



Plant Applications 8.2

Production Management



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Production Management



Production Management is where you define customer information, create customer orders, create and manage production schedules and crews.

- From **Administer Customers**, you create and manage customer information.
- From **Administer Customer Orders**, you enter and maintain customer order information.
- From **Administer Customer Shipments**, you import and export customer shipment information.
- From **Administer Production Schedule**, you import and export process order information.
- From **Administer Crew Schedule**, you create crews, shifts and view schedule information.
- From **Administer Non-Productive Time**, you enter and manage your non-productive time schedules on production units.

Non-Productive Time Administration

To enable you to schedule non-productive time, Plant Applications provides an interactive calendar that can be accessed through the [Plant Applications Administrator](#) or the **Non-Productive Time View** display as viewed in the Plant Applications Client. The Non-Productive Time interface for Administrators is for setting up non-productive time (NPT) across multiple lines and units. It has a grouping function to facilitate working with multiple lines and units. A Client display is available for making changes to NPT for lines or units.

When you schedule a non-productive time, a record is written to the **NonProductive_Detail** table in the Plant Applications database.


To schedule non-productive time, you must:

- Assign a reason category and reason tree to each production unit on which you want to track non-productive time. For more information, see [Configure Units for Non-Productive Time](#).
- [Add production units to the Non-Productive View](#).
- [Display any scheduled non-productive time](#).

Non-Productive Time Administrator Interface

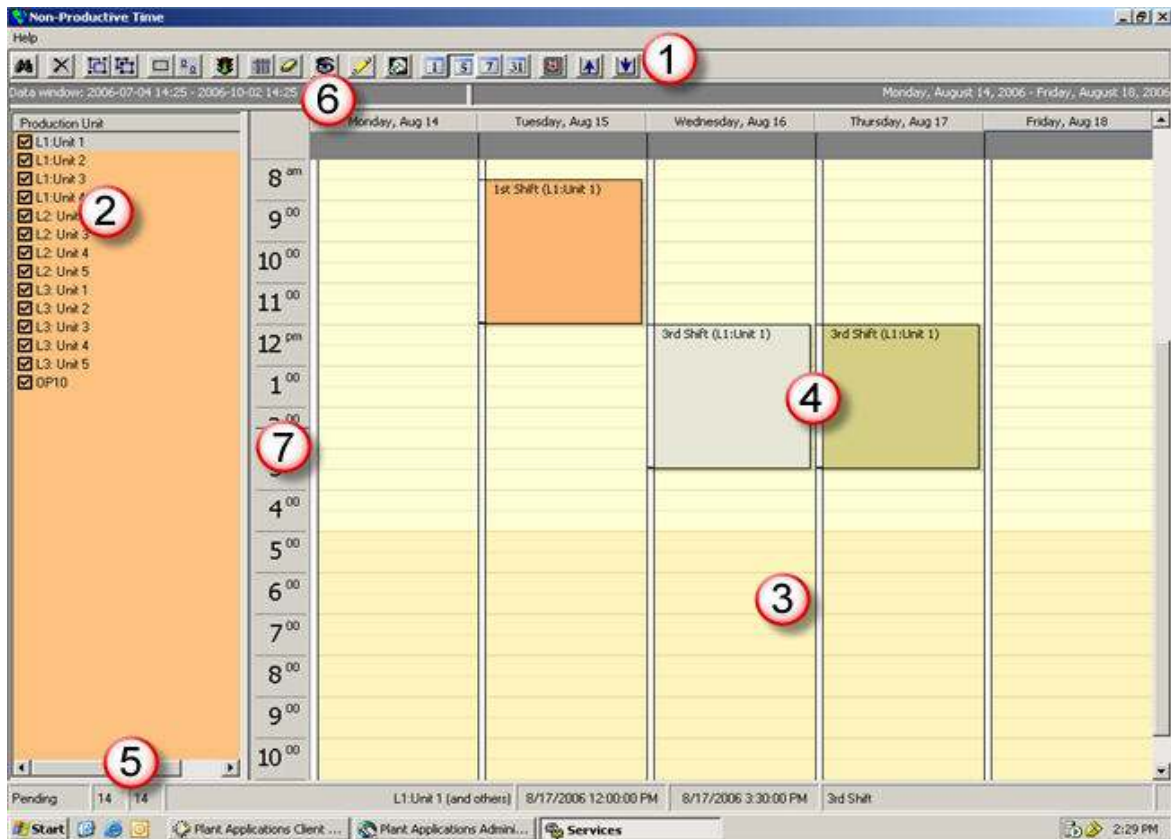
Use the Non-Productive Time interface in the Plant Applications Administrator to set in Non-Productive Time for single or multiple lines and units.

To access the Non-Productive View

1. In the Plant Applications Administrator, expand the **Server Manager** tree.
2. Expand  **Production Management**.
3. Double-click **Administer Non-Productive Schedule**. The **Non-Productive View** appears.

