

# Using a Schedule

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This section explains how to work with a schedule. The information is intended for users with *SysAdmin*, *User*, and *Read Only* permissions. Topics in this section include those in the following list:

- *What is Scheduling?*
- *Scheduling Workflow* (page 454)
- *Setting Up Scheduling Criteria* (page 455)
- *Creating a Schedule* (page 478)
- *Working with a Schedule Definition* (page 483)
- *Using a Schedule in PCS Axis* (page 489)

## What is Scheduling?

A schedule is a group of facilities to be surveyed for a specific time period, such as a month or year. The same schedule can include multiple facility types as well as facilities requiring bi-monthly, annual, and multi-year inspections, if those inspections are due in the same year. You can set up some schedules to include every facility that may be due for inspection and others to include one type of facility or survey period. PCS Axis dynamically generates a schedule with the most current information.

A schedule is different from a route, which assigns a specific order to facility inspections. A schedule is a list of facilities that are due to be inspected. A schedule is always ordered by due date and then as an option, sorted by facility ID, address, or route order. If you plan to create a schedule in route order, routes must be defined first (*Data Entry > Define Routes*).

A valuable feature of scheduling is the ability to transfer a survey based on a schedule to the Allegro Field PC. Once the survey is complete, the PCS Axis database is easily updated by transferring inspection data from the Allegro Field PC to PCS Axis.

### Related Topics

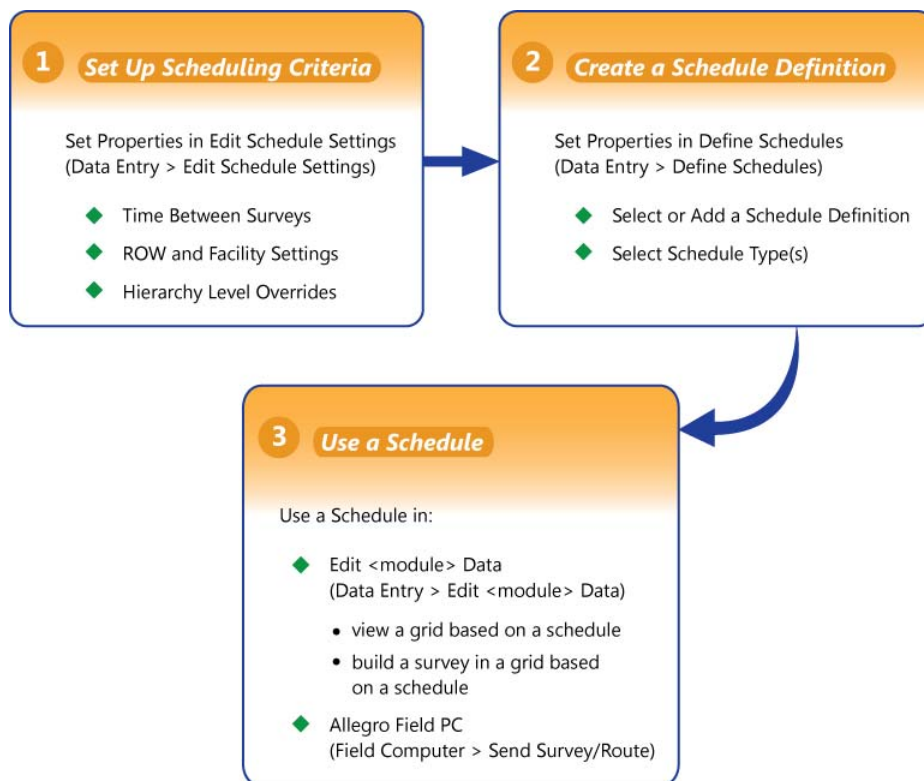
- Scheduling Workflow
- Setting Up Scheduling Criteria
- Creating a Schedule

- Working with a Schedule Definition
- Using a Schedule in PCS Axis

## Scheduling Workflow

The process for working with a schedule includes the following tasks (Figure 9-1):

- Set up scheduling properties in *Edit Schedule Settings* (*Data Entry > Edit Schedule Settings*). Scheduling properties define the parameters PCS Axis uses to calculate facility inspection due dates.
- Create a schedule definition with one or more schedule types in *Define Schedules* (*Data Entry > Define Schedules*). A schedule type identifies which facility types to include in the schedule, and as an option, to include all facility types on a ROW that are due for an inspection.
- Use a schedule to view facility records in a data grid based on a schedule; transfer a survey based on a schedule to the Allegro Field PC; and view and print a data collection form based on a schedule.



**Figure 9-1. Scheduling Workflow**

### Related Topics

- What is Scheduling?
- Setting Up Scheduling Criteria
- Creating a Schedule
- Working with a Schedule Definition
- Editing an Installed Schedule Definition
- Adding a Schedule Definition Addition
- Editing a Schedule Definition Addition
- Using a Schedule in PCS Axis

## Setting Up Scheduling Criteria

Setting up scheduling criteria begins with setting properties in the *Time Between Survey Settings* tab of *Edit Schedule Settings*. Settings apply system wide but can be overridden based on your company's survey policy. You can set up scheduling overrides by facility type, at the hierarchy level, or at the facility level.

Topics in this section explain how to set up scheduling properties using the following three tabs in *Edit Schedule Settings*:

- *Time Between Survey Settings*
- *Schedule Type Settings* (page 462)
- *Hierarchy Level Overrides* (page 473)

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**NOTE:** Certain conventions are used in *Edit Schedule Settings* to indicate whether or not a scheduling property is set up with a baseline setting or an override. Bold text indicates an override. A setting inside parentheses indicates a baseline setting. Those with N/A (not applicable) indicate the setting does not apply to the scheduling property.



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## Time Between Survey Settings

*Time Between Survey Settings* allows you to set up scheduling properties for a survey, such as an annual, periodic, 5 year, or 10 year survey. Setting up survey scheduling properties includes identifying the survey start month and year; grace period; delinquent time period; and the number of inspections required in a calendar year.

PCS Axis provides baseline settings based on government compliance regulations and industry standards. Baseline settings can be changed so that they match your company's survey policy.

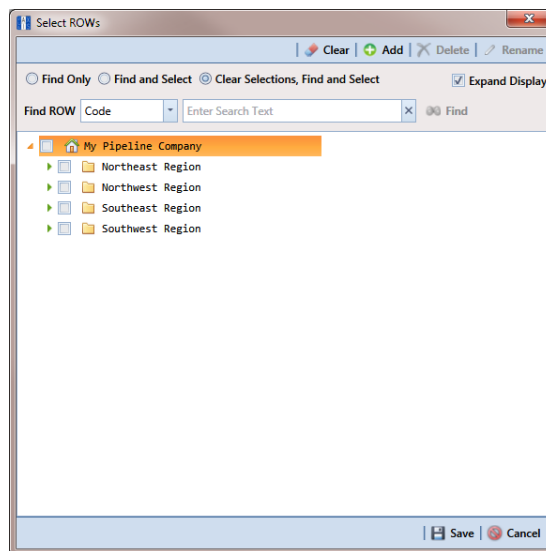
To set up survey scheduling properties, follow these steps:

- 1 Click the **Select ROWs** button  to open the *Select ROWs* window (Figure 9-2, page 456). Select one or more pipeline segments by clicking the check box for each pipeline segment. Click  **Save** to close the *Select ROWs* window.

