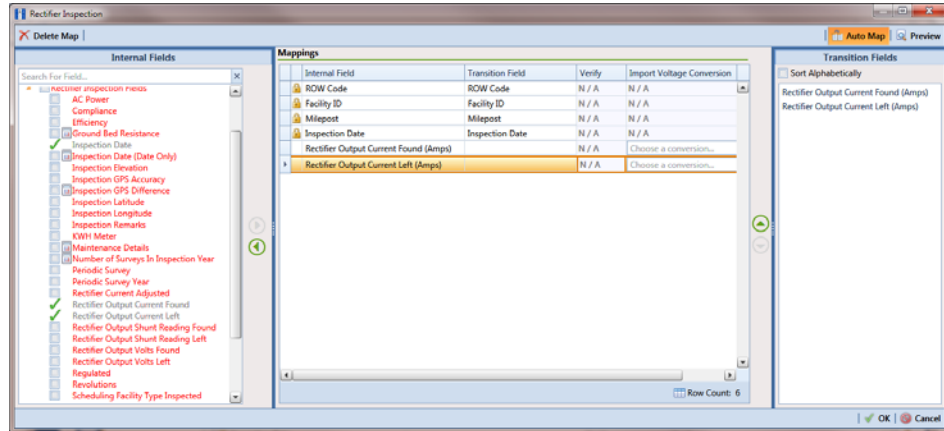
Figure 10-9. Field Mappings

NOTE: Fields in the *Mappings* panel with a lock icon ![lock] are required fields for mapping, such as *ROW Code*, *Milepost*, *Facility ID*, and *Inspection Date* shown in Figure 10-9.

b Select PCS Axis fields for mapping. Click the ![toggle] toggle arrow for a field category in the *Internal Fields* panel to view a list of available fields. For example, *Rectifier Inspection Fields* is selected in Figure 10-9.

c Click the check box for one or more PCS Axis fields listed in the *Internal Fields* panel. Then click the ![arrow] top arrow button to move selections to the *Mappings* panel. Double-clicking a field also moves it to the *Mappings* panel.

For example, the PCS Axis fields *Rectifier Output Current Found (Amps)* and *Rectifier Output Volts Found (Volts)* are selected for mapping in Figure 10-9.

d If you want to sort import fields listed in the *Transition Fields* panel in alphabetical order, click the check box **Sort Alphabetically**.

e To map PCS Axis fields with fields in the import file, follow these steps:

- Select a PCS Axis field in the *Mappings* panel. Map the selected field to a field in the import file by double-clicking a field listed in the *Transition Fields* panel. Repeat this step for remaining fields you want to map.

> **NOTE:** When the 🎁 **Auto Map** button is enabled and the names of fields in the import file match those in PCS Axis, double-clicking a PCS Axis field in the *Mappings* panel automatically maps to an import field listed in the *Transition Fields* panel.

- If the definition is set up to use a facility key, click the **Facility Key** option button in the *Mappings* panel for the field you want to use as the facility key, such as *ROW Code* or *Milepost*.

- If the field *Choose a conversion...* is present in the *Mappings* panel for a pair of mapped fields and you want to apply a conversion option, click the field **Choose a conversion ...** and select an option in the selection list.

f If you want to preview fields for mapping in the import file, click the 🔍 **Preview** button to open the import file in the *Preview Maps* window.

g To remove a field mapping in the *Mappings* panel, select the field in the *Mappings* panel and then click ❌ **Delete Map**. Double-clicking the field also removes it. Unmapped fields are moved to the *Internal Fields* panel.

13 Click ✔ **OK** to close the mapping window and return to the definition window. Then click 💾 **Save**.

Field mappings display in the *Maps* group box.

14 To validate the definition, click the 🔘 **Prevalidate** button. When the validation process completes and the following message displays (Figure 10-10), click 🔘 **View Job Status** to open the *Job Status* window or 🔙 **Return to Definition** to open the *Definitions window*.

> **NOTE:** The *Prevalidate* process confirms the definition file is set up correctly; it does not post data in the database. Only the first 1,000 records of the import file will be displayed.
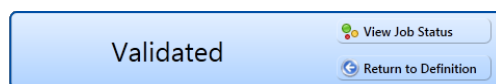

Figure 10-10. Validated Message

15 If you want to manually import data in PCS Axis, complete one of the following steps:

   a If the *Job Status* window is open, click ⊕ **Run** for a selected import file listed in the *Job Status* window. Then click ↻ **Refresh** to update status information.

   b If the *Definitions window* is open for the import file, click 🟡 **Import**.

16 To view the status of a Bridge session, click 🔵 **Job Status** in the *Definitions window* to open the *Job Status* window (Figure 10-11, page 502). Clicking ▦ **Log** for a Bridge session opens the log file for the selected session.

> **NOTE:** For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).
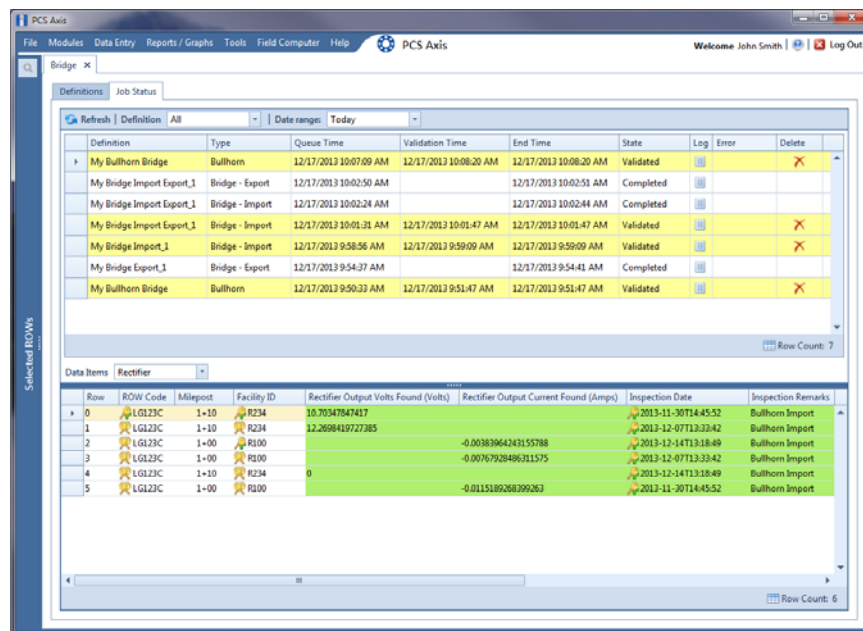
Figure 10-11. Job Status

17 To copy the Bridge definition to a file, such as a Notepad or Microsoft Word file, follow these steps:

   a Click the **Definitions** tab if the *Definitions window* is not open.

   b Click ▢ **Copy to Clipboard**.

   c Start the software program, such as Notepad or Microsoft Word.

   d Open a new file and then **Paste** the definition file. Click **Save**.

Adding a Bridge Import Definition for an SDL Survey File

Information in this section explains how to set up a Bridge definition for importing one or more stationary data logger (SDL) survey files. The Bridge definition specifies property settings and options for importing data in PCS Axis; defines the data transfer options; and identifies the location of the SDL survey file(s).

IMPORTANT: *Bridge Import* is an optional add-on that requires an activation key for operation. Running *Bridge Import* for the first time requires you to enter your Bridge activation key. If you are unable to locate your Bridge activation key, contact PCS Technical services for assistance at pcstechservices@aiworldwide.com. For more information, refer to *Activating Bridge Import for Operation* (page 15).

To add a *Bridge Import* definition and import an SDL survey file, follow these steps:

1 Select one or more pipeline segments in the *Select ROWs* window. Select pipeline segment(s) you want to import SDL survey files. Click ![Save] **Save** to close the window (Figure 10-3, page 494).

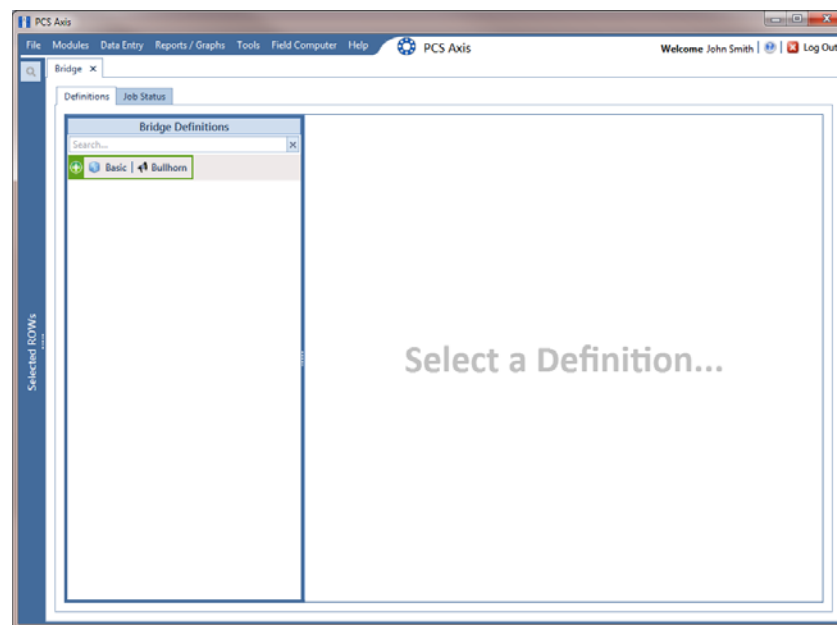2 Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-12).

Figure 10-12. Bridge Import Definition

3 Click ![Basic icon] **Basic** to open the basic definition panel. Then click the title bar of the *Bridge Definitions* panel to hide the panel. (Figure 10-13).

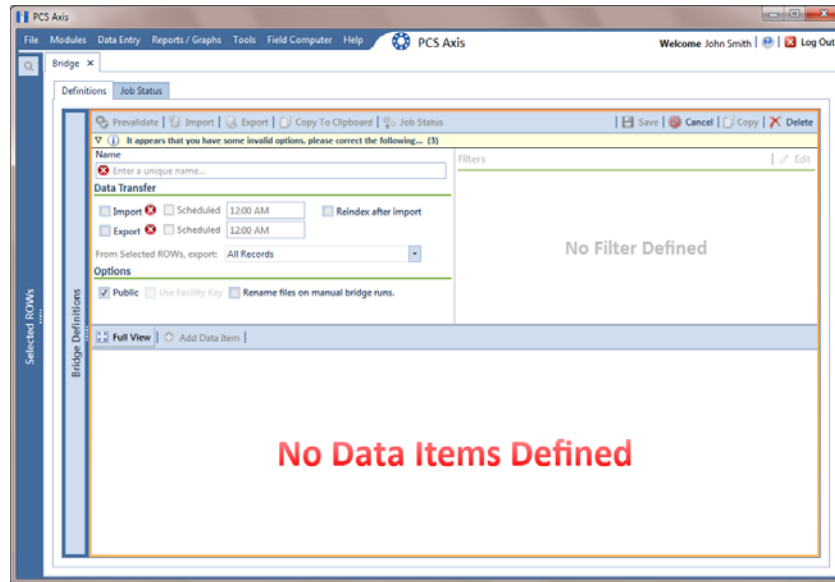**Figure 10-13. Basic Definition Panel**

4 Type a unique name for the definition in the **Name** field (Figure 10-14, page 505).

5 Complete the following steps to set properties in the *Data Transfer* group box (Figure 10-14, page 505):

a Click the **Import** check box.

NOTE: Because SDL imports are typically run manually "on demand", setting property settings for *Scheduled* option are not required.

---

b Click the check box **Reindex after import** to reindex the PCS Axis database after the import process completes.

IMPORTANT: Enabling this option prevents index fragmentation from occurring in the PCS Axis database, which in turn may result in slow system performance. Index fragmentation may occur after importing large amounts of data in PCS Axis using *Bridge Import*, *Bullhorn Bridge*, or *Field Computer*. You can also reindex the database using the option *Reindex Database* in J*ob Service Viewer* (Tools > Job Service Viewer).
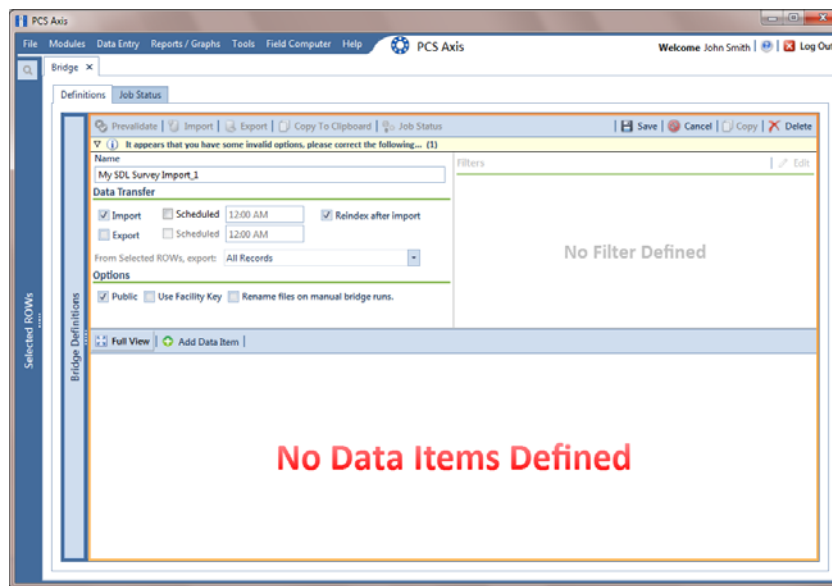
Figure 10-14. Bridge Import Definition

6   Complete the following steps to set properties in the *Options* group box
(Figure 10-14):

a   Click the **Public** check box if you want the import definition file available for
use by all PCS Axis users. When the check box is empty, the definition file is
available only to the user who creates it.

NOTE: The option labeled *Use Facility Key* does not apply when using Bridge
to import SDLs. See *Using a Facility Key in Bridge* (page 492) for more
information if needed.

---

b   If you want the Bridge import process to rename the import file after
importing data, click the check box **Rename files on manual bridge runs**.

7   Click ⊞ **Save** and then click ⊞ **Full View** to hide the group boxes *Data Transfer*
and *Options*. Clicking *Full View* again displays these group boxes.

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important
information related to required property settings.

---

8   Select the PCS Axis data item used to import SDL survey files. Click ⊕ **Add Data Item** to open the *Data Items* window and then complete the following steps (Figure 10-7):

    a   Click the ▶ toggle arrow to open the **System Items** folder (Figure 10-15).

    b   Double-click **Stationary Survey Measurement** to move the data item to the right pane of the window.

NOTE: The right pane of the *Data Items* window lists all selected data items for import. To remove a data item for import, double-click the data item in the right pane to move it back to the left pane.

---

    c   Click ✔ **OK** to close the dialog box and return to the definition panel.
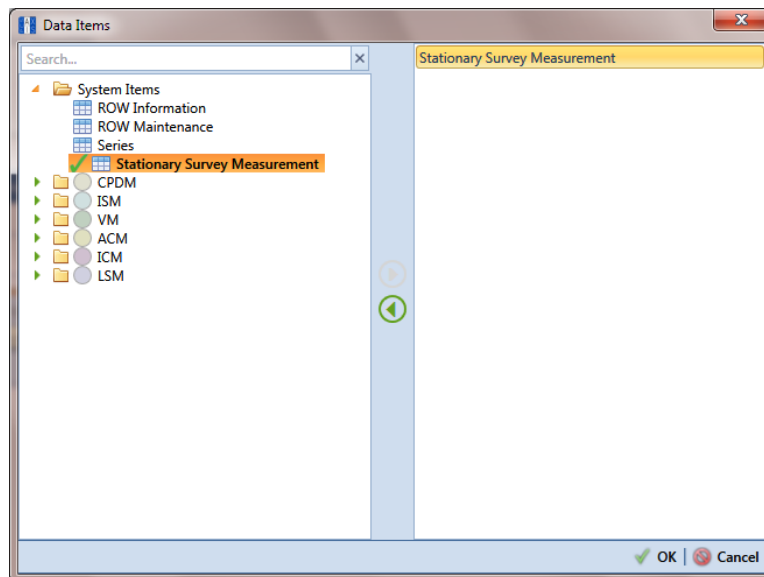
Figure 10-15. Data Items

9   Click 💾 **Save** to save the definition file.

10 Complete the following steps to identify the location of the SDL survey file(s) (Figure 10-16):

    a   Click the ellipsis button **...** in the field **Import File Name**.

    b   When the *Import File* dialog box opens, navigate to the SDL survey file(s) and select each one you want to import. Then click **Open**.
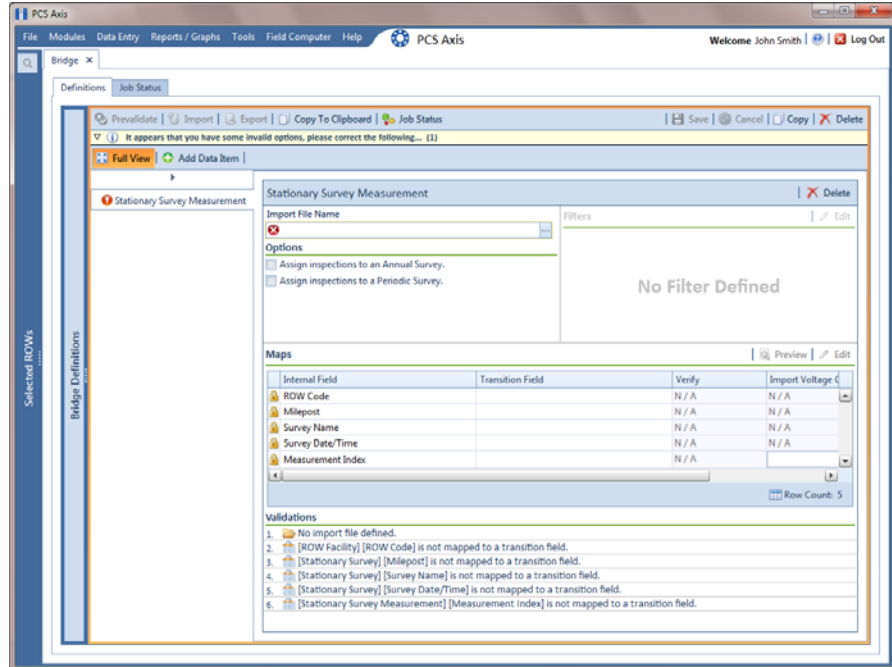
Figure 10-16. Select SDL Import File

11 When the *Stationary Survey(s)* window opens (Figure 10-17, page 507), select the SDL survey file and then click the **Snap To Facility** button to open the *Snap To Facility* window (Figure 10-18, page 508).

