KNOWLEDGESYNC NAVIGATOR (GUI)

Documentation Addendum

The KnowledgeSync Navigator GUI module is a navigational aid that gives users the ability to quickly view, add, or modify KnowledgeSync events. Additionally, this module gives users the ability to create event "streams" – logical collections of events that are designed to run in a sequential manner.

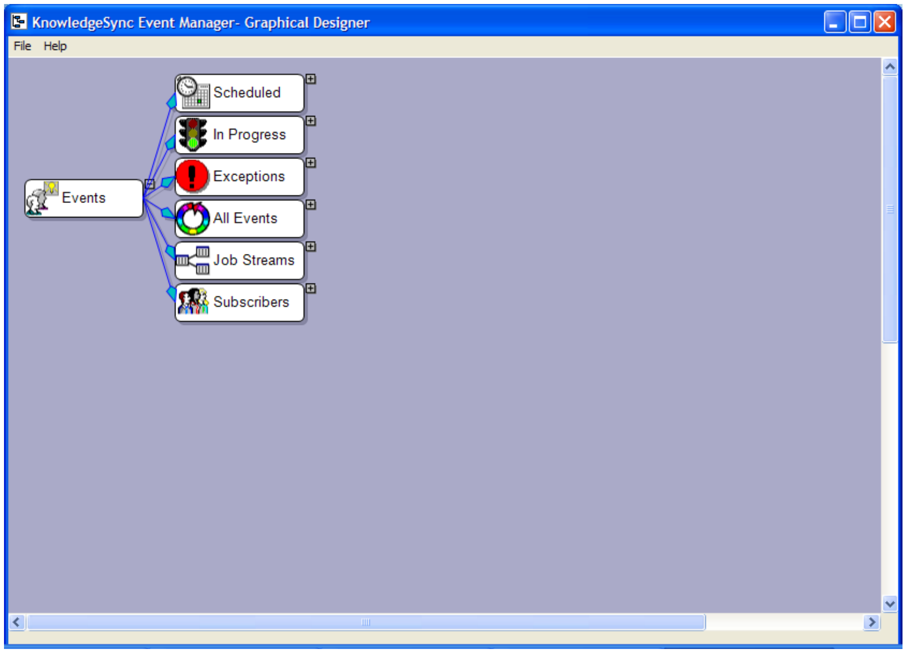
The graphic user interface module presents you with following options:

- Add, view, & modify events (or event components)
- View events that are currently scheduled to be submitted to run
- View events that are currently in the process of being executed
- View & correct any errors that have occurred in the execution of KnowledgeSync events
- Add, view, and modify Event Job Streams. (Job Streams are linked events that run in a sequential manner.
- Add, view, and modify subscriber (alert recipient) records.

Accessing the Navigator Module

To access the KnowledgeSync Navigator module, double-click on the KnowledgeSync icon called "Navigator" or select this option from the KnowledgeSync Programs Group.

The following window will appear:

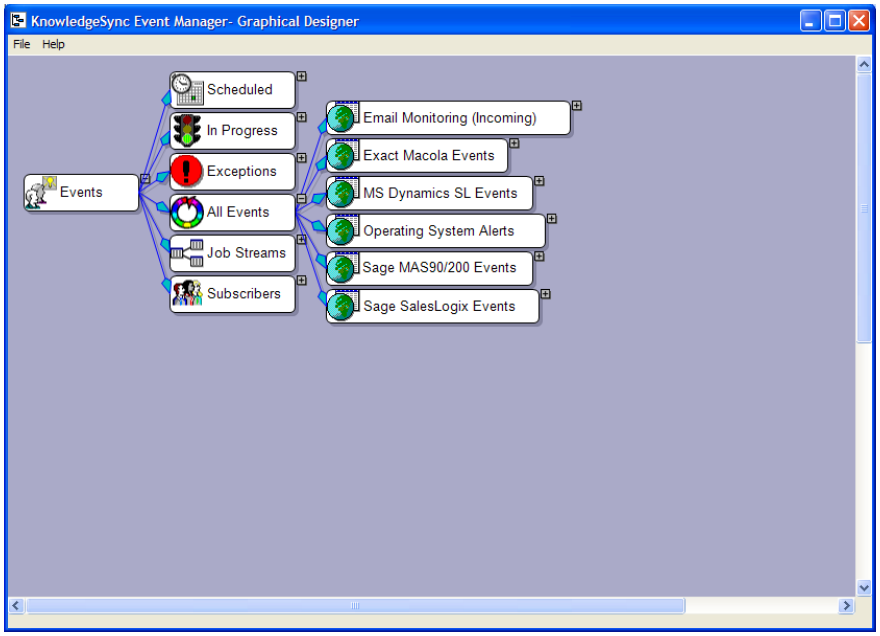


KNOWLEDGESYNC NAVIGATOR (GUI) MODULE

Guidelines for Using the Navigator

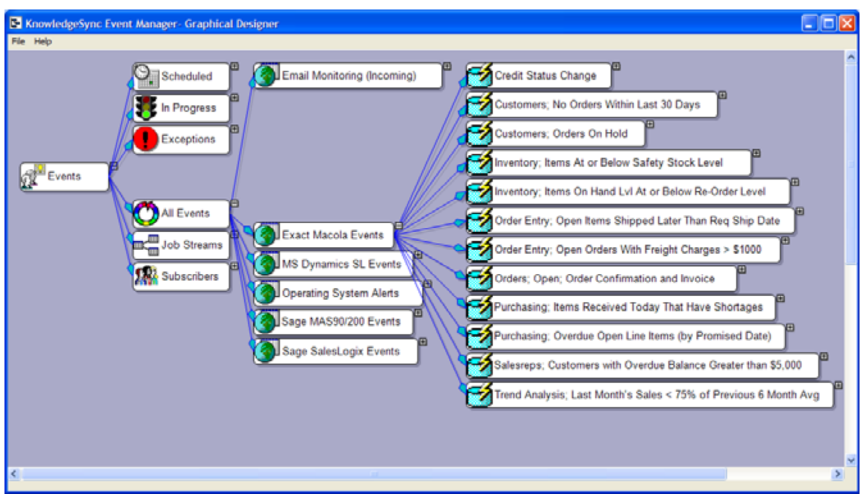
In general, if you wish to add a new record to the KnowledgeSync database (such as a new application, a new query, a new event, a new report, or a new Basic Script), you will go to the branch called "All Events" and right-click on that branch to get the options to add these new records.

If you wish to add, view, or remove a component from an existing event (such as adding a report or removing a query), you would first expand the branch called "All Events" and locate the application that contains the event you wish to work with, as follows:



LISTING OF APPLICATIONS

You would then expand that application to display the events within it:

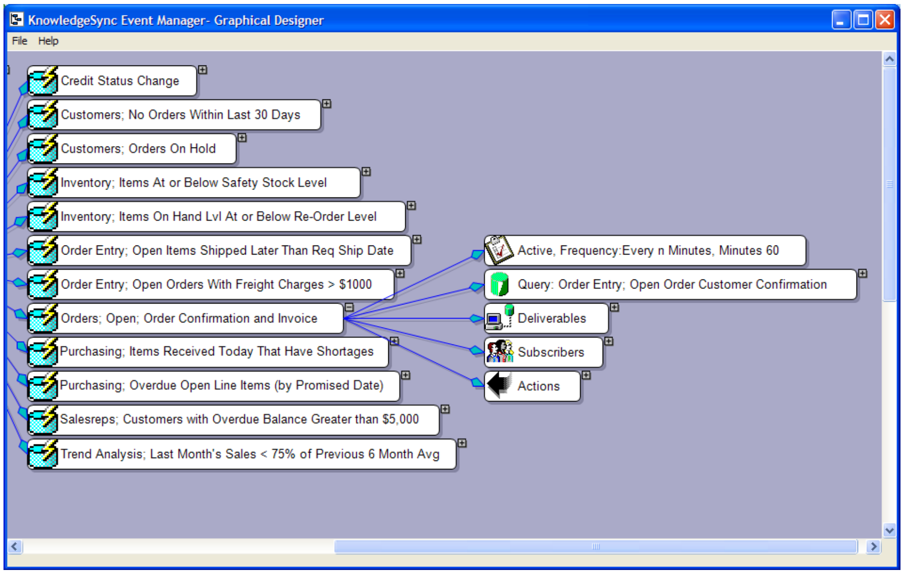


LISTING OF EVENTS FOR AN APPLICATION

And then expand the event you wish to view or work on.

How Event Details are Displayed

For each event, you will be shown up to five components – depending on how the event is configured – as shown below:



KnowledgeSync GUI – An Event’s 5 Components

1. **Active Status & Schedule**. Whether the event is “active” or “inactive” and what the event’s schedule is (how often it is scheduled to run)

2. **Triggering Conditions**. The query (or queries) associated with the event. If an associated query has trigger parameters (i.e., thresholds that are specified on the event level), then the query will have a plus sign to the right of it.

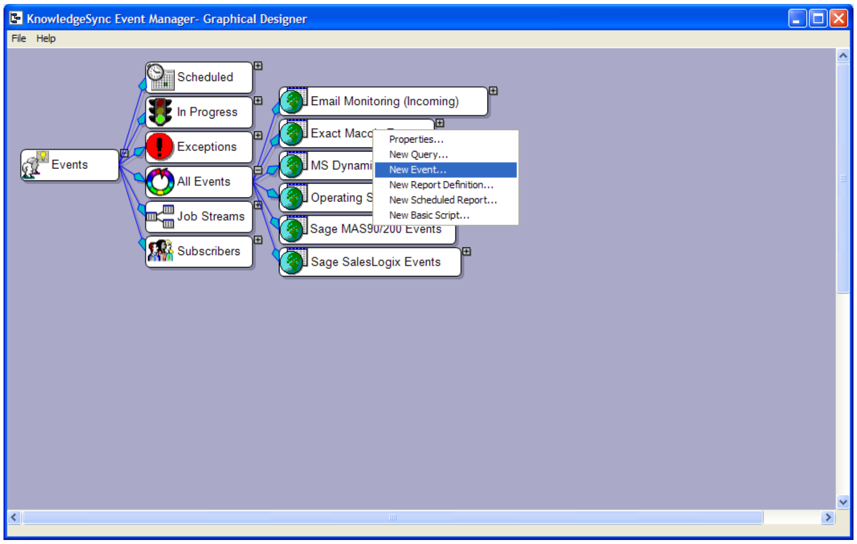
3. **Alert Content**. The “Deliverables” include all the content that an event could possibly deliver to one or more recipients. This includes all alert messages (email, fax, pager, etc.), any associated Crystal Reports, and any associated files that are linked to the event.

4. **Alert Recipients**. This includes individual subscribers, subscriber groups, and any “dynamic” subscribers – such as the salesrep who is associated with a client’s order and/or the client themselves.

5. **Workflow Actions**. This includes the following types of actions: the exporting of triggered event data to a flat file, the execution of SQL Statements and/or Stored Procedures, the execution of any of KnowledgeSync’s wizard APIs, and the execution of Visual Basic Scripts.

Adding New Records
(Queries, Events, Report Definitions, Scheduled Reports, & Basic Scripts)

To add any of the above items to the KnowledgeSync system, expand the All Events branch and click on the Application you wish to add the corresponding item to. Then, right-click on the Application name and you will be presented with options to add each of the above-referenced items as shown below:

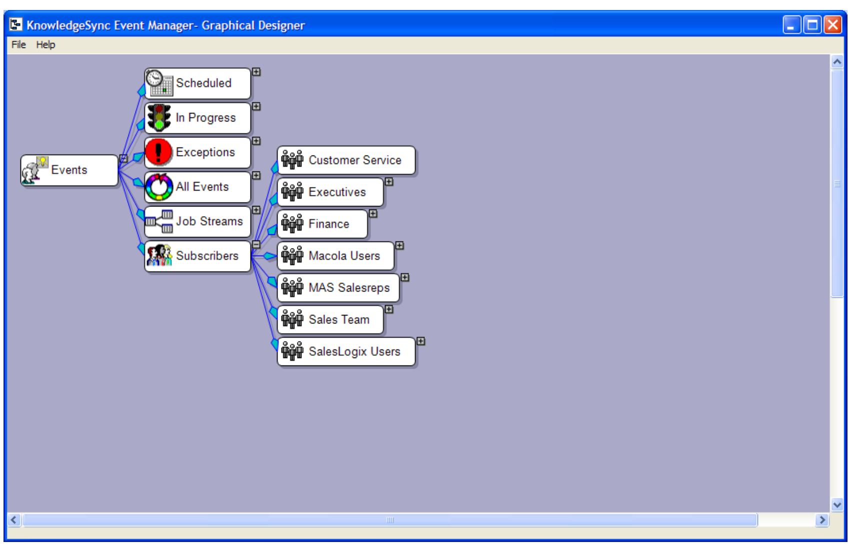


KNOWLEDGESYNC GUI – ADDING NEW RECORDS

For detailed instructions on adding any of these records, please refer to the KnowledgeSync Reference Guide.

Subscriber Maintenance

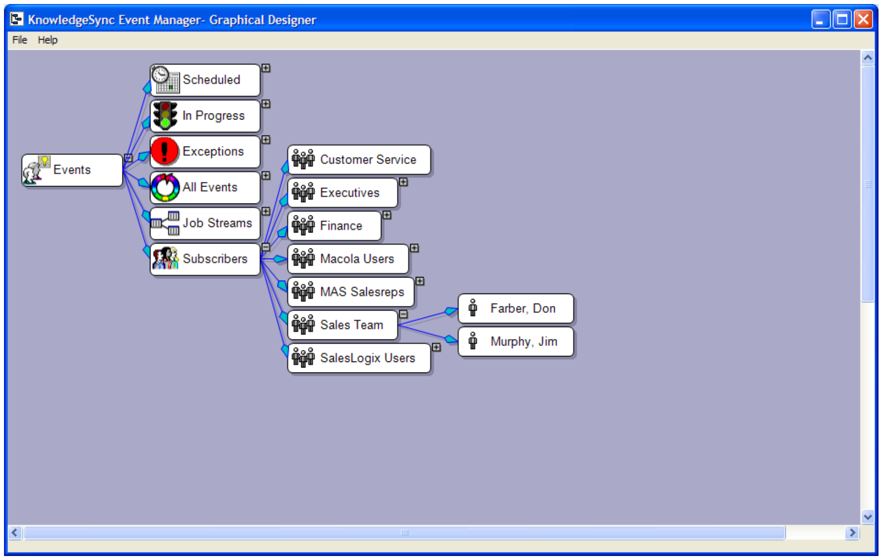
To add or update an alert recipient (subscriber) to the KnowledgeSync system, expand the Subscribers branch to see a list of all currently-defined Subscriber Groups such as the following:



KNOWLEDGESYNC –SUBSCRIBER GROUPS

To add a subscriber, right-click on the Group that you wish to add the subscriber to, and choose New User.

To view or update an existing subscriber's record, expand the group to which the subscriber belongs and you will be presented with a window such as the following:



KNOWLEDGESYNC –SUBSCRIBERS WITHIN A GROUP

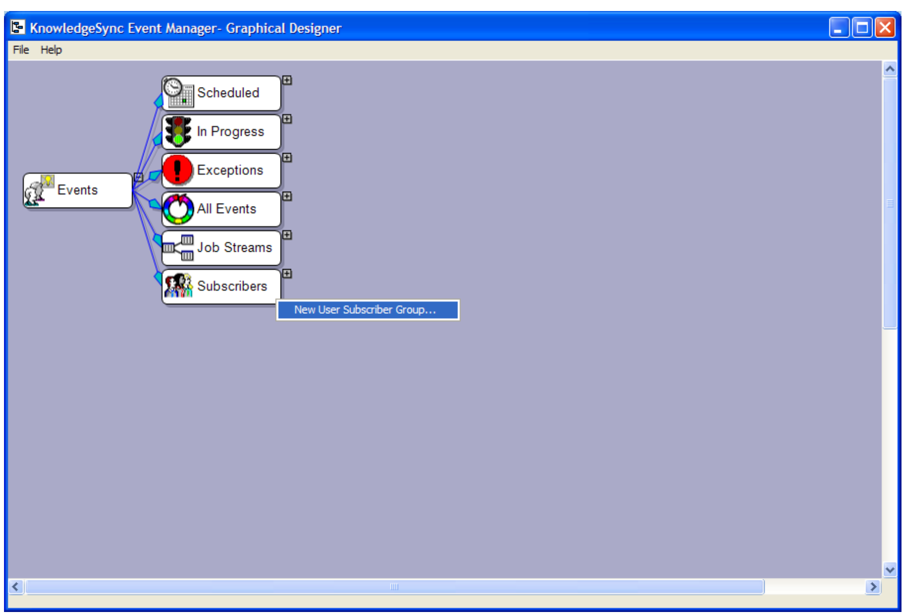
Double-click on the subscriber's record you wish to view or modify.

Click on Save and Close when done adding, viewing, or modifying this subscriber.