Non-Productive View (Grouped Mode)

NOTE: *The Data Window Display is removed from Plant Applications 6.1 and 6.2 August SIMs and later versions. It is replaced with a search feature to go to the desired starting time and date. 30 days of data before and after the starting date is loaded and is refreshed as you move through the calendar.*



- 1 The [Non-Productive View toolbar](#).
- 2 The production unit list. When the units are in [Group mode](#), the background will be orange rather than white.
- 3 The Non-Productive View calendar.
- 4 When you move a non-productive time, the original position is temporarily indicated with a gray box and the new position is temporarily indicated with a green box. Once the request has been processed by the server, the box will be orange (units are grouped) or white (units are ungrouped), depending on whether the production units are grouped.
- 5 This area displays the status of any requests. The number on the left indicates the number of selected production units. The number on the right indicates the total number of production units in the Production Unit list.
- 6 Double-click the data window display to open the **Data window** dialog box.
- 7 To show smaller or larger increments of time, right-click the area of the calendar grid that displays the time of day, and then select an increment. The time scale determines the default duration for entries in the calendar. See [Calendar Time Scale](#) for more information.

Non-Productive Time Administrator Tool Bar

Tool bar icons for the Non-Productive Time administrator interface are described below.



Click the **Search** button to search for production units.



Click the **Delete** button to delete all production units from the production unit list.



Click the **Group All** button to group all production units. To schedule non-productive time on multiple units, they must first be grouped.



Click the **Ungroup All** button to ungroup production units.



Click the **Show All** button to show all production units in the list.



Click the **Show Selected** button to show only the selected production units.



Click the **Retrieve Data** button to retrieve non-productive time data for the selected production units or to refresh the calendar.



Click the **Select All** button to select all production units in the list.



Click the **Deselect All** button to clear all the selections in the production unit list.



Click the **Show/Hide** button to show or hide the production unit list.



Click the **Comments** button to show or hide comments.



Click the **Set Time** button to select a start day and time. Thirty days of data before and after the start time are displayed. Data is refreshed as you move back and forth in the calendar.



Click the **Day** button to change the calendar to Day view.



Click the **Work Week** button to change the calendar to Work Week view.



Click the **Week** button to change the calendar to Week view.



Click the **Month** button to change the calendar to Month view.



Click the **Current Time** button to go to the current day, week, or month.



Click the **Go To First** button to go to the first non-productive time entry.

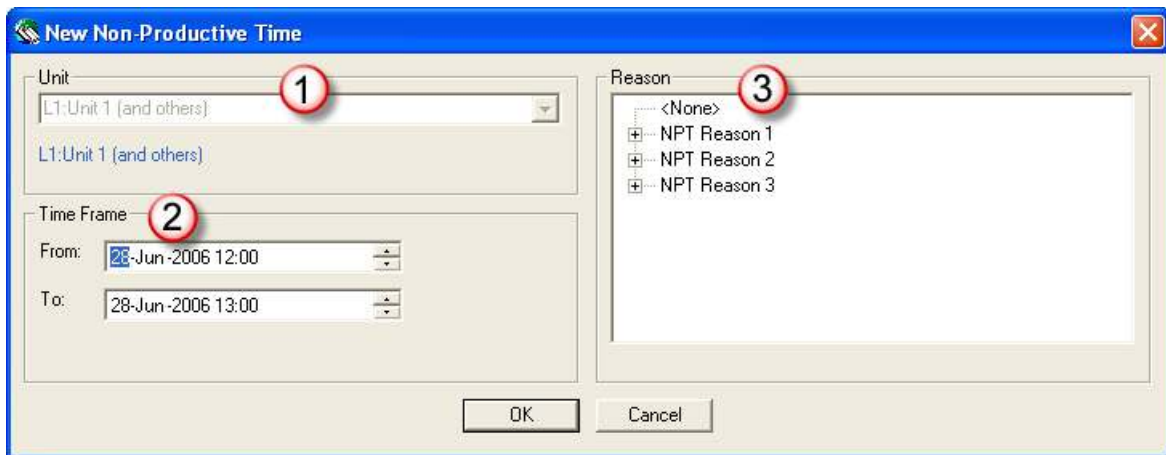


Click the **Go To Last** button to go to the last non-productive time entry.

New (Edit) Non-Productive Time Dialog



The **New Non-Productive Time** or **Edit Non-Productive Time** dialog is used for configuring non-productive time on one or more production units. To access this dialog box:

- Double-click in the [Non-Productive View calendar](#).
– or –
- Right-click in the [Non-Productive View calendar](#) and choosing **New Event**.





- 1 The **Unit** list displays the selection you made in the [Production Unit](#) pane.
- 2 **Time Frame** is where you specify the start (From) and end (To) of the non-productive time.
- 3 (optional) Select a reason from the **Reason** section. This is the reason tree which was specified when the production unit was configured for non-productive time. If no reason tree was assigned to the production unit, this area will be empty.