NOTE: A yellow ➡ **Snap To Facility** button indicates the SDL survey file is matched to an unregistered milepost location. A green ➡ **Snap To Facility** button indicates the SDL survey file has been automatically matched to a milepost location already established in PCS Axis. A blue ● **Snap To Facility** button indicates a match was not found for the pipeline segment or pipeline Series.
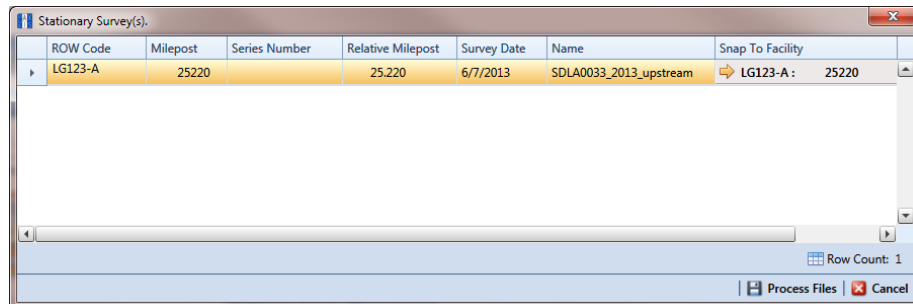
Figure 10-17. Stationary Survey(s)

12 When the milepost location of the SDL survey *does not* match a pipeline segment already established in PCS Axis, it is identified as an *UnRegistered Milepost* (Figure 10-18).

When the milepost location of the SDL survey *does* match an existing pipeline segment in PCS Axis, use the *Snap To Facility* window to match the SDL survey to a milepost location on the pipeline segment. This process ensures telluric compensation calculations are accurate.

To match the SDL survey to an existing milepost location, follow these steps:

a Click **Existing Facilities** to enable the grid for use (Figure 10-18).

b If the pipeline segment is not selected in the **ROW** field, click the down arrow and select the pipeline segment in the selection list.

c Select a milepost record in the grid and then click ✔ **OK** to snap the SDL survey to the selected milepost.
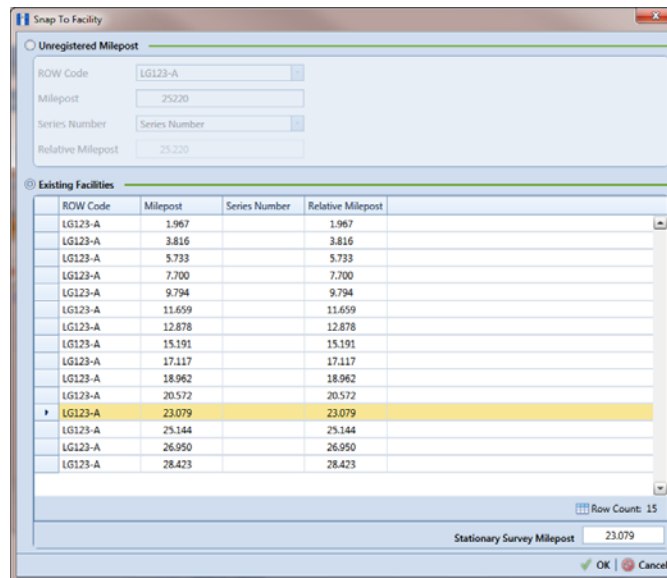
Figure 10-18. Snap To Facility

13 When the *Stationary Survey(s)* window opens, click [icon] **Process Files** to automatically map data fields in the SDL survey with data fields in PCS Axis (Figure 10-19).
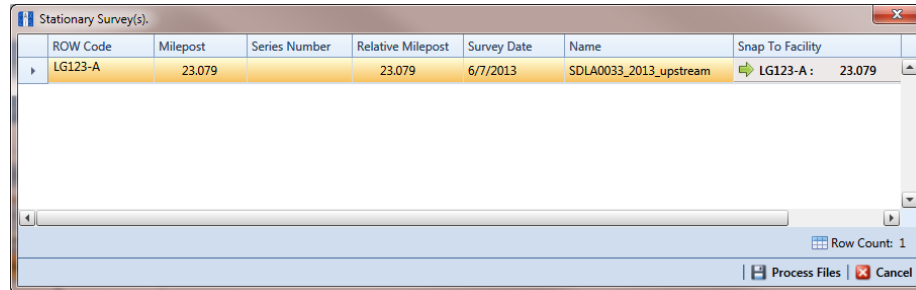
Figure 10-19. Process Files / Stationary Survey(s)

After processing files, the definition window opens. The *Maps* group box includes a list of field mappings in the columns labeled *Internal Field* (PCS Axis) and *Transition Field* (SDL survey) as shown in the following example (Figure 10-20).
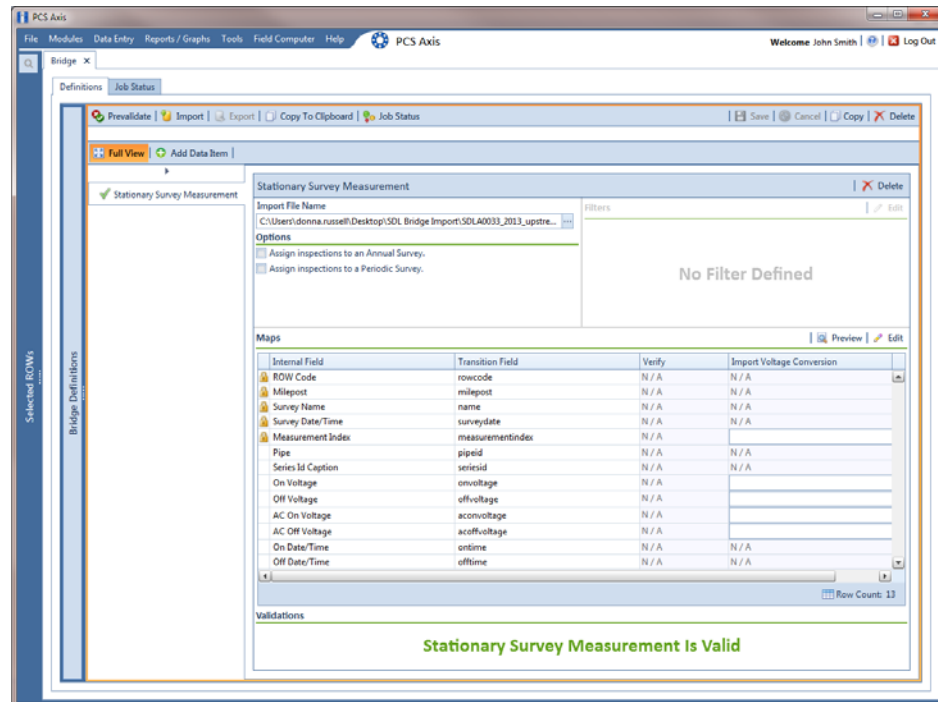
Figure 10-20. Bridge Definition

14 If you want to apply an **Import Voltage Conversion** filter to survey measurements (such as *On Voltage* survey measurements), complete the following steps:

a Click ✐ **Edit** in the *Maps* group box to open the *Stationary Survey Measurement* dialog box (Figure 10-21).
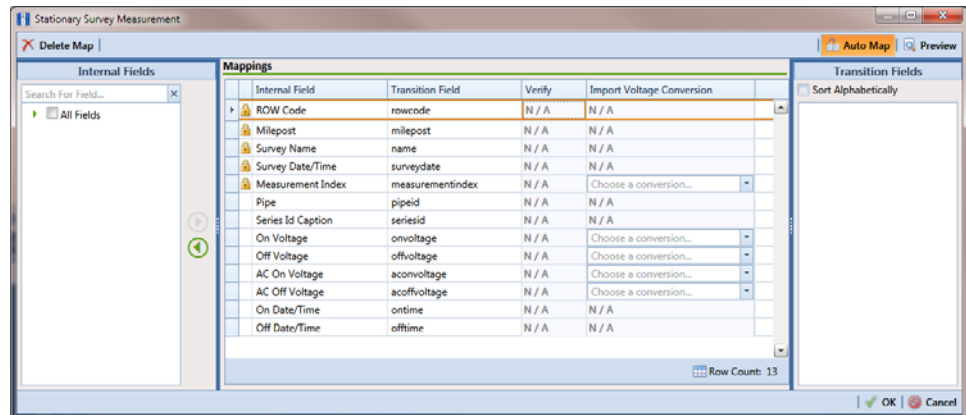
Figure 10-21. Stationary Survey Measurement

b Select a survey measurement field in the grid. Then click the down arrow in the **Import Voltage Conversion** field and select one of the following filter options in the selection list (Figure 10-22, page 511).

- No Conversion
  Does not apply a voltage conversion filter.

- (# * 0.001) – Convert mV to V
  Converts millivolt measurements to volts.

- (# * 1000) – Convert V to mV
  Converts voltage measurements to millivolts.

- (# * –1) – Invert polarity
  Reverses the polarity of survey measurement.

- (# * –0.001) – Invert polarity and convert mV to V
  Reverses the polarity and converts millivolt measurements to volts.

- (# * –1000) – Invert polarity and convert V to mV
  Reverses the polarity and converts voltage measurements to millivolts.

c Click ✔ **OK** to apply settings and close the *Stationary Survey Measurement* dialog box.
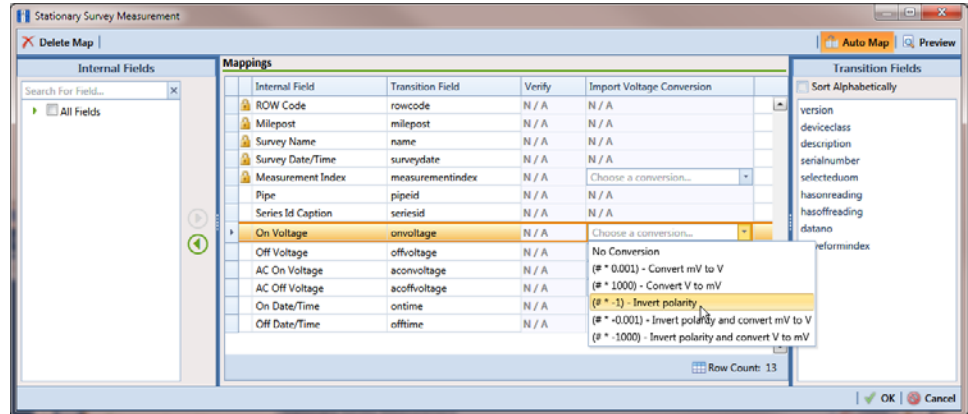
Figure 10-22. Stationary Survey Measurement

15 To assign the SDL survey to a survey folder based on the survey date, complete one or both of the following steps in the *Options* group box as required (Figure 10-20, page 509):

a If you want to assign the SDL survey to an annual survey folder, click the check box **Assign inspections to an Annual Survey**.

b If you want to assign the SDL Survey to a periodic survey folder, click the check box **Assign inspections to a Periodic Survey**.

c Click ⊟ **Save** to save the definition file.

16 To validate the Bridge definition, click the 🔴 **Prevalidate** button. When the validation process completes and the following message displays, click 🟢 **View Job Status** to open the *Job Status* window or ⟵ **Return to Definition** to open the *Definitions window* (Figure 10-23).

NOTE: The *Prevalidate* process confirms the definition file is set up correctly; it does not post data in the database. Only the first 1,000 records of the import file will be displayed.
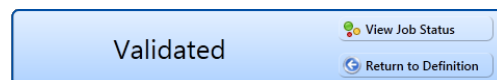
Figure 10-23. Validated Message

17 To import the SDL survey in PCS Axis, click ![Import icon] **Import** in the *Definitions* window (Figure 10-20, page 509).

18 To view the status of the Bridge session, click ![Job Status icon] **Job Status** in the *Definitions window* to open the *Job Status* window (Figure 10-24, page 512). Clicking ![Log icon] **Log** for a Bridge session opens the log file for the selected session.

NOTE: For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).
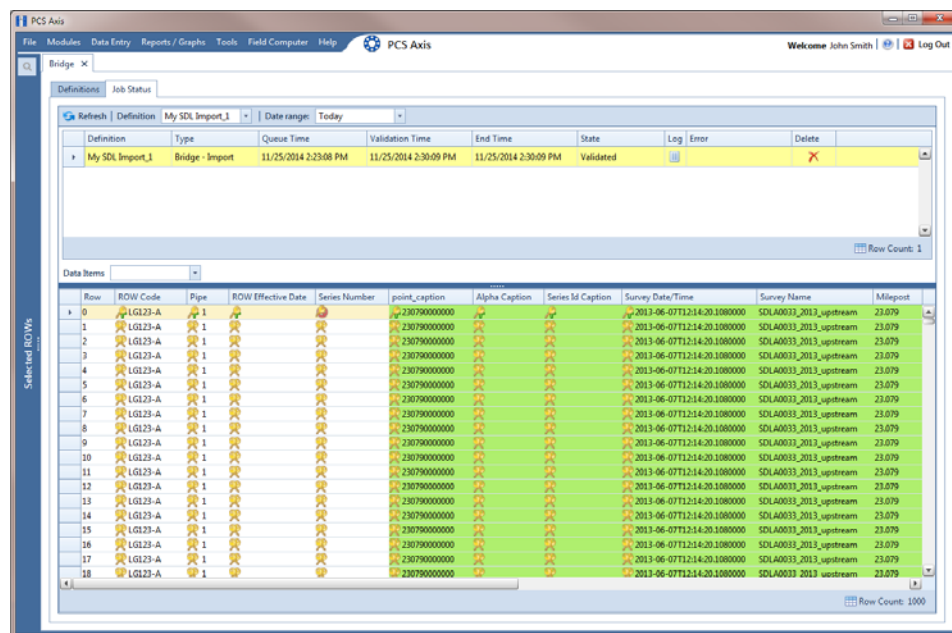
Figure 10-24. Job Status

19 To copy the Bridge definition to a file, such as a Notepad or Microsoft Word file, follow these steps:

a Click the **Definitions** tab if the *Definitions* window is not open.

b Click ![Copy icon] **Copy to Clipboard**.

c Start the software program, such as Notepad or Microsoft Word.

d Open a new file and then **Paste** the definition file. Click **Save**.

Adding a Bridge Export Definition

A Bridge export definition specifies the property settings and options for exporting data from PCS Axis. It defines the data transfer options; file format and location of the export file; and the data to be exported.

NOTE: Bridge currently supports use of a facility key only in a Bridge import file. Future enhancements will include use of a facility key in a Bridge export file.