Subscriber Group Maintenance

To create or modify the description of a subscriber group, follow these steps:

1. Right-click on the Subscribers branch and select the option to add a "New User Subscriber Group" as shown below:



KNOWLEDGESYNC – CREATE NEW SUBSCRIBER GROUP

2. This will present you with a window from which you can create a new group.

   Please note that you must first create a subscriber group (and save that record) before you can specify subscriber linking for that group. (See following section.)

Subscriber Linking

To set-up, modify, or remove "Subscriber Linking" for a group of subscribers, follow these steps:

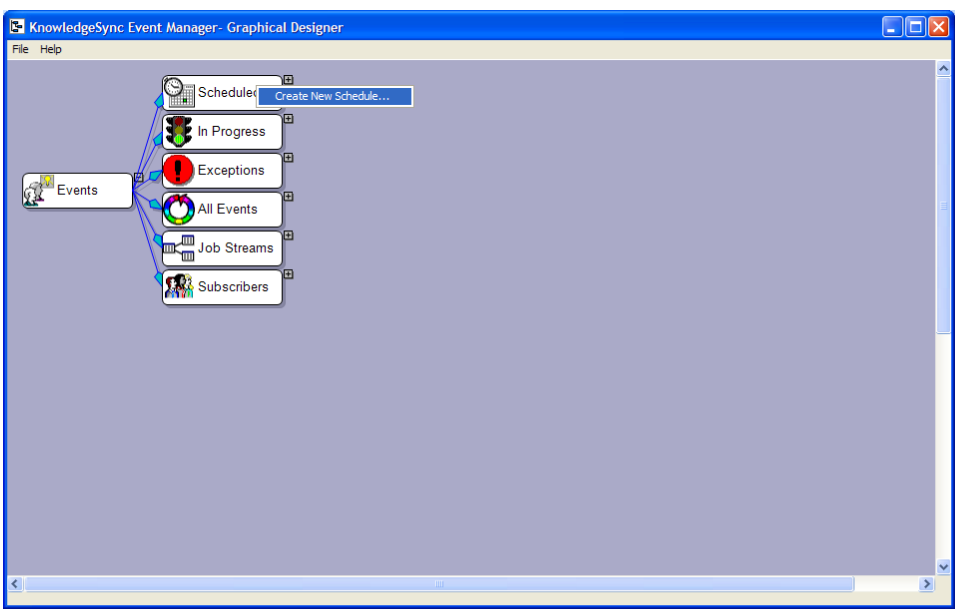
1. Expand the Subscribers branch to see a list of all currently-defined Subscriber Groups.

2. Right-click on the Group whose Subscriber Linking you wish to access. Choose "Properties".

3. Click on the "Subscriber Linking" button and follow the instructions in the KnowledgeSync Reference Guide.

Adding a New Schedule

To add a new schedule to the KnowledgeSync system (such as a schedule that runs every 20 minutes, or a schedule that runs every Wednesday at 9 AM), right-click on the Scheduled branch. This will present you with an option to "Create New Schedule" (shown below) from which you can define the settings (working days, working hours, frequency, etc.) of the schedule you wish to create.



KNOWLEDGESYNC – CREATE NEW SCHEDULE

Viewing & Modifying Events

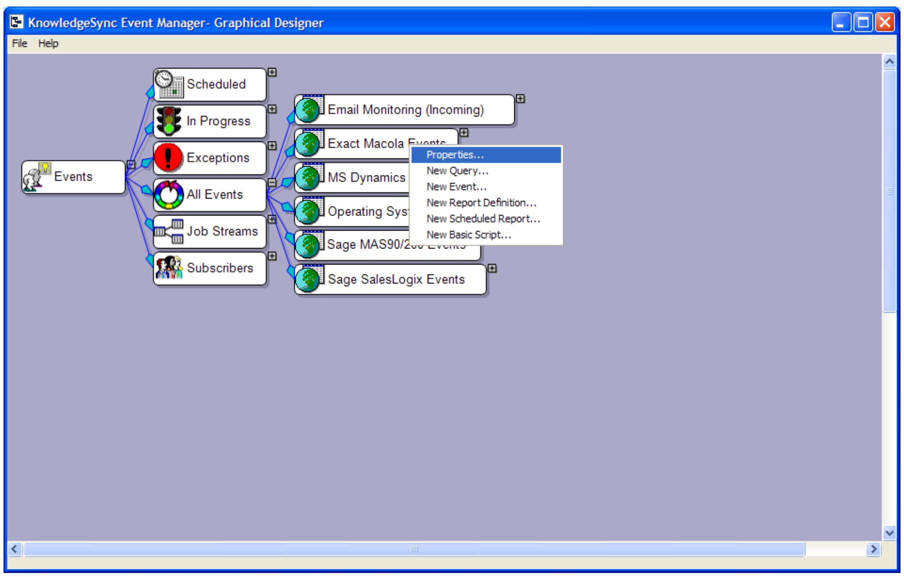
The following sections detail how to locate, view the details of, and modify the configuration of an event that already exists within the KnowledgeSync application.

Editing an Application's "Connection"

To view or modify an application's Connection record (where ODBC connection information is contained), follow these steps:

1. Expand the "All Events" branch.

2. Right-click on the application whose connection you wish to view or modify. Choose "Properties" as shown below:



KNOWLEDGESYNC – ACCESSING AN APPLICATION'S CONNECTION

3. Choose "Edit Connection" to view or modify this application's connection properties, or "New Connection" to create a new connection record for this application.

4. Click on Save and Close (and then on OK) to retain your work, or click on Cancel to exit from this option without saving your entries.

Enabling / Disabling an Event

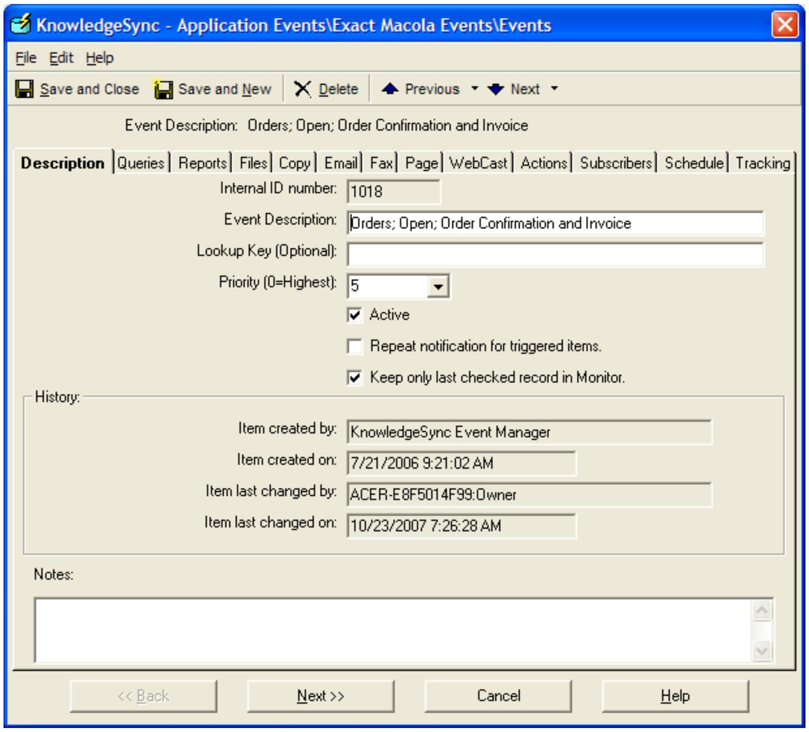
To enable or disable a specific event, follow these steps:

1. Expand the "All Events" branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event to show its "active status" and schedule. Double-click on the event's active status and schedule branch. You will be brought to the following

window:



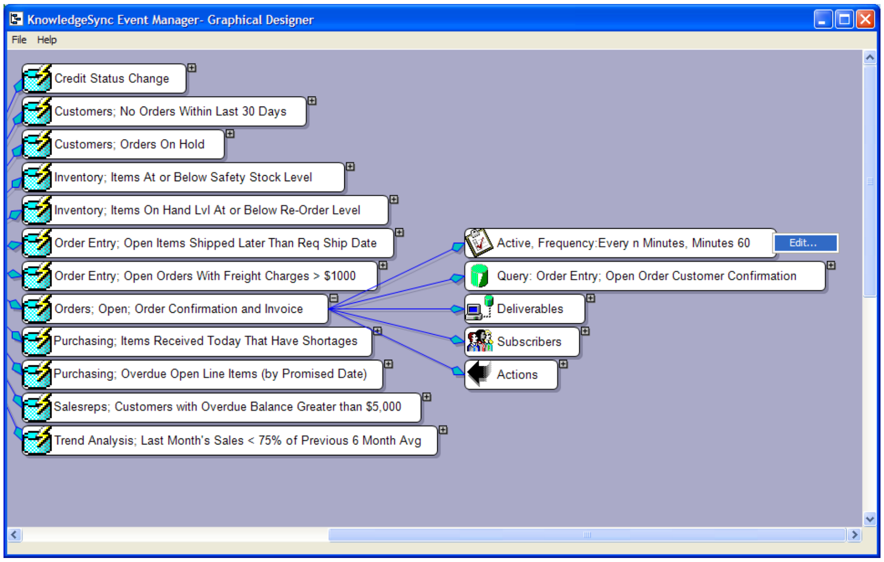
KNOWLEDGESYNC – EDIT APPLICATION CONNECTION

4. Set the event's "Active" checkbox accordingly and save your changes.

Changing an Event's Schedule

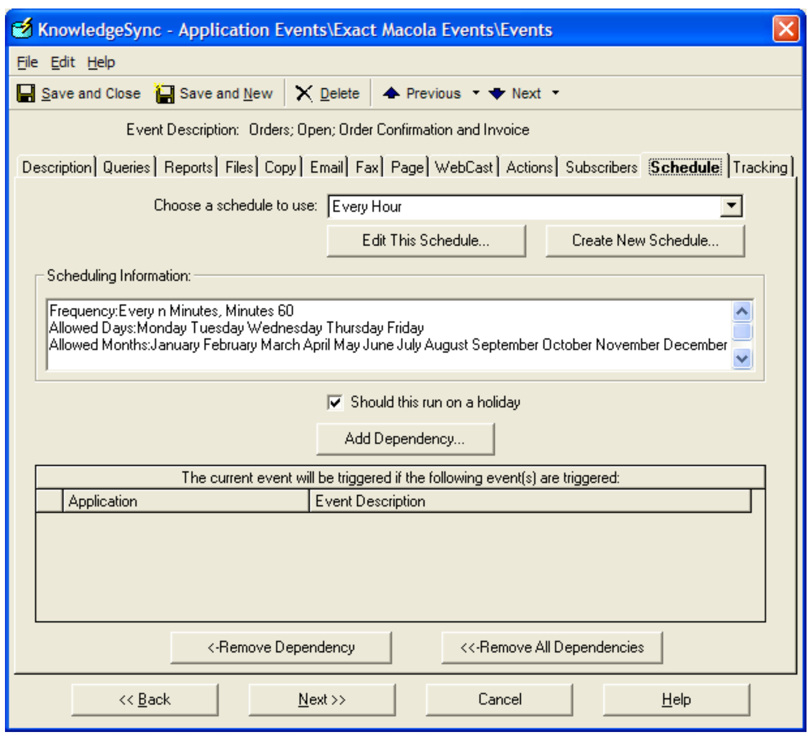
To view the details of (or modify) the schedule that an event uses, follow these steps:

1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event whose schedule you wish to access. Right-click on the event's schedule and choose "Edit" as shown below:



KNOWLEDGESYNC – EDIT EVENT'S SCHEDULE

4. You will be brought to the following window:



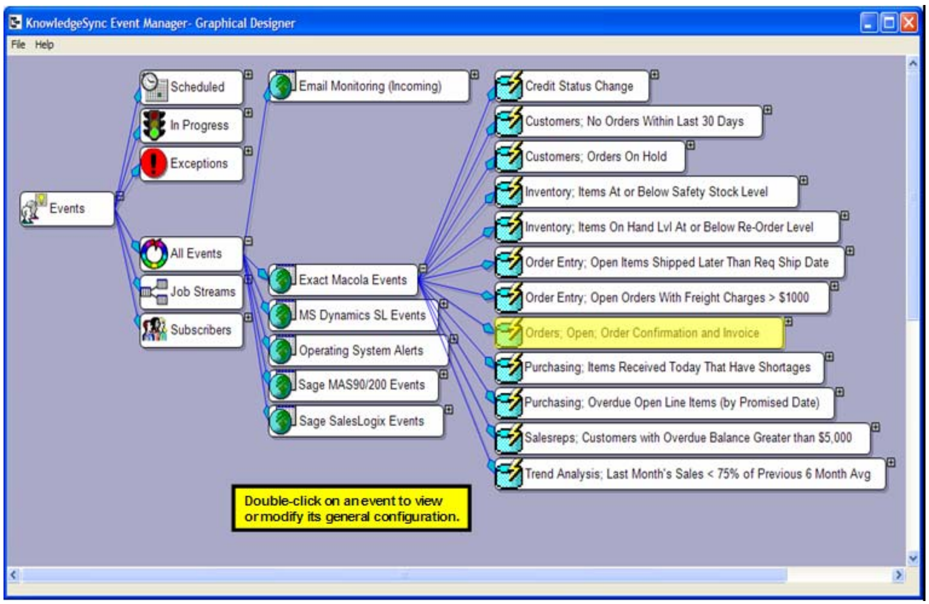
KNOWLEDGESYNC – CHANGING AN EVENT'S SCHEDULE

5. Make whatever changes are required and click on "Save and Close" to retain your changes, or "Cancel" to ignore any changes.

General Processing Parameters

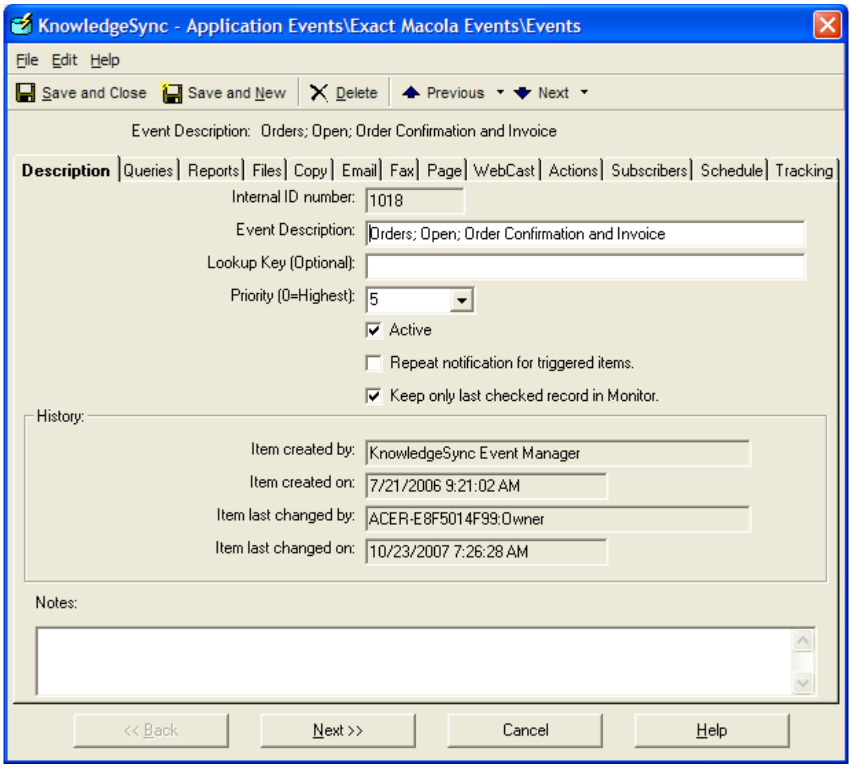
To change the name of an event, its priority, and whether the event should trigger just once for a matching record or repeatedly (until the record no longer meets the event's criteria), follow these steps:

1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event as shown below:



HOW TO ACCESS AN EVENT'S GENERAL INFORMATION

4. This will bring you to the "Description" tab of the event, with access to all the settings mentioned previously. Make whatever changes are needed.



AN EVENT'S GENERAL INFORMATION

5. To save your changes, click on the “Save and Close” button at the top-left of your window.

6. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Once you are on the “Description” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of this event.

Adding / Changing / Removing Event Queries

The following sections detail how to add, change, or remove queries from KnowledgeSync events.

Adding a Query to an Event

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event as shown previously.
4. Click on the “Queries” tab.
5. Add queries as needed.

