

## Purpose:

Reports Scheduler allows the Service Desk Express administrator to schedule the execution and automated delivery of any Crystal report integrated into Service Desk Express.

## Features:

- Simple familiar interface accessible from the SDE Navigator bar.
- Any Crystal report integrated into Service Desk Express can be scheduled.
- Reports sent to any Email address as an attachment.
- **Reports can be saved to a file service for WEB access.**<sup>1</sup>
- Attachment format can be PDF, Word, Excel, Rich Text or Crystal.
- Report criteria are set using the same form as the Run Reports function in Service Desk Express.
- Date and Date/Time parameters can be set to automatically change with the schedule set.
- Reports can be scheduled to run at any time of the day and repeat in any number of hours, days, weeks, months or years.
- Email subject is user definable for each schedule.
- Email body is user definable for each schedule.
- Administrator can set the Email 'from address' for the reports server.
- Administrator can set the polling interval to find new scheduled reports.
- **Errors are logged in the schedule table against the schedule that created them.**<sup>2</sup>
- **Errors are emailed to an administrator as they are encountered. These can be sent to the email inbox for SDE and a simple business rule can be constructed to create an incident when a scheduled report encounters a problem.**<sup>3</sup>
- **Setup tool adds links to selected navigators automatically.**<sup>4</sup>

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1 New to version 1.2

2 New to version 1.1

3 New to version 1.1

4 New to version 1.2.2



## *AutoReport Reports Scheduler V1.2.2 for BMC Service Desk Express 9.6 onwards*



### **Installation**

The reports scheduler is installed by a local administrator on any Service Desk Express application server (only one reports server is allowed for each database) by executing the setup program supplied. The setup program creates a Windows service which runs on the server and is responsible for executing and distributing the reports. The currently supported version of Service Desk Express is 9.6 only.

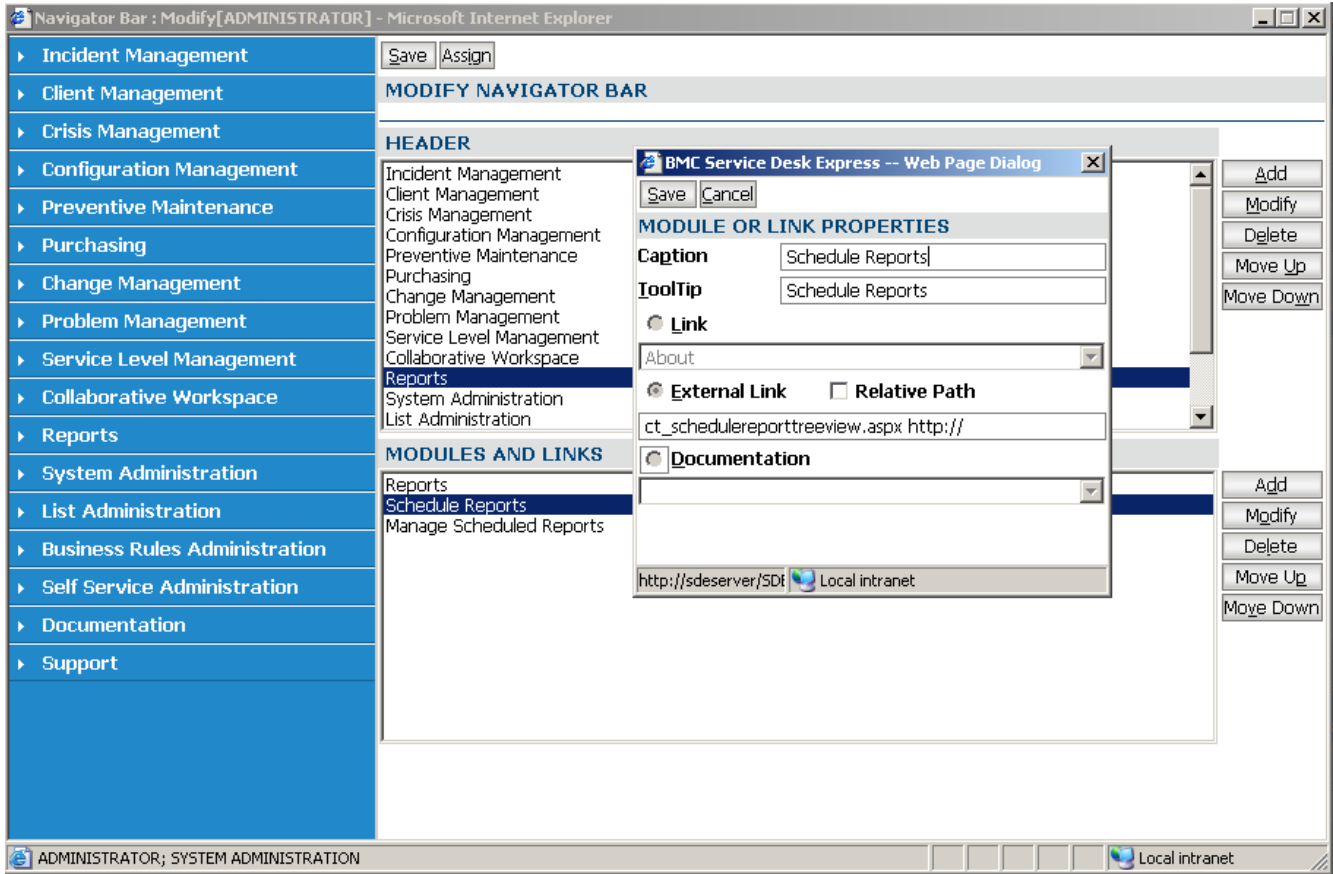
In addition to the service itself the setup program installs an administration utility on the application server and launches this utility on completion of setup. The administration utility is used to configure the service for the first time or to make any changes to the configuration parameters. All configuration is stored in the windows registry in the HKEY\_LOCAL\_MACHINE\SOFTWARE tree. Passwords are encrypted.