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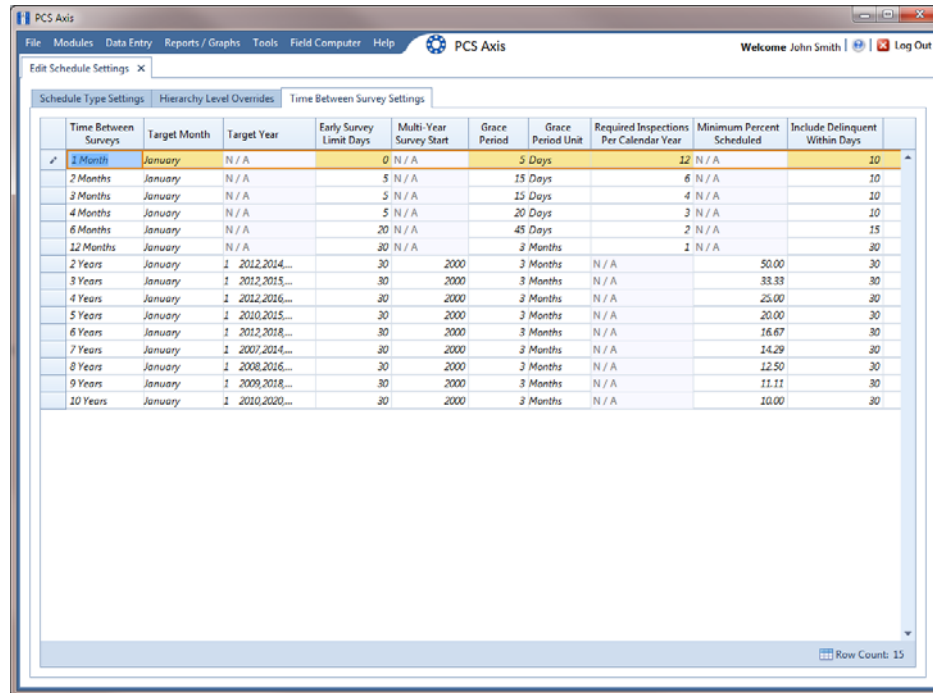
**NOTE:** A check mark inside a check box indicates a selection. To clear a selection, click the check box again to remove the check mark. A shaded check box indicates selection of some, not all, child folders, ROWs, and pipelines.

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**Figure 9-2. Select ROWs**

- Click **Data Entry > Edit Schedule Settings > Time Between Survey Settings** tab (Figure 9-3).





**Figure 9-3. Time Between Survey Settings**

- Refer to the following table (Table 9-1, page 457) for a description of survey property settings and how to set up each of these.

**Table 9-1. Setting Up Time Between Survey Settings**

Property Name	Property Description
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Time Between Survey	<p>A list of surveys indicating the number of months or years between inspections. These fields cannot be changed.</p> <p>An arrow  or edit icon  displays beside the survey indicating a selection.</p>
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**Table 9-1. Setting Up Time Between Survey Settings (continued)**

Property Name	Property Description
Target Month	<p><i>Target Month</i> is only used when <i>Targets</i> is selected as the scheduling method. Otherwise, property settings are ignored and do not need to be set up.</p> <p><i>Target Month</i> refers to the first survey month. Options in the selection list are based on the <i>Time Between Survey</i> value.</p> <p>For example, if <i>Time Between Surveys</i> is 2 months and the <i>Target Month</i> (first survey month) is January, surveys are set at 2 month intervals beginning in January. The next survey is due in March, the next in May, and so on.</p> <p>To select a target month:</p> <ol style="list-style-type: none"> <li><b>1</b> For a survey listed in <i>Time Between Surveys</i>, click the <i>Target Month</i> field to display a drop down arrow.</li> <li><b>2</b> Click the down arrow and select a target month in the selection list.</li> </ol>

**Table 9-1. Setting Up Time Between Survey Settings (continued)**

Property Name	Property Description
Target Year	<p><i>Target Year</i> is only used when <i>Targets</i> is selected as the scheduling method. Otherwise, property settings are ignored and do not need to be set up.</p> <p><i>Target Year</i> is the year within the survey period when you want the first survey to take place. This field is only used for facilities with more than 12 months between surveys. PCS Axis calculates <i>Target Year</i> based on the current year and values in the fields <i>Time Between Surveys</i> and <i>Multi-Year Survey Start</i>.</p> <p>The target year selection list includes a list of valid survey years with corresponding target year dates.</p> <p>To select a target year:</p> <ol style="list-style-type: none"> <li>1 For a survey listed in <i>Time Between Surveys</i>, click the <i>Target Year</i> field to display a drop down arrow.</li> <li>2 Click the down arrow and select a target survey year.</li> </ol> <p>If an appropriate survey year is not listed, type a different year in the field <i>Multi-Year Survey Start</i> to update items in the selection list.</p>
Grace Period, Grace Period Unit	<p>A period of time in days or months an inspection can be late without incurring a compliance violation.</p> <p>To set a grace period:</p> <ol style="list-style-type: none"> <li>1 Type a value in the <i>Grace Period</i> field.</li> <li>2 Select the <i>Grace Period Unit</i> field. Click the down arrow and select either <i>Days</i> or <i>Months</i> in the selection list.</li> </ol>

**Table 9-1. Setting Up Time Between Survey Settings (continued)**

Property Name	Property Description
<p>Early Survey Limit Days</p>	<p><i>Early Survey Limit Days</i> is only used when <i>Targets</i> is selected as the scheduling method. When the selected scheduling method is <i>Last Survey</i> or <i>X years / Y%</i>, PCS Axis displays <i>N/A</i> (not applicable) indicating <i>Early Survey Limit Days</i> does not apply.</p> <p><i>Early Survey Limit Days</i> refers to how early an inspection can occur before the actual due date and still count as an inspection for that survey period.</p> <p>To set the number of days an inspection can occur before the actual due date:</p> <ul style="list-style-type: none"> <li>• Type a value in the field <i>Early Survey Limit Days</i>.</li> </ul>
<p>Include Delinquent Within Days</p>	<p>If a facility inspection will become delinquent within a number of days, include the facility in the schedule with those due for inspection. For example, if a facility inspection is delinquent in 5 days, include that facility in the schedule with others due for inspection.</p> <p>To set a delinquent time period in days:</p> <ul style="list-style-type: none"> <li>• Type a value in the field <i>Include Delinquent Within Days</i>.</li> </ul>
<p>Required Inspections Per Calendar Year</p>	<p>Number of required inspections per calendar year. To set the number of required inspections:</p> <ul style="list-style-type: none"> <li>• Type a value in the field <i>Required Inspections Per Calendar Year</i>.</li> </ul>



**Table 9-1. Setting Up Time Between Survey Settings (continued)**

Property Name	Property Description
Multi-Year Survey Start	<p>Refers to the year a multi-year survey starts (starting point). PCS Axis uses the starting year to calculate future survey dates available for selection in the <i>Target Year</i> selection list.</p> <p>To set a starting year for a multi-year survey:</p> <ul style="list-style-type: none"> <li>Type a year in the field <i>Multi-Year Survey Start</i>.</li> </ul>
Minimum Percent Scheduled	<p>Refers to a minimum percentage of facilities that must be inspected. This setting works in conjunction with the due date calculation method <i>X years/Y%</i> selected in the <i>Schedule Type Settings</i> tab.</p> <p>To set a minimum percentage of facilities that must be inspected:</p> <ul style="list-style-type: none"> <li>Type a value in the field <i>Minimum Percent Scheduled</i>. The field supports decimal formatting, such as 30.75.</li> </ul>



### Related Topics

- Setting Up Scheduling Criteria
- Schedule Type Settings
- Hierarchy Level Overrides
- Creating a Schedule Based on Targets
- Creating a Schedule Based on Last Survey
- Creating a Schedule Based on X years/Y%

## Schedule Type Settings

Scheduling properties set up in *Schedule Type Settings* apply at the facility type level. Some scheduling properties inherit settings from those previously set up in *Time Between Survey Settings*. Inherited settings changed at the facility type level override and have precedent over those in *Time Between Survey Settings*.