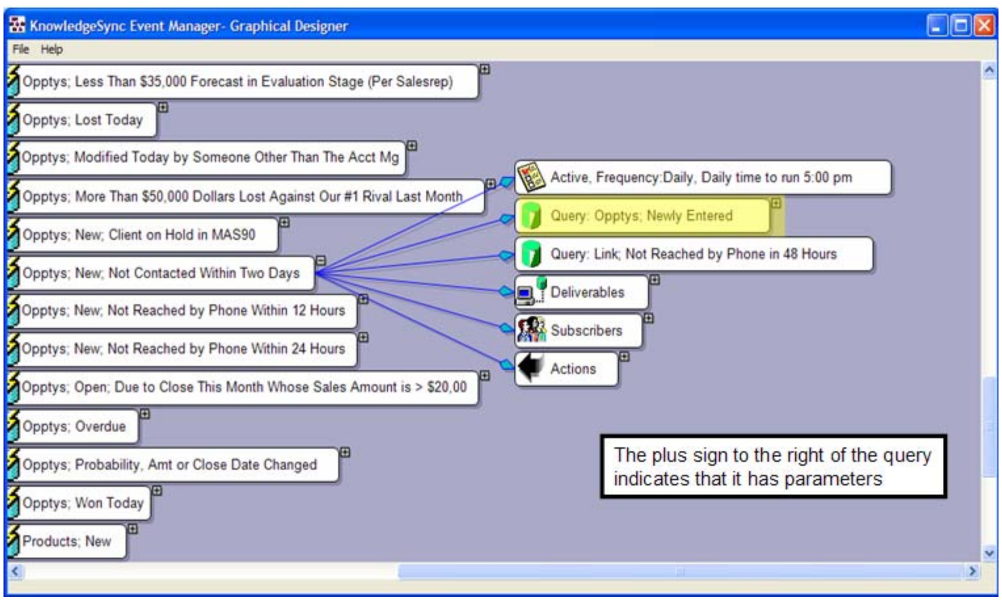
6. To save your changes, click on “Save and Close” at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Changing a Query’s Trigger Parameter Values

Some queries are parameter-driven, such as a query that identifies all invoices that are at least ‘x’ days old. The ‘x’ is considered a trigger parameter for the event, and the value that is specified for this parameter (such as ‘30’ for “30 days old”) is referred to as the event’s trigger parameter value.

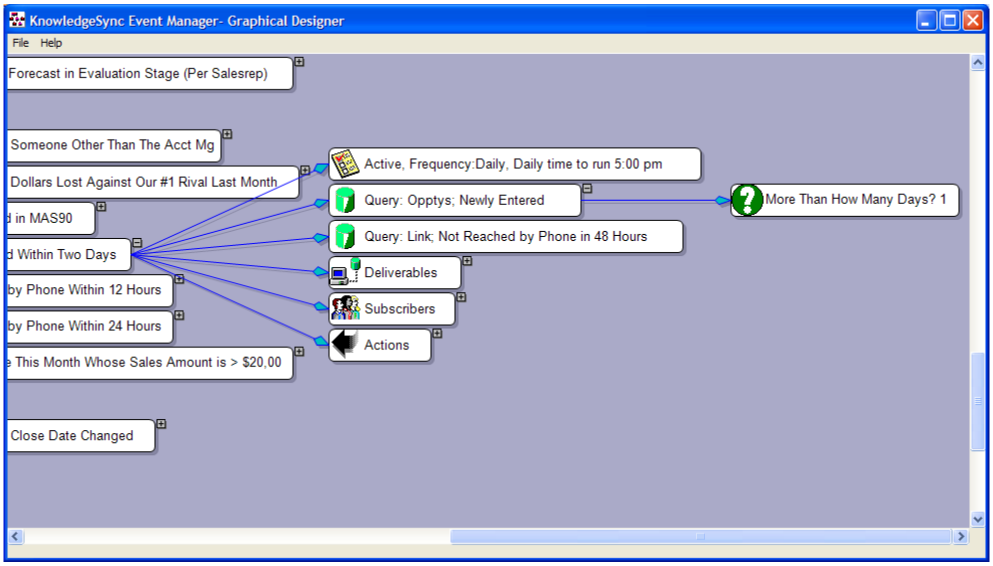
To change an event’s trigger parameter values, follow these steps:

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its query(ies).
4. Locate the query whose parameter value you wish to modify; the plus sign next to the query indicates that it is parameter-driven as shown below:



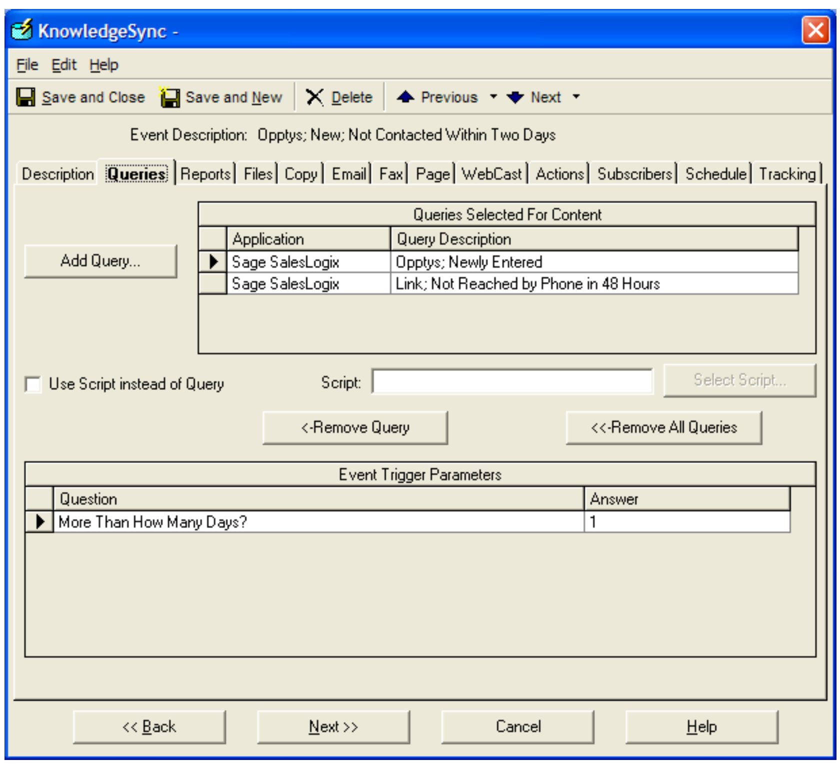
AN EVENT WITH A QUERY PARAMETER

5. Click on this plus sign to the right of the query to view the query’s parameters’ descriptions and current values as shown below:



THE QUERY PARAMETER VALUE

6. Double-click on the parameter branch you wish to change. You will be taken into the following window:



QUERY PARAMETER MAINTENANCE

7. Make all necessary changes. To save your changes, click on the “Save and Close” button at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

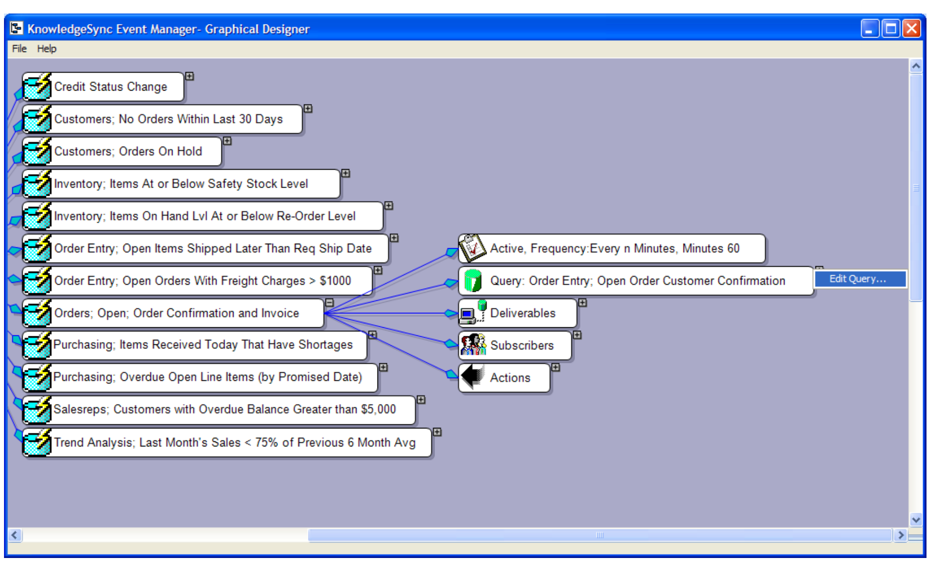
Removing a Query from an Event

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its query(ies).
4. Locate the query you wish to remove and double-click on it.
5. Remove the query as needed.
6. To save your changes, click on “Save and Close” at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Changing a Query’s Definition

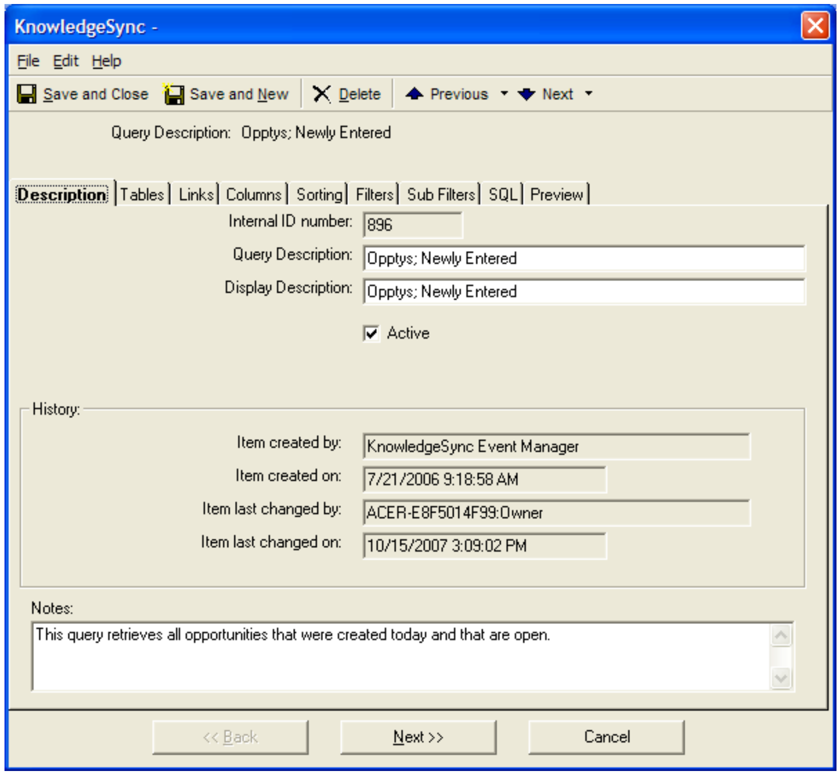
A query is typically configured to retrieve only certain fields of data as well as data that meets certain criteria, such as sales opportunities that have a status of “Open”. If you wish to change the configuration of a query, you would need to modify the query’s definition as follows:

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its query(ies).
4. Right-click on the branch that contains the name of the query you wish to work on and select “Edit Query” as shown in the following illustration:



HOW TO ACCESS THE QUERY’S CONFIGURATION

5. This will take you into the details of the associated query's definition as shown below. Make all necessary changes.



QUERY DEFINITION MAINTENANCE

6. To save your changes, click on the "Save and Close" button at the top-left of your window.

7. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

Adding / Changing / Removing Event Reports

The following sections detail how to add, change, or remove reports from KnowledgeSync events.

Adding a Report to an Event

1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event.
4. Click on the "Reports" tab.
5. Add reports (and their parameter values, if required) as needed.
6. To save your changes, click on "Save and Close" at the top-left of your window.

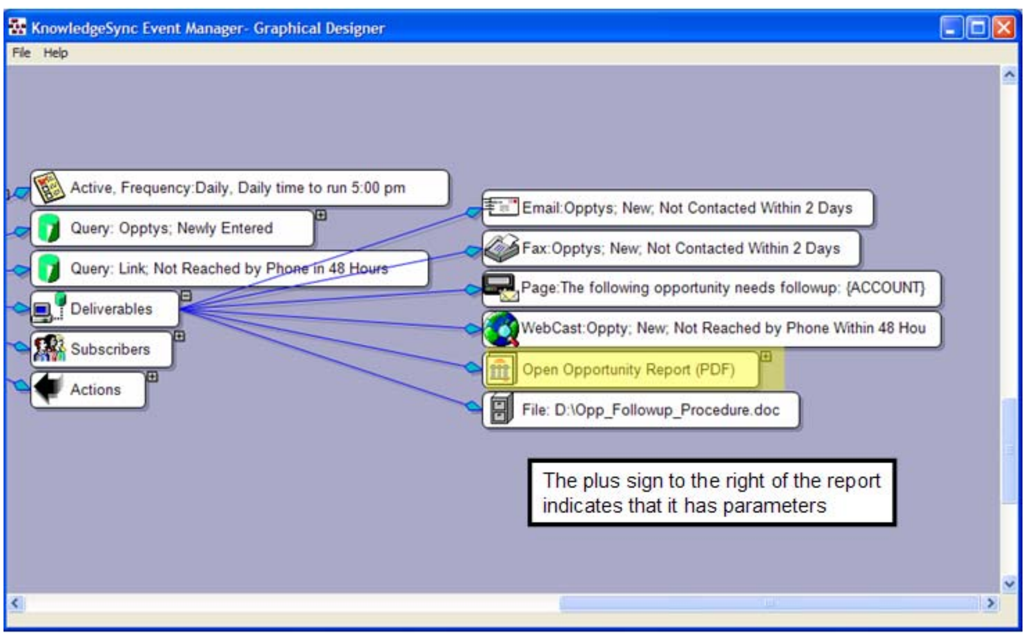
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Changing a Report’s Parameter Values

Some reports are parameter-driven, such as a report that generates invoices for newly-entered orders. The report parameter will be the value of a field coming from the event’s query (such as a field called “{order_no}”), and this parameter is referred to as the event’s report parameter value.

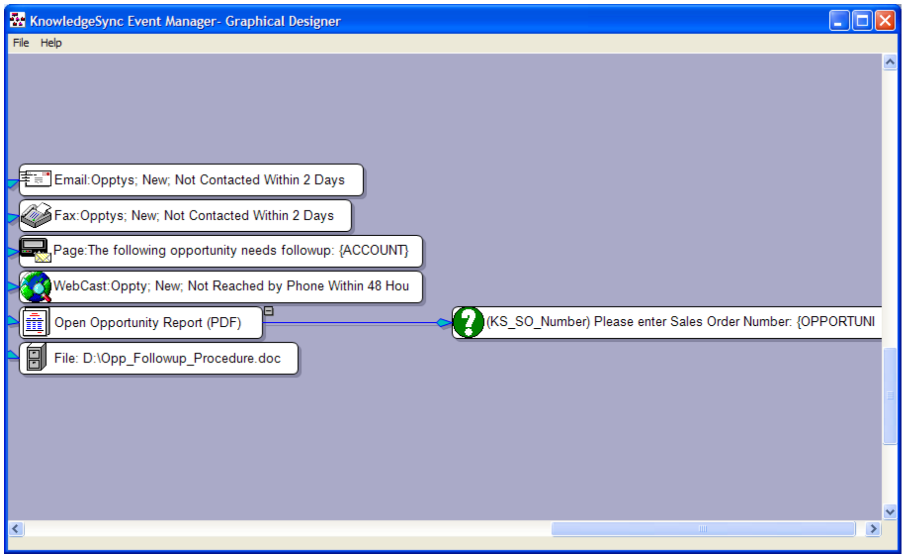
To change an event’s report’s parameter values, follow these steps:

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.
4. Expand the Deliverables so that you can view the associated report(s). (Reports are identified by a report icon in the first position of their branch.)
5. Locate the report whose parameter values you wish to modify; the plus sign next to the report indicates that it is parameter-driven as shown below:



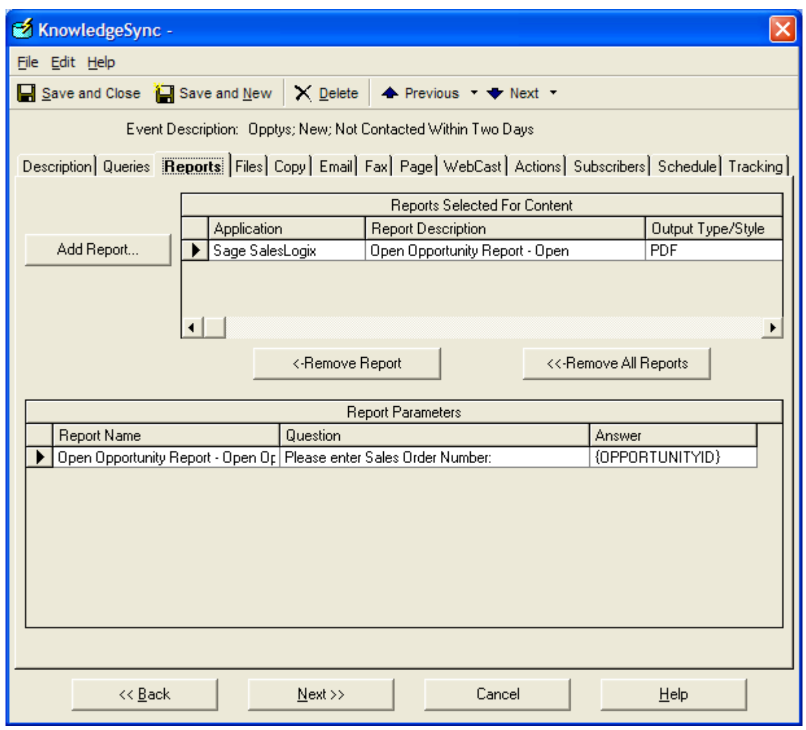
AN EVENT WITH REPORT PARAMETERS

6. Click on this plus sign to the right of the report to view the report’s parameters’ descriptions and current values as shown below:



THE REPORT PARAMETER VALUE

7. Double-click on the parameter branch you wish to change. You will be taken into the following window:



REPORT PARAMETER MAINTENANCE

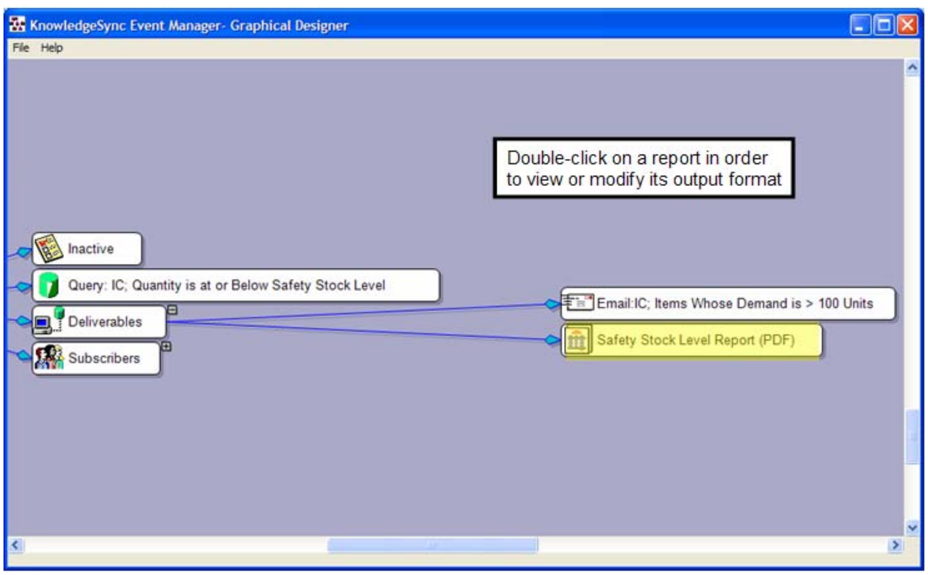
8. Make all necessary changes. To save your changes, click on the “Save and Close” button at the top-left of the window.

9. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Changing a Report’s Output Format

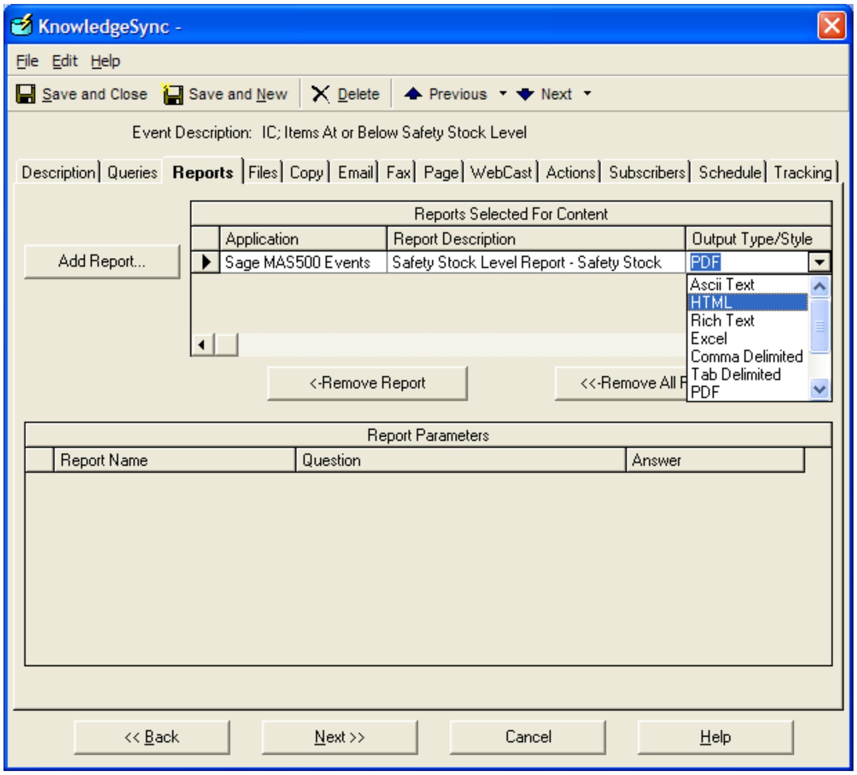
Reports can be configured to generate output in a variety of formats, including PDF, HTML, and so on. If you wish to change the format of a report associated with an event, follow these steps:

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.
4. Expand the Deliverables so that you can view the associated report(s).
5. Double-click on the branch that contains the name of the report whose output format you wish to change as shown below:



SELECTING A REPORT TO CHANGE ITS OUTPUT FORMAT

6. This will take you into the details of the report’s generation for this event as shown below. Make all necessary changes.



REPORT OUTPUT FORMAT MAINTENANCE

7. To save your changes, click on the "Save and Close" button at the top-left of your window.

8. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

Viewing/Editing the Report's Definition

A report is configured to use a specific Crystal Reports ".rpt" file, and can also be configured to generate output according to a specific naming convention. If you wish to change either the definition of the ".rpt" file or the name of the report output file, you would need to modify the report itself using this option:

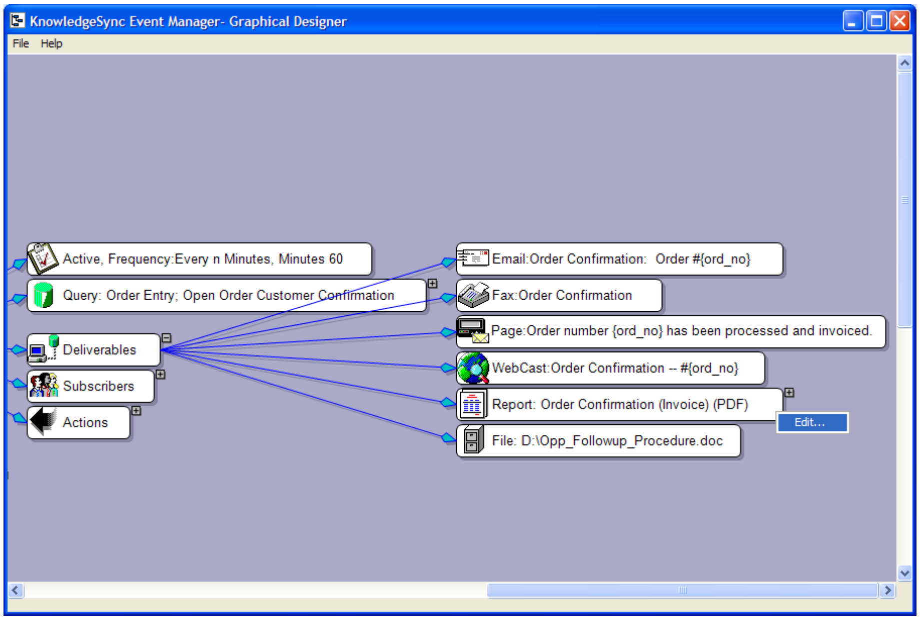
1. Expand the "All Events" branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event so that you can view its Deliverables.

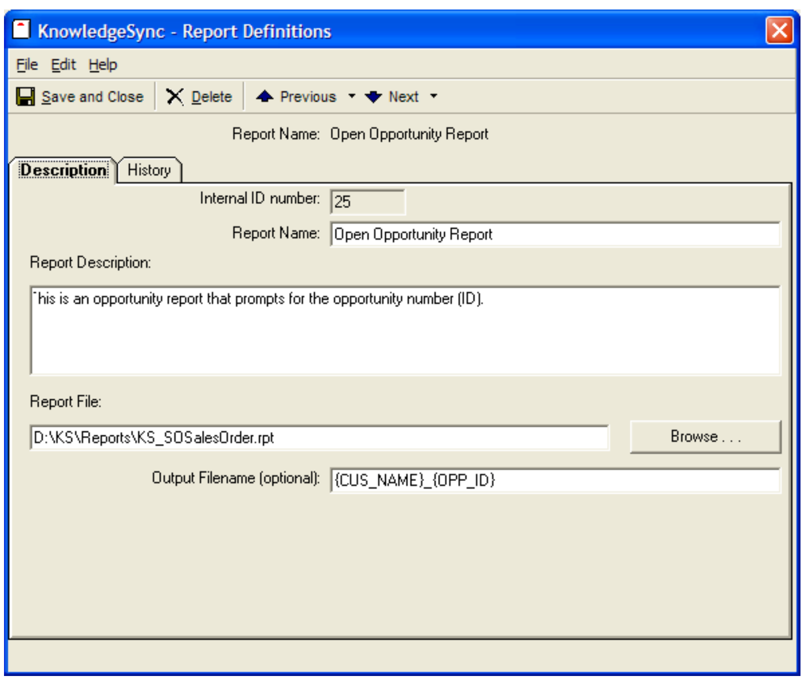
4. Expand the Deliverables so that you can view the associated report(s).

5. Right-click on the branch that contains the name of the report whose definition you wish to edit or view, and select "Edit" as shown in the following illustration:



HOW TO ACCESS THE REPORT'S CONFIGURATION

6. This will take you into the details of the associated report's definition as shown below. Make all necessary changes.



REPORT DEFINITION MAINTENANCE

7. To save your changes, click on the "Save and Close" button at the top-left of your window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Removing a Report from an Event

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.
4. Expand the Deliverables so that you can view the associated report(s).
5. Double-click on the branch that contains the name of the report you wish to remove.
6. Remove the report as needed.
7. To save your changes, click on “Save and Close” at the top-left of your window.
8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Adding / Changing / Removing Event Files

The following sections detail how to add, change, or remove files from KnowledgeSync events.

Adding a File to an Event

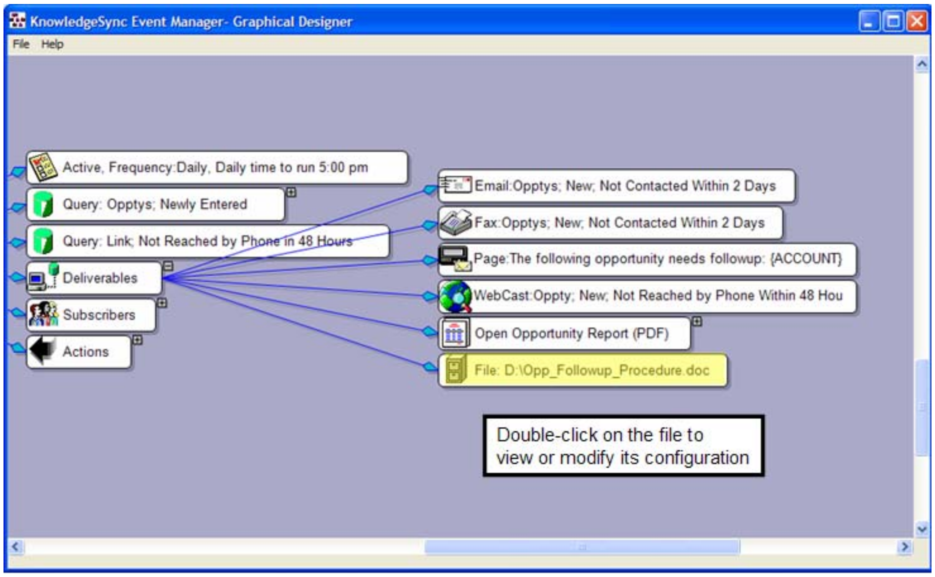
1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event.
4. Click on the “Files” tab.
5. Add reports (and corresponding settings) as needed.
6. To save your changes, click on “Save and Close” at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Changing or Removing Event Files

To change the configuration of a file (ore remove a file) associated with an event, follow these steps:

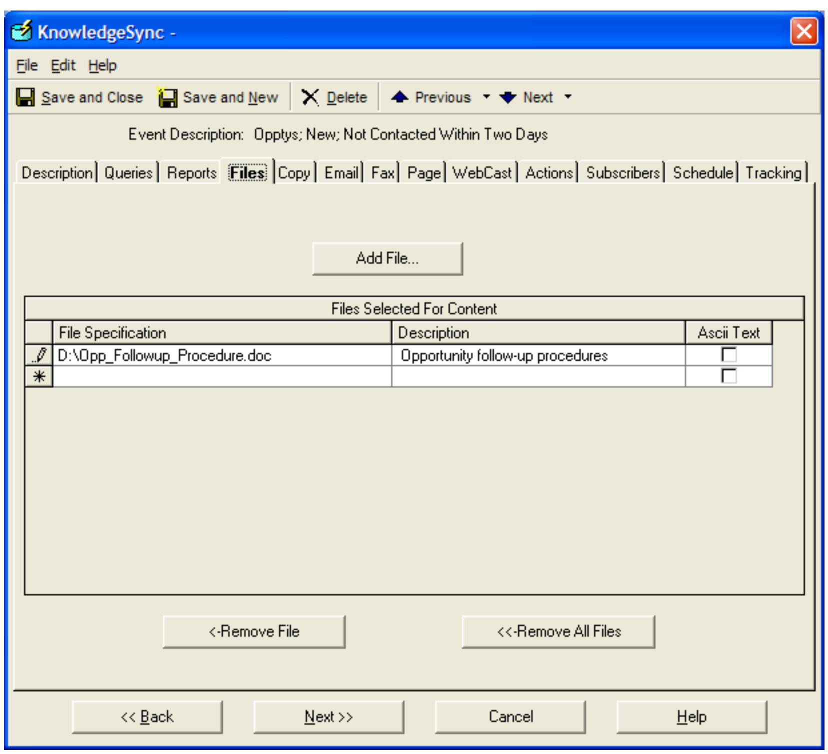
1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.

4. Expand the Deliverables so that you can view the associated File(s). Files are identified by a file cabinet icon and the word "File" in the first position of their branch as shown below:



AN EVENT WITH AN ASSOCIATED FILE

5. Double-click on the file branch you wish to change or remove. You will be taken to the following window:



EVENT FILE MAINTENANCE

6. Make all necessary changes. To save your changes, click on the “Save and Close” button at the top-left of the window.

7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Adding or Changing the Event Email Alert Message

The following sections detail how to add or modify the email alert message that is associated with a KnowledgeSync event.

Adding Email Alert Text to an Event

These steps are required only if an event does not have an email alert message already configured.

1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Double click on the name of the event.

4. Click on the “Email” tab.

5. Add the email alert message text as well as the other email settings as needed.

6. To save your changes, click on “Save and Close” at the top-left of your window.

7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Viewing/Editing an Event’s Email Alert Message

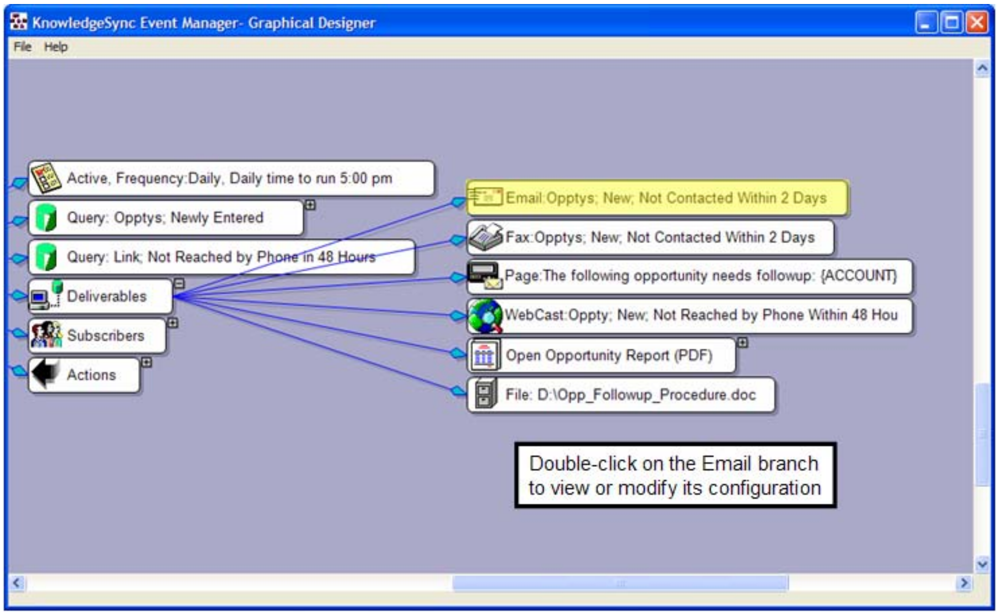
To view or edit the email alert message that is associated with an event, follow these steps:

1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event so that you can view its Deliverables.