Calendar Time Scale

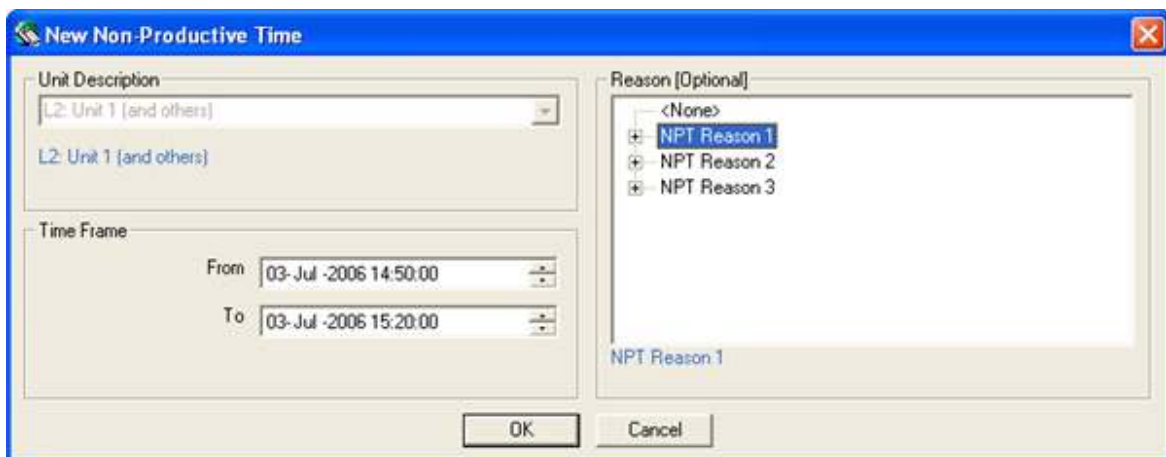
When you switch the Non-productive Time View to a  single day or  five-day work week view, a time scale becomes visible. This time scale determines the default duration for entries in the calendar. By default, the time scale is set to 30-minute increments.

To change the time scale

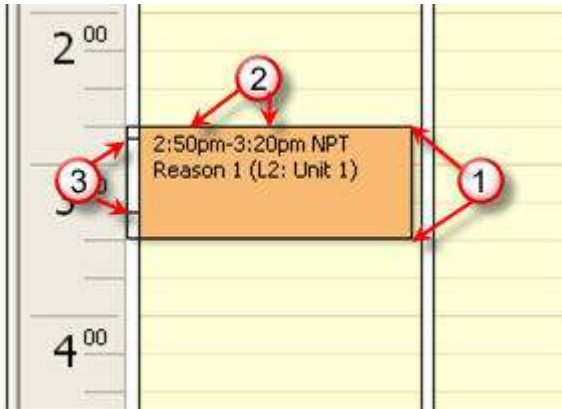
1. If necessary, change the calendar view to  single day or  five-day work week view.
2. Right-click the time scale and select the time increments for the calendar.

When you schedule non-productive time, the time scale also determines how the non-productive time is displayed. For example, if the time increment is 15 minutes, then the non-productive time will span the nearest 15-minute intervals in the calendar grid. A non-productive time of 14:50 to 15:20 would span 14:45 to 15:30. However, the time displayed in the cell will be accurate.

Scheduling non-productive time from 14:50 to 15:20



Result



- ① Cell is to nearest 15 minute increments. In this example, 2:45 - 3:30
- ② Actual time is displayed in the cell.
- ③ Lines indicate actual time span.

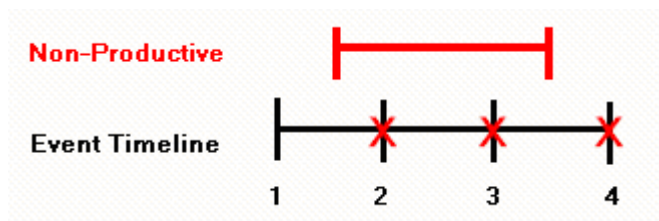
Rules for Handling Non-Productive Time

***NOTE:** This information applies to the Non-Productive View in the Plant Applications Administrator program. For information about the Non-Productive Time view display in the Plant Applications Client, [click here](#).*

Quality Data

Waste, alarms, and user-defined event data that contain non-productive time are not counted, if non-productive time has been filtered out of a report.

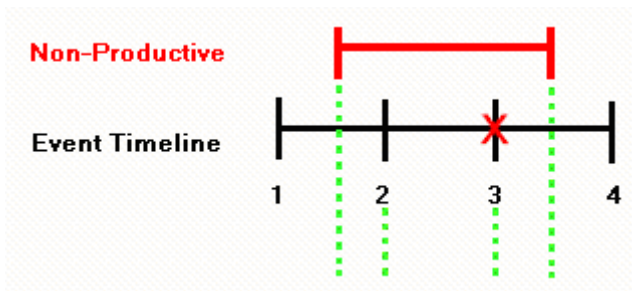
In the following graphic, events 2, 3, and 4 contain non-productive time and, therefore, will not be counted, if non-productive time has been filtered out of a report.



Production Data

Production data and downtime that occurs during non-productive time are pro-rated, if the event overlaps the beginning or end of a non-productive time period. If the beginning and end of the event falls within the beginning and end of non-productive time, the event is not counted.

In the following graphic, event 3 is not counted because it falls within the non-productive time. However, event 2 and event 4 are pro-rated.