To set up scheduling properties at the facility type level, follow these steps:

- 1 Click the **Select ROWs** button  to open the *Select ROWs* window. Select one or more pipeline segments by clicking the check box for each pipeline segment (Figure 9-2, page 456). Click  **Save** to close the *Select ROWs* window.
- 2 Click **Data Entry > Edit Schedule Settings > Schedule Type Settings** tab (Figure 9-4).

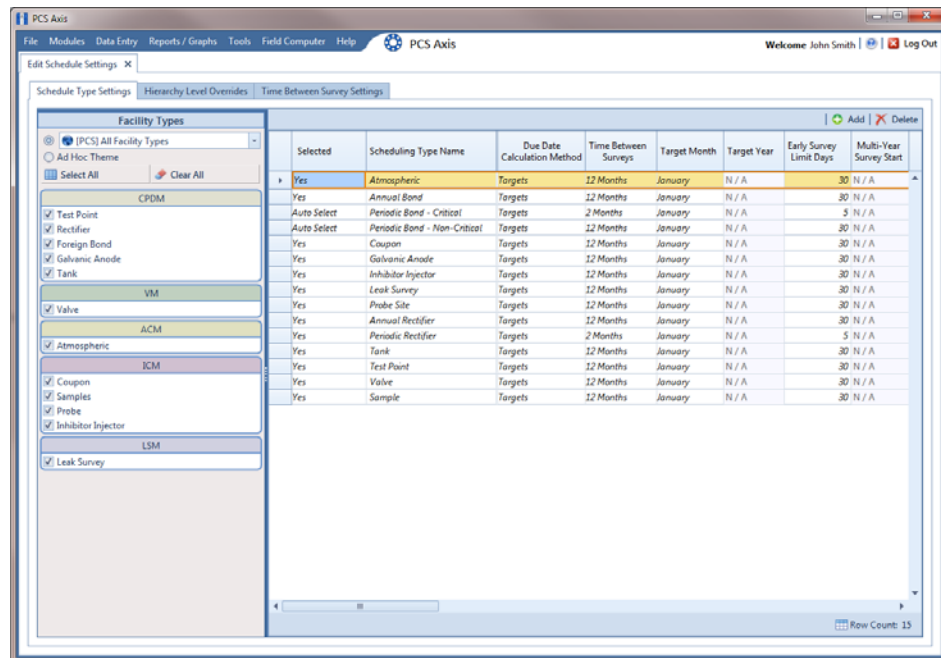
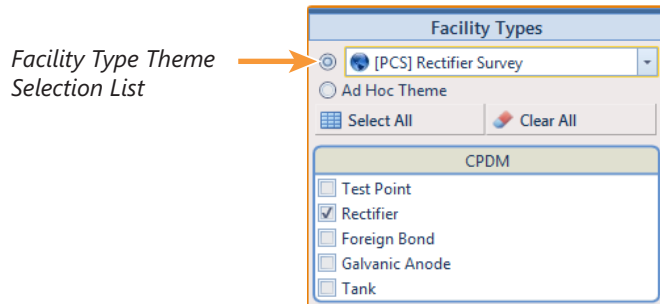


Figure 9-4. Schedule Type Settings

- 3 Select the facility type you want to work with using one of the following methods described in step "a" or "b":
  - a To select a facility type theme, click the themes option button and then click the down arrow and select a theme in list, such as *[PCS] Rectifier Survey* (Figure 9-5).



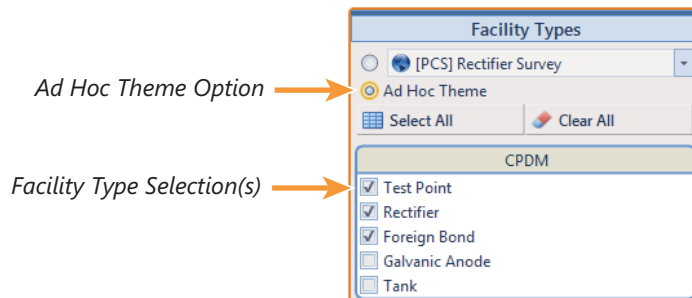
**Figure 9-5. Facility Type Theme Option**

- b To select multiple facility types, click the **Ad Hoc Theme** option and then click the check box for one or more facility types, such as *Test Point*, *Rectifier*, and *Foreign Bond* (Figure 9-6).

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**NOTE:** An *Ad Hoc Theme* only applies to the current session and is not saved. A facility type is selected when a check mark appears inside the check box. To clear the check mark, click the check box again.

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**Figure 9-6. Ad Hoc Theme Option**

- 4 Refer to the following table (Table 9-2, page 464) for a description of facility type scheduling properties and how to set up each of these.

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**IMPORTANT:** Certain property names in the following table include an asterisk (\*). The asterisk identifies scheduling properties you can set at the facility type level that will override and take precedent over those in *Time Between Survey Settings*.

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**Table 9-2. Schedule Type Settings**

Property Name	Property Description
Selected	<p>Include or exclude schedule settings at the facility type level when generating a schedule with facilities due for inspection.</p> <p>To include or exclude schedule settings:</p> <ol style="list-style-type: none"> <li>1 Click <b>Selected</b> to display a drop down arrow.</li> <li>2 Click the drop down arrow and select one of the following options in the selection list: <ul style="list-style-type: none"> <li>• <b>No:</b> Excludes schedule settings when generating a schedule.</li> <li>• <b>Yes:</b> Includes schedule settings when generating a schedule.</li> <li>• <b>Auto Select:</b> If an <i>Auto Select Expression</i> has previously been created, select to include the expression with other schedule settings when generating a schedule.</li> </ul> </li> </ol> <p>For information about how to create an expression, see <i>Auto Select Expression</i> (page 466).</p>

**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
Scheduling Type Name	<p data-bbox="795 325 1396 399">A named set of schedule settings for a facility type, such as <i>Periodic Rectifier</i> and <i>Annual Rectifier</i>.</p> <p data-bbox="795 420 1161 462">To add a new scheduling type:</p> <ol data-bbox="795 483 1396 840" style="list-style-type: none"><li data-bbox="795 483 1396 598"><b>1</b> Select a <b>Facility Types</b> theme or set up an <b>Ad Hoc Theme</b> with a facility type you want to add a new scheduling type.</li><li data-bbox="795 619 1396 693"><b>2</b> Click <b>Add</b> to open the <i>Add Schedule Type</i> dialog box.</li><li data-bbox="795 714 1396 787"><b>3</b> Type a name for the new scheduling type in the field <b>Scheduling Type Name</b>.</li><li data-bbox="795 808 1396 840"><b>4</b> Set up schedule settings as required.</li></ol>

