

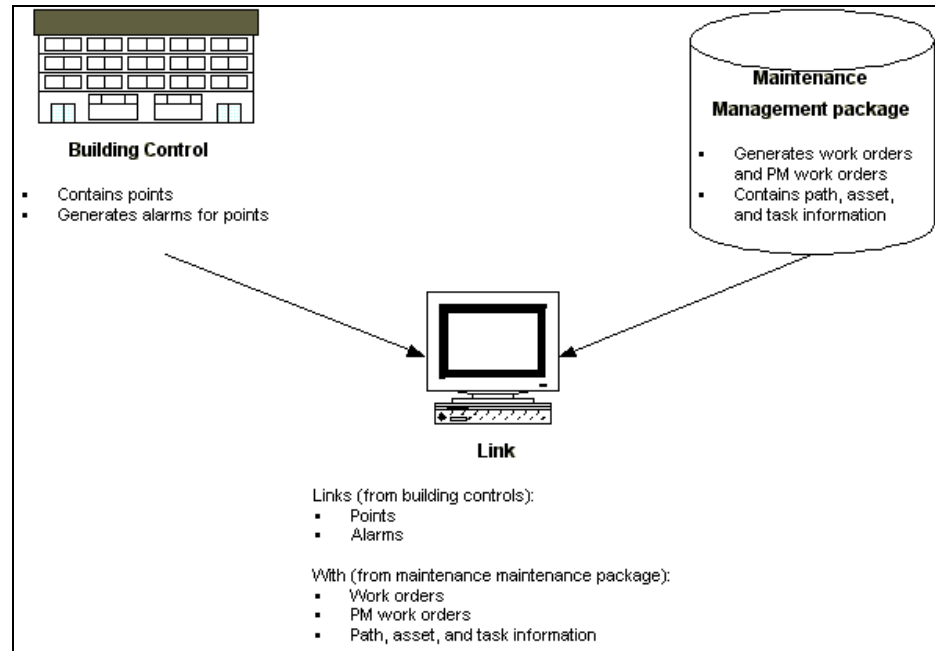
EA Link

Welcome to EA Link

EA Link provides a bridge for two-way communication between maintenance software and automation software. This utility assists automation engineers in identifying the commonalities between the maintenance software and the automation software. After the commonalities are defined, work orders and preventive maintenance work orders can flow, without user intervention, into the maintenance software from automation and facility schedules can also flow, without user intervention, into the automation software from the maintenance software.

Using EA Link

How EA Link Works














Requirements

You need the following products to run EA Link:

- Internet Explorer 4.0 or greater on the client machine
- IIS 4.0 or greater on the NT Server providing service to the application
- Niagara Gateway
- Version 1.0 or greater on an NT Server (Niagara is the energy automation software produced by Tridium, Inc.)
- SRS SiteNet Service 1.0 or greater
- ACT 1000 System 2.1 or greater to support preventive maintenance work orders
- SiteNet™ 1.2 or greater

The Toolbar

-  **Generate Work Order** allows you to generate a work order for a selected alarm.

-  **Generate PM Work Order** allows you to generate a preventive maintenance work order for a selected alarm. The Generate PM Work Order button differs from the Generate Work Order button in that the PM work order clipboard is green.
-  **Print Alarms** allows you to print a listing of all alarms or all acknowledged alarms depending on specified criteria.
-  **Refresh List** allows you to download current data for each form.
-  **Acknowledge Alarm** allows you to acknowledge a selected alarm.
-  **Link Tool** allows you to link records between maintenance management and building controls.
-  **Remove Link** allows you to delete the highlighted record.
-  **Configuration** allows you to configure SiteNet™ Link.
-  **Sort Ascending** allows you to sort records in ascending order (A-Z)
-  **Sort Descending** allows you to sort records in descending order (Z-A)
-  **Help** allows you to consult Books Online.
-  **Get Remote Points** allows you to import points from Niagara to use in SiteNet™ Link.

Alarms

Niagara is the energy automation software with which SiteNet™ Link is currently interfacing. There are three basic types of alarms generated inside of Niagara:

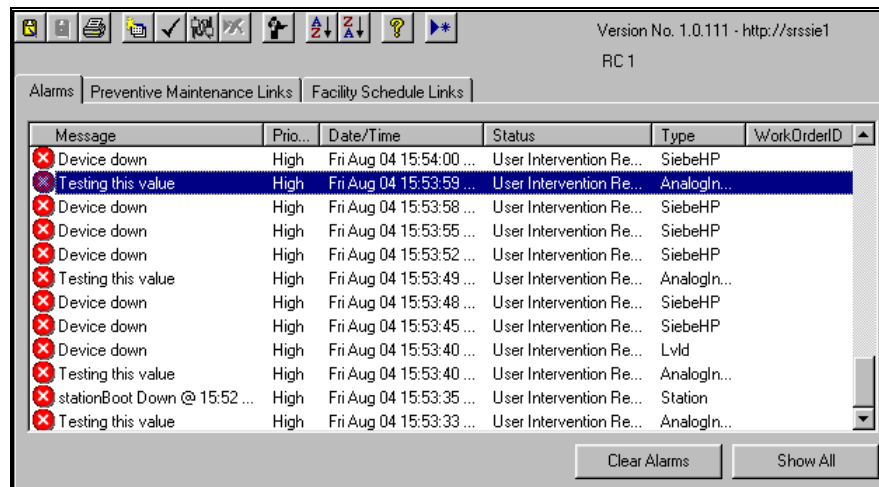
- **Analog** -- generated when units perform outside the pre-defined alarm set points. This type of alarm occurs for problems that need immediate attention. For maintenance management, a regular work order needs to be generated.