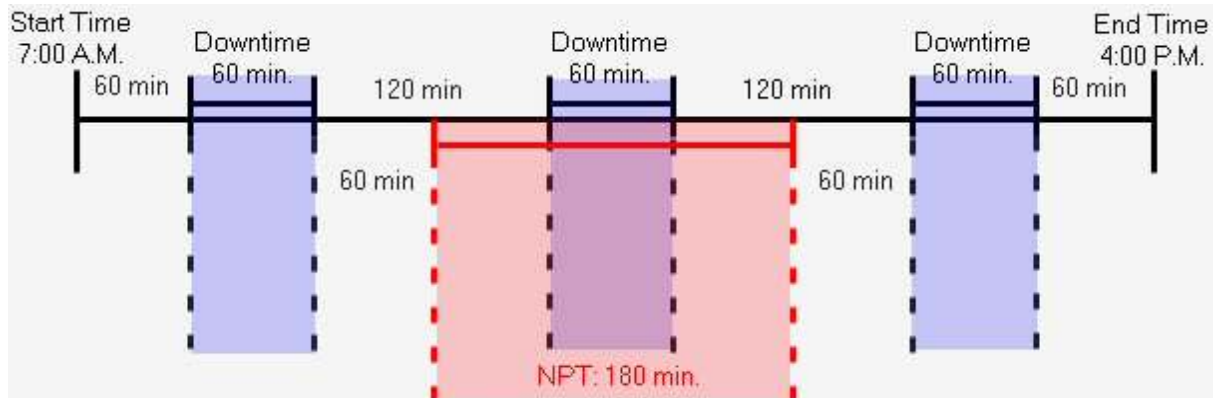
Reporting and Non-Productive Time

NOTE: This information applies to the Non-Productive View in the Plant Applications Administrator program. For information about the Non-Productive Time view display in the Plant Applications Client, [click here](#).

On certain reports, the **Filter Out Non-Productive Time** option can be selected when configuring the report. If the **Filter Out Non-Productive Time** option is selected, events that occur during non-productive time, including the non-productive time period, will be excluded from the report. If this option is not selected, events that occur during non-productive time will be included in the report and the non-productive time will be ignored.

In the simple examples below, if the **Filter Out Non-Productive Time** option is selected on a downtime report, total operating time equals 360 minutes (540 – 180) and total downtime equals 120 minutes because *everything* that occurs during the non-productive time is ignored.

NPT not filtered out



Total Operating Time = 540 mins.

Total Downtime = 180 mins.

Total Uptime = 360 mins.

MTTR = 60 mins. (180 / 3)

MTBF = 90 mins. (360 / 4)

NPT filtered out



Total Operating Time = 360 mins.

Total Downtime = 120 mins.


Total Uptime = 240 mins
 MTTR = 60 mins. (120 / 2)
 MTBF = 80 mins. (240 / 3)


By default, if an event occurs during non-productive time, **(NPT)** will be displayed next to the event information. This text is controlled by a site parameter. For more information, please see NPTCharacterFlag.

Web Reports with Non-Productive Time	Web Parts with Non-Productive Time
<ul style="list-style-type: none"> • Event History Grid • Event History Color • Time History Grid • Time History Color • Variable Conformance Summary • Test Conformance By Shift • Test Conformance By Product • Production Listing • OEE Summary • Event Analysis • Variable Scatter Analysis • Event Details • Variable Centerline Analysis • Variable Statistics • Line Time Accounting • Line Production Timeline 	<ul style="list-style-type: none"> • Alarm Count by Variables • Alarm List By Units • Alarm List by Variables • Downtime Distribution Charts By Units • Downtime Top N By Units • Efficiency Statistics By Unit • OEE By Unit • Overview Statistics By Path • Production Event Alarms By Unit • Production Statistics By Units • Quality Statistics By Variables • Waste Distribution Charts By Units • Waste Top N By Units

Reference Unit

Reference unit is an important concept to understand when working with non-productive time. The reference unit is the production unit that is displayed when production units are in Group mode on the non-productive time calendar (the non-productive time is orange). When the production units on the calendar are added or changed, the unit with the most non-productive time records is automatically designated as the reference unit. Therefore, the reference unit may be different, depending on the selected units.

The designation as reference unit is done programmatically when non-productive time records are retrieved (in other words, when the  **Retrieve Data** button is clicked). A specific production unit cannot be designated as the reference unit.

When changing or adding production units, you must click the  **Retrieve Data** button to refresh the data on the calendar.

Configure Units for Non-Productive Time

To schedule non-productive time, you must first configure the production units on which you want to schedule non-productive time in Administrator functions.


It is recommended that you create reason trees specific to non-productive time.

For specific steps on configuring a production unit, please see [Production Unit Properties-Production Metrics](#).

Add Units to the Non-Productive View

You can add one or more production units to the [Non-Productive View](#). To add multiple units, however, they must share the same reason tree. In other words, you cannot add multiple units that have different reason trees using Administrator functions.

To add units to the Non-Productive View



1. In the [Non-Productive View](#), click  **Search**. The **Search Production Unit** dialog box appears.
2. Select the production units for which you want to configure non-productive time and click **OK**. The selected production units are displayed in the [Production Unit list](#).

To display the scheduled non-productive time for the units, see [Display non-productive time](#).