To add a Bridge export definition, follow these steps:

1   Select one or more pipeline segments in the *Select ROWs* window. Select pipeline segment(s) with facilities you want to include in the Bridge definition. Click the **Save** icon to close the window (Figure 10-25).
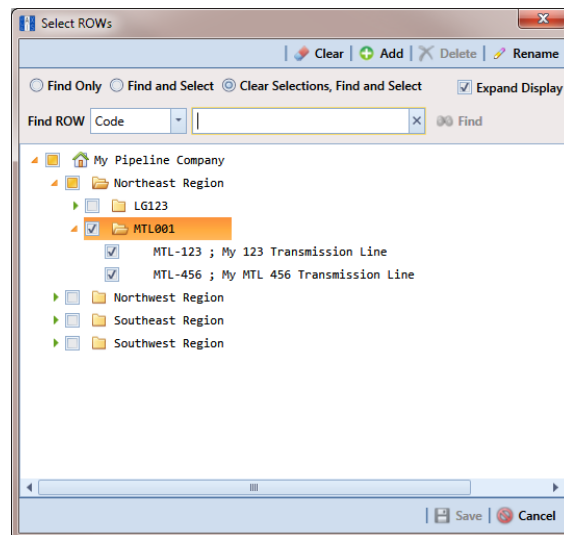
Figure 10-25. Select ROWs

2   Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-26, page 514)
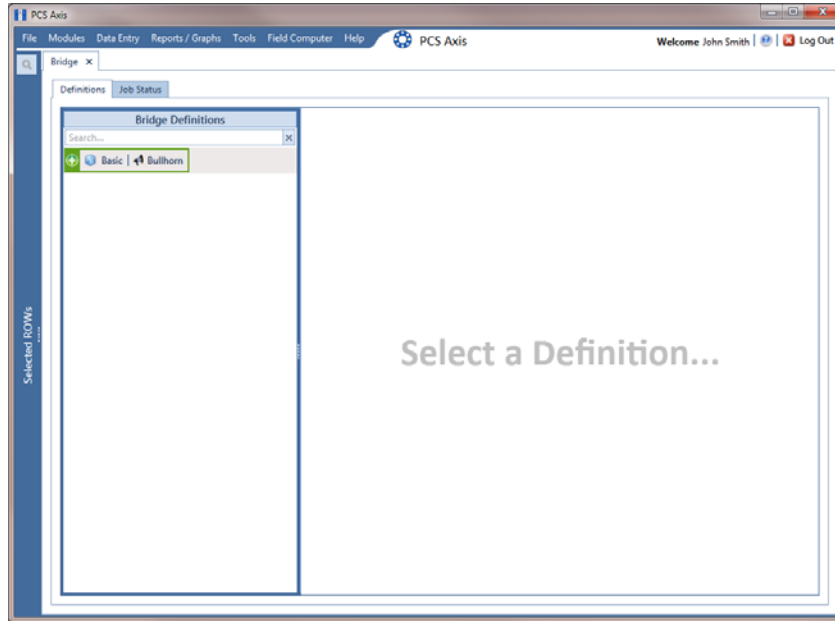
Figure 10-26. Bridge

3 Click **Basic** to open the basic definition panel (Figure 10-27).

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.
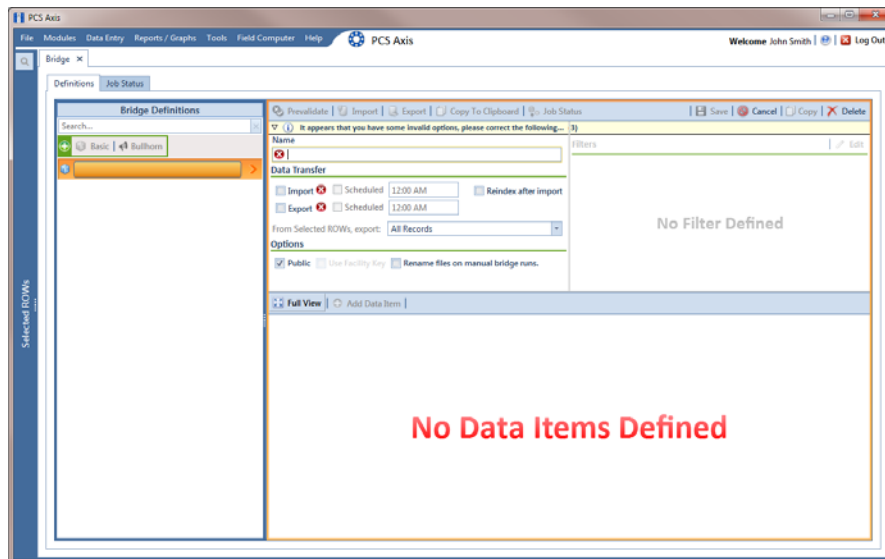
Figure 10-27. Basic Bridge Definition

4 Type a unique name for the definition in the **Name** field (Figure 10-28, page 516).

NOTE: Clicking the *Bridge Definitions* bar collapses the panel allowing you to view more of the definition. Clicking the bar again expands the panel.

---

5 To set properties in the *Data Transfer* group box, follow these steps (Figure 10-28, page 516):

a Click the **Export** check box.

b If you want PCS Axis to automatically run the export file at a scheduled time, click the **Scheduled** check box and then type a scheduled time in the adjacent field. Enter a scheduled time using 12-hour time format to specify the hour, minute, and AM/PM setting (HH:MM AM or PM).

IMPORTANT: When scheduling a time to run *Bridge*, choose a time that does not impact other network services or computer resources. For example, consider a staggered time schedule instead of running *Bridge* at the same time as other scheduled network services.

---

c Select which records to export. Click the down arrow in the field **From Selected ROWs, export** and select an option in the selection list, such as *All Records*.

NOTE: When the export file is not scheduled to run automatically, it is a manual Bridge definition. You can run the export file manually by clicking the 🖳 **Export** button in the *Definitions window*.

---

6 To set properties in the *Options* group box, follow these steps (Figure 10-28, page 516):

a Click the **Public** check box if you want the export definition available for use by all PCS Axis users. When the check box is empty, the export definition is available only to the user who creates it.

IMPORTANT: Do not enable the option *Use Facility Key* in an export definition. Bridge does not currently support this option in the export file.

> **b** If you plan to run the Bridge definition manually and want Bridge to rename the file after exporting data, click the check box **Rename files on manual bridge runs**.
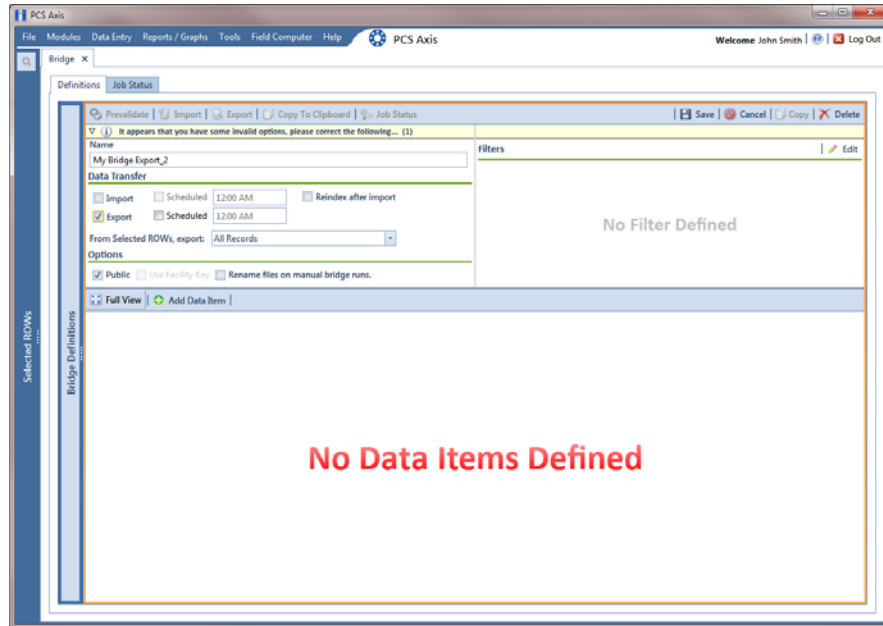
7 Click ⊞ **Save**.

Figure 10-28. Bridge Export Definition

8 If you want to set up one or more filters that apply to *all* data items in the export definition, click ✎ **Edit** in the *Filters* group box to open the *Edit Filter* dialog box (Figure 10-29).

NOTE: You can also apply filters to a selected data item instead of all data items in the export definition. Information is provided later in **step 15**
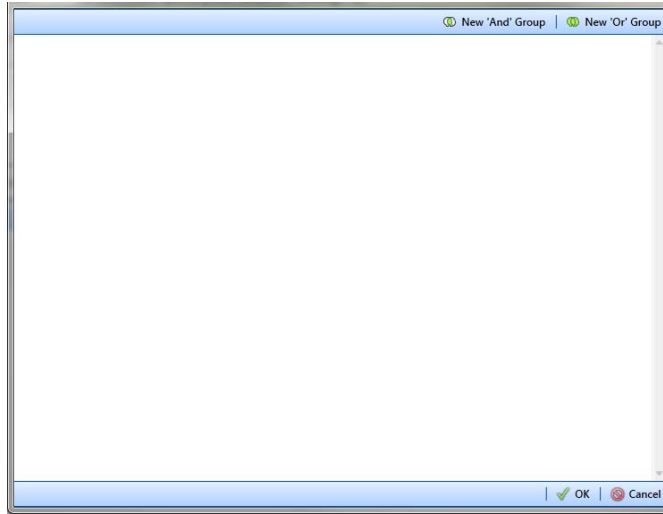
Figure 10-29. Edit Filter

9   If you want to include a subset of records in the export file that meet *all* filter conditions, create an AND filter group using the following steps:

a   Click ⏺ **New 'And' Group** to open the filter properties group box (Figure 10-30).

b   Type a name for the filter group in the field **Filter Group Caption**.
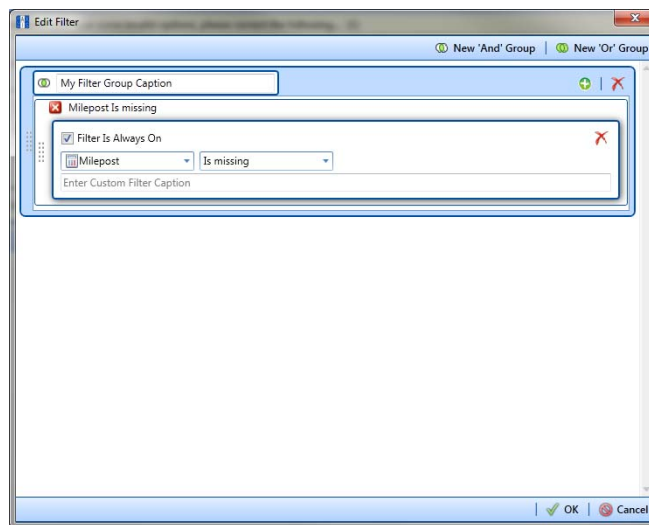
Figure 10-30. New 'And' Filter Group

c Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.

d If you want the filter to remain on for all sessions of the export definition, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e Type a name for the filter in the field **Enter Custom Filter Caption**.

f If you want to set up additional filter criteria for the filter group:

  • Click the 🟢 **Add** button to open another filter properties group box.

  • Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 9 c** through **e** to set up filter criteria.

10 If you want to include a subset of records in the export definition that meet *any* filter condition, create an OR filter group using the following steps:

a Click 🔵 **New 'Or' Group** to open a filter properties group box (Figure 10-31, page 518).

b Type a name for the filter group in the field **Include records that match any of these conditions**.

c Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.
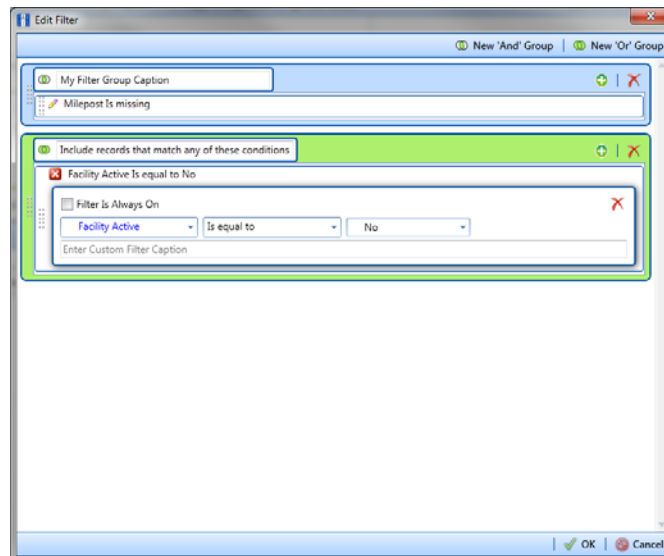
Figure 10-31. New 'Or' Filter Group

d   If you want the filter to remain on for all sessions of the export definition, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e   Type a name for the filter in the field **Enter Custom Filter Caption**.

f   If you want to set up additional filter criteria for the filter group:

- Click the ⊕ **Add** button to open another filter properties group box.

- Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 10 c** through **e** to set up filter criteria.

11 Click ✅ **OK** to close the *Edit Filter* dialog box and return to the definition window.

NOTE: Filter settings apply automatically when the export definition is set up to run at a scheduled time. When the export definition is run manually, a dialog box opens allowing you to select which filters to apply before running the export definition.

---

12 Click 💾 **Save** and then click ⊞ **Full View** to hide the group boxes *Data Transfer*, *Options,* and *Filters*. Clicking *Full View* again displays these group boxes.

13 Select the data item(s) you want to export from PCS Axis. Click ⊕ **Add Data Item** to open the *Data Items* window and then complete the following steps (Figure 10-32, page 520):

a   Open the folder(s) containing the data item(s) you want to export. Repeat this step as needed for other folders. For example, the folders *CPDM* and *Rectifier Inspection* are selected in the next figure.

b   Double-click to select a data item and move it to the right pane of the window. Repeat this step as needed for other data items. For example, the data item *Rectifier Inspection* is selected for exporting in the next figure.
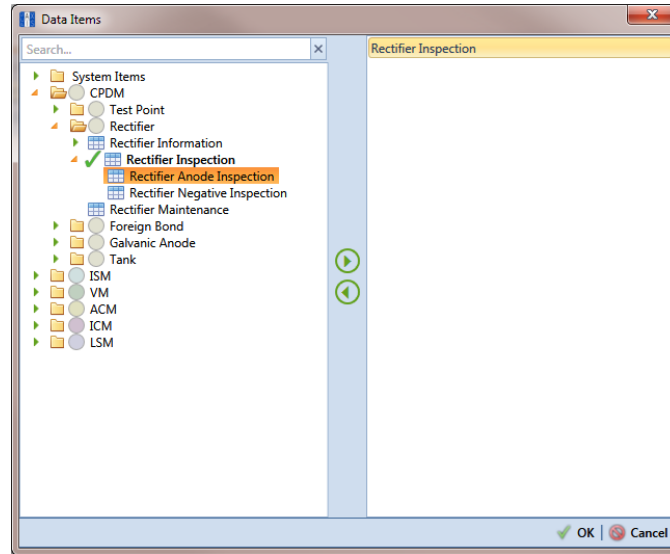
Figure 10-32. Data Items

NOTE: The right pane of the *Data Items* window lists all selected data items for export. To remove a data item for export, double-click the data item in the right pane to move it back to the left pane.

---

c   Click ✔ **OK** to close the dialog box and return to the definition window (Figure 10-33). Then click 💾 **Save**.
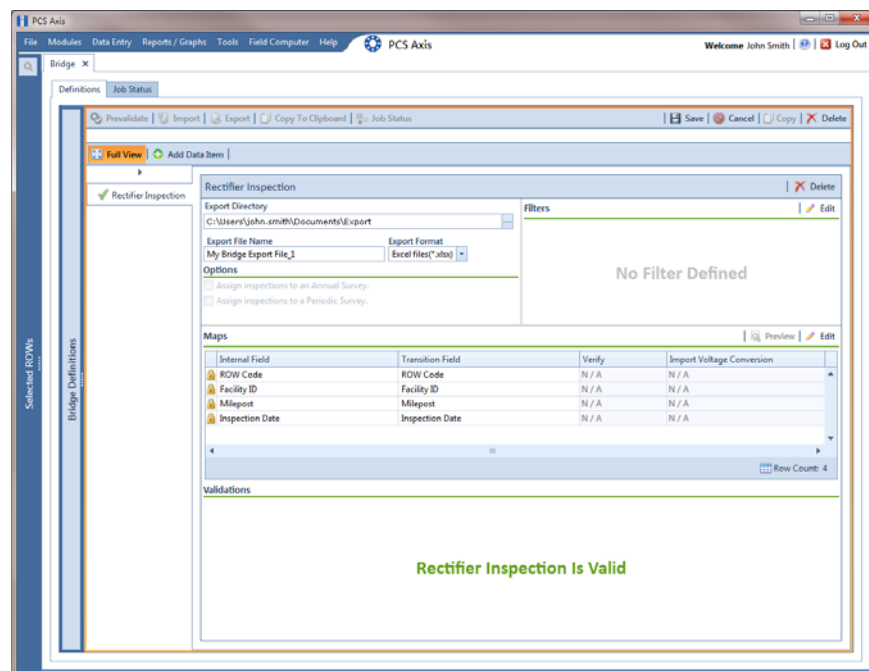

Figure 10-33. Bridge Definition

---

14 Select a file format and a location to save the export file using the following steps:

    a Click the ellipsis button **...** in the field **Export Directory** to open the *Browse For Folder* dialog box. Navigate to a folder on your computer where you want to save the export file. Then click **OK** to close the dialog box and return to the definition window.

    b Type a name for the export file in the field **Export File Name**. Then click the down arrow in the field **Export Format** and select a file format for the export file. Options include *Excel files (*.xlsx)* and *Text files (*.txt, *.csv)*.

    c Click 💾 **Save**.