The work orders can have their status set to relay the urgency of the problem, if required.

- **Binary** -- generated when binary alarm devices (freeze-stats, etc) go into alarm. This type of alarm occurs for problems that need immediate attention. For maintenance management, a regular work order needs to be generated. The work orders can have their status set to relay the urgency of the problem, if required.
- **Runtime** -- generated when planned-maintenance cumulative runtime points are reached. For instance, when an HVAC unit has run for a certain number of hours, the filters may need to be replaced. This would generate a runtime alarm. Runtime alarms equate to preventive maintenance work in the maintenance management software, which means a PM work order should be generated. PM jobs typically have additional information associated with them, such as the required parts, who will perform the work, site hazards, and a task list. This information distinguishes PM work orders from typical work orders.

Handling Alarms

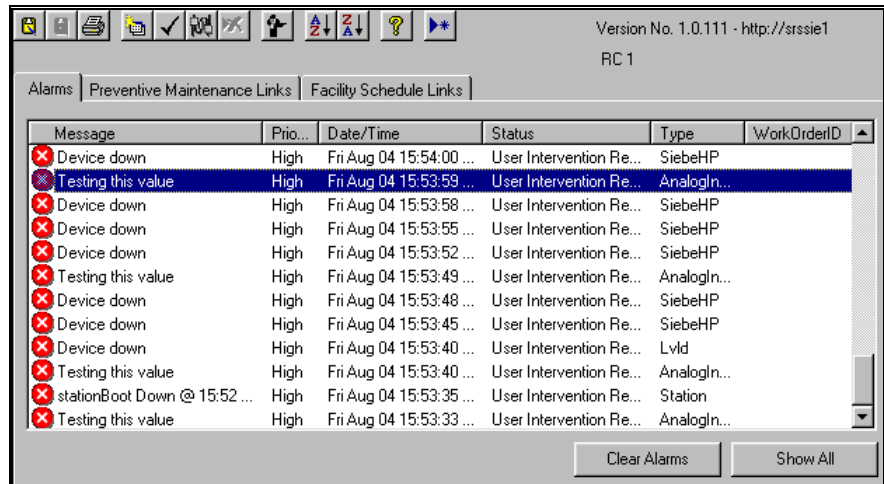
All alarms are logged into the SiteNet™ Link database, and appear on the Alarms Form of SiteNet Link.




Note: Only "unacknowledged" analog, binary, or runtime alarms are initially displayed when accessing the Alarm Form. These alarms are sorted (descending) by date/time.

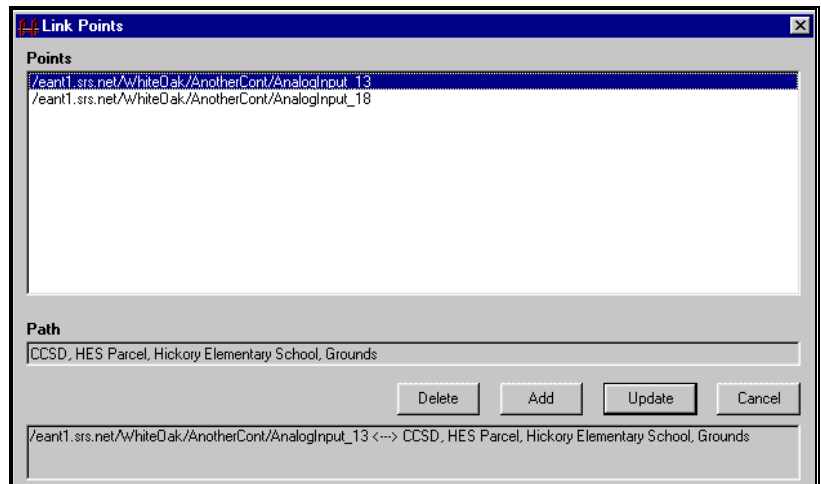
Updating Alarm Links

You can update, delete, and add alarm links from the Alarm Form.



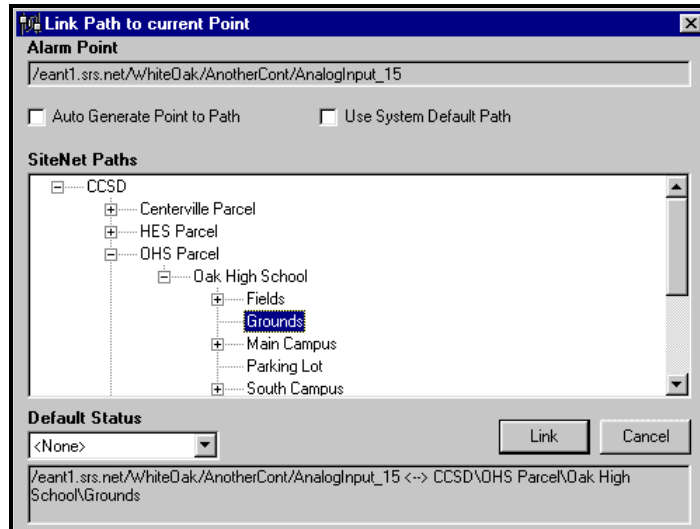
To update alarm links:

1. Click  to access the **Link Points** screen.



2. Highlight the point you wish to update.


- To edit and update the path, click the **Update** button. The Link Path to current Point screen appears.