**Table 9-2. Schedule Type Settings (continued)**


Property Name	Property Description
Auto Select Expression	<p data-bbox="795 325 1409 504">A database query set up for a scheduling type that defines the criteria for including specific facilities in a survey schedule. The expression is a combination of an operator, PCS Axis field, condition, and user-selected criteria.</p> <p data-bbox="795 525 1409 567">To create an expression for a scheduling type:</p> <ol data-bbox="795 588 1409 1402" style="list-style-type: none"> <li data-bbox="795 588 1409 703"><b>1</b> Click <b>Create Expression</b> to display an ellipsis button (...). Click the button to open the <i>Auto Select Expression</i> dialog box.</li> <li data-bbox="795 724 1409 787"><b>2</b> Select an expression operator by selecting either <b>New 'And' Group</b> or <b>New 'Or' Group</b>.</li> <li data-bbox="795 808 1409 892"><b>3</b> Type a name for the expression and then click the add button .</li> <li data-bbox="795 913 1409 1344"><b>3</b> Set up expression fields in the following manner: <ul data-bbox="836 1008 1409 1344" style="list-style-type: none"> <li data-bbox="836 1008 1409 1081">• Click the down arrow and select a PCS Axis field.</li> <li data-bbox="836 1102 1409 1186">• Click the down arrow and select a condition, such as <i>Is equal to</i> or <i>Is missing</i>.</li> <li data-bbox="836 1207 1409 1344">• Type criteria in the last expression field if the field is present. This field is present based on selections in the previous two expression fields.</li> </ul> </li> <li data-bbox="795 1365 1409 1402"><b>4</b> Click <b>Save</b>.</li> </ol>

Table 9-2. Schedule Type Settings (continued)

Property Name	Property Description
Scheduling Priority	<p>Facilities due for inspection are scheduled for survey at the facility type level based on the priority level of the scheduling type. Priority level is any value from 1 to 99 with 1 being the highest priority. To set a priority level at the facility type level for a scheduling type:</p> <ol style="list-style-type: none"> <li>1 Verify <b>Yes</b> is set for the scheduling property <i>Only Highest Priority Due Is Scheduled</i>.</li> <li>2 Type a value for <b>Scheduling Priority</b> using any number from 1 to 99.</li> </ol> <p><b>NOTE:</b> A priority level set at the facility type level can be overridden at the ROW level in <i>Hierarchy Level Overrides</i>.</p>
Due Date Calculation Method	<p>Facilities due for inspection are scheduled for survey at the facility type level based on the due date calculation method of the scheduling type.</p> <p>To set a due date calculation method for a scheduling type:</p> <ol style="list-style-type: none"> <li>1 Click <b>Due Date Calculation Method</b> to display a drop down arrow.</li> <li>2 Select one of the following options in the selection list: <ul style="list-style-type: none"> <li>• <b>Targets:</b> Facilities due for inspection are scheduled for survey based on the <i>Last Inspection Date, Target Month</i> and <i>Target Year</i>.</li> <li>• <b>Last Survey:</b> Facilities due for inspection are scheduled for survey based on the <i>Last Inspection Date</i> and setting for the scheduling property <i>Time Between Surveys</i>.</li> <li>• <b>X years/Y%:</b> Facilities due for inspection are scheduled for survey based on the <i>Last Inspection Date</i> and settings for the scheduling properties <i>Time Between Surveys, Multi-Year Survey Start</i>, and <i>Minimum Percent Scheduled</i>.</li> </ul> </li> </ol>

**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
Only Highest Priority Due Is Scheduled	<p>If the scheduling type is set up with a <i>Scheduling Priority</i> level, include only those facilities with the highest priority level that are due for inspection in the survey schedule.</p> <p>Complete the following steps:</p> <ol style="list-style-type: none"> <li>1 For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Only Highest Priority Due Is Scheduled</b> to display a drop down arrow.</li> <li>2 Click the down arrow and select one of the following options in the selection list: <ul style="list-style-type: none"> <li>• <b>Yes:</b> Only those facilities due for inspection with the highest priority level are scheduled for survey.</li> <li>• <b>No:</b> Any facility due for inspection is scheduled for survey.</li> </ul> </li> </ol>
Percent Needed to Complete Survey	<p>A value from 0 to 100 indicating the percentage of facilities that must be surveyed before the survey (annual or multi-year) is considered complete.</p> <p>To set a percentage:</p> <ul style="list-style-type: none"> <li>• Type a value in the field <b>Percent Needed To Complete Survey</b> for a scheduling type listed in <i>Scheduling Type Name</i>.</li> </ul>
*Time Between Surveys	<p>Number of months or years between inspections. (See note about overrides.)</p> <p>To set the time between surveys:</p> <ol style="list-style-type: none"> <li>1 For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Time Between Surveys</b> to display a drop down arrow.</li> <li>2 Click the down arrow and select the number of months or years in the selection list.</li> </ol>



**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
*Target Month	<p>Used only when <i>Targets</i> is selected as the scheduling method. Refers to the first survey month. Options in the selection list are based on the <i>Time Between Survey</i> value. (See note about overrides.)</p> <p>As an example, if <i>Time Between Surveys</i> is 2 months and the <i>Target Month</i> (first survey month) is January, surveys are set at 2 month intervals beginning in January. The next survey is due in March, the next in May, and so on.</p> <p>To set the target month:</p> <ol style="list-style-type: none"> <li>1 For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Target Month</b> to display a drop down arrow.</li> <li>2 Click the down arrow and select a month in the selection list.</li> </ol>
*Target Year	<p>Used only when <i>Targets</i> is selected as the scheduling method. Refers to the first survey year when <i>Time Between Surveys</i> is more than 12 months. (See note about overrides.)</p> <p>To set the target year:</p> <ol style="list-style-type: none"> <li>1 For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Target Year</b> to display a drop down arrow.</li> <li>2 Click the down arrow and select a year in the selection list.</li> </ol>

**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
*Grace Period / *Grace Period Unit	<p>Refers to a period of time in days or months an inspection can be late without incurring a compliance violation. (See note about overrides.)</p> <p>To set a grace period for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ol style="list-style-type: none"> <li>1 Type a value in the <i>Grace Period</i> field.</li> <li>2 Click the <b>Grace Period Unit</b> field to display a drop down arrow. Click the drop down arrow and select either <b>Days</b> or <b>Months</b> in the selection list.</li> </ol>
*Early Survey Limit Days	<p>Refers to how early an inspection can occur before the actual due date and still count as an inspection for the survey period. (See note about overrides.)</p> <p>To set an early survey limit for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul style="list-style-type: none"> <li>• Type the number of days in the field <i>Early Survey Limit Days</i>.</li> </ul>
*Include Delinquent Within Days	<p>If an inspection will become delinquent within a number of days, include the facility in the schedule with facilities due for inspection. (See note about overrides.)</p> <p>To set a delinquent time period in days for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul style="list-style-type: none"> <li>• Type the number of days in the field <i>Include Delinquent Within Days</i>.</li> </ul>
*Required Inspections Per Calendar Year	<p>Number of required inspections per calendar year. (See note about overrides.)</p> <p>To set the number of required inspections for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul style="list-style-type: none"> <li>• Type a value in the field <i>Required Inspections Per Calendar Year</i>.</li> </ul>