15 If you want to set up one or more filters that apply *only* to the currently selected data item, follow these steps:

    a If more than one data item is included in the export file, select a data item in the menu on the left side of the window.

    b Click 🖊 **Edit** in the *Filters* group box to open the *Edit Filter* dialog box (Figure 10-34).
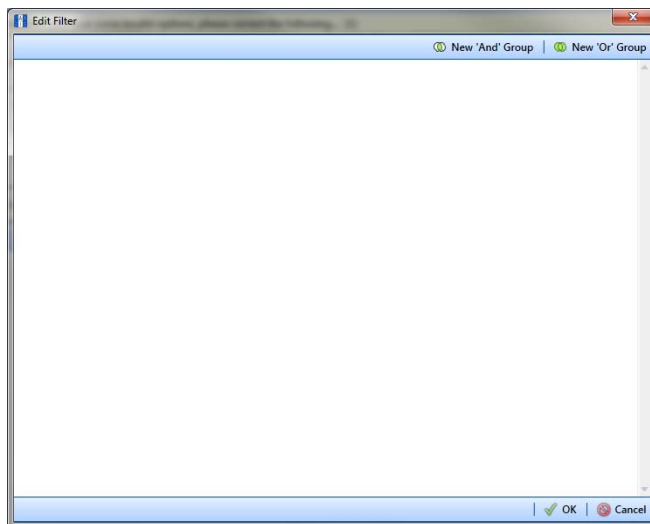
Figure 10-34. Edit Filter

16 If you want to include a subset of records in the export file that meet *all* filter conditions, create an AND filter group using the following steps:

    a Click 🔘 **New 'And' Group** to open the filter properties group box (Figure 10-35, page 522).

    b Type a name for the filter group in the field **Filter Group Caption**.
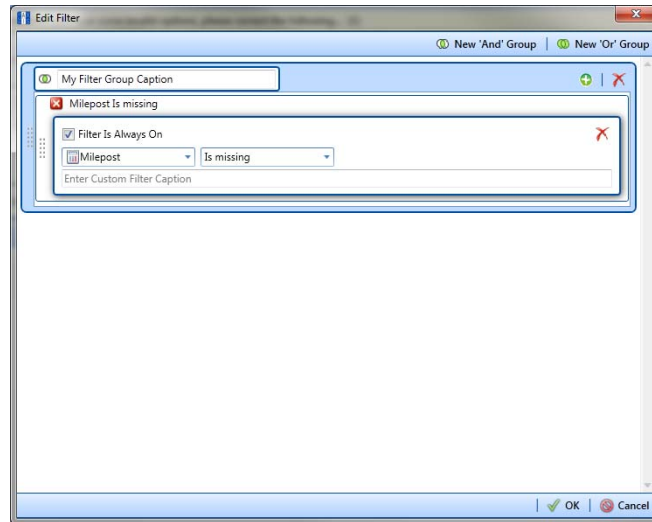
Figure 10-35. New 'And' Filter Group

c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.
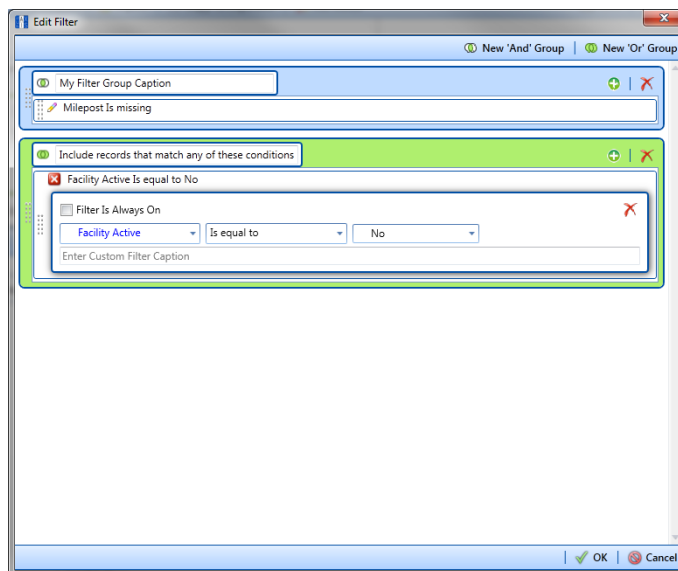
d   If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e   Type a name for the filter in the field **Enter Custom Filter Caption**.

f   If you want to set up additional filter criteria for the filter group:

   •   Click the 🟢 **Add** button to open another filter properties group box.

   •   Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 16 c** through **e** to set up filter criteria.

17 If you want to include a subset of records in the export file that meet *any* filter condition, create an OR filter group using the following steps:

a   Click 🟢 **New 'Or' Group** to open a filter properties group box (Figure 10-36, page 523).

b   Type a name for the filter group in the field **Include records that match any of these conditions**.

c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.

Figure 10-36. New 'Or' Filter Group

d   If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e   Type a name for the filter in the field **Enter Custom Filter Caption**.

f   If you want to set up additional filter criteria for the filter group:

  •   Click the ⊕ **Add** button to open another filter properties group box.

  •   Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 17 c** through **e** to set up filter criteria.

18 Click ✔ **OK** to close the *Edit Filter* dialog box and return to the definition window.

NOTE: Filter settings apply automatically when the export file is set up to run at a scheduled time. When the export file is run manually, a dialog box opens allowing you to select which filters to apply before running the export file.

---

19 Click 💾 **Save**.

20 To select the data you want to export from PCS Axis, complete the following steps:

a   Click 🖉 **Edit** in the *Maps* group box to open a field selection dialog box (Figure 10-37, page 524).

b Click the toggle arrow ▶ for a field category listed in the *Internal Fields* panel to view a list of available fields. In the following example, *Rectifier Inspection Fields* is selected (Figure 10-37).

c Select one or more fields and then click the top arrow button ⊙ to move fields to the *Mappings* panel. Double-clicking a field also moves it to the *Mappings* panel.

d If the definition is set up to use a facility key, click the **Facility Key** option button in the *Mappings* panel for the field you want to use as the facility key, such as *ROW Code* or *Milepost*.

e If the field *Choose a conversion...* is present in the *Mappings* panel for one or more mapped fields and you want to apply a conversion option, click the field **Choose a conversion ...** and select an option in the selection list.

21 If you want to rename a field listed in the *Transition Field* column, select the field and then type a description.

22 If you want to remove a field in the *Mappings* panel, double-click the field and then click **Yes** when a message displays to verify you want to remove the field.

Fields with a 🔒 lock icon are required and cannot be removed, such as *ROW Code*, *Milepost*, *Facility ID*, and *Inspection Date*.
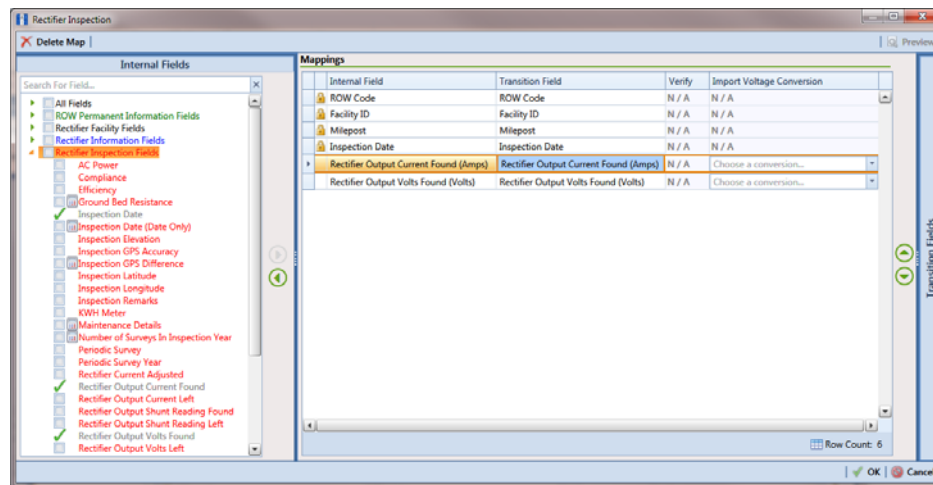
Figure 10-37. Export Field Selections

23 Click ✔ **OK** to close the field selection dialog box and return to the definition window. Then click 💾 **Save**.

24 To manually export data from PCS Axis, click 📑 **Export** and then complete the following steps to select which filters to apply if the export file is set up with filters:

a Click the tab **All Data Items**. Click the check box for each filter you want to apply to *all* data items in the export file (Figure 10-38).

b Click a data item tab. For example, the data item tab labeled *Rectifier Inspection* is selected in the following figure. Click the check box for each filter you want to apply to the selected data item.
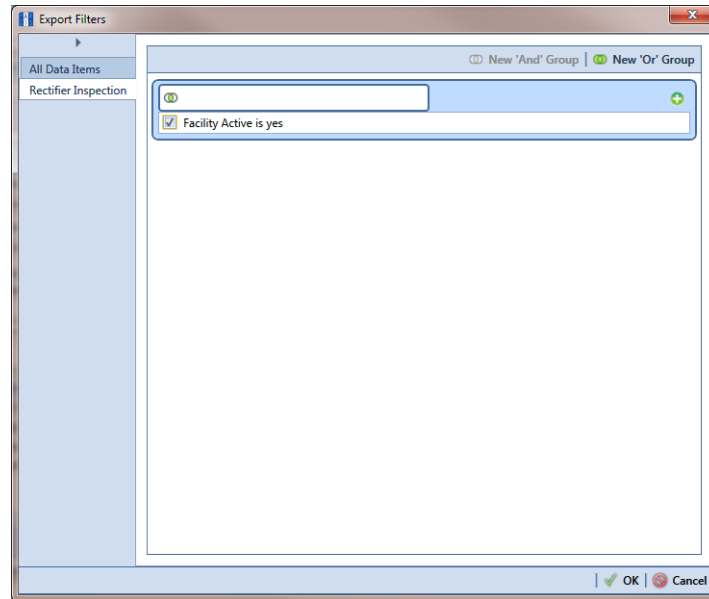
Figure 10-38. Export Filters

c Click **OK** to close the *Export Filters* dialog box and run the Bridge export file.

d When the message *Completed* displays, click 🔵 **View Job Status** to open the *Job Status* window or ⬅ **Return to Definition** to open the *Definitions window*.

25 To view the status of a Bridge session, click 🔵🟡 **Job Status** in the *Definitions window* to open the *Job Status* window (Figure 10-39). Clicking ▦ **Log** for a Bridge session opens the log file for the selected session.

NOTE: For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).
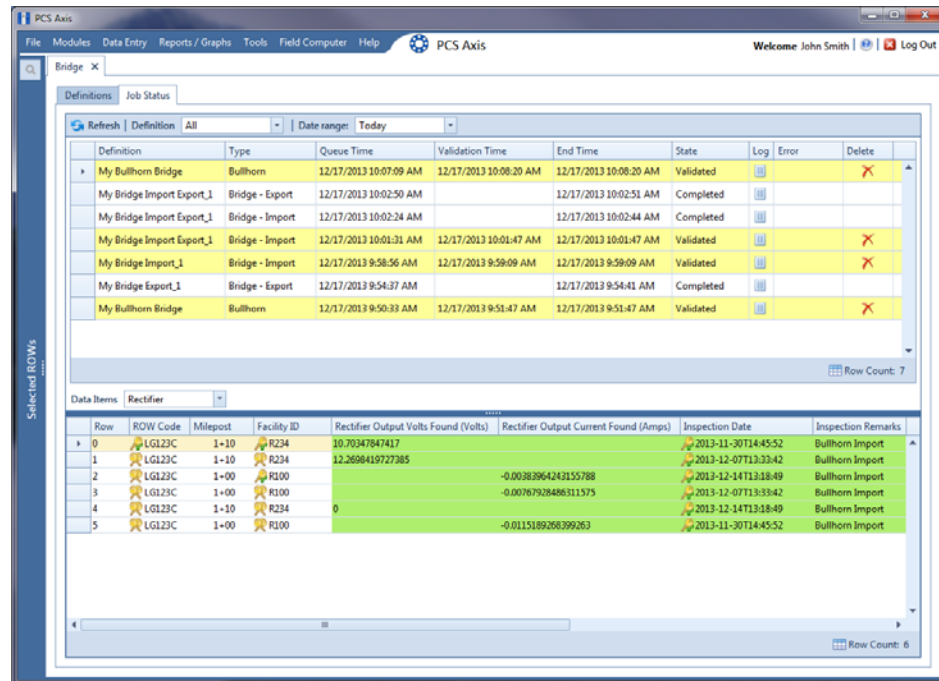
Figure 10-39. Job Status

26 To copy the Bridge definition to a file, such as a Notepad or Microsoft Word file, follow these steps:

a Click the **Definitions** tab if the *Definitions window* is not open.

b Click ▭ **Copy to Clipboard**.

c Start the software program, such as Notepad or Microsoft Word.

d Open a new file and then **Paste** the definition file. Click **Save**.

Adding a Bridge Import/Export Definition

A Bridge import/export definition specifies the property settings and options for importing and exporting data in PCS Axis. It defines the data transfer options; location of the import file; location for the export file; and mappings for data items in PCS Axis and the import file.

NOTE: Bridge currently supports use of a facility key only in a Bridge import file. Future enhancements will include use of a facility key in a Bridge export file.

To add a Bridge import/export definition, follow these steps:

1   Select one or more pipeline segments in the *Select ROWs* window. Select pipeline segment(s) with facilities you want to include in the Bridge definition. Click ⊟ **Save** to close the window (Figure 10-40).
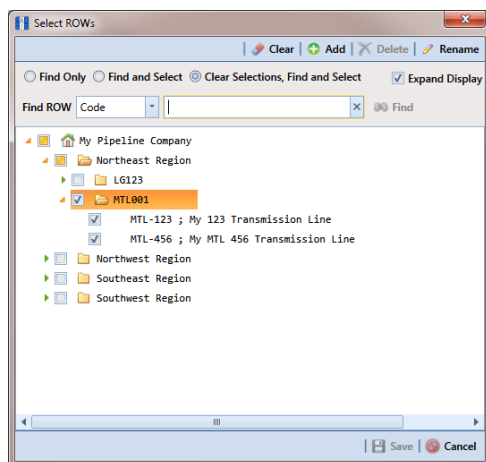
Figure 10-40. Select ROWs

2   Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-41, page 528).
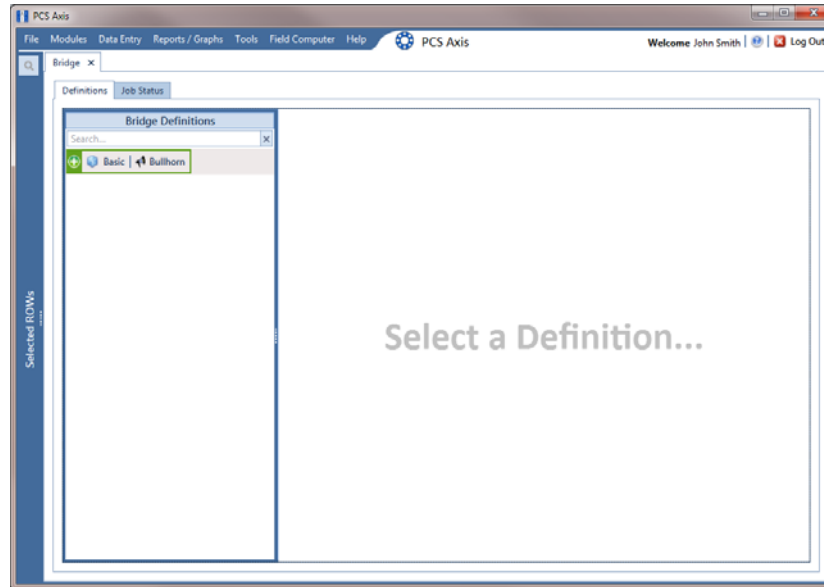
Figure 10-41. Bridge

3 Click ⬡ **Basic** to open the definition panel (Figure 10-42).

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.
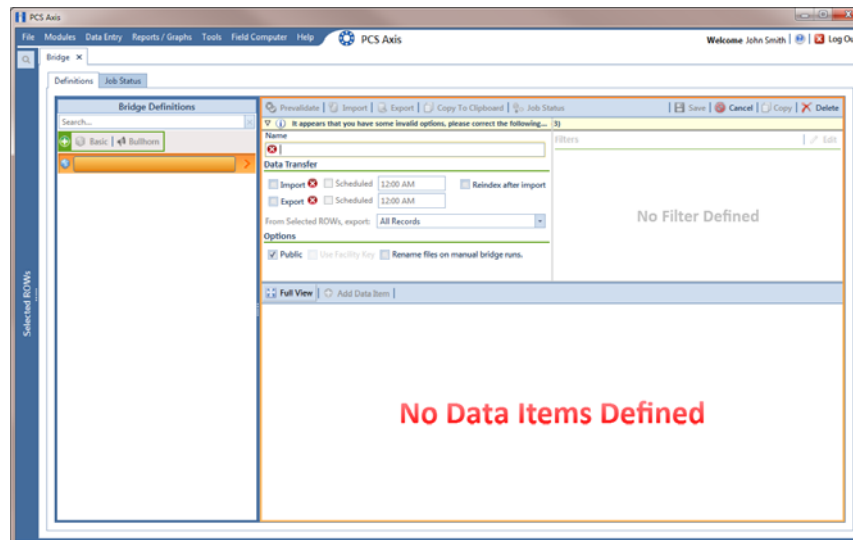
Figure 10-42. Basic Bridge Definition

4 Type a unique name for the definition in the **Name** field (Figure 10-43, page 530).

NOTE: Clicking the *Bridge Definitions* bar collapses the panel allowing you to view more of the Bridge definition. Clicking the bar again expands the panel.