Display Non-Productive Time

Before you can schedule non-productive time on a production unit, you must first display the existing non-productive time in the Administrator.

To display non-productive time


1. In the Non-Productive View, select the production unit(s) in the Production Unit list. Click the  **Select All** button to select all the production units.
2. Click the  **Retrieve Data** button. The calendar is populated with the non-productive time for the selected production units.

By default, the production units are grouped and only the non-productive time for the [reference unit](#) is displayed. Grouped production units are indicated with **orange** highlight.

Schedule Non-Productive Time on a Single Unit

Before you can schedule non-productive time, you must first [display the schedule](#) for the selected production unit in the Administrator.

To schedule non-productive time on a single unit

1. [Add production units](#) to the [Non-Productive View](#).
2. In the [Production Unit pane](#), select the production unit for which you want to schedule non-productive time.
3. If the background of the [production unit list](#) is **orange**, click the  **Ungroup All** button. The background of the unit list will change from **orange** to white.

You must ungroup production units to schedule non-productive time on a single production unit. If your production units are grouped, your new non-productive time will be scheduled on

all production units, even if you have only one production unit selected in the Production Unit list.

4. Right-click on the day and choose **New Event** or double-click on a blank cell. The [New Non-Productive Time](#) dialog box appears.
5. Under **Time Frame**, adjust the start time, if necessary. Non-productive time can only be scheduled within the current 24-hour day, from midnight to midnight. You cannot schedule a single non-productive time that spans more than one day.

CAUTION: Do **not** schedule non-productive time that is identical to an existing non-productive time. This will delete the existing non-productive time without adding the new non-productive time.


6. Optionally, select a reason for the non-productive time under **Reason (Optional)**. For more information about creating reason trees, see [Creating Reason Trees](#).
7. Click **OK**.

Schedule Non-Productive Time on Multiple Units

Before you can schedule non-productive time, you must first [display the schedule](#) for the selected production unit in the Administrator.

CAUTION: Do **not** schedule non-productive time that is identical to an existing non-productive time. This will delete the existing non-productive time without adding the new non-productive time.

To schedule non-productive time on multiple units

1. [Add production units](#) to the [Non-Productive View](#).
2. In the [Production Unit pane](#), select the production units on which you want to schedule non-productive time.
3. Click  **Group Units**. The background of the unit list will become orange.
4. On the Non-Productive View calendar, right-click on the day for which you want to schedule non-productive time and choose **New Event** (or double-click a blank cell). The **New Non-Productive Time** dialog box appears.
5. Configure the non-productive time and click **OK**. Non-productive time can only be scheduled within the current 24-hour day, from midnight to midnight. You cannot schedule a single non-productive time that spans more than one day.





Schedule Recurring Non-Productive Time

To schedule recurring non-productive time, copy an existing non-productive time and paste it on each day the non-productive time is to occur.

When you paste a non-productive time, you paste the time frame and any reasons assigned to the non-productive time in the Administrator. If the production units are grouped (the cells are orange), the new non-productive time will be scheduled on all production units that are selected in the Production Unit list. If the production units are not grouped, the non-productive time will be scheduled on the reference unit (the production unit with the greater number of non-productive).

CAUTION: Do **not** schedule non-productive time that is identical to an existing non-productive time. This will delete the existing non-productive time without adding the new non-productive time.

To schedule recurring non-productive time

1. If there are no production units in the Production Unit list, click  **Search** to [add production units](#) to the Production Units list.
2. Select the production unit(s) in the Production Unit list you want to schedule non-productive time for.
3. Click  **Retrieve Data** to refresh the calendar.
4. If the Non-Productive View is in Group mode (the cells are orange), click  **Ungroup All**. This allows you to view all non-productive time.
5. Right-click the non-productive time and choose **Copy**.
6. If you are scheduling non-productive time on multiple units, ensure each production unit is selected in the Production Unit list and click  **Group All**.
7. Right-click each day you want the non-productive time to recur and choose **Paste**. Non-productive time will be scheduled on each day for each of the production unit(s) selected in the Production Unit list.

Edit Non-Productive Time

There are three ways to edit non-productive time in Administrator functions:


- To change the date and time of the non-productive time, drag the non-productive time to the new date and time on the calendar.
- To adjust the time frame, drag a start or end time to resize the non-productive time cell.

NOTE: Starting with the Plant Applications 6.2 August 2014 SIM, you can drag NPT boundaries to change time ranges. Adjacent or overlapping NPT events are automatically adjusted or removed. NPT events can now be adjoining (the end time of one event can be the same as the start time for a second event).

- To select a different reason, you must use the [Edit Event dialog box](#) to edit the non-productive time.

You cannot select a different production unit when editing non-productive time. You must delete the current non-productive time and schedule it on the correct production unit.

To edit non-productive time

1. In the Non-Productive View, [display the non-productive time](#).
2. Ensure the production units are not in **Group** mode. If necessary, click  **Ungroup All** to un-group the production units.
3. In the calendar, double-click the non-productive time you want to edit using the **Edit Non-Productive Time** dialog box, or drag an event boundary to change the time.

Delete Non-Productive Time

Deleting non-productive time from the [Non-Productive View](#) in the Administrator deletes the corresponding row in the **NonProductive_Detail** table in the Plant Applications database.