4. Expand the Deliverables so that you can view the associated Email alert message as shown below. (The email alert message is identified by an envelope icon and the word “Email” appearing in the first position of its branch.)

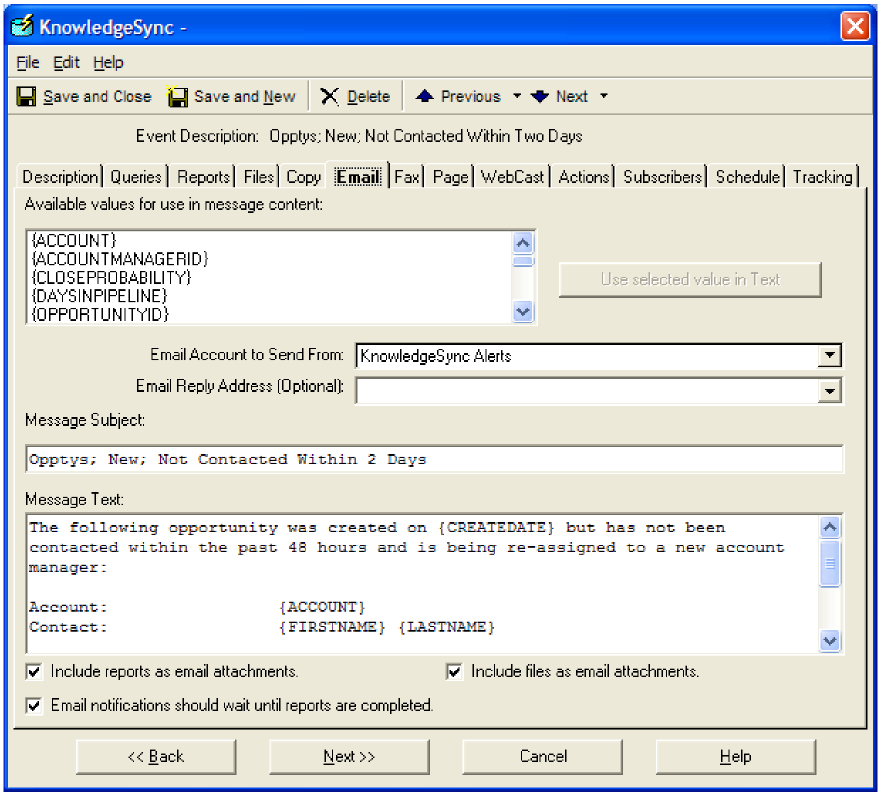


AN EVENT'S EMAIL ALERT MESSAGE

5. To view the contents of the email alert message, simply place your cursor over the Email branch. The text of the email alert message body will pop up automatically within the GUI window.

6. To view/edit the email alert message content and configuration, double-click on the Email branch. This will take you into the “Email” tab of the associated event as shown below.

   From here, you may view and/or change the email sending account, the reply-to account, the email message subject and body content, and the email attachment options.



EMAIL ALERT MESSAGE MAINTENANCE

7. To save your changes, click on “Save and Close” at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Please note that no email record will appear for an event in the GUI if the email message “subject” field is left blank.

Note also that once you are on the “Email” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of the event.

Adding or Changing the Event Fax Alert Message

The following sections detail how to add or modify the fax alert message that is associated with a KnowledgeSync event.

Adding Fax Alert Text to an Event

These steps are required only if an event does not have a fax alert message already configured.

1. Expand the “All Events” branch.

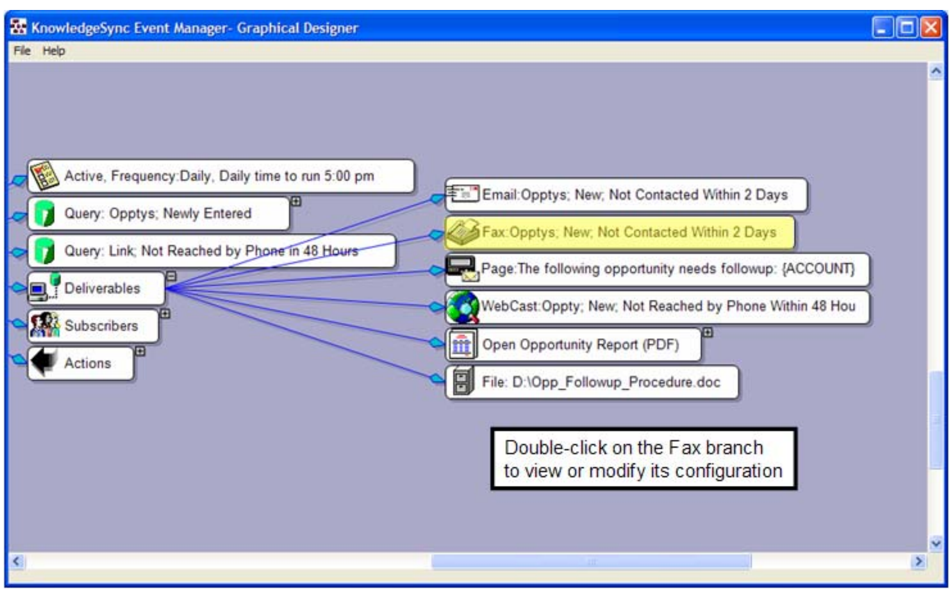
2. Expand the application that contains the event you wish to work with.

3. Double click on the name of the event.
4. Click on the “Fax” tab.
5. Add the fax alert message text as well as the other fax settings as needed.
6. To save your changes, click on “Save and Close” at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Viewing/Editing the Event’s Fax Alert Message

To view or edit the fax alert message that is associated with an event, follow these steps:

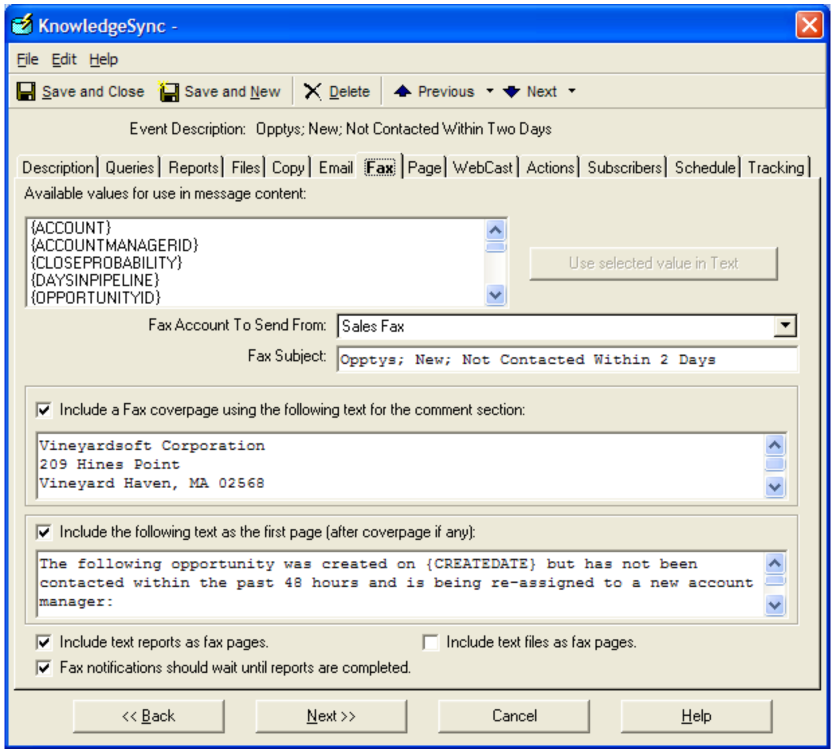
1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.
4. Expand the Deliverables so that you can view the associated fax alert message as shown below. (The fax alert message is identified by a fax machine icon and the word “Fax” appearing in the first position of its branch..)



AN EVENT’S FAX ALERT MESSAGE

5. To view the contents of the fax alert message, simply place your cursor over the Fax branch. The text of the fax alert message body will pop up automatically within the GUI window.
6. To view/edit the fax alert message content and configuration, double-click on the Fax branch. This will take you into the “Fax” tab of the associated event as shown below.

From here, you may view and/or change the fax sending account, the fax message subject, cover page, and body content, and the fax attachment options.



FAX ALERT MESSAGE MAINTENANCE

7. To save your changes, click on “Save and Close” at the top-left of the window.
8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Please note that no fax record will appear for an event in the GUI if the fax message “subject” field is left blank.

Note also that once you are on the “Fax” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of the event.

Adding or Changing the Event Pager Message

The following sections detail how to add or modify the pager alert message that is associated with a KnowledgeSync event.

Adding Pager Alert Text to an Event

These steps are required only if an event does not have a pager alert message already configured.

1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Double click on the name of the event.

4. Click on the “Page” tab.

5. Add the pager alert message text as well as the “wait for reports” setting as needed.

6. To save your changes, click on “Save and Close” at the top-left of your window.

7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Viewing/Editing the Event’s Pager Alert Message

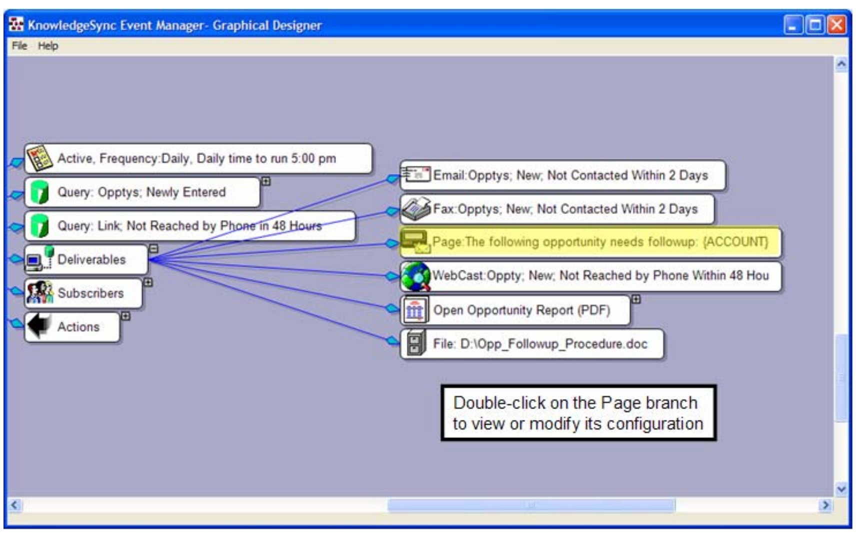
To view or edit the pager alert message that is associated with an event, follow these steps:

1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event so that you can view its Deliverables.

4. Expand the Deliverables so that you can view the associated page alert message as shown below. (The page alert message is identified by a pager icon and the word “Page” appearing in the first position of its branch.)



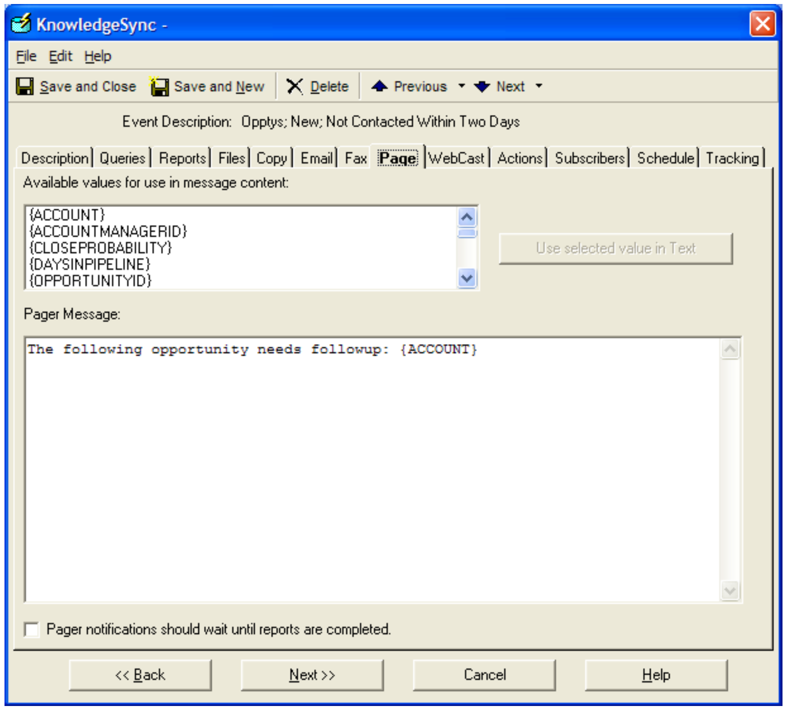
AN EVENT’S PAGER ALERT MESSAGE

5. To view the contents of the pager alert message, simply place your cursor over the Page branch. The text of the pager alert message body will pop up automatically within the GUI window.

6. To view/edit the pager alert message content and configuration, double-click on the Page branch. This will take you into the “Page” tab of the associated event as

shown below.

From here, you may view and/or change the pager message content, and whether the pager alert should wait for reports associated with the event to finish running before the pager message is delivered.



PAGER ALERT MESSAGE MAINTENANCE

7. To save your changes, click on “Save and Close” at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Note that once you are on the “Page” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of the event.

Adding or Changing the Event Webcast Message

The following sections detail how to add or modify the webcast alert message that is associated with a KnowledgeSync event.

Adding Webcast Alert Text to an Event

These steps are required only if an event does not have a webcast alert message already configured.

1. Expand the “All Events” branch.

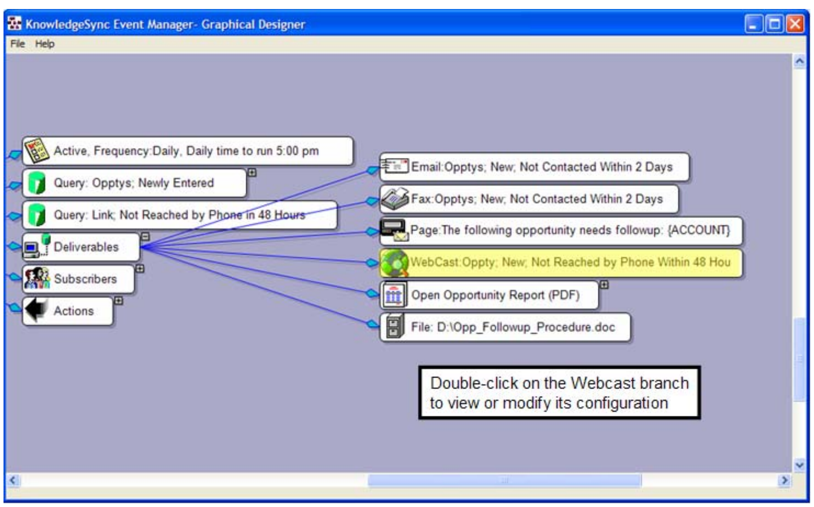
2. Expand the application that contains the event you wish to work with.

3. Double click on the name of the event.
4. Click on the "Webcast" tab.
5. Add the webcast alert message text as well as the other webcast settings as needed.
6. To save your changes, click on "Save and Close" at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

Viewing/Editing the Event's Webcast Alert Message

To view or edit the webcast alert message that is associated with an event, follow these steps:

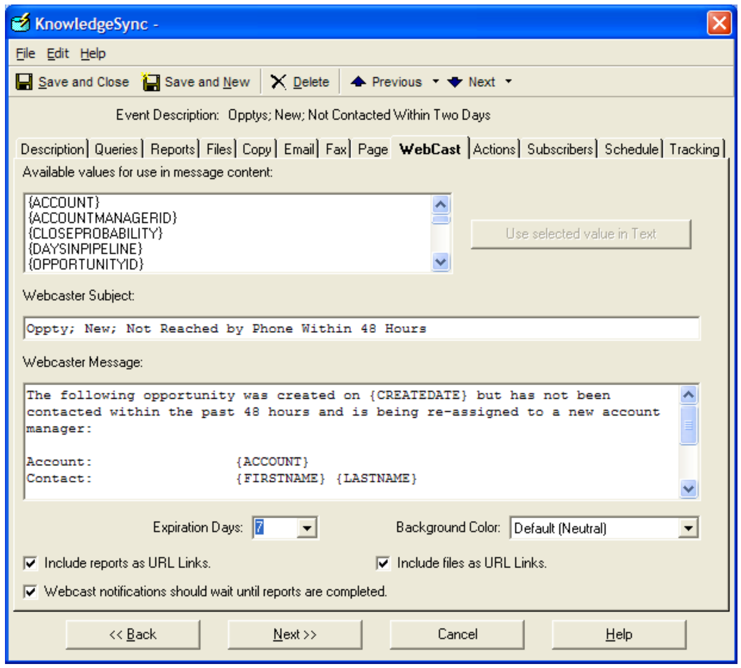
1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Deliverables.
4. Expand the Deliverables so that you can view the associated webcast alert message as shown below. (The webcast alert message is identified by a globe icon and the word "Webcast" appearing in the first position of its branch.)