**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
*Multi-Year Survey Start	<p data-bbox="803 325 1372 472">Refers to the year a multi-year survey starts. PCS Axis uses the starting year to calculate future survey dates available for selection in the <i>Target Year</i> selection list. (See note about overrides.)</p> <p data-bbox="803 493 1388 556">To set the starting year of a multi-year survey for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul data-bbox="803 588 1388 619" style="list-style-type: none"> <li data-bbox="803 588 1388 619">• Type a year in the field <i>Multi-Year Survey Start</i>.</li> </ul>
*Minimum Percent Scheduled	<p data-bbox="803 661 1372 840">Refers to a minimum percentage of facilities that must be inspected in a multi-year survey. This setting works in conjunction with the due date calculation method <i>X years/Y%</i>. (See note about overrides.)</p> <p data-bbox="803 871 1388 976">To set a minimum percentage of facilities that must be inspected for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul data-bbox="803 1008 1339 1102" style="list-style-type: none"> <li data-bbox="803 1008 1339 1102">• Type a value in the field <i>Minimum Percent Scheduled</i>. The field supports decimal formatting, such as 30.75.</li> </ul>
*Survey Season Start Month	<p data-bbox="803 1144 1388 1218">Refers to the starting month in the survey season for a multi-year survey. (See note about overrides.)</p> <p data-bbox="803 1249 1388 1312">To set the starting month in the survey season for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ol data-bbox="803 1344 1388 1505" style="list-style-type: none"> <li data-bbox="803 1344 1356 1407">1 Click the field <i>Survey Season Start Month</i> to display a drop down arrow.</li> <li data-bbox="803 1438 1388 1505">2 Click the drop down arrow and select a starting month in the selection list.</li> </ol>



**Table 9-2. Schedule Type Settings (continued)**

Property Name	Property Description
*Survey Season End Month	<p>Refers to the ending month in the survey season for a multi-year survey. (See note about overrides.)</p> <p>To set the ending month in the survey season for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ol style="list-style-type: none"> <li><b>1</b> Click the field Survey Season Start Month to display a drop down arrow.</li> <li><b>2</b> Click the drop down arrow and select a starting month in the selection list.</li> </ol>
Level Work Load	<p>Refers to PCS Axis balancing the work load for facilities that are due for inspection in a multi-year survey. The property setting applies at the facility type level.</p> <p>To enable this scheduling option:</p> <ul style="list-style-type: none"> <li>• Click the check box <b>Level Work Load</b> for a scheduling type listed in <i>Scheduling Type Name</i>.</li> </ul> <p>To disable the option, clear the check mark by clicking the check box again.</p>
Hide	<p>Refers to hiding a scheduling type in the <i>Facility Level Override</i> mini-grid of the data entry grid. Hiding the mini-grid prevents scheduling changes at the facility level when working with the data entry grid based on a schedule.</p> <p>To enable this scheduling option:</p> <ul style="list-style-type: none"> <li>• Click the <b>Hide</b> check box for a scheduling type listed in <i>Scheduling Type Name</i>.</li> </ul> <p>To disable the option, clear the check mark by clicking the check box again.</p>

## Hierarchy Level Overrides

Scheduling properties set up in *Hierarchy Level Overrides* apply at the ROW (pipeline) level. Some scheduling properties inherit settings from those previously set up in *Time Between Survey Settings* and *ROW and Facility Settings*. Inherited settings changed at the ROW level override and have precedent over those in the *Time Between Survey Settings* and *ROW and Facility Settings*.

To set up scheduling properties at the ROW level, follow these steps:

- 1 Click the **Select ROWs** button  to open the *Select ROWs* window. Select one or more pipeline segments by clicking the check box for each pipeline segment (Figure 9-2, page 456). Click  **Save** to close the *Select ROWs* window.
- 2 Click **Data Entry > Edit Schedule Settings > Hierarchy Level Overrides** tab (Figure 9-7).

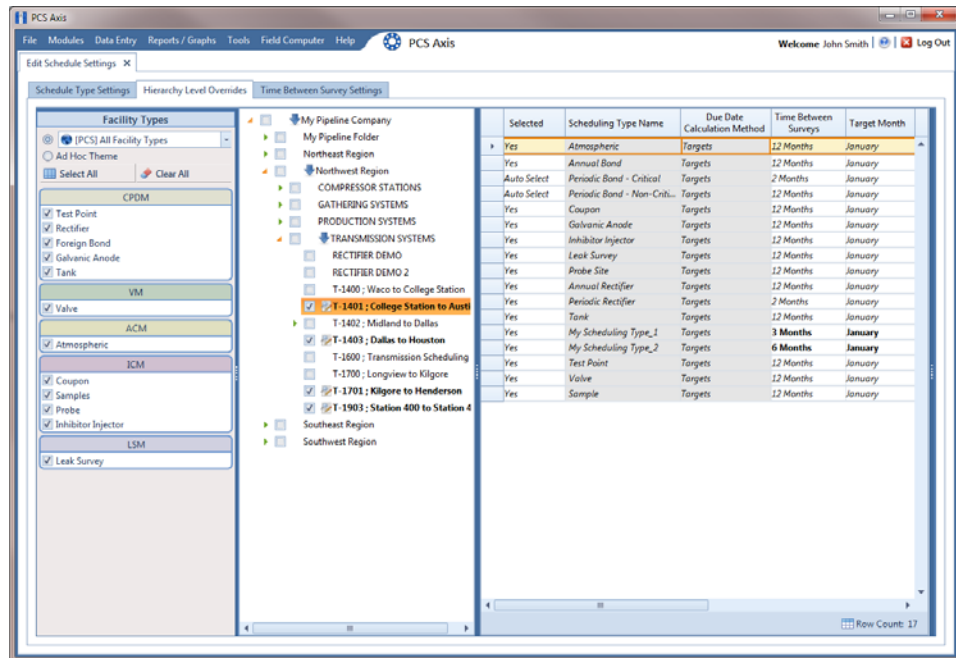
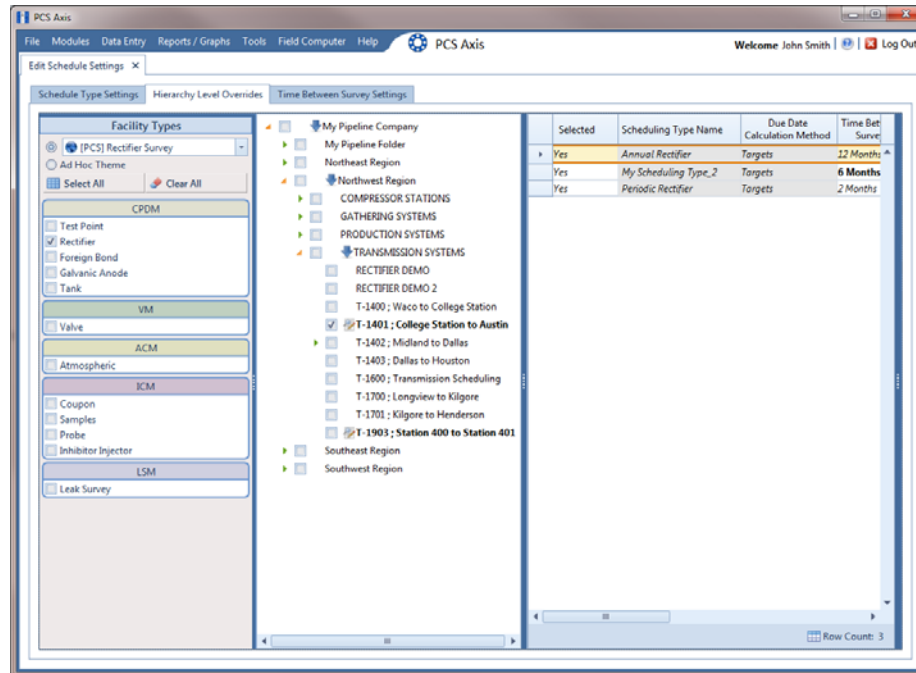


Figure 9-7. Hierarchy Level Overrides

- 3 Select the facility type(s) you want to work with by selecting a *facility type theme* or setting up an *Ad Hoc Theme* in *Facility Types*. See Figure 9-5 or Figure 9-6.
- 4 Select the ROW(s) you want to work with by clicking the check box for each ROW in the middle pane of the *Hierarchy Level Overrides* window (Figure 9-8).