If you are in Group mode (the non-productive time is orange), the non-productive time for all production units in the selected time frame will be deleted.

To delete non-productive time

1. In the Non-Productive View, locate the non-productive time you want to delete.
2. Right-click on the cell and choose **Delete**. You will be asked to confirm the deletion.
3. Click **Yes**.

Export Scheduled Non-Productive Time

You can export your non-productive time schedule using the Administrator into an Excel worksheet and then use the worksheet to import the non-productive time schedule into another Plant Applications server. You can also edit the data in the worksheet and import the changes back into the originating Plant Applications server.

The NonProductiveSchedule worksheet is created and contains the following:

- Production Line
- Production Unit
- Start Time
- End Time
- Reason Tree Name and a column for each reason tree levels
- Comments

If there is no data (reason level 3, for example), a column is created but the cells are empty.

To export scheduled non-productive time

1. In the Plant Applications Administrator, expand Production Management.
2. Right-click Administer Non-Productive Time and select Export Non-Productive Time. The **Configuration Export** dialog box appears.
3. Do the following:
 - a. Ensure **Non-Productive Time** is selected. If you clear the checkmark, the export will not start.
 - b. Select the start date and end date for the scheduled non-productive time to export.
 - c. To export non-productive time scheduled on a single production unit, select a production unit from the **Production Unit** list. The default is <All>.
 - d. Click **OK**. Plant Applications starts Excel and the **NonProductiveSchedule** worksheet is created.

Import a Non-Productive Time Schedule

After you have exported your non-productive time schedule using the Administrator, you can use the Excel worksheet to import the schedule into another Plant Applications server or make changes to the worksheet and import those changes into the originating Plant Applications server or another Plant Applications server.

Before you import a non-productive time schedule, you must first configure non-productive time for the production unit. For more information, see Production Unit Properties – Production Metrics.


If the non-productive schedule you are importing uses reason trees, those reason trees must be configured on the Plant Applications server.

In the NonProductiveSchedule worksheet, you can edit:

Production Management

- Production line and production unit: The production line and production unit have been configured for non-productive time.
- Start time and end time. The times cannot overlap an existing non-productive time.
- Reason trees and levels: The reason trees and levels must be configured on the Plant Applications server. You cannot edit the reason tree and level for an existing non-productive time. In other words, you cannot export a non-productive time schedule, edit the reason tree or level and then import those changes back into the originating Plant Applications server.

To import a non-productive time schedule

1. Ensure the workbook containing the non-productive time schedule is open and the schedules you want to import are selected.
2. In the Plant Applications Administrator, expand  **Production Management**.
3. Right-click **Administer Non-Productive Time** and select **Import Configurations**. The selected schedules are imported.
4. Click **OK** and refresh the server.

Troubleshooting

Cannot Schedule Non-Productive Time

If you attempt to schedule non-productive time in the Administrator, you may see the following error:

No units selected! Please select one or more units before scheduling a new non-productive event.

Before you can schedule non-productive time, you must display any scheduled non-productive time. For more information on displaying non-productive time in the Non-Productive View, see [Display non-productive time](#).

Search Did Not Return Any Units

If no production units are displayed in the **Search Production Unit** dialog box in the administrator interface after you click **Search**, this usually indicates:

- The production unit has not been configured for non-productive time.
– or –
- The wrong category was selected when configuring non-productive time. You must select **Non-Productive Time** as the category.

For more information on configuring a production unit for non-productive time, see [Configure units for non-productive time](#).

All Selected Units Not Displayed

After you select your production units in the **Search Production Unit** dialog box in the administrator interface, all of the selected production units may not be added to the Production Unit list.

This is because only those production units that share the same reason tree can be added to the Non-Productive View in the Plant Applications Administrator.

If you select multiple production units that do not share the same reason tree, the first selected unit in the list will determine which units will be added to the Production Unit list. Only the production units

that share the same reason tree as the first unit in the selection will be added to the Production Unit list.

Example:


If the available production unit list consists of the following:

- Unit 1\Reason Tree A
- Unit 2\Reason Tree B
- Unit 3\Reason Tree A
- Unit 4\Reason Tree C
- Unit 5\Reason Tree C

If you select ...	The result will be ...
Unit 1\Reason Tree A Unit 2\Reason Tree B Unit 3\Reason Tree A	Unit 1\Reason Tree A Unit 3\Reason Tree A
Unit 1\Reason Tree A Unit 2\Reason Tree B Unit 4\Reason Tree C	Unit 1\Reason Tree A
Unit 2\Reason Tree B Unit 4\Reason Tree C Unit 5\Reason Tree C	Unit 2\Reason Tree B


Gray and Green Box Indication

When you move a non-productive time to another time or day using the administrator interface, the original position will turn gray and the new position will turn green to indicate that a request is pending. After the request has been processed, the new position will turn white.

On occasion, it may appear that the Router service is not processing the request. This may be an issue with caching. To clear the cache, click the  **Go** button.