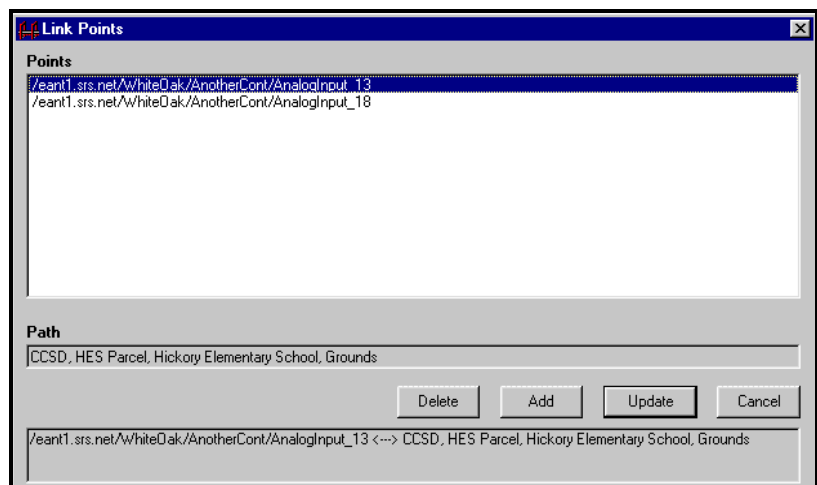


- Drill down in the **SiteNet Paths** window to select the new path to which to link the point.
- Select the **Default Status** for the link.
- Click **Link** to store the new path with the associated point.

Deleting Alarm Links

To delete Alarm Links:


- Click  to access the **Link Points** screen.

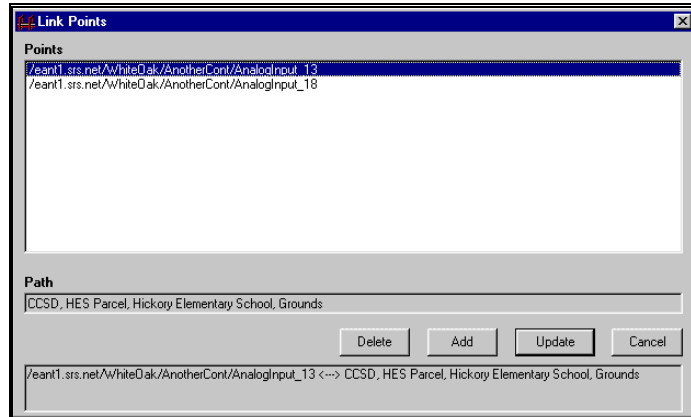


- Highlight the point you wish to delete.
- To delete the link between the selected point and the displayed path, click the **Delete** button.

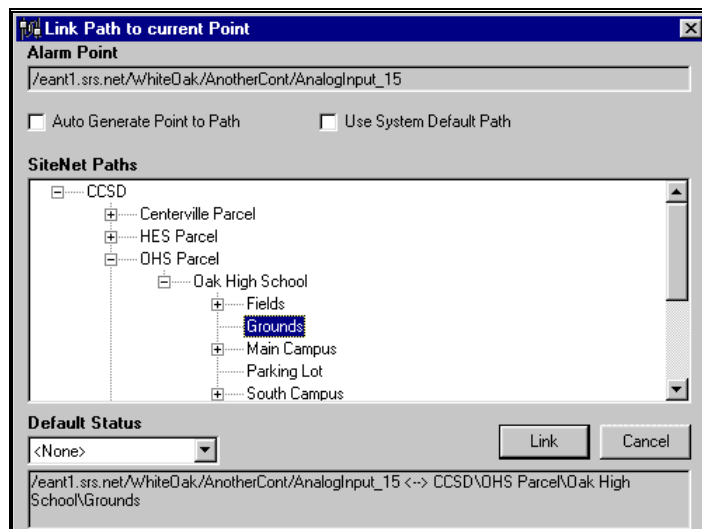
Adding Alarm Links

To add alarm links:

1. Click  to access the **Link Points** screen.



2. Click **Add**. The **Link Path to Point** screen appears.

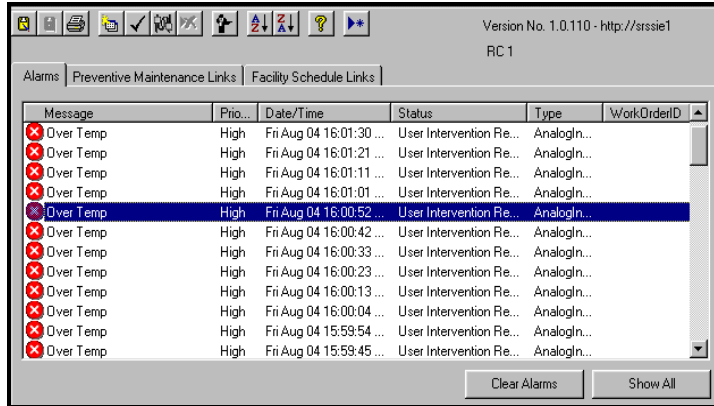


3. Highlight the **point** you wish to link.
4. Drill down in the **SiteNet Paths** window to select the new path to which to link the point.
5. Select the **Default Status** for the link.
6. Click **Link** to store the new path with the associated point.

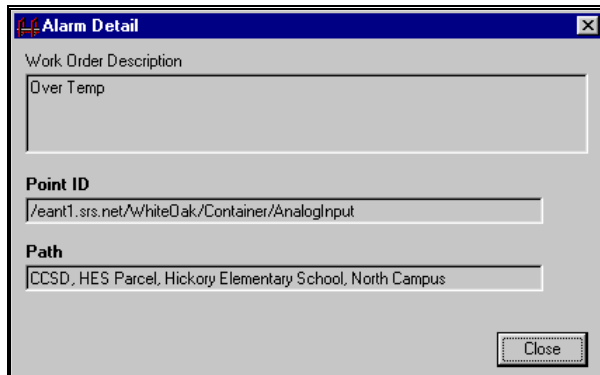
Acknowledging Alarms


To acknowledge an alarm:

1. Highlight the alarm you wish to acknowledge.



Note: You can view point and path configuration information for each alarm. Double-click on an alarm entry and the Alarm Detail screen appears with point and path configuration information.