AN EVENT'S WEBCAST ALERT MESSAGE

5. To view the contents of the webcast alert message, simply place your cursor over the Webcast branch. The text of the webcast alert message body will pop up automatically within the GUI window.
6. To view/edit the webcast alert message content and configuration, double-click on the Webcast branch. This will take you into the "Webcast" tab of the associated event as shown below.

From here, you may view and/or change the webcast message content as well as the other webcast settings, such as expiration days, color-coding, and whether to handle attachments as URL links.



WEBCAST ALERT MESSAGE MAINTENANCE

7. To save your changes, click on “Save and Close” at the top-left of the window.
8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Note that once you are on the “Webcast” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of the event.

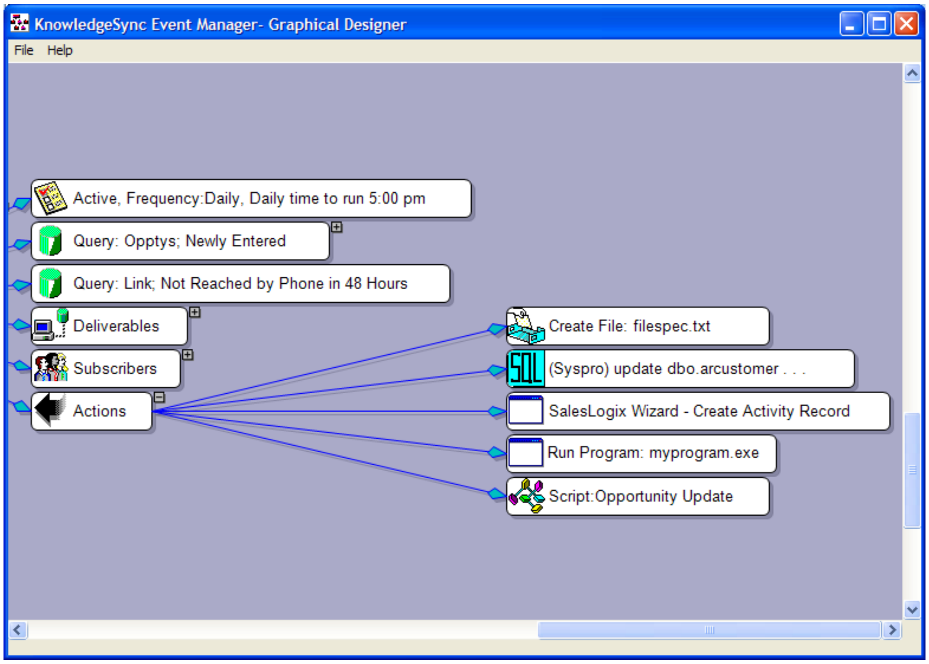
Add / Change / Remove Event Actions (Workflow)

The following sections detail how to add or modify the workflow actions that are associated with a KnowledgeSync event.

There are up to five kinds of Actions that can be associated with an event. They are:

- The creation of a file containing triggered event data
- The execution of SQL Statements and/or Stored Procedures
- The execution of one of KnowledgeSync’s Wizards
- The submission of Executable Programs
- The execution of one or more Visual Basic Scripts

All of these workflow types are shown under the “Actions” branch of an event as shown below:



AN EVENT’S 5 WORKFLOW ACTION TYPES

Adding Actions (Workflow) to an Event

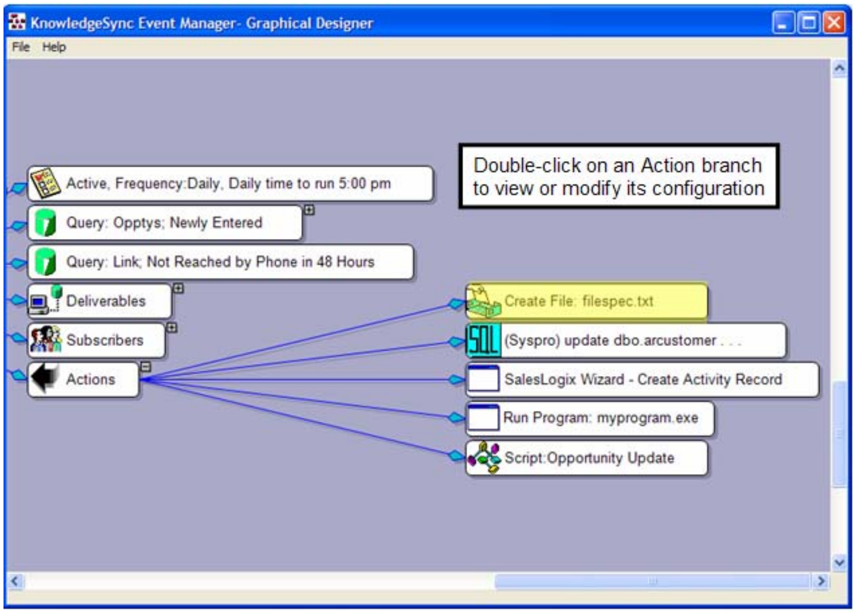
1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event.
4. Click on the “Actions” tab.
5. Specify the event’s actions as needed.
6. To save your changes, click on “Save and Close” at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

View/Edit/Remove the Event’s Actions (Workflow)

To view, edit, or remove the workflow actions associated with an event, follow these steps:

1. Expand the “All Events” branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Actions.

4. Expand the Actions so that you can view the associated workflow. (Note that each of the five types of actions referenced above will be uniquely identified.)

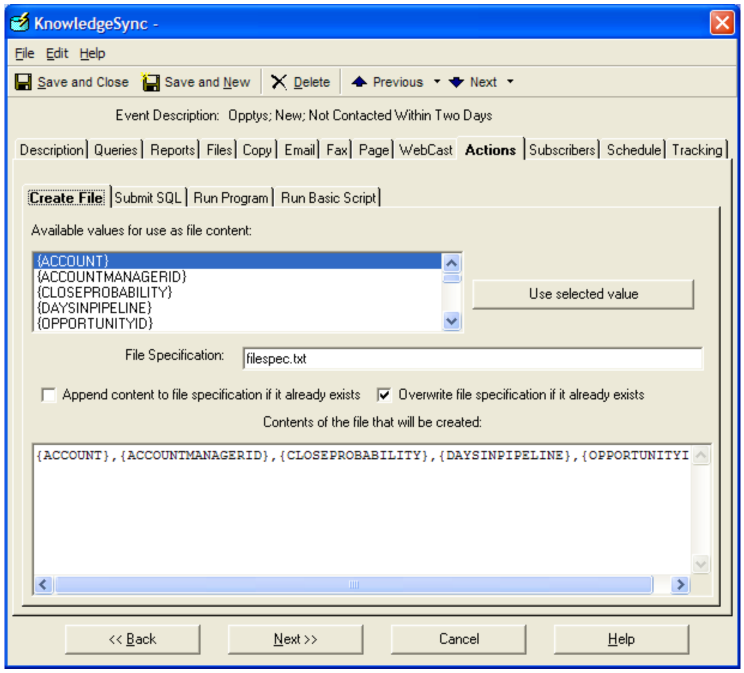


AN EVENT'S WORKFLOW ACTIONS

5. To get a summary of an action, simply place your cursor over the corresponding Action branch. An overview of the action will pop up automatically within the GUI window.

6. To view/edit the full action configuration, double-click on the corresponding Action branch. This will take you into the "Action" tab of the associated event as shown below.

   From here, you may view, change, or remove the action definition. Note that only technically experienced people should be allowed access to this option.



WORKFLOW ACTION MAINTENANCE

7. To save your changes, click on “Save and Close” at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Note that once you are on the “Actions” tab of an event, you may click on any of the other tabs associated with the event if you wish to view or make additional changes to other components of the event.

Viewing/Editing the Script Definition

When you double-click on a Script associated with an event, you are taken to the KnowledgeSync option where the script is linked to the corresponding event. From here you may view the details of this link as well as delete this link, if appropriate.

If you wish to view the definition of this script (including viewing, editing, or testing the actual source code of the script), follow these steps:

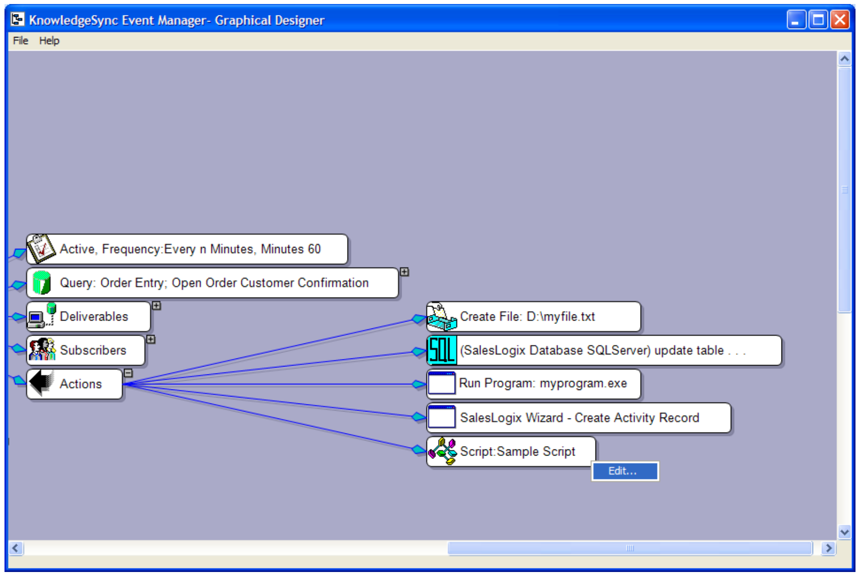
1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event so that you can view its Actions.

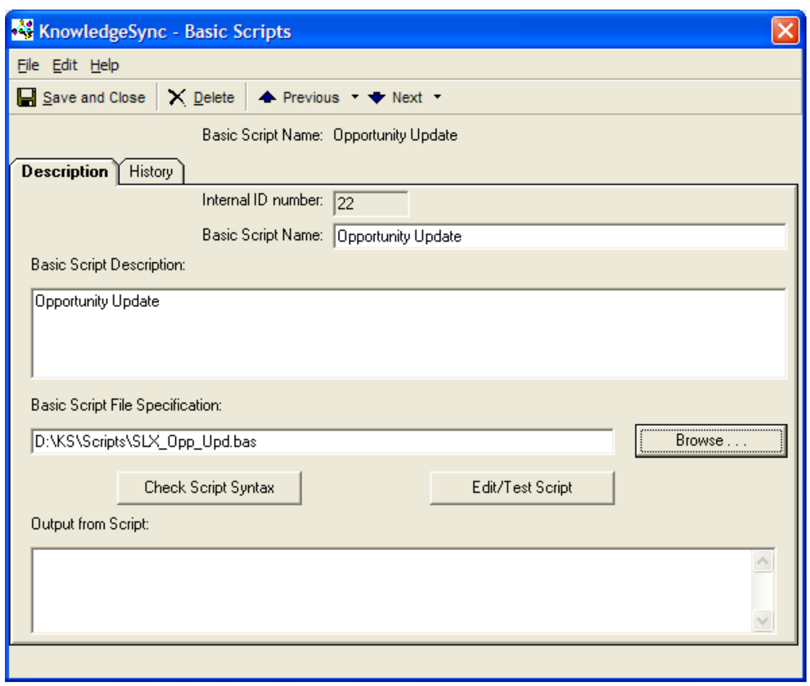
4. Expand the Actions so that you can view the associated workflow.

5. Right-click on the script and select “Edit” as shown below:



HOW TO ACCESS THE SCRIPT'S CONFIGURATION

6. This will take you into the details of the script's definition. From here, you may view, test, and/or edit the script's source code as shown below:



SCRIPT DEFINITION MAINTENANCE

7. To save your changes, click on "Save and Close" at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

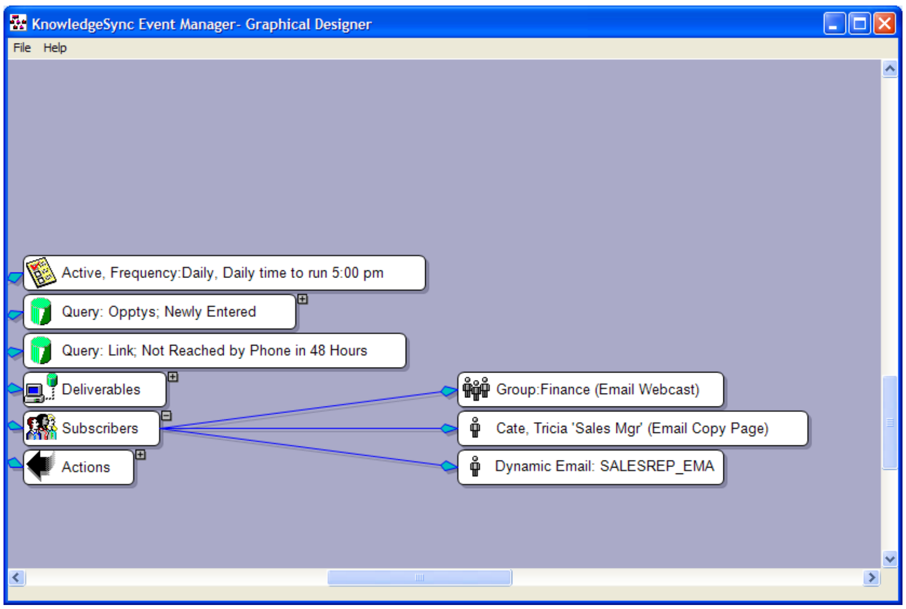
Add / Change / Remove Event Subscribers

The following sections detail how to add or modify the subscribers who will receive alerts related to a specific KnowledgeSync event.

There are three types of subscribers that can be associated with an event. They are:

- Specific users (as defined by their names)
- Dynamic users (users who are related to the event being triggered)
- Specific groups of users (as defined by their group name)

All of these subscriber types are shown under the "Subscribers" branch of an event as shown below:



AN EVENT'S 3 SUBSCRIBER TYPES

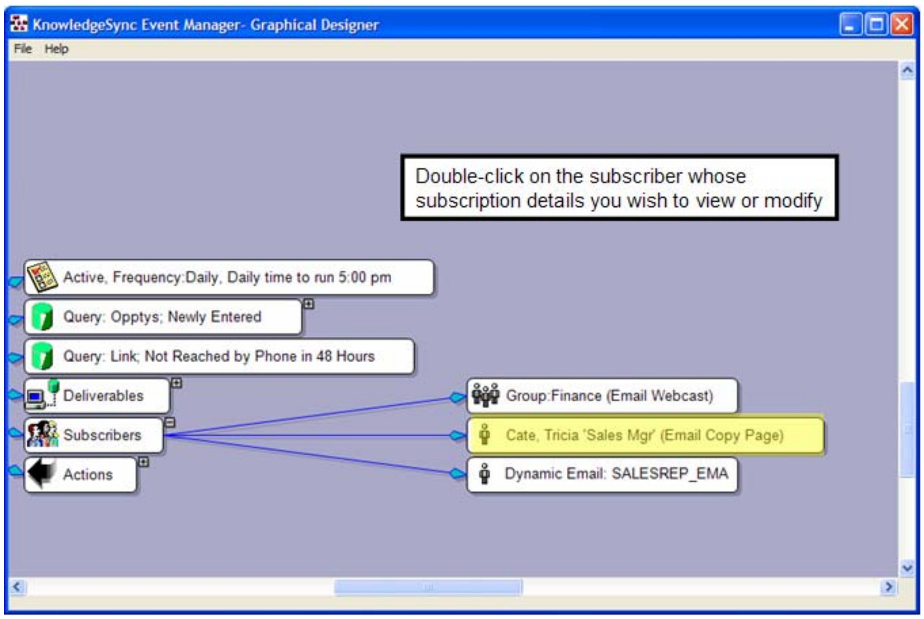
Adding Subscribers to an Event

1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Double click on the name of the event.
4. Click on the "Subscribers" tab and choose to add either "Standard" or "Advanced" subscribers.
5. Select the event's subscribers as needed.
6. To save your changes, click on "Save and Close" at the top-left of your window.
7. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

Changing/Removing a Subscriber for an Event

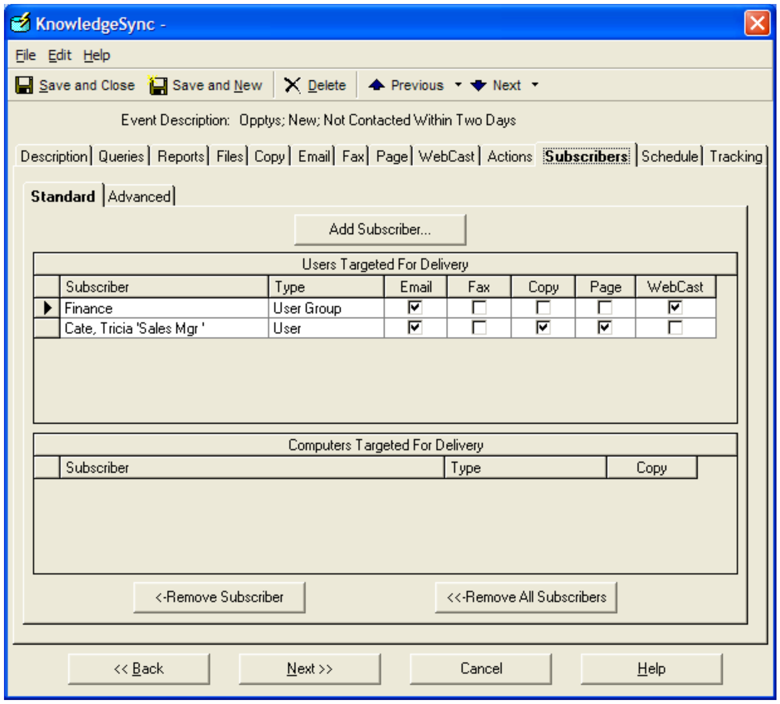
To change the delivery method(s) for a subscriber, to remove a subscriber for an event, or to change the message "breaking logic" associated with an event, follow these steps:

1. Expand the "All Events" branch.
2. Expand the application that contains the event you wish to work with.
3. Expand the event so that you can view its Subscribers.
4. Expand the Subscribers so that you can view the associated alert recipients.
5. Double-click on the subscriber record you wish to change or remove as shown in the following illustration:



AN EVENT'S SUBSCRIBERS

6. You will be brought into a Subscriber Maintenance window as shown below.



EVENT SUBSCRIBER MAINTENANCE

7. Make all necessary changes. To save your changes, click on the “Save and Close” button at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the “Cancel” button.