*After installation the service will be configured to start automatically but will be in a stopped condition. Once the administration tool has been used to configure the registry settings the service will be started automatically. Installation does not normally require a system reboot.*

Upon first installation the server will run in full mode for a period of 30 days. After this the outgoing emails will contain a licence warning and will not contain the executed report attachment. A licence can be obtained and entered into the administration utility at any time.

Two links must be added to any applicable Service Desk Express navigators. These links take the form of External Links.

The first link allows the user to schedule a new report.

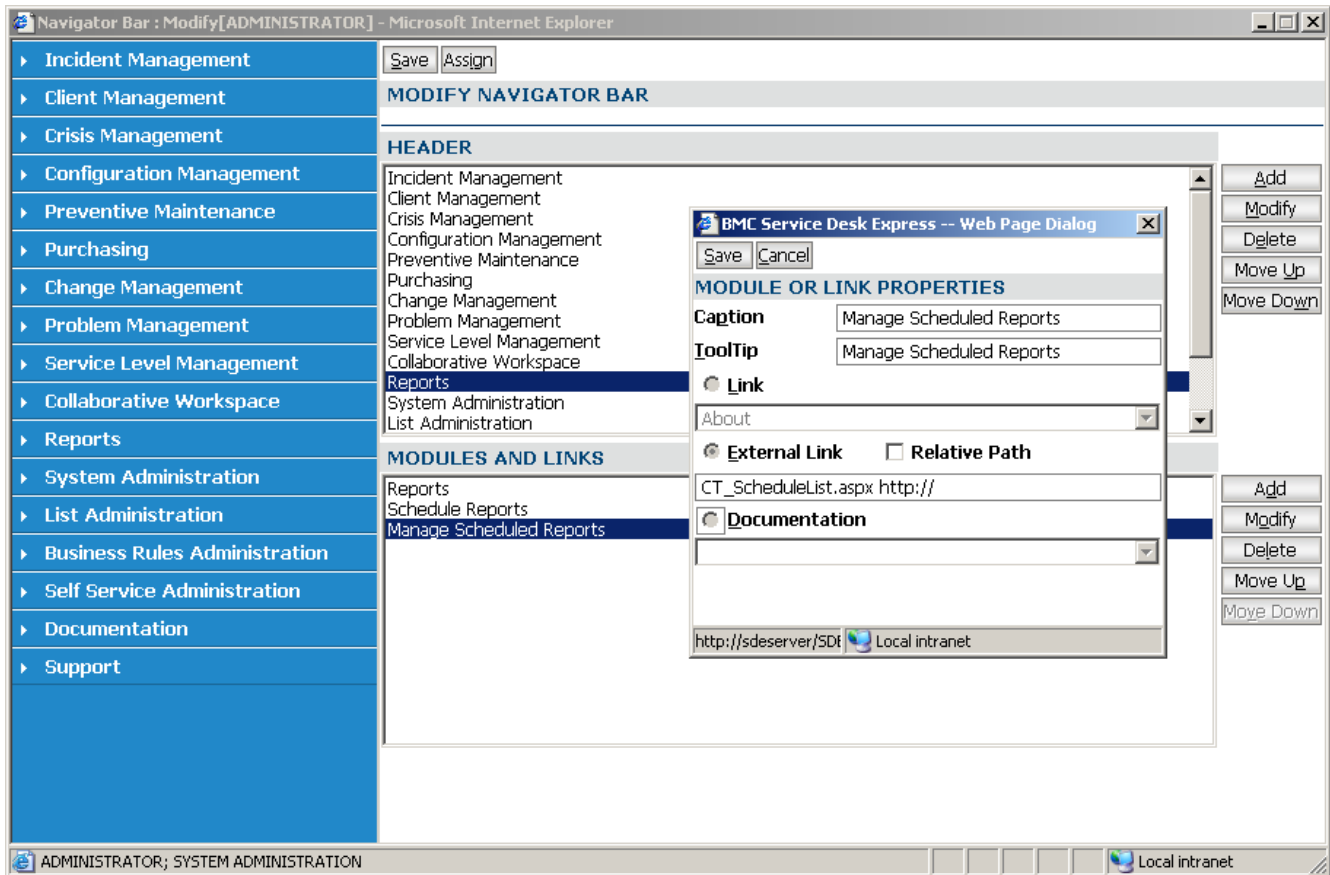


The screenshot shows the 'MODIFY NAVIGATOR BAR' interface in Microsoft Internet Explorer. On the left is a navigation tree with categories like Incident Management, Client Management, etc., and 'Reports' is expanded to show 'Schedule Reports'. A 'Web Page Dialog' window is open, titled 'BMC Service Desk Express -- Web Page Dialog', with the following details:

- Save** | **Cancel**
- MODULE OR LINK PROPERTIES**
- Caption:** Schedule Reports
- ToolTip:** Schedule Reports
- Link:**  External Link  Relative Path
- URL:** ct\_schedulereporttreeview.aspx http://
- Documentation:** [empty]
- Address bar:** http://sdeserver/SDf Local intranet

On the right side of the dialog, there are two sets of buttons: 'Add', 'Modify', 'Delete', 'Move Up', 'Move Down' for the top list, and another identical set for the bottom list.

The second link allows the user view and change existing schedules.