2. Click  on the toolbar. The following message appears:



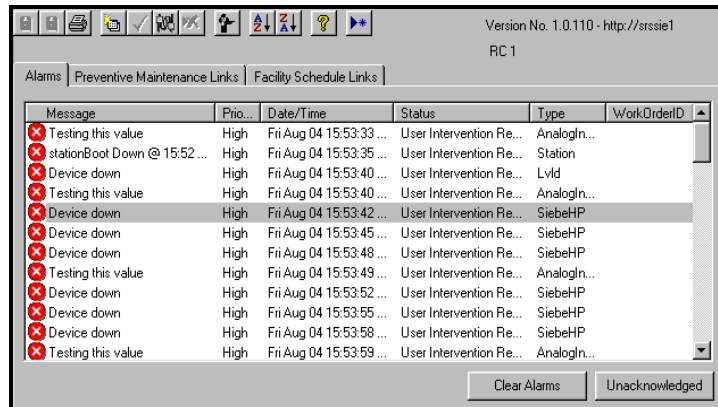
Note: If you want to view all alarms, click Show All on the Alarm Form.

3. Click **OK**.

Viewing Alarms

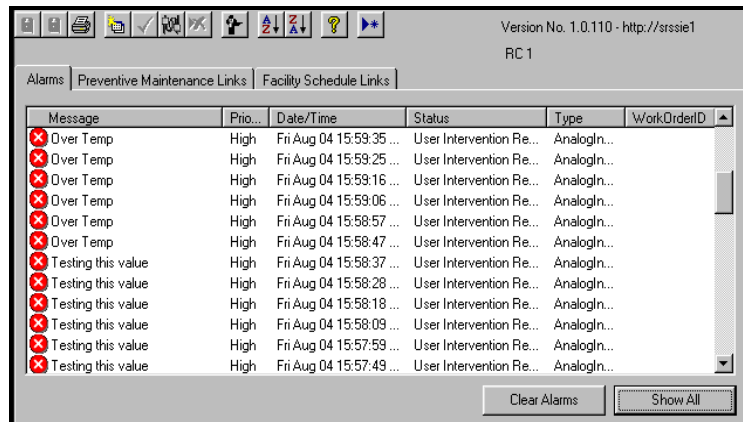
To view all alarms:

1. Click **Show All** on the Alarm Form.



Note: Clicking Show All changes the button label to Unacknowledged.

2. To view only unacknowledged alarms, click **Unacknowledged**.

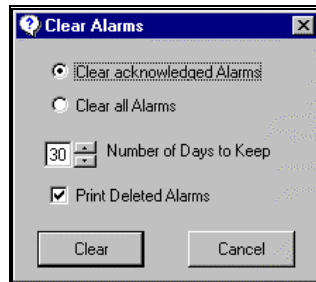


Clearing Alarms

Clearing alarms results in the physical removal of the indicated alarm records from the database.

To clear alarms:

1. Click **Clear Alarms** from the Alarm Form. The Clear Alarms Form appears.




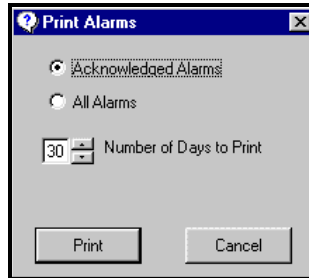
2. Select to **Clear acknowledged Alarms** or **Clear all Alarms**. If you choose to clear all alarms, all alarm records (including alarms you have not acknowledged) will be removed from the database. Both of these options are dependent upon your selection in **Number of Days to Keep**.
3. Choose the **Number of Days to Keep**. The alarms cleared will depend on how many days you choose to keep them. If you choose to keep alarms for 30 days, any alarms older than 30 days will be removed from the system. Alarms newer than 30 days will remain in the system.
4. Select **Print Deleted Alarms** to print a report of all deleted alarms. The alarms that were removed from the system will appear in a separate browser window allowing the user to print the report. If you deselect this option, deleted alarms will not be logged.
5. Click **OK**.

Printing Alarms

You can print a listing of all alarms or all acknowledged alarms for future use.

To print alarms:

1. Click  from the Link toolbar. The **Print Alarms Form** appears.



2. Select to print **Acknowledged Alarms** or **All Alarms**. If you choose to print all alarms, all alarm records (including alarms you have not acknowledged) will be printed to the server. Both of these options are dependent upon your selection in **Number of Days to Print**.
3. Choose the **Number of Days to Print**. The alarms printed will depend on how many days you choose to print them. If you choose to print alarms for 30 days, any alarms recorded prior to 30 days will not be printed. Alarms recorded with the last 30 days will be printed.
4. Click **Print**. The alarms will print on your screen and will be saved to file on the server.