Managing Conflicts

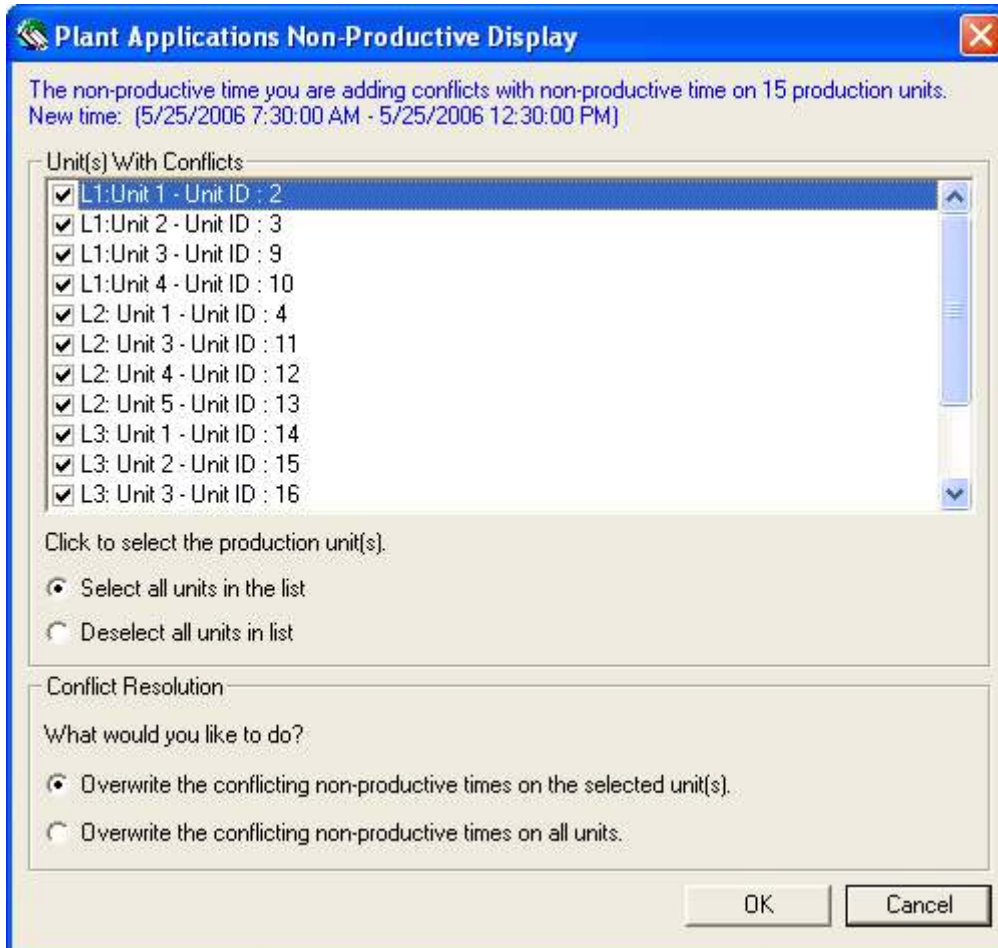
When you add or edit a non-productive time using the administrator interface, a conflict with existing non-productive time can occur. Typically, these conflicts happen when adding or editing non-productive time with the calendar in Group mode as indicated by orange cells. This is because only the [reference unit](#) (the production unit with the greatest number of non-productive time records) is displayed when in Group mode. Therefore, it is difficult to determine where the non-productive time has been scheduled.

The simplest way to avoid conflicts with existing non-productive time is to ungroup (click the  **Ungroup** button) the non-productive time to view all non-productive time. When a conflict occurs, however, a dialog box appears (below) that enables you to decide how to resolve the conflict.

- If you do not want to overwrite any of the existing non-productive time, click **Cancel**.
- To overwrite existing non-productive time on specific units, select the units and select **Overwrite the conflicting non-productive times on the selected unit(s)**. The new non-productive time will be added and the existing non-productive time will be overwritten on the selected production units. The non-productive time on the production units that were not selected will not be changed.

NOTE: If you overwrite non-productive time on any unit that is NOT the [reference unit](#), the change will not appear in the calendar until you ungroup the production units. This is because when the calendar is in Group mode, only the non-productive time for the reference unit is displayed.

- To overwrite all conflicting non-productive time, select **Overwrite the conflicting non-productive times on all units**. The new non-productive time will be added and the existing non-productive time on all production units will be overwritten with the new non-productive time.



Dialog box for managing conflicting non-productive time

Administering Crew Schedules

You can create crew and shift schedules and choose to include this information on displays, such as Autolog. You can also group information on a variety of reports by crew or shift, which will help identify whether any quality issues might be attributed to a particular crew or shift.

NOTE: Before you create your crew schedules, you must have at least one production line and production unit in your plant model.

There are two ways to create a crew schedule; you can use the import configuration feature to bulk import a schedule or you can create each crew and shift one at a time.

The import configuration feature allows you to import your crew schedule information from an Excel spreadsheet. If you have an existing Plant Applications crew schedule that you want to import, you can export it to an Excel spreadsheet and then import the information back into Plant Applications.

You can also use the export feature to create a blank Excel spreadsheet that you can then use to create your crew and shift schedules, and then import the information into Plant Applications.