Note that the alert message “breaking logic” is defined in the “Advanced” tab of Subscribers. Please refer to the KnowledgeSync Reference Guide for details on specifying the message “breaking logic”.

Viewing/Editing a Subscriber’s Profile

If you wish to view the profile of a subscriber (including their delivery addresses, and other delivery details), follow these steps:

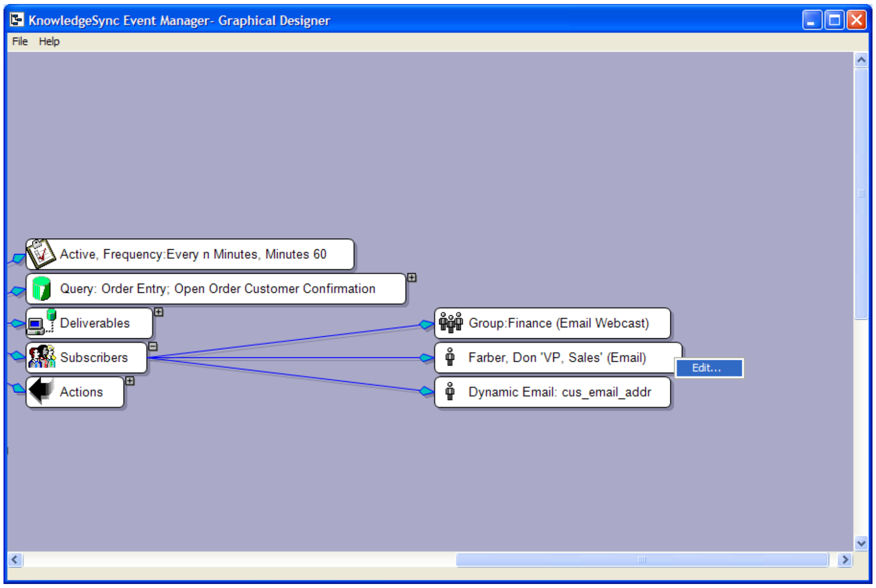
1. Expand the “All Events” branch.

2. Expand the application that contains the event you wish to work with.

3. Expand the event so that you can view its Subscribers.

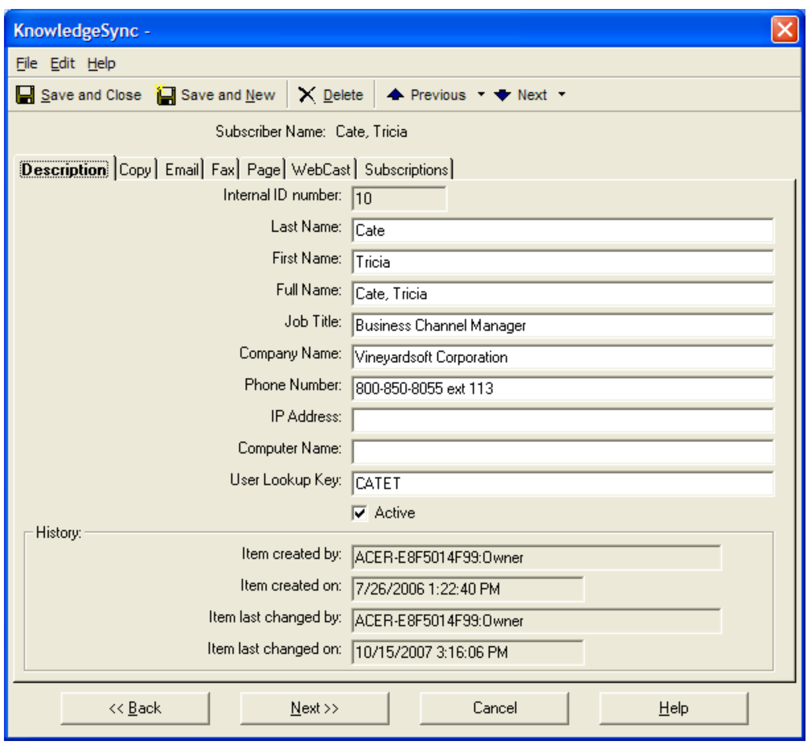
4. Expand the Subscribers branch so that you can view the associated alert recipients.

5. Right-click on the subscriber whose profile you wish to view and/or modify and select “Edit” as shown below:



HOW TO ACCESS A SUBSCRIBER'S PROFILE

6. This will take you into the details of the subscriber's profile. From here, you may view and/or edit the profile as shown below:



SUBSCRIBER PROFILE MAINTENANCE

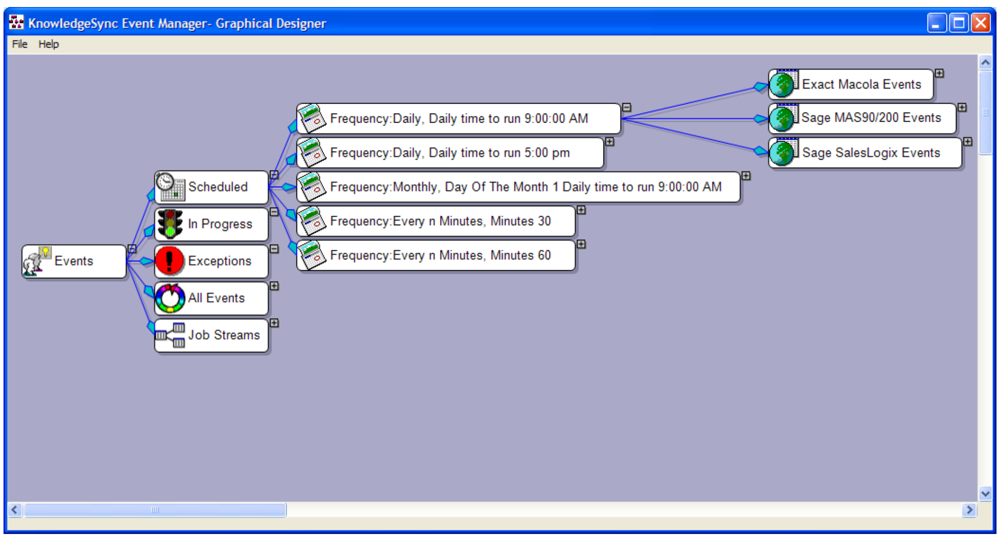
7. To save your changes, click on "Save and Close" at the top-left of the window.

8. If you have not made any changes (or do not wish to save your changes), click on the "Cancel" button.

Scheduled Events

The branch called "Scheduled" shows you those events that are currently scheduled to be submitted by KnowledgeSync. This option will show the same details as are available from the KnowledgeSync Monitor, using the Monitor option called "Scheduler / Next Run Dates/Times".

Scheduled events are grouped according to their schedule – thus when you click on the plus sign to expand the "Scheduled" branch, you are shown a list of schedules that have events within them that are currently scheduled to run. To drill-down into the details of specific events, click on the plus sign next to the schedule whose events you wish to view – as shown in the following illustration:



EVENTS THAT ARE SCHEDULED TO RUN

When you expand a specific schedule, you are shown a list of the applications that have currently scheduled events. From here, you may expand an application to see the individual events that are scheduled to run. For information on viewing the various components of an event, please refer to the corresponding sections earlier in this chapter.

Edit a Scheduled Event

You have the ability to edit an event that is currently scheduled to run by right-clicking next to the name of the event and choosing "Edit". Please refer to the preceding section of this chapter (under "All Events") which details the various event editing options.

Schedule An Event to Run Now

To schedule an event to run (one time) right now, follow these steps:

1. Expand the “Scheduled” branch and navigate to the event you wish to run right now.
2. Right-click on the event and choose “Schedule This Event Now”.
3. You will be prompted to confirm that you wish to run the event right now, and then will receive a confirmation that the event has been submitted.

Please refer to the KnowledgeSync Monitor to review the status of this event once it has been submitted to run.

Test An Event

To test the execution of an event, follow these steps:

1. Expand the “Scheduled” branch and navigate to the event you wish to test.
2. Right-click on the event and choose “Test This Event Now”.
3. You will be prompted to confirm that you wish to test the event right now, and then will be presented with a web browser window in which the details of the tested event will appear.

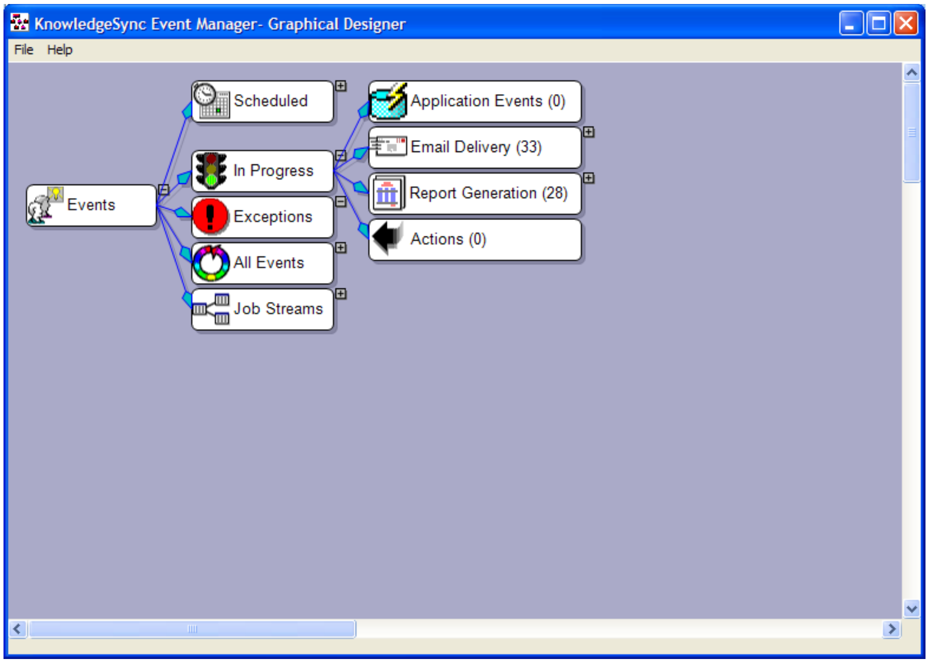
In Progress Events

The branch called “In Progress” shows you those events that are currently being executed by KnowledgeSync. This option will show the same content as is available from the KnowledgeSync Monitor, using any of the Monitor “Pending” options, such as “Application Events / Pending”, “Email Delivery / Pending”, “Report Generation / Pending”, and so on.

“In progress” (or pending) events may be in progress for two reasons. First, the events may be currently executing, but not finished running. Second, the events may have encountered an error (such as an email server being down, the failure for a Crystal Report to have run, etc.). When such errors occur, KnowledgeSync automatically re-queues the event for submission and thus the event appears as “in progress”.

Because of this, the number of sub-branches that you will see under “In Progress” events will vary – depending on whether you have any pending events, email messages, fax messages, reports, actions, and so on. If, for example, you have pending events, pending email alerts, and pending Crystal Reports, then you will see 3 sub-branches beneath “In Progress” – one branch for application events, one for email delivery, and one for actions. Next to the title of each of these branches will be a number that shows how many “in progress” items there are in each of these categories.

For example:



EVENTS THAT ARE IN PROGRESS

When you expand any one of these sub-branches, you will be shown a list of the applications for which these pending records exist. If you then expand any one of these application branches, you will be shown a listing of the specific items that are in a pending state. You can drill-down into the details of the pending records and see the following information about them:

- The name of the event that is related to the pending item
- More details about the specific item that is pending. This information will vary, based upon the pending item; for example, pending email messages will show you such details as the content of the alert as well as the email address of the account that the alert is to be sent from. Pending reports, however, will instead show you the name and location of the Crystal Report source file that the report is being generated from.

When you expand the In Progress branch, all sub-branches are expanded automatically, so you can quickly and easily see all pending events. Since there are usually not many events in a pending state, this gives you instant access to see what (if any) events are pending, and why.

Note the following:

1) The “In Progress” branch will show you sub-branches only for those KnowledgeSync servers that are currently enabled and active. Thus if your Fax Server is not enabled, you will not see an In Progress sub-branch for Faxes.

2) If an In Progress sub-branch has no “In Progress” items, the branch will show with a zero (‘0’) next to it.

3) The “In Progress” branch will show no results if the KnowledgeSync Service is not currently running.

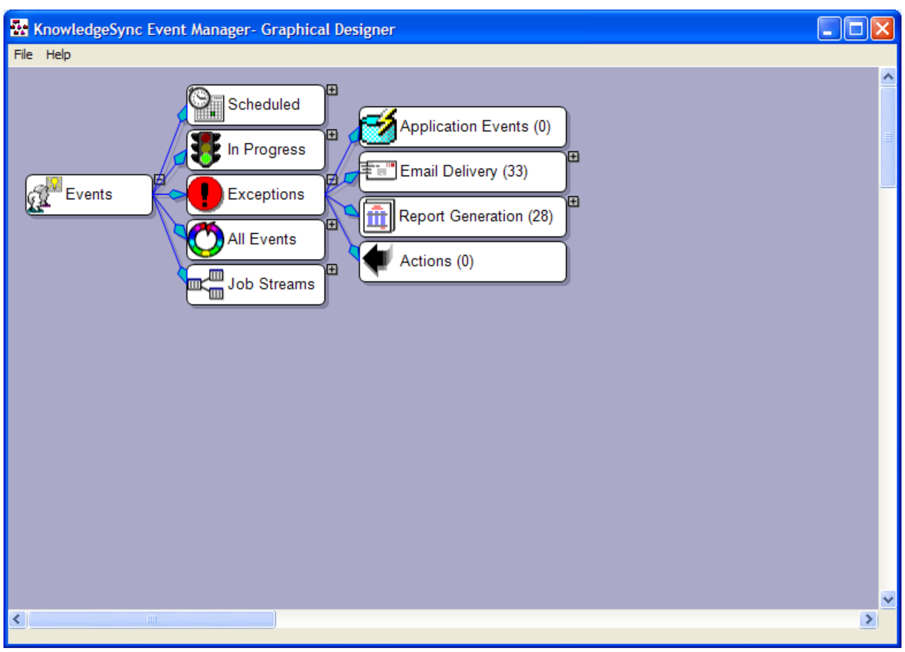
Event Exceptions

The branch called “Exceptions” shows you those events that are currently in an “Error” state in KnowledgeSync. This option will show the same content as is available from the KnowledgeSync Monitor, using any of the Monitor “Errors All” options, such as “Application Events / Errors All”, “Email Delivery / Errors All”, “Report Generation / Errors All”, and so on.

Event “exceptions” occur because of an error in the processing of an event. Errors can be caused by such things as an email server being down, the failure for a Crystal Report to have run, an invalid pager number, and so on.

Like the “In Progress” tab, the number of sub-branches that you will see under “Exceptions” will vary – depending on whether you have any event errors, email errors, fax errors, reporting errors, action errors, and so on. Next to the title of each of these sub-branches will be a number that shows how many “exception” items there are in each of these categories.

For example:



EVENTS THAT ARE IN AN “EXCEPTION” (ERROR) STATE

(Note that since KnowledgeSync automatically re-queue events that are in an erroring state, all items that are listed as “exceptions” will also automatically appear within the “In Progress” branch of the GUI.)