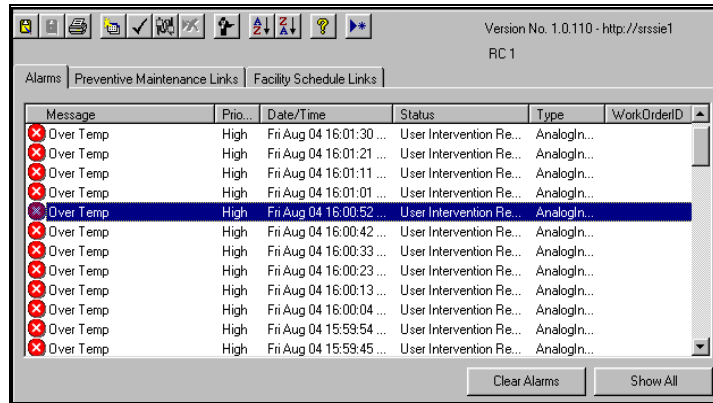
Date/Time	Message	Priority	Status
Fri Jul 28 15:11:53 EDT 2000	Heating is on	High	Unacknowledged
Fri Jul 28 15:14:44 EDT 2000	Over Temp	High	Unacknowledged
Wed Aug 02 10:49:38 EDT 2000	Over Temp	High	Unacknowledged
Wed Aug 02 10:50:12 EDT 2000	Heating is on	High	Acknowledged
Wed Aug 02 10:50:52 EDT 2000	Over Temp	High	Unacknowledged
Wed Aug 02 10:51:55 EDT 2000	Heating is on	High	Acknowledged
Wed Aug 02 10:52:07 EDT 2000	Over Temp	High	Unacknowledged
Wed Aug 02 10:53:21 EDT 2000	Over Temp	High	Unacknowledged
Wed Aug 02 10:54:22 EDT 2000	Heating is on	High	Acknowledged
Wed Aug 02 10:54:35 EDT 2000	Over Temp	High	Unacknowledged


Generating Work Orders

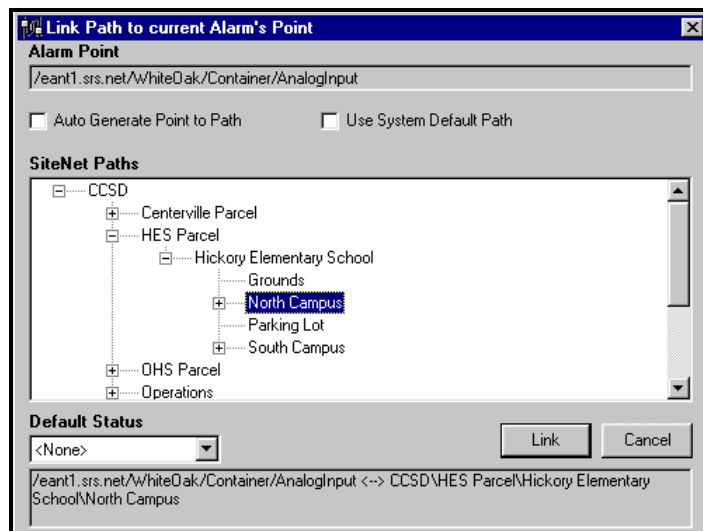
You can generate a work order for a selected alarm.

To generate a work order:


1. From the **Alarm Form**, highlight the alarm for which you wish to generate a work order.

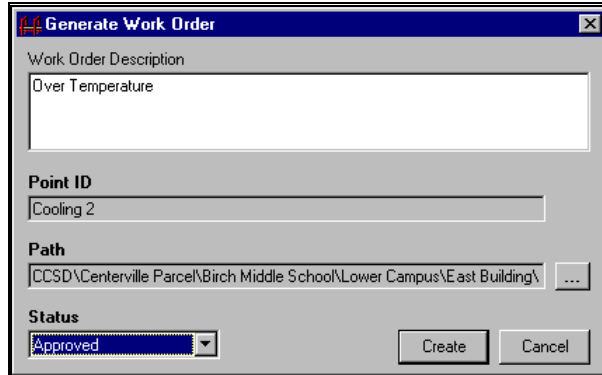



2. Click  to generate the work order. The Link Path to current Alarm's Point screen appears. Note: You will not see this screen if a link already exists. If a link already exists, move to step 5.

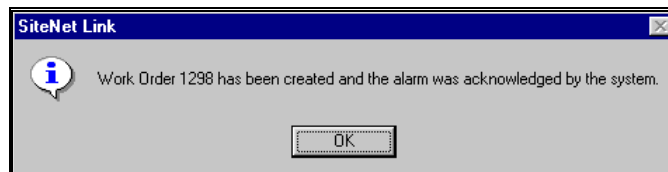


3. Drill-down in **SiteNet Paths** and select a path to link, or check **Use System Default Path** (as set up in Configuration). Your selected path appears at the bottom of the screen along with the Alarm Point.
4. Select the **Default Status** for the work order.

- Click . A link between the path and the point is set up. The **Generate Work Order** screen appears.



- Change the **Description** (if necessary).
- Change the **Path** by clicking  (if necessary).
- Select a **Status** for the work order.
- Click **Create**. A message box appears confirming that a work order was created.



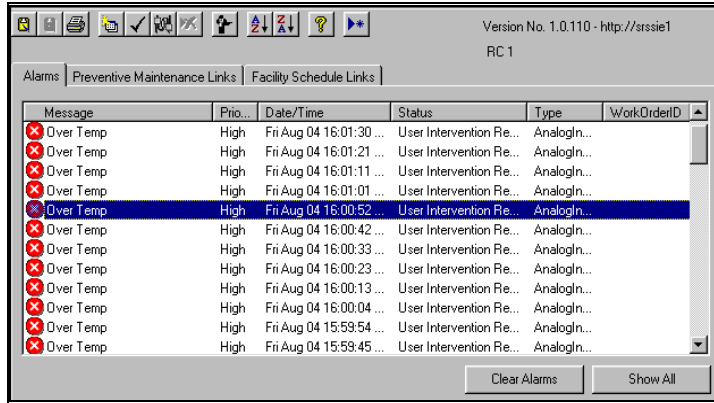
- Click **OK**. The alarm disappears from the Alarm Form. Click **Show All** on the **Alarm Form** to view the alarm.