Recognize Crew Schedule Site Parameter

In order to have Plant Applications use your crew schedule, you must set the Recognize Crew Schedule site parameter to True. Setting this site parameter to True will override the following site parameters:

- ShiftOffset
- ShiftInterval
- EndOfDayHour
- EndOfDayMinute

Using Plant Applications to Create a New Crew and Shift Schedule

1. In the Plant Applications Administrator tree, expand Production Management.
2. Right-click on **Administer Crew Schedule** and select **Administer Crew Schedule**. The **Get Crew Schedule** dialog box appears.
3. Select the desired production unit and click **OK**. The **Crew Schedule Configuration** dialog box appears.
4. Click **Add**. The **Edit Crew Schedule** dialog box appears.
5. In the **Start Time** box, enter the start time of the crew schedule.
6. In the **End Time** box, enter the end time of the crew schedule.

You can click the arrow to view an interactive calendar.

7. In the **Crew Desc** box, type the name or a short description of the crew.
8. In the **Shift Desc** box, type the name or a short description of the shift.
9. **optional:** In the **Comment** box, type comments.

Schedules that have comments will have a pencil icon in the first column.

Editing or Deleting Your Crew and Shift Schedules

1. In the Plant Applications Administrator tree, expand Production Management.
2. Right-click on **Administer Crew Schedule** and select **Administer Crew Schedule**. The **Get Crew Schedule** dialog box appears.
3. Select the unit, the start time, and the end time for which you want to edit the schedule and click **OK**. The **Crew Schedule Configuration** dialog box appears, which displays the schedule information based on the unit, start time, and end time you specified.
4. Click **Edit**. The **Edit Crew Schedule** dialog box appears.
5. Do one of the following:
 - Change any of the information in the fields, and click **Save** to save your changes.
 - Click **Reset** to undo any unsaved changes.
 - Click **Delete** to delete the crew and shift information.

Exporting Your Crew and Shift Schedule

1. In the Plant Applications Administrator tree, expand Production Management.

Production Management

2. Right-click on Administer Production Schedules and select Export Crew Schedule. The Configuration Export dialog box appears.
3. In the **Start Date** and **End Date** boxes, enter the time frame for which you want to export the crew schedule information.
4. From the **Production Unit** list, select a specific production unit or leave the default of "All" to export crew schedules for all production units.
5. Click **OK**.

Plant Applications will automatically export your crew schedule information to an Excel spreadsheet.

Using Excel to Create a New Crew Schedule

1. In the Plant Applications Administrator tree, expand Production Management.
2. Right-click on Administer Crew Schedule and select Export Crew Schedule. The Configuration Export dialog box appears.
3. Do one of the following:
 - If you are creating a new crew and shift, click **OK**. This will automatically open Excel and create an empty spreadsheet with all the necessary fields.
 - If you are exporting an existing crew schedule, enter the start and end time and select a production unit. Then click **OK**.

An Excel spreadsheet will be created with the following columns:

- **Return Messages:** Messages will be displayed here informing you of the success or failure of the import process.
 - **Selected:** Use this column to delete or select individual rows for import. Place an X in the cell to import the row or place a D in the cell to delete the row from the schedule.
 - **Production Line:** Type the name of the production line.
 - **Production Unit:** Type the name of the production unit.
 - **Crew Description:** Type the name or a short description of the crew.
 - **Shift Description:** Type the name or a short description of the shift.
 - **Start Time:** Type the start time of the shift, using **MM/DD/YYYY HH:MM** as the format.
 - **End Time:** Type the end time of the shift, using **MM/DD/YYYY HH:MM** as the format.
 - **Comment:** Use this field to type comments related to this shift.
4. In the Excel spreadsheet, complete the necessary information for each crew and shift:
 5. Repeat step 4 for each crew and shift.
 6. After you have finished creating your crew and shift schedule, under the Selected column, place an "X" for each schedule you want to import.
 7. Save, but do not close, your Excel spreadsheet.

Using Excel to Import a Crew and Shift Schedule

1. Open the Excel spreadsheet that contains your crew and shift schedule information.
2. Place an "X" in the **Selected** column for each row that you want to import.
3. Save, but do not close, your spreadsheet.
4. In the **Plant Applications Administrator** tree, expand **Production Management**.
5. Right-click on **Administer Crew Schedule** and select **Import Configuration**.

6. A message will be displayed in the **Return Messages** column of your spreadsheet informing you of the result of the import. Typical reasons for an unsuccessful import are:
 - No rows were selected
 - An incorrect date/time format is being used
 - An error has been made identifying an actual production line or unit

Viewing Your Crew and Shift Schedule

1. In the **Plant Applications Administrator** tree, expand **Production Management**.
2. Right-click on **Administer Crew Schedule** and select **Administer Crew Schedule**. The **Get Crew Schedule** dialog box appears.
3. Select the unit, the start time, and the end time for which you want to view the schedule and click **OK**. The **Crew Schedule Configuration** dialog box appears, which displays the schedule information based on the unit, start time, and end time you specified.

From the **Crew Schedule Configuration** dialog box, you can [add a new schedule](#), [edit a crew schedule](#), and search for a specific crew.