**Figure 9-8. ROW Selection(s)**

- 5 Refer to the following table (Table 9-3, page 475) for a description of scheduling properties that apply at the ROW level and how to set up each of these.

**IMPORTANT:** Certain property names in the following table include an asterisk (\*). The asterisk identifies scheduling properties you can set at the ROW level that will override and take precedent over those in *ROW and Facility Settings* and *Time Between Survey Setting*

**Table 9-3. Hierarchy Level Overrides**

Property Name	Property Description
Selected	<p>Include or exclude schedule settings at the ROW level when generating a schedule with facilities due for inspection.</p> <p>To include or exclude schedule settings:</p> <ol style="list-style-type: none"> <li><b>1</b> Click <b>Selected</b> to display a drop down arrow.</li> <li><b>2</b> Click the drop down arrow and select one of the following options in the selection list: <ul style="list-style-type: none"> <li>• <b>No:</b> Excludes schedule settings when generating a schedule.</li> <li>• <b>Yes:</b> Includes schedule settings when generating a schedule.</li> <li>• <b>Auto Select:</b> If an <i>Auto Select Expression</i> has previously been created in the <i>Schedule Type Settings</i> tab, select to include the expression with other schedule settings when generating a schedule.</li> </ul> </li> </ol> <p>For information about how to create an expression, see <i>Auto Select Expression</i> (page 466).</p>
Scheduling Type Name	A named set of schedule settings for a facility type created in the <i>Schedule Type Settings</i> tab.
Due Date Calculation Method	Shows the property setting inherited from <i>Due Date Calculation Method</i> in the <i>Schedule Type Settings</i> tab.

**Table 9-3. Hierarchy Level Overrides (continued)**

Property Name	Property Description
*Time Between Surveys	<p>Number of months or years between inspections. (See note about overrides.)</p> <p>To set the time between surveys:</p> <ol style="list-style-type: none"> <li><b>1</b> For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Time Between Surveys</b> to display a drop down arrow.</li> <li><b>2</b> Click the down arrow and select the number of months or years in the selection list.</li> </ol>
*Target Month	<p>Refers to the first survey month. Options in the selection list are based on the <i>Time Between Survey</i> value. (See note about overrides.)</p> <p>As an example, if <i>Time Between Surveys</i> is 2 months and the <i>Target Month</i> (first survey month) is January, surveys are set at 2 month intervals beginning in January. The next survey is due in March, the next in May, and so on.</p> <p>To set the target month:</p> <ol style="list-style-type: none"> <li><b>1</b> For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Target Month</b> to display a drop down arrow.</li> <li><b>2</b> Click the down arrow and select a month in the selection list.</li> </ol>
*Target Year	<p>Refers to the first survey year when <i>Time Between Surveys</i> is more than 12 months. (See note about overrides.)</p> <p>To set the target year:</p> <ol style="list-style-type: none"> <li><b>1</b> For a scheduling type listed in <i>Scheduling Type Name</i>, click the field <b>Target Year</b> to display a drop down arrow.</li> <li><b>2</b> Click the down arrow and select a year in the selection list.</li> </ol>



**Table 9-3. Hierarchy Level Overrides (continued)**

Property Name	Property Description
*Grace Period / *Grace Period Unit	<p data-bbox="795 325 1409 430">Refers to a period of time in days or months an inspection can be late without incurring a compliance violation. (See note about overrides.)</p> <p data-bbox="795 451 1409 525">To set a grace period for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ol data-bbox="795 546 1409 756" style="list-style-type: none"> <li data-bbox="795 546 1409 598"><b>1</b> Type a value in the <i>Grace Period</i> field.</li> <li data-bbox="795 609 1409 756"><b>2</b> Click the <b>Grace Period Unit</b> field to display a drop down arrow. Click the drop down arrow and select either <b>Days</b> or <b>Months</b> in the selection list.</li> </ol>
*Early Survey Limit Days	<p data-bbox="795 798 1409 903">Refers to how early an inspection can occur before the actual due date and still count as an inspection for the survey period. (See note about overrides.)</p> <p data-bbox="795 924 1409 997">To set an early survey limit for a scheduling type listed in <i>Scheduling Type Name</i>:</p> <ul data-bbox="795 1018 1409 1102" style="list-style-type: none"> <li data-bbox="795 1018 1409 1102">• Type the number of days in the field <i>Early Survey Limit Days</i>.</li> </ul>

## Creating a Schedule

Information in this section explains how to create a schedule based on a scheduling method. Scheduling methods include *Targets*, *Last Survey*, and *X years/Y%*. The scheduling method in conjunction with other schedule settings determines when facilities are due for inspection.


Topics in this section include those in the following list:

- *Creating a Schedule Based on Targets*
- *Creating a Schedule Based on Last Survey* (page 480)
- *Creating a Schedule Based on X years/Y%* (page 481)

## Creating a Schedule Based on Targets

If you want to schedule facilities for survey using a recurring time period, such as every January of each year, create a schedule based on the *Targets* scheduling method. With this method, facilities due for inspection are scheduled for survey based on the *Last Inspection Date*, *Target Month*, and *Target Year*.

To create a schedule based on the *Targets* scheduling method, follow these steps:

- 1** Select a pipeline segment in the *Select ROWs* window. Click  **Save** to close the window.
- 2** Click **Data Entry > Edit Schedule Settings > Time Between Survey Settings** tab.
- 3** Set up all related scheduling properties for a survey selected in *Time Between Surveys*. Scheduling properties marked with *N/A* (not applicable) are not required, such as *Target Year* for a survey with *Time Between Surveys* of 12 months or less. If needed, refer to Table 9-1 on page 457 for field descriptions.

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**NOTE:** Scheduling properties set up in *Time Between Surveys* apply system wide. Settings can however be overridden at the facility type level in *ROW and Facility Settings*; at the hierarchy level in *Hierarchy Level Overrides*; and at the facility level in the *Facility Level Override* mini-grid of the *Information* grid.

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- 4** To select the *Targets* due date method:
  - a** Click the **Schedule Type Settings** tab.



## Creating a Schedule Based on Last Survey

If you want to schedule facilities for survey based on the last time facilities were inspected, create a schedule based on the *Last Survey* scheduling method. With this method, facilities due for inspection are scheduled for survey based on *Last Inspection Date* and settings for the scheduling property *Time Between Surveys*.

To create a schedule based on the *Last Survey* scheduling method, follow these steps:

- 1 Select a pipeline segment in the *Select ROWs* window. Then click  **Save** to close the window.
- 2 Click **Data Entry > Edit Schedule Settings > Time Between Survey Settings** tab.
- 3 Set up all related scheduling properties for a survey selected in *Time Between Surveys*. Scheduling properties marked with *N/A* (not applicable) are not required, such as *Target Year* for a survey with *Time Between Surveys* of 12 months or less. If needed, refer to Table 9-1 on page 457 for field descriptions.

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**NOTE:** Scheduling properties set up in *Time Between Surveys* apply system wide. Settings can however be overridden at the facility type level in *ROW and Facility Settings*; at the hierarchy level in *Hierarchy Level Overrides*; and at the facility level in the *Facility Level Override* mini-grid of the *Information* grid.