---

5 To set properties in the *Data Transfer* group box, follow these steps (Figure 10-43, page 530):

a Click the **Import** and **Export** check boxes.

b If you want PCS Axis to automatically run the import file at a scheduled time, click the **Scheduled** check box and then type a scheduled time in the adjacent field. Enter a scheduled time using 12-hour time format to specify the hour, minute, and AM/PM setting (HH:MM AM or PM).

IMPORTANT: When scheduling a time to run *Bridge*, choose a time that does not impact other network services or computer resources. For example, consider a staggered time schedule instead of running *Bridge* at the same time as other scheduled network services.

---

c If you are importing large amounts of data, click the check box **Reindex after import** to reindex the PCS Axis database after the import process completes.

NOTE: Enabling this option prevents index fragmentation from occurring in the PCS Axis database, which in turn may result in slow system performance. Index fragmentation may occur after importing large amounts of data in PCS Axis using *Bridge Import*, *Bullhorn Bridge*, or *Field Computer*. You can also reindex the database using the option *Reindex Database* in J*ob Service Viewer* (Tools > Job Service Viewer).

---

d Select which records to export. Click the down arrow in the field **From Selected ROWs, export** and select an option in the selection list, such as *All Records*.

6   To set properties in the *Options* group box, follow these steps (Figure 10-43, page 530):

a   Click the **Public** check box if you want the import/export definition file available for use by all PCS Axis users. When the check box is empty, the definition file is available only to the user who creates it.

b   If you want to use a facility key for facilities in the import file, click the check box **Use Facility Key**. This option is not currently available for facilities in the export file. For more information about facility keys, see *Using a Facility Key in Bridge* (page 492).

When facilities are not mapped to a facility key, they are mapped to the following required fields: *ROW Code*, *Milepost*, and *Facility ID*.

c   If you plan to run the import/export file manually and want Bridge to rename the file, click the check box **Rename files on manual bridge runs**.
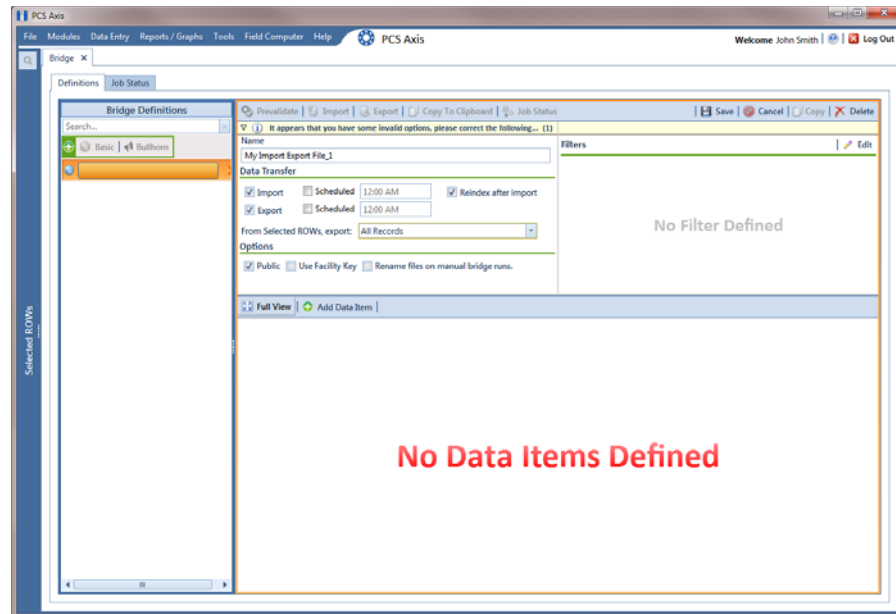
Figure 10-43. Bridge Import Export Definition

7   If you want to set up one or more filters that apply to *all* data items in the definition file, click 🖉 **Edit** in the *Filters* group box to open the *Edit Filter* dialog box (Figure 10-44, page 531).

NOTE: You can also set up one or more filters that *only* apply to a selected data item instead of all data items in the definition file. Information is provided later in **step 16**.
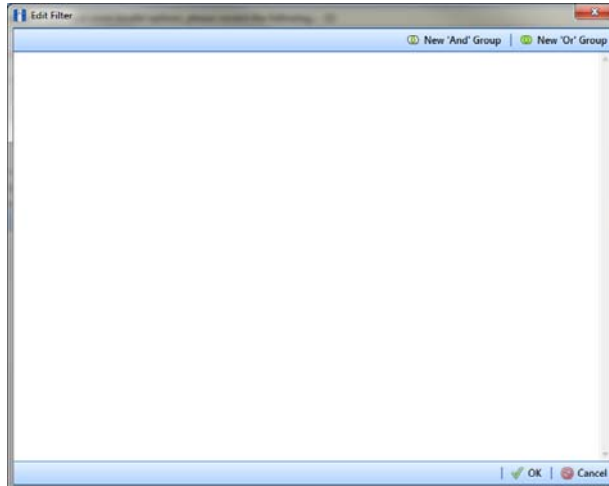
Figure 10-44. Edit Filter

8   If you want to include a subset of records in the export file that meet *all* filter conditions, create an AND filter group using the following steps:

  a   Click ⬤ **New 'And' Group** to open the filter properties group box (Figure 10-45).

  b   Type a name for the filter group in the field **Filter Group Caption**.
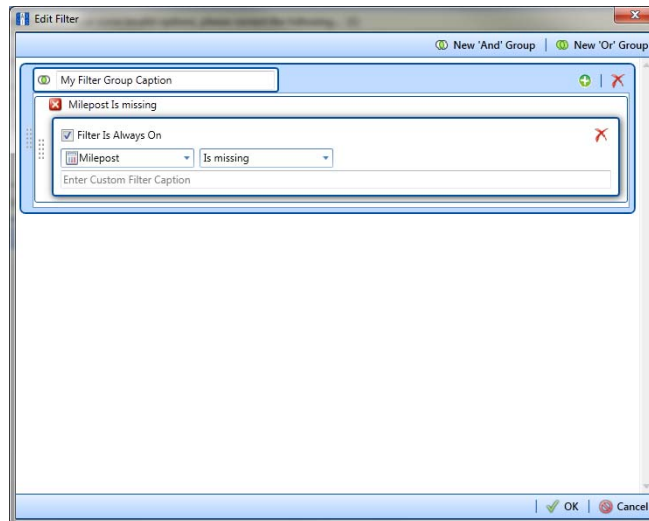
Figure 10-45. New 'And' Filter Group

    c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.

    d   If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

    e   Type a name for the filter in the field **Enter Custom Filter Caption**.

    f   If you want to set up additional filter criteria for the filter group:

        •   Click the ⊕ **Add** button to open another filter properties group box.

        •   Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 8 c** through **e** to set up filter criteria.

9   If you want to include a subset of records in the export file that meet *any* filter condition, create an OR filter group using the following steps:

    a   Click ⊚ **New 'Or' Group** to open a filter properties group box (Figure 10-46).

    b   Type a name for the filter group in the field **Include records that match any of these conditions**.

    c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.
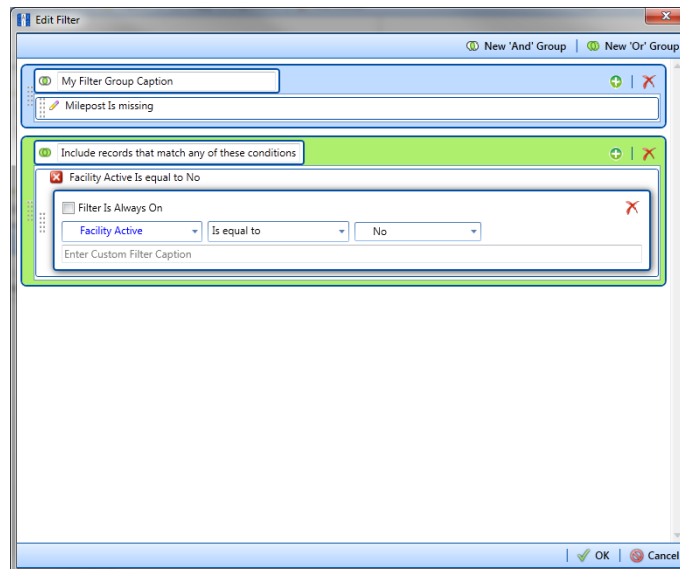
Figure 10-46. New 'Or' Filter Group

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d If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e Type a name for the filter in the field **Enter Custom Filter Caption**.

f If you want to set up additional filter criteria for the filter group:

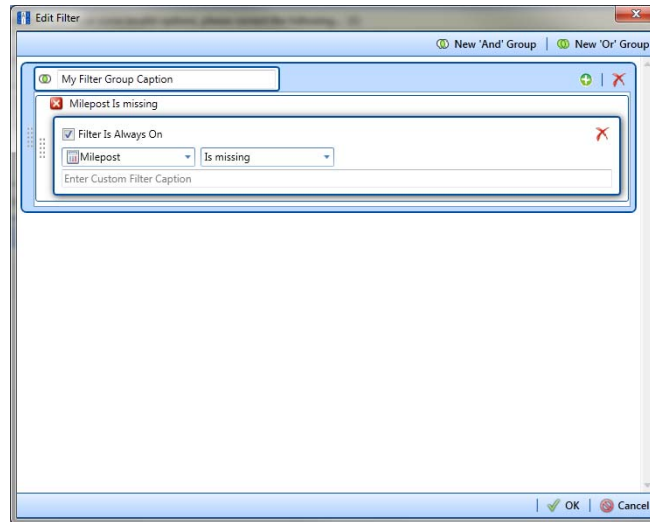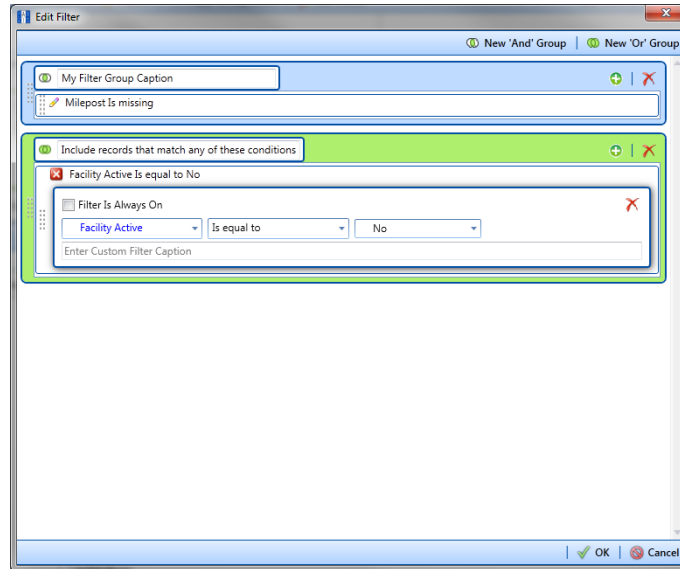- Click the ⊕ **Add** button to open another filter properties group box.

- Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 9 c** through **e** to set up filter criteria.

10 Click ✓ **OK** to close the *Edit Filter* dialog box and return to the definition window.

NOTE: Filter settings apply automatically when the Bridge definition is set to run at a scheduled time. When the Bridge definition is run manually, a dialog box opens allowing you to select which filters to apply before running the definition.

---

11 Click ⊟ **Save** and then click ⛶ **Full View** to hide the group boxes *Data Transfer*, *Options*, and *Filters*. Clicking *Full View* again displays these group boxes.

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.

---

12 Select data item(s) you want to import and export. Click ⊕ **Add Data Item** to open the *Data Items* window and then complete the following steps (Figure 10-47):

a Open the folder(s) containing the data item(s) you want to import and export. Repeat this step as needed for other folders. For example, the folders *CPDM* and *Rectifier* are selected in the next figure.

b Double-click to select a data item and move it to the right pane of the window. Repeat this step as needed for other data items. For example, the data item *Rectifier Inspection* is selected in the next figure.
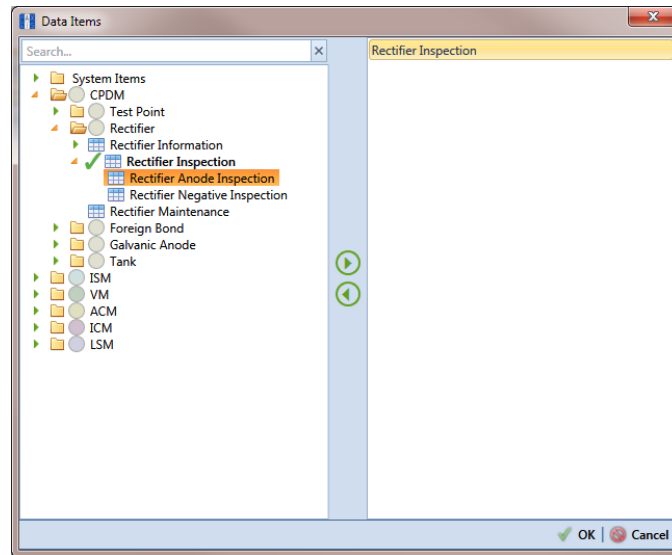
Figure 10-47. Data Items

NOTE: The right pane of the *Data Items* window lists all selected data items for import. To remove a data item for import, double-click the data item in the right pane to move it back to the left pane.

---

c Click ✔ **OK** to close the dialog box and return to the definition window. Then click 💾 **Save**.

13 Identify the location of the import file using the following steps:

a Click the ellipsis button **...** in the field **Import File Name** to open the *Import File* dialog box. Navigate to the import file and then select it.

b Click **Open** to close the dialog box and return to the definition panel. The path to the import file displays in the field *Import File Name*.

14 Select a file format and a location to save the export file using the following steps (Figure 10-48, page 535):

    a Click the ellipsis button **...** in the field **Export Directory** to open the *Browse For Folder* dialog box. Navigate to a folder on your computer where you want to save the export file. Then click **OK** to close the dialog box and return to the definition window.

    b Type a name for the export file in the field **Export File Name**. Then click the down arrow in the field **Export Format** and select a file format for the export file. Options include *Excel files (*.xlsx)* and *Text files (*.txt, *.csv)*.

    c Click 💾 **Save**.