Generating PM Work Orders

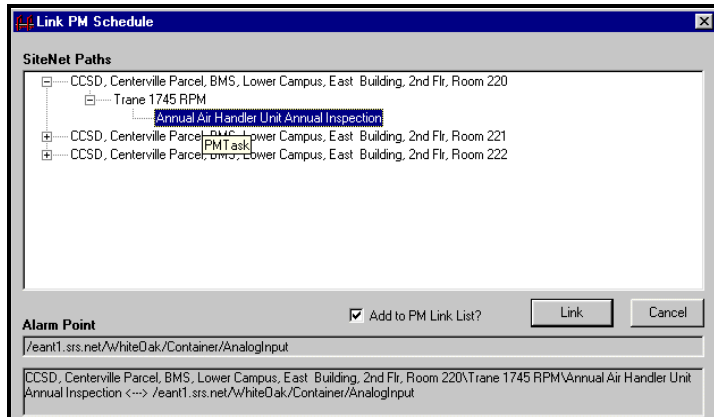
You can generate a PM work order for a selected alarm.

To generate a PM work order:

1. Highlight the runtime or binary alarm for which you wish to generate a PM work order.

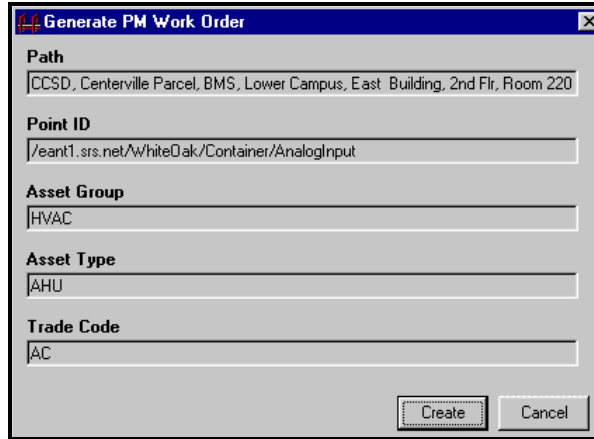


2. Click  to generate a PM work order. The Link PM Schedule screen appears.

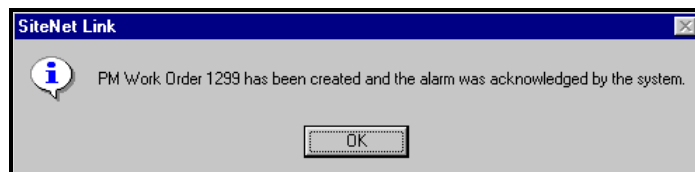


3. Drill-down through the SiteNet Path, Asset, and Task to select a **task**. Note: You must select a **task**, rather than just a path or asset.
4. Click **Add to PM List** if you want the PM work order to show up on the Preventive Maintenance Links Form.

- Click . The Generate PM Work Orders screen appears.

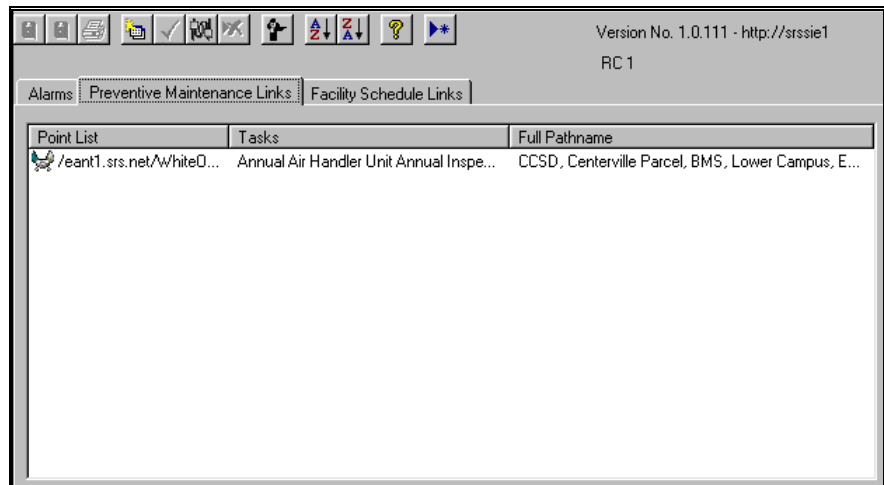


- Click **Create**. A message box appears confirming that the PM work order was created.



- Click **OK**. The alarm disappears from the Alarm Form. Click **Show All** to view the alarm.

Preventive Maintenance Links




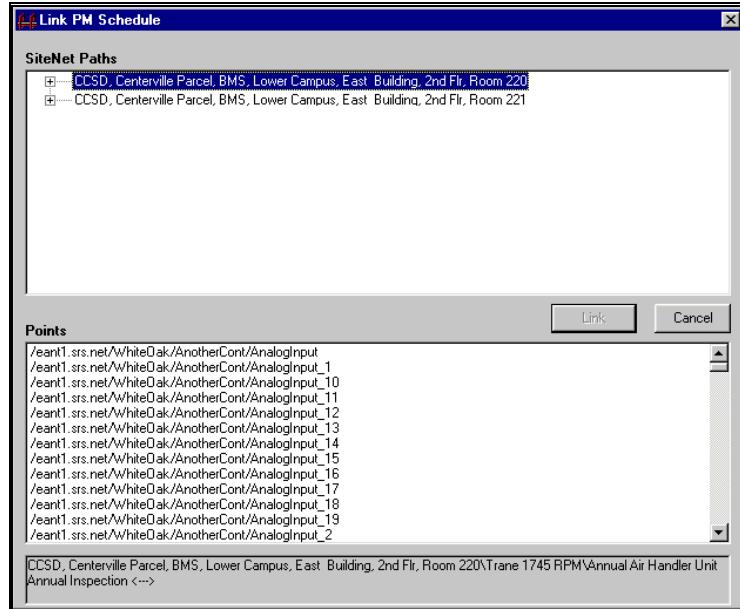
Point List	Tasks	Full Pathname
/eant1.srs.net/WhiteO...	Annual Air Handler Unit Annual Inspe...	CCSD, Centerville Parcel, BMS, Lower Campus, E...