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- 4 To select the *Last Survey* due date method:
  - a Click the **Schedule Type Settings** tab.
  - b Select one or more facility types in the *Facility Types* pane using either an installed facility type theme or an *Ad Hoc Theme*.
  - c For a scheduling type listed in *Scheduling Type Name*, click the field **Due Date Calculation Method** to display a drop down arrow. Click the arrow and select **Last Survey** in the selection list.
  - d Set up remaining scheduling properties as required. Scheduling properties inherit values from those in the *Time Between Survey Settings* tab and can be overridden at the facility type level as needed. Property settings marked *N/A* (not applicable) are not required. Refer to Table 9-2 on page 464 for field descriptions.
- 5 If you want to override one or more scheduling properties at the ROW level, complete the following steps:
  - a Click the **Hierarchy Level Overrides** tab.


- b** Select one or more facility types in the *Facility Types* pane using either an installed facility type theme or an *Ad Hoc Theme*.
- c** Select the ROW(s) you want to set up a survey schedule. Select one or more ROWs (pipeline segments) listed in the middle pane of the window.
- d** For a scheduling type listed in *Scheduling Type Name*, set up scheduling properties as required. Scheduling properties inherit values from those in the *Schedule Type Settings* tab and can be overridden at the ROW level as needed. Refer to Table 9-3 on page 475 for field descriptions.

The schedule is now set up with the *Last Survey* scheduling method.

## Creating a Schedule Based on X years/Y%

If facilities require inspection based on a multi-year cycle, use the *X years/Y%* scheduling method. With this method, facilities due for inspection are scheduled for survey based on the *Last Inspection Date* and settings for the scheduling properties *Time Between Surveys*, *Multi-Year Survey Start*, and *Minimum Percent Scheduled*.

To create a schedule for a multi-year survey based on the *X years/Y%* method, follow these steps:

- 1** Select a pipeline segment in the *Select ROWs* window. Click  **Save** to close the window.
- 2** Click **Data Entry > Edit Schedule Settings > Time Between Survey Settings** tab.
- 3** Set up all related scheduling properties for a survey selected in *Time Between Surveys*. Scheduling properties marked with *N/A* (not applicable) are not required, such as *Required Inspections Per Calendar Year* for a survey with *Time Between Surveys* of 2 Years or more. If needed, refer to Table 9-1 on page 457 for field descriptions.

---

**NOTE:** Scheduling properties set up in *Time Between Surveys* apply system wide. Settings can however be overridden at the facility type level in *ROW and Facility Settings*; at the hierarchy level in *Hierarchy Level Overrides*; and at the facility level in the *Facility Level Override* mini-grid of the *Information* grid.

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- 4** To select the *X years/Y%* due date method:
  - a** Click the **Schedule Type Settings** tab.



## Working with a Schedule Definition

A schedule definition is a named set of one or more scheduling types to be included in a schedule. For example, a schedule definition can include test point, rectifier, and bond scheduling types – each with different scheduling properties set up in Edit Schedule Settings. A schedule definition is used when performing any of the following tasks in PCS Axis:

- viewing facilities in a data entry grid based on a schedule
- building a survey in a data entry grid based on a schedule
- transferring a survey that is based on a schedule to the Allegro Field PC
- printing a data collection form that is based on a schedule for manually recording survey data

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**NOTE:** A scheduling type is a named set of scheduling properties for a facility type set up in *Edit Schedule Settings*. For more information, see *Schedule Type Settings* (page 462).

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Two types of schedule definitions are available for use. They include *installed* and *addition* schedule definitions. An *installed* schedule definition is one that has been installed during the PCS Axis software installation. An *addition* schedule definition is one that you create.

Topics in this section explain how to work with a schedule definition and include those in the following list:

- *Editing an Installed Schedule Definition* (page 484)
- *Adding a Schedule Definition Addition* (page 487)
- *Editing a Schedule Definition Addition* (page 488)

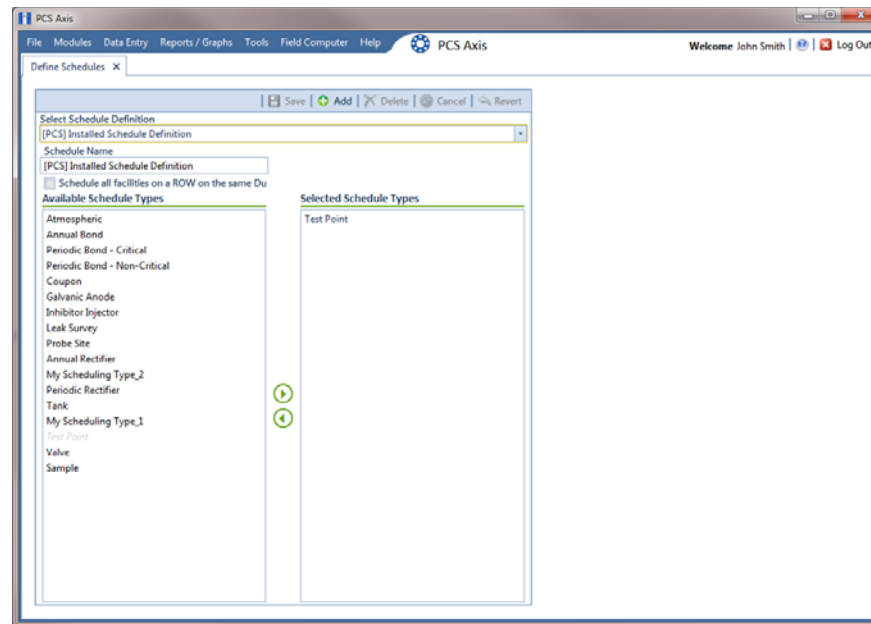
## Editing an Installed Schedule Definition

An installed schedule definition includes [PCS] in the title of the schedule definition name, such as *[PCS] Installed Schedule Definition*. The procedure in this section explains how to complete the following tasks to edit an installed schedule definition:

- add a schedule type
- remove a schedule type
- revert an installed schedule definition



To edit an installed schedule definition, follow these steps:

- 1 Click **Data Entry** > **Define Schedules** to open the *Define Schedules* window (Figure 9-9).
- 2 Click the down arrow in the **Select Schedule Definition** field and select an installed schedule definition, such as *[PCS] Installed Schedule Definition*.

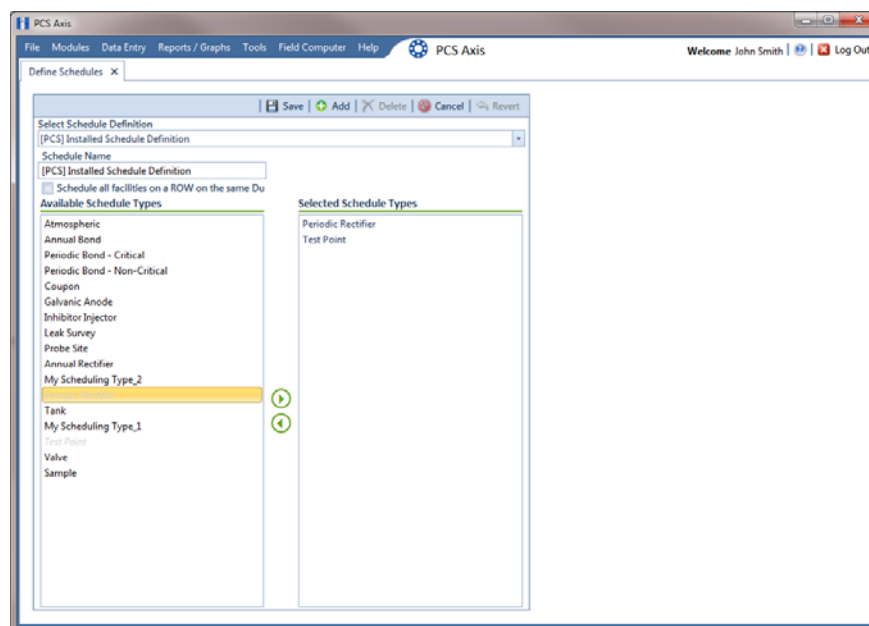


**Figure 9-9. Define Schedules**





- 3 To add one or more schedule types to an installed schedule definition:
  - a Select a schedule type listed in the *Available Schedule Types* pane, such as *Periodic Rectifier*. To select multiple schedule types, press the **Ctrl** key on the computer keyboard while selecting each schedule type.
  - b Click the top arrow button  to move the schedule type(s) to the *Selected Schedule Types* pane (Figure 9-10). Click  **Save**.