15 If you want to assign inspections in the import file to a survey folder based on the inspection date, complete one or both of the following steps in the *Options* group box as required (Figure 10-48, page 535).

    a If you want to assign inspections to an annual survey folder, click the check box **Assign inspections to an Annual Survey**.

    b If you want to assign inspections to a periodic survey folder, click the check box **Assign inspections to a Periodic Survey**.
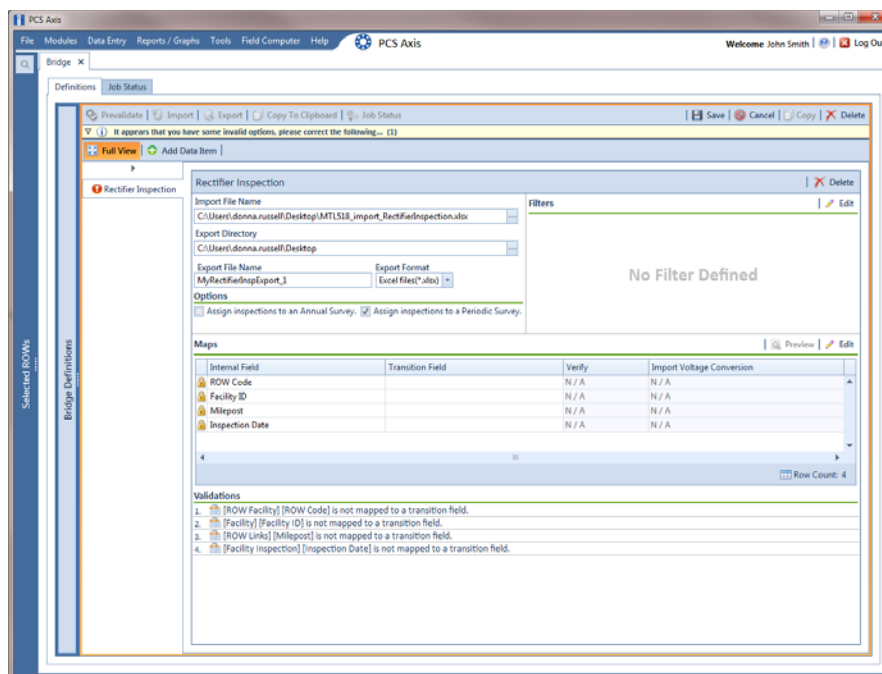
Figure 10-48. Bridge Import Export

16 If you want to set up one or more filters for the export file that apply *only* to the currently selected data item, follow these steps:

a If more than one data item is included in the export file, select a data item in the menu on the left side of the window.

b Click 🖊 **Edit** in the *Filters* group box to open the *Edit Filter* dialog box (Figure 10-49).
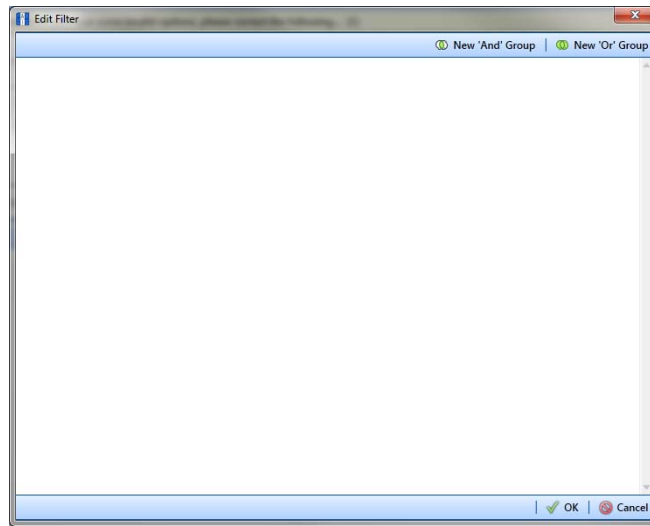
Figure 10-49. Edit Filter

17 If you want to include a subset of records in the export file that meet *all* filter conditions, create an AND filter group using the following steps:

a Click 🔘 **New 'And' Group** to open the filter properties group box (Figure 10-50).

b Type a name for the filter group in the field **Filter Group Caption**.

Figure 10-50. New 'And' Filter Group

c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.

d   If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e   Type a name for the filter in the field **Enter Custom Filter Caption**.

f   If you want to set up additional filter criteria for the filter group:

   •   Click the ⊕ **Add** button to open another filter properties group box.

   •   Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 17 c** through **e** to set up filter criteria.

18   If you want to include a subset of records in the export file that meet *any* filter condition, create an OR filter group using the following steps:

a   Click **New 'Or' Group** to open a filter properties group box (Figure 10-51).

b   Type a name for the filter group in the field **Include records that match any of these conditions**.

c   Use filter selection fields to set up filter criteria. Select a PCS Axis field, operator, and one or more filter conditions.

Figure 10-51. New 'Or' Filter Group

d   If you want the filter to remain on for all sessions of the data entry grid, select the check box **Filter is Always On**. When this check box is not selected, toggle the filter on and off in the options page using the filter's check box.

e   Type a name for the filter in the field **Enter Custom Filter Caption**.

f   If you want to set up additional filter criteria for the filter group:

- Click the ⊕ **Add** button to open another filter properties group box.

- Type a name for the filter in the field **Enter Custom Filter Caption**. Then repeat **step 18 c** through **e** to set up filter criteria.

19 Click ✔ **OK** to close the *Edit Filter* dialog box and return to the definition window.

NOTE: Filter settings apply automatically when the Bridge definition is set to run at a scheduled time. When the Bridge definition is run manually, a dialog box opens allowing you to select which filters to apply before running the definition.

20 Click 💾 **Save**.

21 To map fields in PCS Axis with fields in the import file, follow these steps:

a Click ⬛ **Edit** in the *Maps* group box to open a field mapping window (Figure 10-52).

NOTE: Fields in the *Mappings* panel with a lock icon 🔒 are required fields for mapping, such as *ROW Code*, *Milepost*, *Facility ID*, and *Inspection Date* shown in the following example (Figure 10-52, page 539).

---

b Select PCS Axis fields for mapping. Click the ▶ toggle arrow for a field category in the *Internal Fields* panel to view a list of available fields. For example, *Rectifier Inspection Fields* is selected in the next figure.

c Click the check box for one or more PCS Axis fields listed in the *Internal Fields* panel. Then click the ⏵ top arrow button to move selections to the *Mappings* panel. Double-clicking a field also moves it to the *Mappings* panel.

For example, the PCS Axis fields *Rectifier Output Current Found (Amps)* and *Rectifier Output Volts Found (Volts)* are selected for mapping in the next figure.
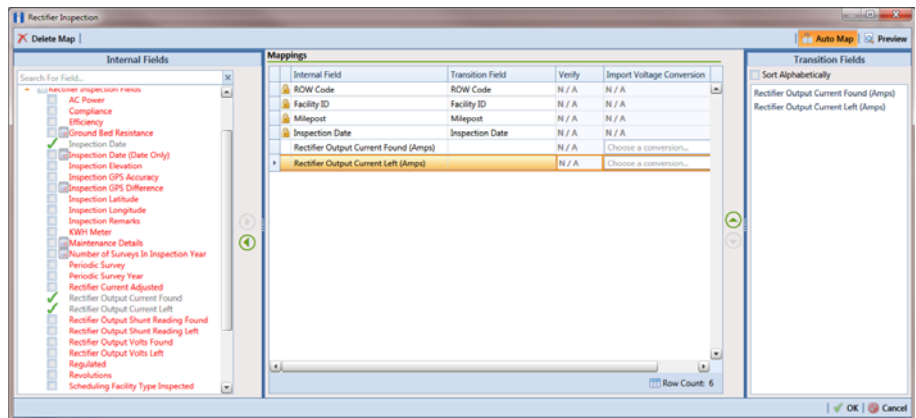
Figure 10-52. Field Mappings

d If you want to sort import fields listed in the *Transition Fields* panel in alphabetical order, click the check box **Sort Alphabetically**.

e To map PCS Axis fields with fields in the import file, follow these steps:

- Select a PCS Axis field in the *Mappings* panel. Map the selected field to a field in the import file by double-clicking a field listed in the *Transition Fields* panel. Repeat this step for remaining fields you want to map.

  NOTE: When the 🎴 **Auto Map** button is enabled and the names of fields in the import file match those in PCS Axis, double-clicking a PCS Axis field in the *Mappings* panel automatically maps to an import field listed in the *Transition Fields* panel.

- If the definition is set up to use a facility key, click the **Facility Key** option button in the *Mappings* panel for the field you want to use as the facility key, such as *ROW Code* or *Milepost*.

- If the field *Choose a conversion...* is present in the *Mappings* panel for a pair of mapped fields and you want to apply a conversion option, click the field **Choose a conversion ..**. and select an option in the selection list.

f If you want to preview fields for mapping in the import file, click the 🔍 **Preview** button to open the import file in the *Preview Maps* window.

22 Click ✔ **OK** to close the mapping window and return to the definition window. Then click 💾 **Save**.

Field mappings display in the *Maps* group box.

23 To validate the definition, click the 🔄 **Prevalidate** button. When the validation process completes and the following message displays, click 🔴 **View Job Status** or 🔵 **Return to Definition** (Figure 10-53).

NOTE: The *Prevalidate* process confirms the Bridge definition is set up correctly; it does not post data in the database. Only the first 1,000 records of the import file will be displayed.
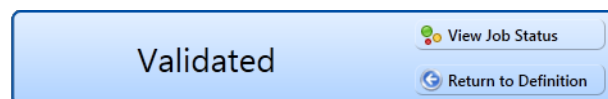
Figure 10-53. Validated Message

24 If you want to manually import data in PCS Axis, click 📋 **Import** in the *Definitions* window. When the message *Completed* displays, click 🔴 **View Job Status** to open the *Job Status* window or 🔙 **Return to Definition** to open the *Definitions window*.

25 To manually export data from PCS Axis, click 📤 **Export** in the *Definitions* window and then complete the following steps to select which filters to apply if the Bridge definition is set up with filters:

a Click the tab **All Data Items**. Click the check box for each filter you want to apply to *all* data items in the Bridge definition (Figure 10-54).

b Click a data item tab. For example, the data item tab labeled *Rectifier Inspection* is selected in the following figure. Click the check box for each filter you want to apply to the selected data item.
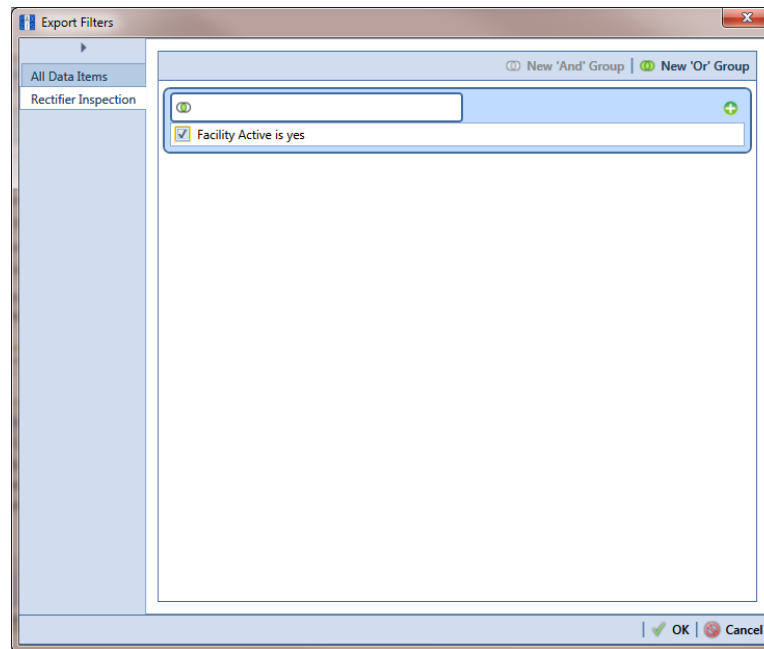
Figure 10-54. Export Filters

c Click **OK** to close the *Export Filters* dialog box and run the Bridge export file.

d When the message *Completed* displays, click 🔴 **View Job Status** to open the *Job Status* window or 🔙 **Return to Definition** to open the *Definitions window*.

26 To view the status of a Bridge session, click [icon] **Job Status** in the *Definitions window* to open the *Job Status* window (Figure 10-55). Clicking [icon] **Log** for a Bridge session opens the log file for the selected session.

NOTE: For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).
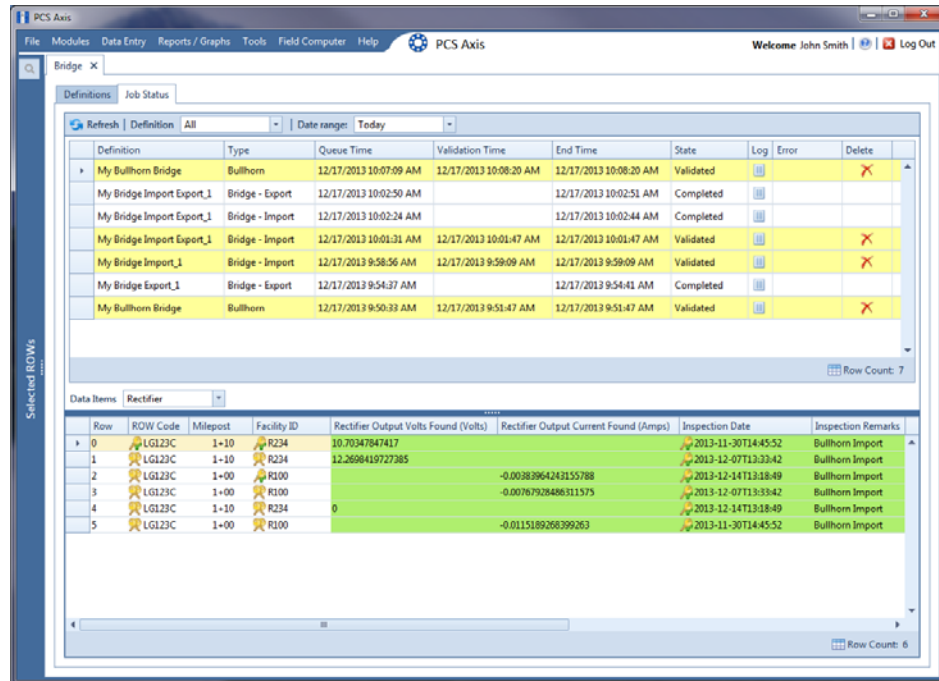
Figure 10-55. Job Status

27 To copy the Bridge definition to a file, such as a Notepad or Microsoft Word file, follow these steps:

a Click the **Definitions** tab if the *Definitions window* is not open.

b Click [icon] **Copy to Clipboard**.

c Start the software program, such as Notepad or Microsoft Word.

d Open a new file and then **Paste** the definition file. Click **Save**.

Adding a Bullhorn Bridge Definition

A Bullhorn Bridge definition specifies the property settings and options for importing data in PCS Axis from a user account on the Bullhorn Asset Tracker (BAT) website. It defines how often to run the definition; the unique *Key* assigned by BAT to the Extract; and field mappings for PCS Axis and data imported from BAT.

After running a Bullhorn Bridge definition, PCS Axis automatically adds the phrase *Bullhorn Import* in the *Inspection Remarks* field of the facility data entry grid.