Preventive Maintenance Links provides a means for energy automation engineers to hook-up PM Schedules to automation equipment. The Point List is retrieved from building controls and the Tasks are retrieved from maintenance management.

Creating New PM Links

To create a new PM Link:

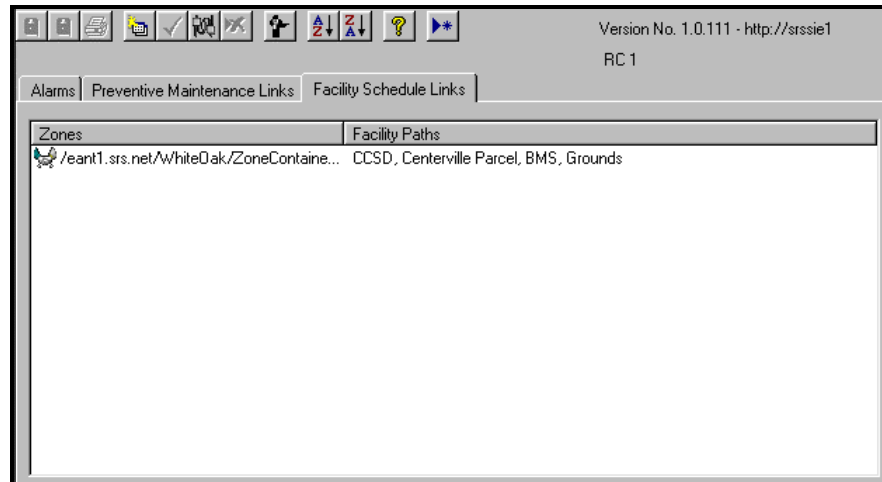
1. Click  on the toolbar. The **Link PM Schedule Form** appears.



2. In the **SiteNet Paths** box, drill-down through the path, asset, and task to select the **task** you wish to link.
3. In the **Points** box, select the **Point** you wish to link.
4. Click  to establish the link and refresh the list.

Note: The Link button remains disabled until you have chosen both a path and a zone.


Facility Schedule Links

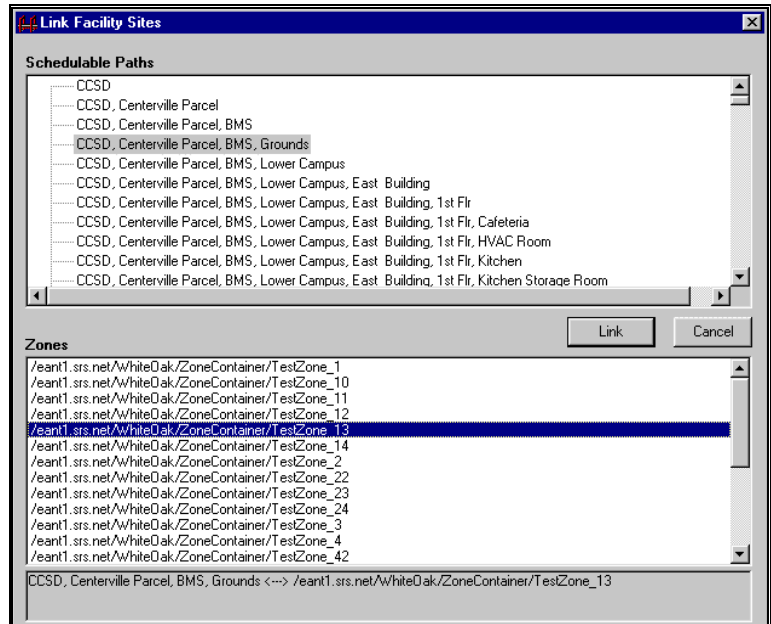



Facility Schedule Links works similar to Preventive Maintenance Links, except Facility Schedule Links are established with schedulable paths, using SiteNet™ 1.2.

Creating Facility Schedule Links

To create a Facility Schedule Link:

1. Click  on the toolbar. The Link Facility Sites Form appears.



2. In the **Schedulable Paths** box, select the **path** you wish to link.
3. In the **Zones** box, select the **zone** you wish to link.
4. Click . **Note: The Link button remains disabled until you have chosen both a path and a zone.**


Configuration

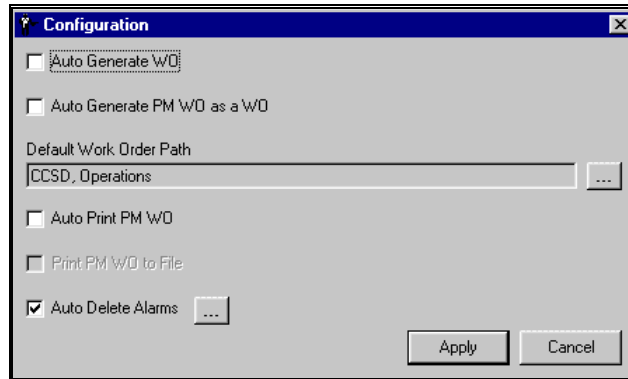
Configuration allows you to set the system up to:


- Auto Generate work orders
- Auto Generate PM work orders as work orders
- Set Default Work Order Paths
- Auto Print PM work orders
- Print PM work orders to file
- Auto Delete Alarms

Configuring SiteNet™ Link

To configure SiteNet™ Link:

1. Click  on the toolbar. The **Configuration** screen appears.




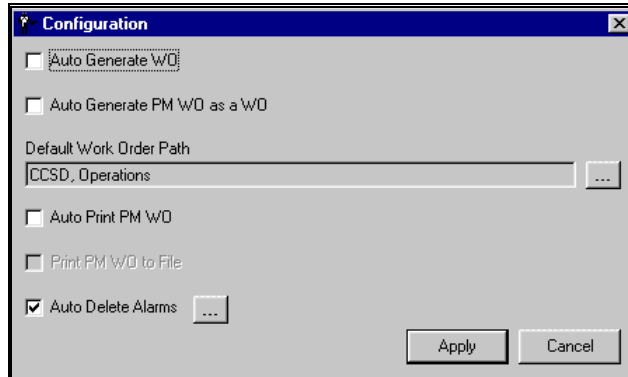
2. Click **Auto Generate WO** if you want SiteNet™ Link to automatically generate work orders for alarms.
3. Click **Auto Generate PM WO as a WO** if you want SiteNet™ Link to automatically generate PM work orders as regular work orders for alarms.
4. Select the **Default Work Order Path**. For instructions on how to do this, refer to Selecting Default Work Order Paths.
5. Select **Auto Print PM WO** if you want SiteNet™ Link to automatically print the PM Work Order to the default printer assigned to the SiteNet server. Auto Print PM WO will only work if the Print PM WO to File option is unchecked.
6. Select **Print PM WO to File** if you want SiteNet™ Link to create a rich-text format (.rtf) file in the `\InetPub\wwwroot\snlink\reports` folder that can be printed later. If you select Print PM WO to File, a hard copy will not be printed.
7. Select **Auto Delete Alarms** if you want SiteNet™ Link to automatically delete alarms from your system. For instructions on how to do this, refer to Auto Deleting Alarms.
8. Click .


Selecting Default Work Order Paths

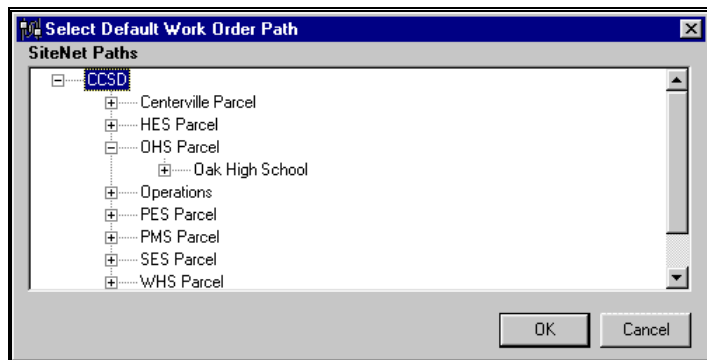
You can set up default work order paths through Configuration.



To select default work order paths:

1. Click  on the toolbar. The **Configuration** screen appears.



2. Click  to find another path. The Select Default Work Order Path screen appears. **Note: If you do not want a default work order path, highlight the existing path name and press Delete or Backspace on your keyboard.**




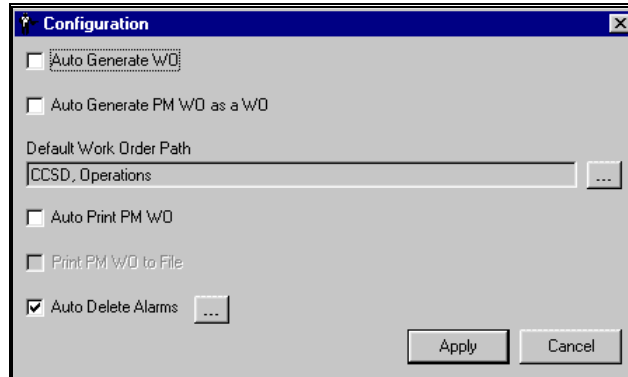
3. Drill-down to select the default work order path.
4. Click . The default path you chose appears in the Configuration screen.
5. Click .

Auto Deleting Alarms

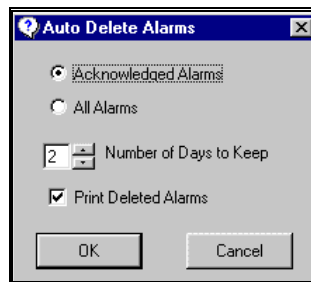
You can configure SiteNet™ Link to automatically delete alarms based on criteria that you specify.


To Auto Delete Alarms:

1. Click  on the toolbar. The **Configuration** screen appears.



2. Check **Auto Delete Alarms**.
3. Click . The **Auto Delete Alarms Form** appears.



4. Select whether you want SiteNet™ Link to auto delete **Acknowledged Alarms** or **All Alarms**.
5. Choose the **Number of Days to Keep** alarms. The alarms deleted will depend on how many days you choose to delete them. If you choose to delete alarms for 2 days, any alarms newer than 2 days will not delete. Alarms older than 2 days will be deleted.
6. Check **Print Deleted Alarms** if you want SiteNet™ Link to print a list of deleted alarms to a file on the server.
7. Click .