When you expand any one of these sub-branches, you will be shown a list of the applications for which these exception items exist. If you then expand any one of these application branches, you will be shown a listing of the specific items that are in a pending state. You can drill-down into the details of the exception records and see the following information about them:

- The name of the event that is related to the exception item
- A box with a red exclamation mark in it which describes the error that is occurring* (see notes below)
- More details about the specific item that is in an error state. This information will vary, based upon the item; for example, email errors will show you such details as the content of the alert as well as the email address of the account that the alert is to be sent from. Reporting errors, however, will instead show you the name and location of the Crystal Report source file that the report is being generated from.

Exceptions will appear only for those items that have encountered an error message or error number. You will not, for example, see Email Exceptions if you have an event that fails to generate a Crystal Report which is then to be emailed to a recipient. If the Crystal Report fails, the report record will appear under “Exceptions” – but the email message itself will not, even though it has not been successfully delivered.

Note the following:

1. The “Exceptions” branch will show you sub-branches only for those KnowledgeSync servers that are currently enabled and active. Thus if your Fax Server is not enabled, you will not see an Exceptions sub-branch for Faxes.
2. If an Exceptions sub-branch has no “Exceptions” items, the branch will show with a zero (‘0’) next to it.
3. The “Exceptions” branch will show no results if the KnowledgeSync Service is not currently running.

Correcting Event Exceptions

When a KnowledgeSync event encounters an error, KnowledgeSync automatically re-queues the event and if the error is something that is self-correcting (such as an email server that is down), the error will eventually go away once the event successfully runs. However, there are other error conditions which are not self-correcting (such as an invalid query, an error in a Crystal Report, an invalid pager number, and so on), and in these cases you have the ability to “correct” the error that is occurring.

To correct an error, you would begin by using the GUI “Exceptions” branch to navigate to the particular error/exception that you wish to correct. You have 2 choices as to how to correct an exception:

- Correct the erroring information. This could involve re-entering a corrected email address, modifying a pager number or PIN, specifying a different fax number, and so on.

- Manually setting the status of the exception record to "complete". This keeps the exception record in the KnowledgeSync history database, but since the status of the exception is "complete", this record no longer appears under the "Exceptions" branch.

To take either of these actions, follow these steps:

- Go to the Exceptions box with the red exclamation mark in it – this is the box that contains the details of the error condition that is occurring
- Double-click on this box. A window titled "Edit/Complete Error Status" will appear. From here you will see full details of the error that is occurring as well as have the ability to correct or manually override the completion status of this event.

Please note that only certain kinds of exception/error conditions are able to be "corrected" from this window. Errors within a report, within an event's query, or in other places may be correctable only by going into that corresponding record and making the appropriate modifications.

Once you are finished correcting or completing an exception record, simply click on the "OK" button at the bottom of this window to save your entry and return to the main GUI window.

Job Streams

An event "job stream" is a collection of multiple events that need to run in a sequential fashion, one after another. Job streams have the following unique characteristics:

- There is only a single submission time for all of the events in a job stream. That submission time (or schedule) indicates when the first job in the stream will be submitted by KnowledgeSync.
- Each job (event) in a job stream must **fully complete** before the next job in the stream begins.

  Thus regardless of how many components an event has – reports that need to be generated, alerts that need to be sent, or workflow actions that need to be executed – the next job in a stream (as well as any subsequent events) will not begin until all of the components in any preceding events are successfully completed.

Job Streams and KnowledgeSync Processing

It is important that you understand the order in which KnowledgeSync events are executed. An event that runs every hour, for example, does the following:

1) Check to see if the event's conditions are met

2) Generate any corresponding forms, documents, and/or reports

3) Deliver alerts (including items generated in step #2) to the appropriate recipients

4) Execute workflow actions, such as adding or updating information in a database

The responses of an event execute in precisely this order – generate forms, documents, or reports first, deliver alerts second, and execute updates third.

But consider a scenario where, for example, you need to **first** update information in a database and then send alerts (which may or may not include reports).

Because a single event generates reports and alerts first and then executes updates, the preceding scenario cannot be handled by a single event. Two events are needed, and it is imperative that the first event start – and complete – before the second event is initiated.

Generally speaking, Job Streams are invaluable when:

- An initial event has multiple Reports, Forms, or Documents that it needs to generate and you want to make sure that **all** of the reports get successfully generated before you have KnowledgeSync use a subsequent event to move and/or deliver them to their intended recipients.
- An initial event writes out multiple records of triggered event data to a file and you want to make sure that **all** of the records get successfully written to this file before the file is delivered to specific recipients or acted on by other programs.
- An initial event executes Workflow Actions to write data into one or more other application databases and you need to make sure that these Actions complete successfully for **all** of the records that need to be created in the other database before another program can be run on that imported data.

Job Stream Example

Job streams are designed to handle scenarios whereby after one event is done running, another event should immediately begin execution, and – after that event is done – another event follows that one, and so on.

A typical example of using a job stream in KnowledgeSync would be to monitor and process leads that come into an organization via email. An organization might wish to follow a process such as this one when a new lead is received:

Step #1: A lead comes into your organization in the form of an email message. KnowledgeSync takes information from that email and creates a contact record in your CRM database and assigns that contact to a salesperson.

Step #2: Send an acknowledgement back to the lead contact, thanking them for their inquiry and providing contact details for the salesperson to whom the lead has been assigned.

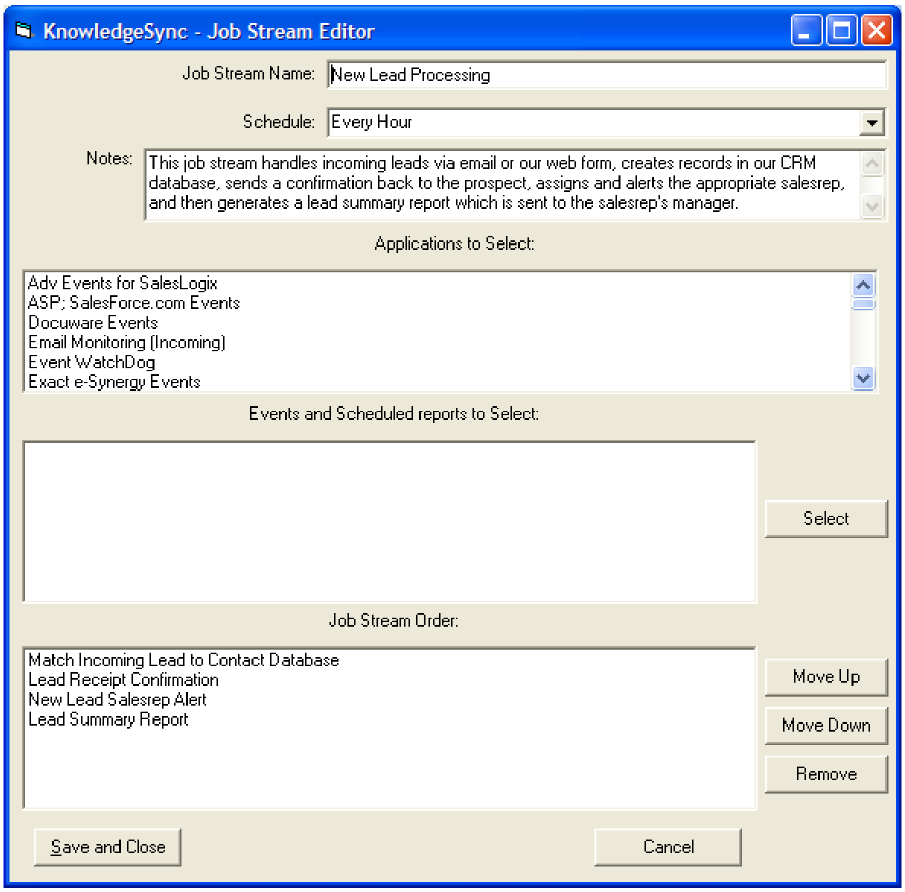
Step #3: Alert the appropriate salesperson that a new lead has come in and requires their attention.

Step #4: Generate a "New Lead Report" for the newly-created lead and deliver that report to the sales manager.

This scenario would be replicated in a 4 event job stream. The first event would monitor for incoming emails and create the lead record in your CRM database. The second event would monitor the CRM database for new lead records and send out acknowledgements to the lead contact.

The third event would send an alert message to the salesperson to whom the lead was assigned, and the fourth & final event would generate a lead report about the new lead and deliver that to the sales manager.

The following shows how such a job stream would be presented within KnowledgeSync:



JOB STREAM EXAMPLE

Event Schedules in Job Streams

Every event that you create (and activate) is eligible to be used within a job stream. However – for the purpose of clarity – it is strongly suggested that when you create an event to be used in a job stream, that the event be configured to use a schedule of **None**.

Since job streams have their own schedule (one schedule for the entire stream), it can be potentially confusing if you have a job stream (for example) that is scheduled to run every day at 9 AM but has an event within the stream that is itself configure to run every 30 minutes.

(A job stream's overall schedule will override the schedule that is associated with an individual event.)

So – if you do have one or more events that need to run in both a standalone configuration and as part of a job stream, it is strongly recommended that you create two events – a standalone event with its own schedule, and an event with a schedule of "None" which is what will be included in the appropriate job streams.

Viewing the Components of a Job Stream

To view the components (events, reports, et cetera) within a job stream, follow these steps:

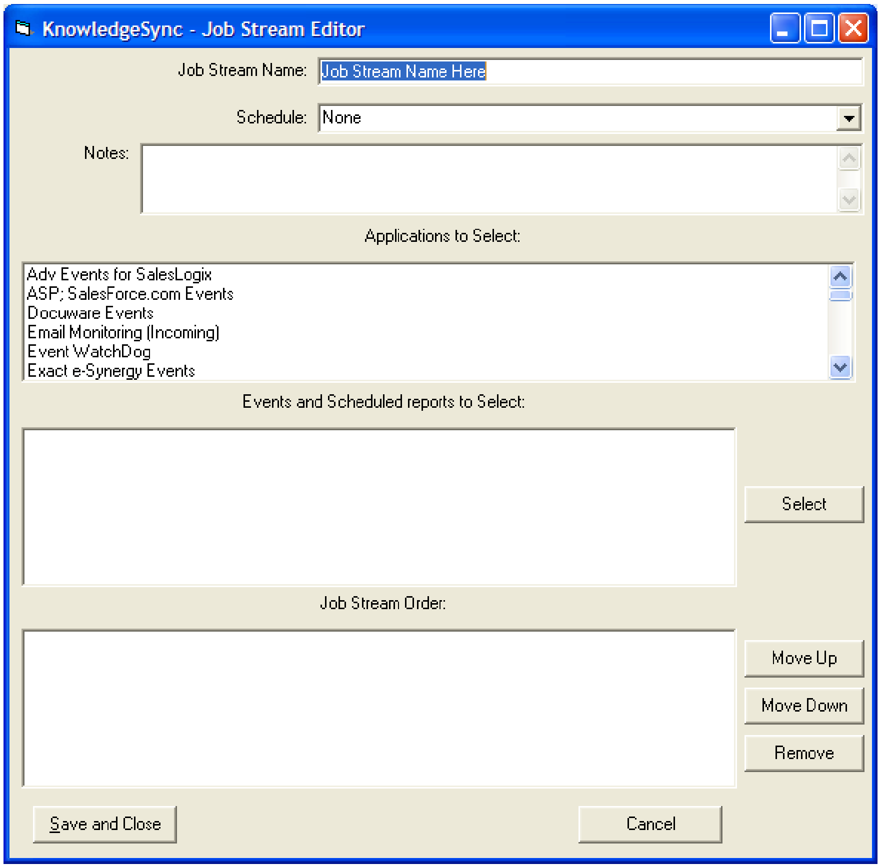
1. Expand the "Job Streams" branch.
2. Locate the job stream whose components you wish to view and then click on the plus sign (+) to the right of that stream to see the events that it consists of.

Once you display event-level detail for a job stream, you may continue by drilling-down further into those events by double-clicking (or right-clicking) on the corresponding event component in order to view (and optionally modify) its configuration.

(See the earlier sections of this chapter for details on viewing and/or modifying an event's configuration.)

Creating a New Job Stream

To create a new job stream, right-click on the "Job Streams" branch and select the menu option called "New Job Stream". When you select this option, the following window will appear:



JOB STREAM CREATION WINDOW

Fill out the fields as detailed in the following sections.

Editing an Existing Job Stream

To edit an existing job stream, expand the "Job Streams" branch and locate the job stream whose configuration you wish to modify. Double-click on that job stream to be taken into its details in "edit" mode.

Job Stream Name, Description, & Schedule

The first components of a job stream are its name and description as well as the frequency with which KnowledgeSync will submit this stream for execution. This information includes:

1. Job Stream Name: Enter a name that uniquely identifies this job stream, such as "New Order Processing Job Stream" or "Lead Entry, Matching, & Follow-Up".

2. Schedule: If you wish to allow this job stream to be scheduled to run, click on the list button in this field and choose a schedule frequency for this stream. If you leave this field blank, you can still create the stream, but it will not be scheduled to run.

3. Notes: Key in a more detailed description of the purpose of (or components of) the stream you are creating.

Adding Events to a Job Stream

A single job stream can contain events from one – or from multiple – applications. To add an event to a job stream, follow these steps:

1. In the window titled “Applications to Select”, single-click on the application that contains the event which you wish to add to the job stream.

   After you select an application, the window titled “Events and Scheduled Reports to Select” will show you a list of all active events and scheduled reports for the selected application.

2. Double-click on the event which you wish to add to the job stream; this event will then appear in the window titled “Job Stream Order”.

3. Repeat steps #1 and #2 for each event that you wish to add to the stream.

4. Click on “Save and Close” to retain the events you added to the job stream.

Re-Ordering Events in a Job Stream

Once you have selected events for a job stream, you may wish to change the order of their execution. To do so, follow these steps:

1. (If necessary) Double-click on the job stream to edit its configuration.

2. Single-click on (highlight) the event whose order of execution within the stream you wish to modify

3. Using the “Move Up” and “Move Down” buttons on the lower right-hand side of the job stream configuration window, change the order of the event in the stream according to your requirements.

4. Repeat these steps for any other events within the job stream.

5. Click on “Save and Close” to save your changes to the order of the events in the job stream, or cancel to not retain your changes.

Removing Events from a Job Stream

Once you have selected events for a job stream, you may wish to remove one or more of those events. To do so, follow these steps:

1. (If necessary) Double-click on the job stream to edit its configuration.

2. Single-click on (highlight) the event you wish to remove from the stream and click on the “Remove” button.

3. Repeat these steps for any other events which you wish to remove from the stream.

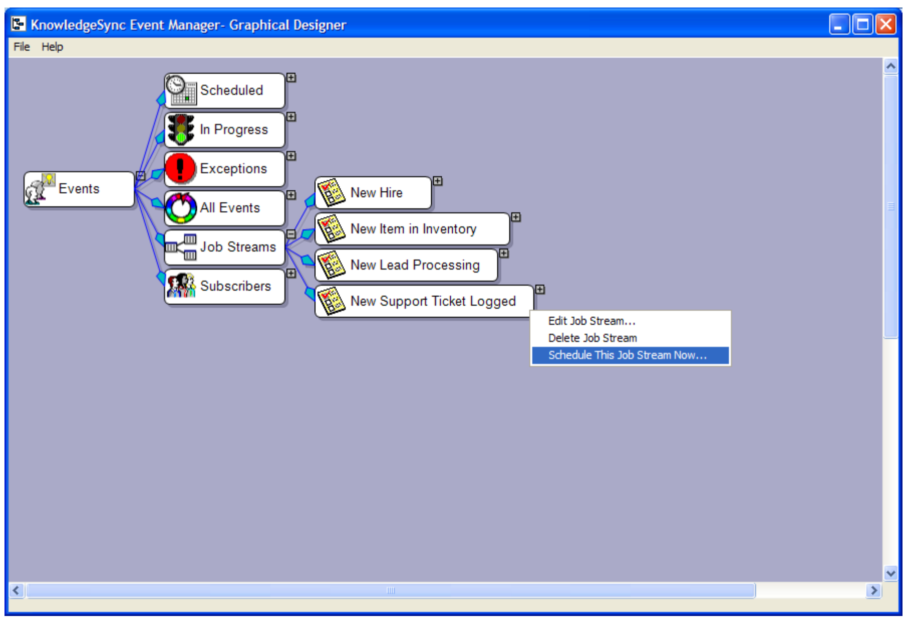
4. Click on “Save and Close” to save your changes to the stream, or click on cancel to not retain your changes.

Deleting a Job Stream

To delete a job stream, expand the “Job Streams” branch and locate the job stream you wish to remove. Right-click on that job stream and select the option called “Delete Job Stream”. You will be asked to confirm your selection and then (after you confirm) the job stream will be removed from the KnowledgeSync database.

Running a Job Stream Right Now

To execute (run) a job stream right now, expand the “Job Streams” branch and locate the job stream you wish to run. Right-click on that job stream and select the option called “Schedule This Job Stream Now”. You will be asked to confirm your selection and then (after you confirm) the job stream will be submitted to run.



RUNNING A JOB STREAM RIGHT NOW