To add a Bullhorn Bridge definition, follow these steps:

1 Select one or more pipeline segments in the *Select ROWs* window. Select pipeline segment(s) with facilities you want to include in the Bullhorn Bridge definition. Click ![save icon] **Save** to close the window (Figure 10-56).
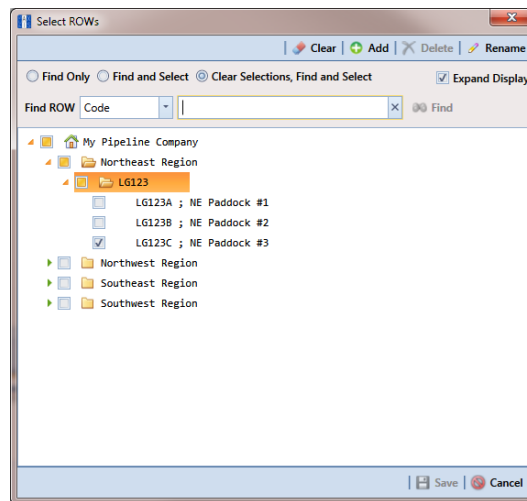
Figure 10-56. Select ROWs

2 Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-57).
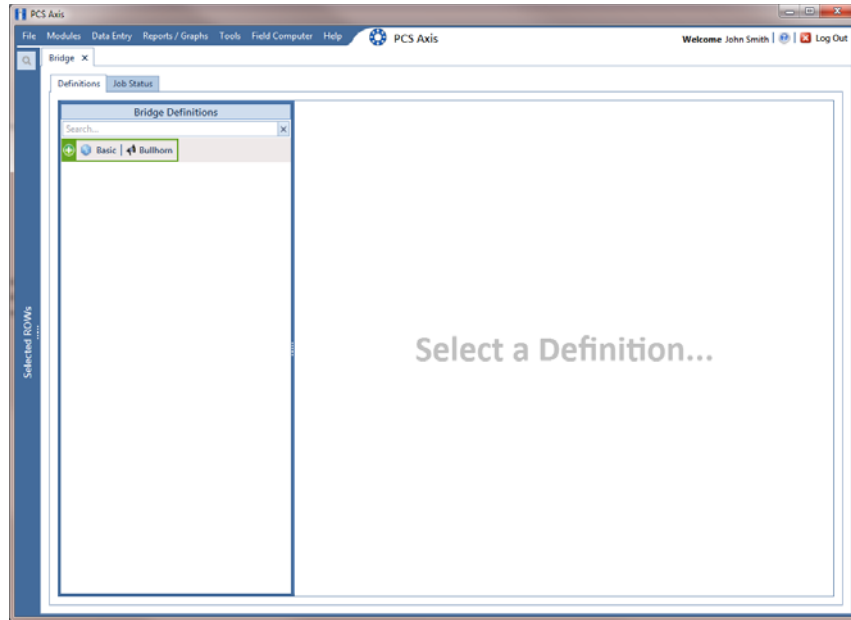
Figure 10-57. Bridge

3 Click 📢 **Bullhorn** to open the Bullhorn definition panel (Figure 10-58).
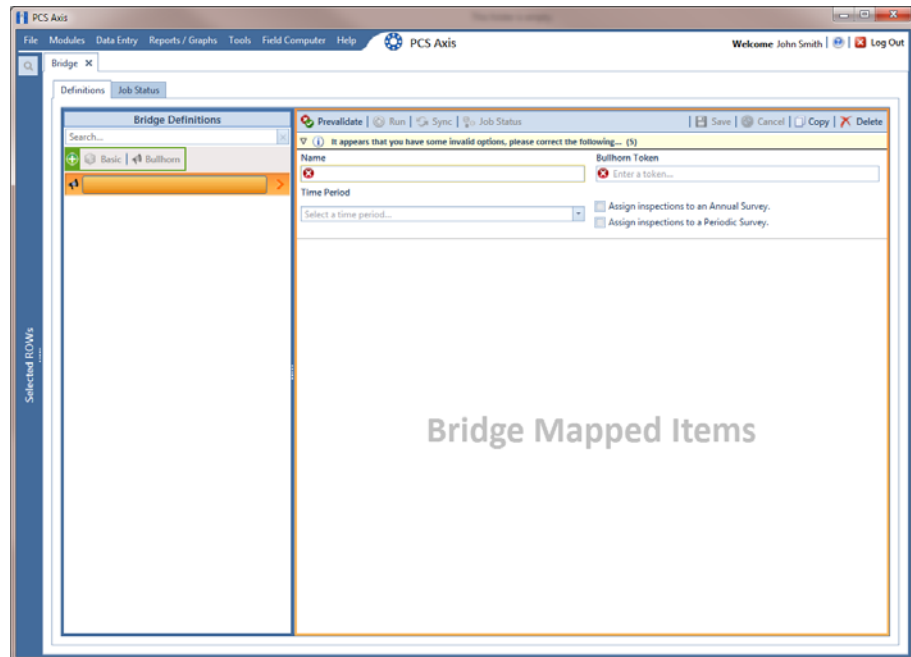
Figure 10-58. Bullhorn Definition Panel

4   Type a unique name for the definition in the **Name** field.

> **NOTE:** Clicking the *Bridge Definitions* bar collapses the panel allowing you to view more of the definition panel. Clicking the bar again expands the panel.

5   Click the down arrow in the **Time Period** field and select how often you want to run the Bullhorn Bridge definition.

> **IMPORTANT:** When choosing an option in the *Time Period* field, choose a time that does not impact other network services or computer resources. For example, consider a staggered time schedule instead of running *Bridge* at the same time as other scheduled network services.

6   Log in to your account on the BAT website and then copy the unique key generated by BAT for the Extract. Paste the unique key in the **Bullhorn Token** field of the Bullhorn Bridge definition.

7   To assign survey readings to a survey folder based on the inspection date, complete one or both of the following steps as required:

    a   If you want to assign inspections to an annual survey folder, click the check box **Assign inspections to an Annual Survey**.

    b   If you want to assign inspections to a periodic survey folder, click the check box **Assign inspections to a Periodic Survey**.

> **NOTE:** Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.

8   Click 🖫 **Save** and then click ⤢ **Full View** to hide the *Name*, *Bullhorn Token*, *Time Period*, and survey folder fields. Clicking *Full View* again displays these fields (Figure 10-59, page 547).

9   Select the PCS Axis module that will receive imported data. Click the down arrow in the module selection list and select a module, such as *CPDM*.

10 Select the type of facility data you plan to import. Click a facility type button, such as *Rectifier* (Figure 10-59, page 547).

11 To map PCS Axis fields with a Bullhorn data point, follow these steps:

a In the center *Mappings* panel, click the check box **Do Not Map** for each Bullhorn data point you do not plan to map, such as *Battery Voltage*.

A check mark inside the check box indicates a selection. To clear a selection, click the check box again to remove the check mark.

> **NOTE:** Clicking any of the following options allows you to filter records in the *Mappings* panel based on the selected option: *Un-mapped*, *Marked as Do Not Map*, *Mapped*, and *All*. For example, clicking *Mapped* allows you to view only mapped data points in the *Mappings* panel.

b Select a row in the *Mappings* panel that includes the Bullhorn data point and engineering units you want to map.

> **NOTE:** To rearrange grid columns in the *Facilities*, *Mappings*, or *Fields* panel, drag and drop the name of a grid column to a new position. To resize a grid column, place the mouse over a column boundary to change the cursor to a horizontal resize cursor ⟺. Then click and drag the column boundary to resize the grid column.

c In the left *Facilities* panel, map a PCS Axis milepost to the Bullhorn data point selected in the *Mappings* panel. Double-click the milepost in the *Facilities* panel to move it to the *Milepost* field in the *Mappings* panel.

> **NOTE:** Double-clicking a mapped field in the *Mappings* panel allows you to unmap the selected field. When a message displays, click ✔ **Yes** to unmap the selected field, or ✖ **No** to cancel the operation.

d In the right *Fields* panel, map a PCS Axis field to the Bullhorn *Engineering Units* field in the *Mappings* panel. Double-click a PCS Axis field in the *Fields* panel to move it to the *Field* column in the *Mappings* panel.

e Repeat **step 11 a** through **d** as needed and then click 💾 **Save**.
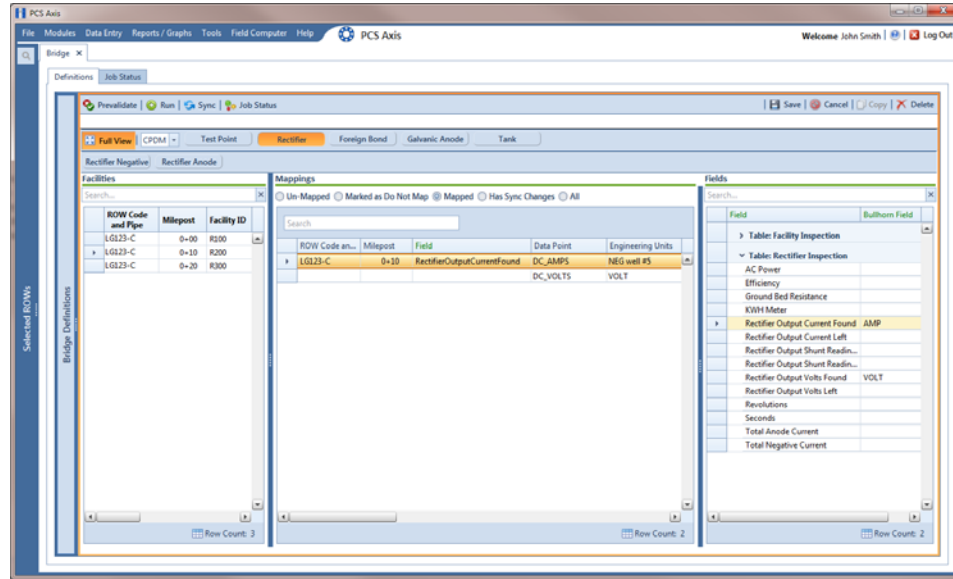
Figure 10-59. PCS Axis and Bullhorn Mappings

12 When Bullhorn units are added or removed in the unit group set up for the Extract, or the Bullhorn client name changes, click the **Sync** button to synchronize and update the definition file in PCS Axis.

13 To validate the definition, click the **Prevalidate** button.

NOTE: The *Prevalidate* process confirms the Bridge definition is set up correctly; it does not post data in the database. Only the first 1,000 records of the import file will be displayed.

---

14 When the validation process completes and the following message displays (Figure 10-60), click **View Job Status** to open the *Job Status* window or **Return to Definition** to open the *Definitions window*.
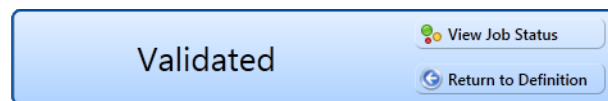
Figure 10-60. Validated Message
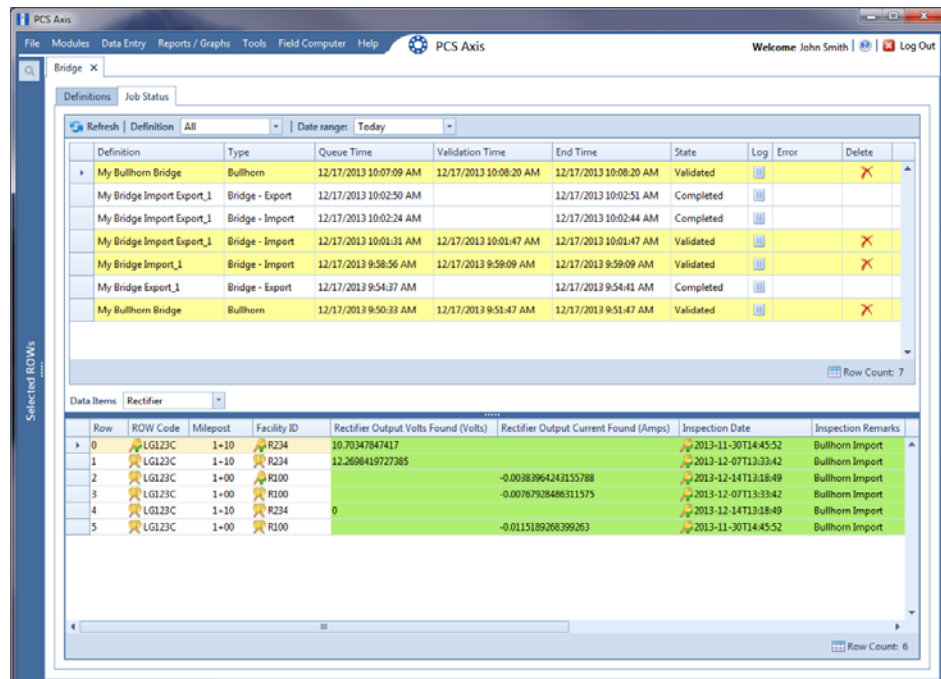
15 To manually run the definition, follow these steps:

a   Click **Run** in the *Definitions* window.

b When a date range dialog box opens, specify a date range for the data you want to import from BAT. Type a date in the **Start Date** and **End Date** fields or click the down arrow in these fields to select a date using a calendar.

c Click ⊙ **Apply** to run the Bullhorn Bridge definition and close the date range dialog box.

d When the message *Completed* displays, click ⊙ **View Job Status** to open the *Job Status* window or ⊙ **Return to Definition** to open the *Definitions* window.

> **NOTE:** PCS Axis adds the phrase *Bullhorn Import* in the *Inspection Remarks* field of the facility *Inspection* data entry grid.

16 To view the status of a Bridge session, click ⊙ **Job Status** in the *Definitions window* to open the *Job Status* window (Figure 10-61). Clicking ⊞ **Log** for a Bridge session opens the log file for the selected session.

> **NOTE:** For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).

Figure 10-61. Job Status

17 To copy the Bridge definition to a file, such as a Notepad or Microsoft Word file, follow these steps:

a Click the **Definitions** tab if the *Definitions window* is not open.

b Click ▣ **Copy to Clipboard**.

c Start a text editor or word processor program, such as Notepad or Microsoft Word.

d Open a new file and then **Paste** the definition file. Click **Save**.

Importing Pipeline Series

The following procedure explains how to use Bridge to import pipeline series in PCS Axis. The import transition file must include fields that you can map to the following required PCS Axis fields:

• ROW Code

• Series Number

• Start Milepost

• End Milepost

Complete the following steps:

1 Select one or more pipeline segments in the *Select ROWs* window (Figure 10-62). Select pipeline segment(s) with facilities you want to include in the Bridge definition. Click 💾 **Save** to close the window.
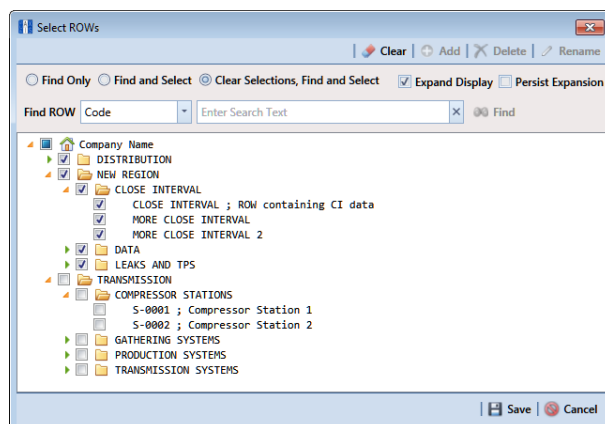
Figure 10-62. Select ROWs

2 Click **Tools** > **Bridge** to open the *Bridge* window. Then click **Basic** to open the basic definition panel (Figure 10-63).
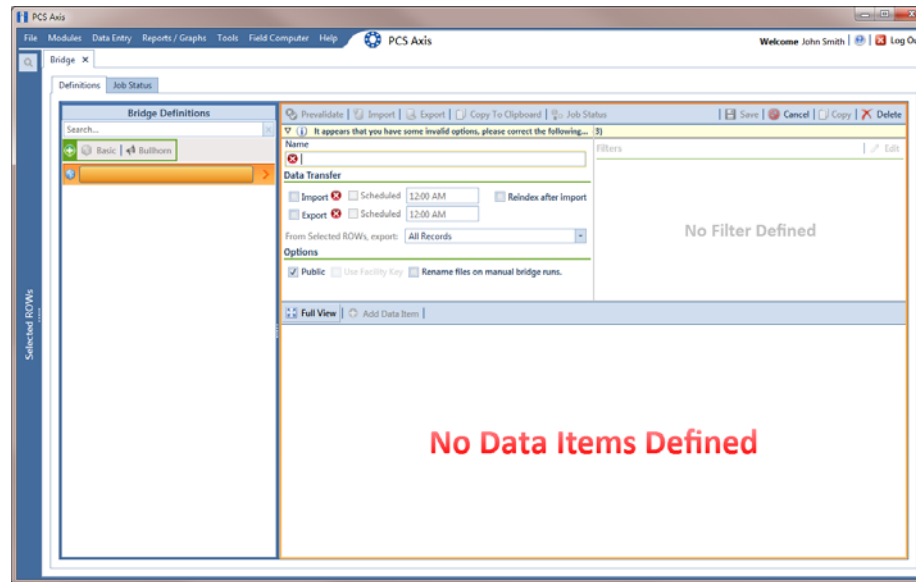
Figure 10-63. Basic Definition Panel

3 Type a unique name for the Bridge definition in the **Name** field (Figure 10-63, page 550).

NOTE: Clicking the *Bridge Definitions* bar collapses the panel allowing you to view more of the definition panel. Clicking the bar again expands the panel.

---

4 Set properties in the *Data Transfer* group box in the following manner:

a Click the **Import** check box.

b If you want PCS Axis to automatically run the import file at a scheduled time, click the **Scheduled** check box and then type a scheduled time in the adjacent field. Enter a scheduled time using 12-hour time format to specify the hour, minute, and AM/PM setting (HH:MM AM or PM).

When the import file is not scheduled to run automatically, you can run it manually by clicking the **Import** button.

> **IMPORTANT:** When scheduling a time to run *Bridge*, choose a time that does not impact other network services or computer resources. For example, consider a staggered time schedule instead of running *Bridge* at the same time as other scheduled network services.