**NOTE:** Double-clicking a schedule type in the *Available Schedule Types* pane also moves it to the *Selected Schedule Types* pane.

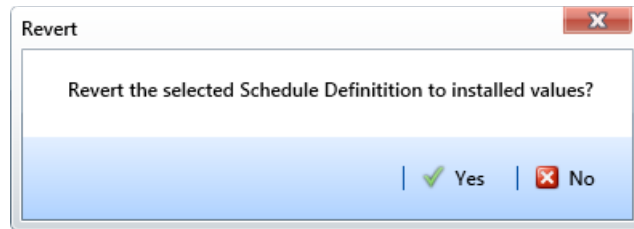


**Figure 9-10. Adding a Schedule Type**

- 4 To remove one or more schedule types from an installed schedule definition:
  - a Select a schedule type listed in the *Selected Schedule Types* pane (Figure 9-10). To select multiple schedule types, press the **Ctrl** key on the computer keyboard while selecting each schedule type.
  - b Click the bottom arrow button  to move the schedule type to the *Available Schedule Types* pane. Click  **Save**.

**NOTE:** Double-clicking a schedule type in the *Selected Schedule Types* pane also moves it to the *Available Schedule Types* pane.



- 5 After saving changes to an installed schedule definition, complete the following step to revert to installed values:
  - Click **Revert** then click  **Yes** when the *Revert* message displays (Figure 9-11).



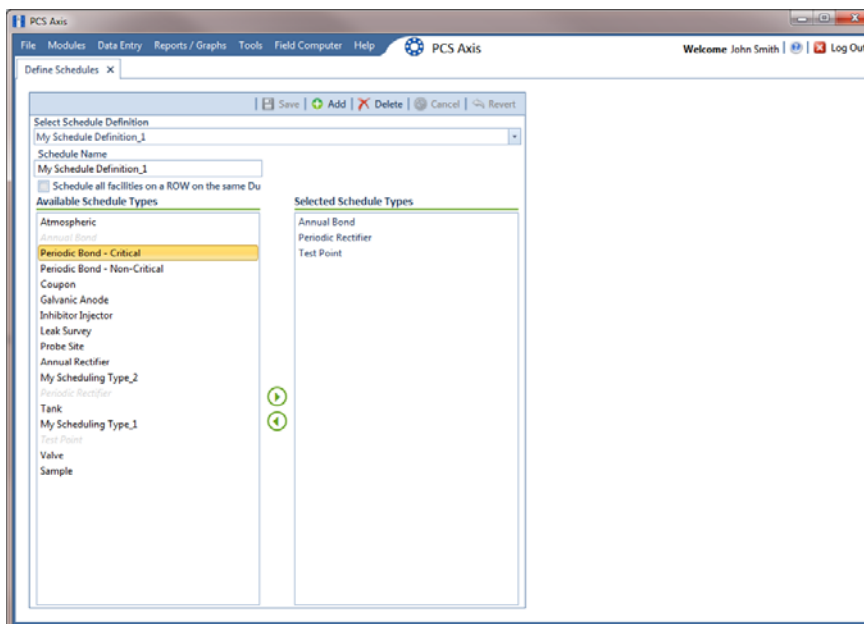
**Figure 9-11. Revert Message**

## Adding a Schedule Definition Addition

To add a schedule definition addition, follow these steps:

- 1 Click **Data Entry** > **Define Schedules** to open the *Define Schedules* window (Figure 9-12).
- 2 Click **Add** and then type a name for the addition in the *Schedule Name* field. The field supports up to 120 characters including spaces.
- 3 Select a schedule type listed in the *Available Schedule Types* pane, such as *Periodic Bond-Critical*. To select multiple schedule types, press the **Ctrl** key on the computer keyboard while selecting each schedule type.
- 4 Click the top arrow button  to move the schedule type(s) to the *Selected Schedule Types* pane (Figure 9-12). Click  **Save**. The addition is now available in the *Select Schedule Definition* selection list.

**NOTE:** Double-clicking a schedule type in the *Available Schedule Types* pane also moves it to the *Selected Schedule Types* pane.





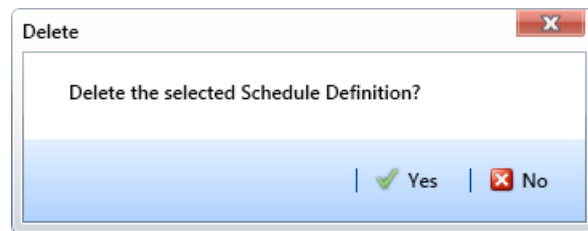
**Figure 9-12. Adding a Schedule Definition Addition**

## Editing a Schedule Definition Addition






The following procedure explains how to delete, rename, or edit a schedule definition addition.

Complete the following steps:

- 1 Click **Data Entry > Define Schedules** to open the *Define Schedules* window (Figure 9-12, page 487).
- 2 Click the down arrow in the *Select Schedule Definition* field and select an addition in the selection list.
- 3 If you want to delete the addition, click  **Delete**, then click  **Yes** when the *Delete* message displays (Figure 9-13).



**Figure 9-13. Delete Message**

- 4 If you want to rename an addition, type a new name in the *Schedule Name* field and then click  **Save**.
- 5 If you want to edit the addition by adding one or more schedule types, follow these steps:
  - a Select a schedule type listed in the *Available Schedule Types* pane. To select multiple schedule types, press the **Ctrl** key on the computer keyboard while selecting each schedule type.
  - b Click the top arrow button  to move the schedule type(s) to the *Selected Schedule Types* pane, then click  **Save**.
- 6 If you want to edit the addition by removing one or more schedule types, follow these steps:
  - a Select a schedule type listed in the *Selected Schedule Types* pane. To select multiple schedule types, press the **Ctrl** key on the computer keyboard while selecting each schedule type.
  - b Click the bottom arrow button  to move the schedule type to the *Available Schedule Types* pane, then click  **Save**.

## Using a Schedule in PCS Axis

After setting up scheduling criteria in *Edit Schedule Settings* and creating a schedule definition in *Define Schedules*, you can use a schedule in any of the following ways:

- View records in a grid based on a schedule. For instructions, see *Viewing Records Based on a Schedule* (page 257).
- Build a survey in an inspection grid based on a schedule. For instructions, see *Building a Survey in the Inspection Grid* (page 270).
- Transfer a survey to the Allegro Field PC based on a schedule. For instructions, see *Using Field Computer* (page 595).