5 Set properties in the *Options* group box as follows (Figure 10-64, page 551):

a Click the **Public** check box if you want the import definition file available for use by all PCS Axis users. When the check box is empty, the definition file is available only to the user who creates it.

b Do not enable the option *Use Facility Key*. It is not required to import pipeline series. See *Using a Facility Key in Bridge* (page 492) for more information if needed

c If you plan to run the Bridge definition manually and want Bridge to rename the file after importing data, click the check box **Rename files on manual bridge runs**.
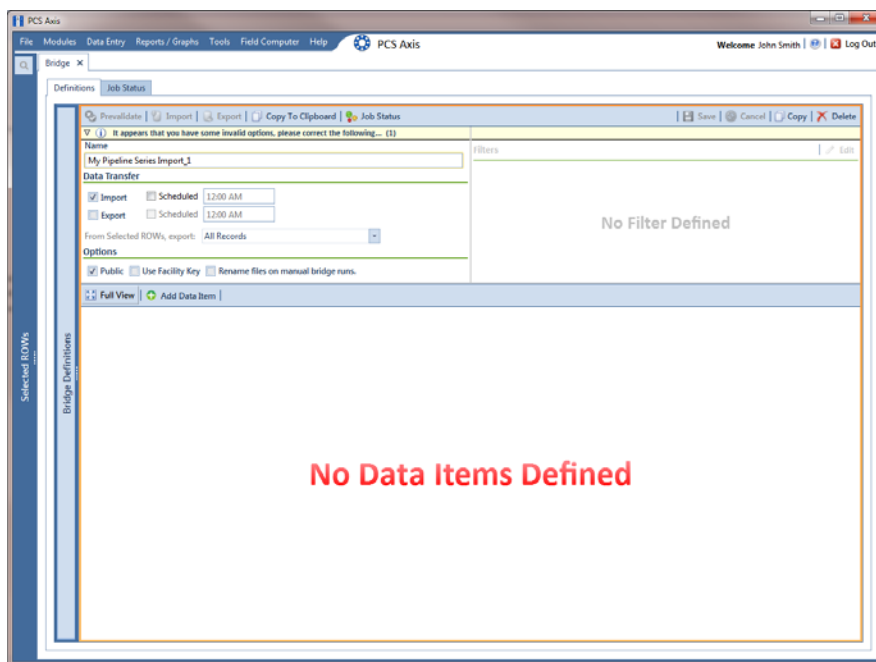
Figure 10-64. Bridge Import Definition

6 Click 💾 **Save** and then click ⛶ **Full View** to hide the group boxes *Data Transfer* and *Options*. Clicking *Full View* again displays these group boxes.

NOTE: Clicking the ▽ toggle button in the ⓘ information bar displays important information related to required property settings.

---

7 Click ⊕ **Add Data Item** to open the *Data Items* window and then complete the following steps (Figure 10-65, page 552):

    a Open the **System Items** folder and then double-click **Series** to move the data item to the right pane of the window.

    b Click ✔ **OK** to close the window and return to the definition panel. Then click 💾 **Save**.
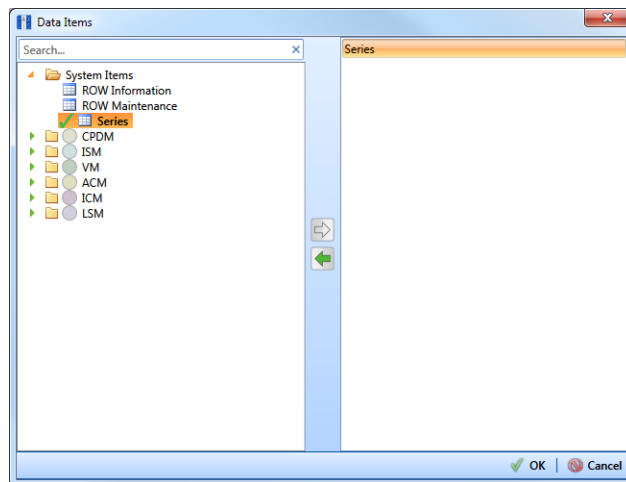
Figure 10-65. Data Items

8 Identify the location of the import transition file using the following steps (Figure 10-66, page 553):

    a Click the ellipsis button **...** in the field **Import File Name** to open the *Import File* dialog box. Navigate to the import file and then select it.

    b Click **Open** to close the dialog box and return to the definition panel. The path to the import transition file displays in the field *Import File Name*.

9 To assign inspections to a survey folder based on the inspection date, complete one or both of the following steps in the *Options* group box as required (Figure 10-8, page 499):

    a If you want to assign inspections to an annual survey folder, click the check box **Assign inspections to an Annual Survey**.

    b If you want to assign inspections to a periodic survey folder, click the check box **Assign inspections to a Periodic Survey**.
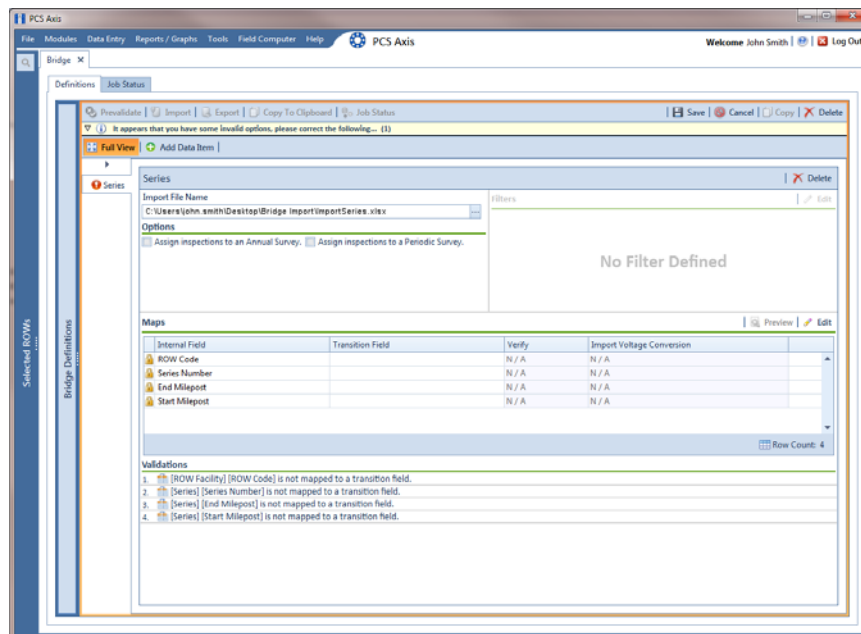
Figure 10-66. Definition

10 To map fields in PCS Axis with fields in the import transition file, follow these steps:

a Click 🖊 **Edit** in the *Maps* group box to open a field mapping window (Figure 10-67, page 554).

NOTE: Fields in the *Mappings* panel with a lock icon 🔒 are required fields for mapping, such as *ROW Code*, *Series*, *End Milepost*, and *Start Milepost* shown in Figure 10-67 (page 554).

---

b If you want to sort import fields listed in the *Transition Fields* panel in alphabetical order, click the check box **Sort Alphabetically**.

c To map PCS Axis fields with fields in the import transition file, follow these steps:

• Select a PCS Axis field in the *Mappings* panel.

• Map the selected field to a field in the import file by double-clicking a field listed in the *Transition Fields* panel. Repeat this step for remaining fields.
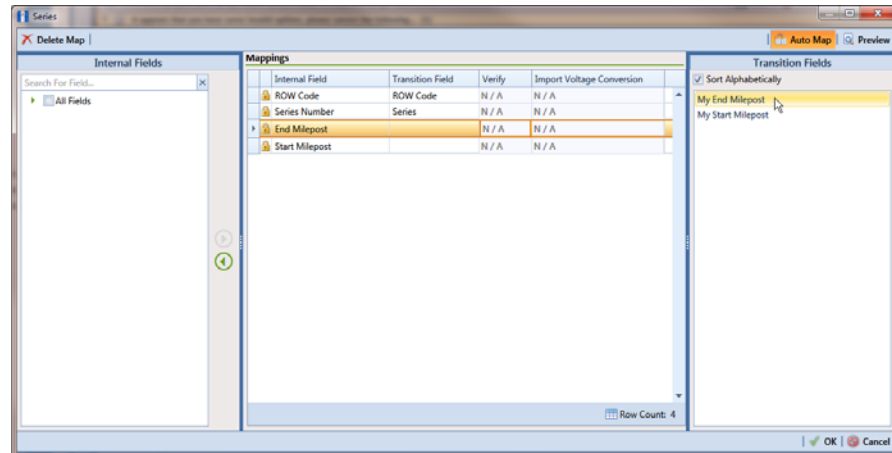
Figure 10-67. Field Mappings

> **NOTE:** When the 🎁 **Auto Map** button is enabled and the names of fields in the import transition file match those in PCS Axis, double-clicking a PCS Axis field in the *Mappings* panel automatically maps to an import field listed in the *Transition Fields* panel.

d If you want to preview fields for mapping in the import transition file, click the 🔍 **Preview** button to open the import file in the *Preview Maps* window.

11 Click ✔ **OK** to close the mapping window and return to the definition window. Then click 💾 **Save**.

Field mappings display in the *Maps* group box.

12 To validate the definition, click the 🐞 **Prevalidate** button. When the validation process completes and the following message displays (Figure 10-68), click 🔵 **View Job Status** to open the *Job Status* window or ⬅ **Return to Definition** to open the *Definitions window*.

> **NOTE:** The *Prevalidate* process confirms the definition file is set up correctly; it does not post data in the database. Only the first 1,000 records of the import file will be displayed.
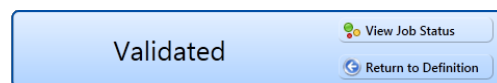
Figure 10-68. Validated Message

13 To manually import the *Pipeline Series* in PCS Axis, complete one of the following steps:

a If the *Job Status* window is open, click ⊕ **Run** for a selected import file listed in the *Job Status* window (Figure 10-69). Then click ↻ **Refresh** to update status information.

b If the *Definitions window* is open for the import file, click 📒 **Import**.

14 To view the status of a Bridge session, click 🔵 **Job Status** in the *Definitions window* to open the *Job Status* window. Clicking 📋 **Log** for a Bridge session opens the log file for the selected session.
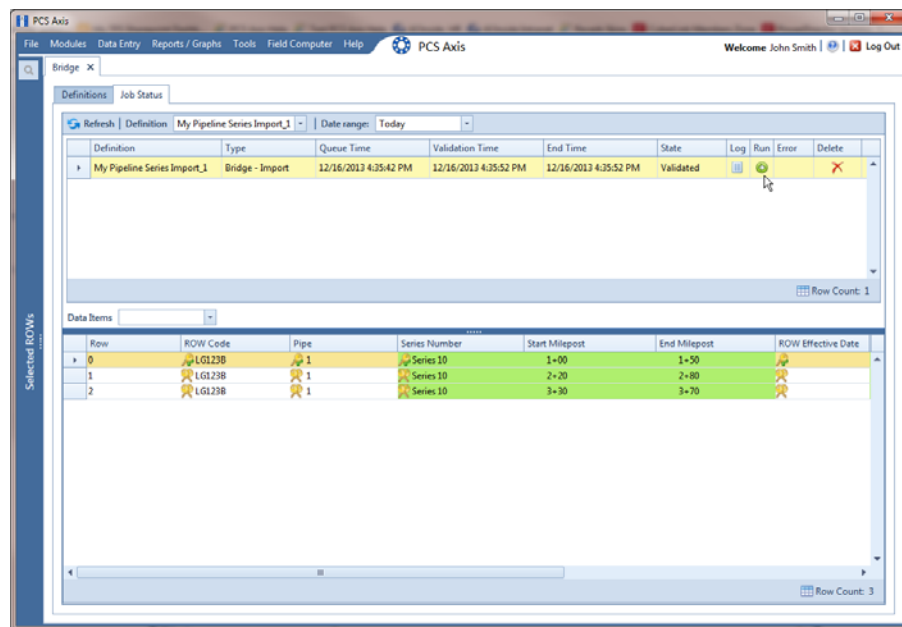
Figure 10-69. Job Status

NOTE: For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).

15 To view the imported *Pipeline Series*, click **Data Entry** > **Pipeline Series**.

When the import transition file includes facility survey readings that have also been mapped in the Bridge definition, PCS Axis imports this data in the facility Inspections grid (*Data Entry > Edit <module> Data*).

Viewing Bridge Job Status and Log

To view the job status and log for a Bridge definition, follow these steps:

1 Select one or more pipeline segments in the *Select ROWs* window. Click ![save icon] **Save** to close the window.

2 Click **Tools** > **Bridge** to open the *Bridge* window (Figure 10-70).
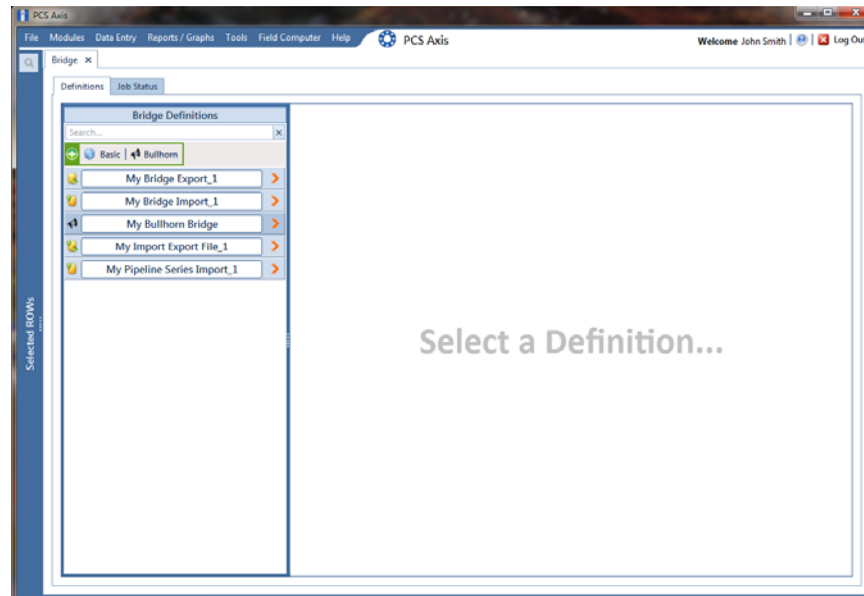
Figure 10-70. Select Definition

3 Click the **Job Status** tab to open the job status window (Figure 10-71, page 557).

4 Select a definition to display status information in the bottom panel of the job status window.

Figure 10-71.   Job Status

NOTE: For a description of the icons and colors used in Job Status, see *Icons and Colors Used in Bridge Job Status* (page 559).

---

5   If you want to delete prevalidated data that has not posted in the database yet, click ✖ **Delete** to remove the job from the *Job Status* window (Figure 10-71).

6   Click ⊞ **Log** for a selected definition to open a window with detailed information (Figure 10-72).

Figure 10-72. Log

Icons and Colors Used in Bridge Job Status

The *Data Items* grid in *Job Status* includes icons and colors for records imported in PCS Axis to indicate a particular status (Figure 10-73). For a description of these icons and colors, see Table 10-1 below.
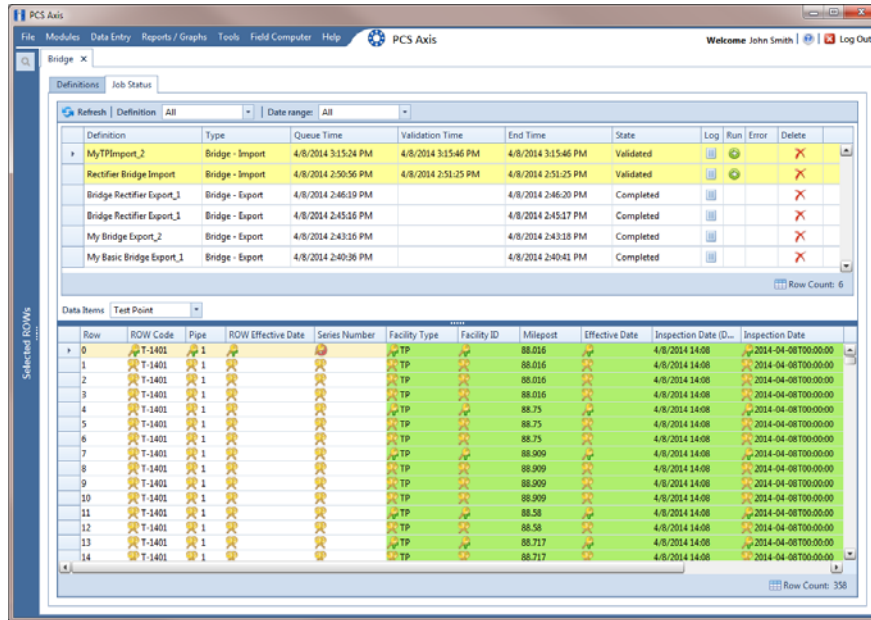

Figure 10-73. Data Items Grid in Job Status

Table 10-1. Icons and Colors in Job Status Data Items Grid

Icons and Colors	Description
	Matched Key: Bridge found an existing entry for this data.
	Duplicate Key: Occurs for any redundancies found in the import file. Such as when a new ROW will be created and all other ROW entries in the import file after the first are redundant.
	Unmatched Key: No existing entry was found for this data.

- Green indicates a new record.

- Red indicates a rejected record.

- Yellow indicates an out-of-range record.

- Gray indicates data that cannot be imported because it failed type conversion. The imported data does not match the PCS Axis field type, such as a non-date value for a date/time field or an alpha character for a numeric field such as Structure P/S.