The screenshot shows a web browser window titled 'Navigator Bar : Modify[ADMINISTRATOR] - Microsoft Internet Explorer'. The main content area is titled 'MODIFY NAVIGATOR BAR' and contains a 'HEADER' section with a list of menu items. A 'MODULES AND LINKS' section is also visible. A modal dialog box titled 'BMC Service Desk Express -- Web Page Dialog' is open, showing configuration options for a link. The dialog includes fields for 'Caption' (Manage Scheduled Reports) and 'ToolTip' (Manage Scheduled Reports). It has radio buttons for 'Link' (selected) and 'External Link', and a checkbox for 'Relative Path' (unchecked). The 'External Link' field contains 'CT\_ScheduleList.aspx http://'. The 'Documentation' field is empty. The status bar at the bottom of the dialog shows 'http://sdeserver/SDf' and 'Local intranet'.

*Do not check the 'Relative Path' check box. This does not create a true relative link but instead places the server address in front of the provided URL. This will not work in a multi server environment. The inclusion of the text ' http://' is required to prevent Service Desk Express from pre-pending this to the provided link.*

## **Multiple Server Environments**

The reports scheduler service may only be installed on a single application server (this could be a business rules server) but the scheduling forms may be used on any application server on the system. To allow this, four files that are installed by the setup program in the Application Server folder of the schedule server must be copied to the same locations on all the other application server in the system. The four files are

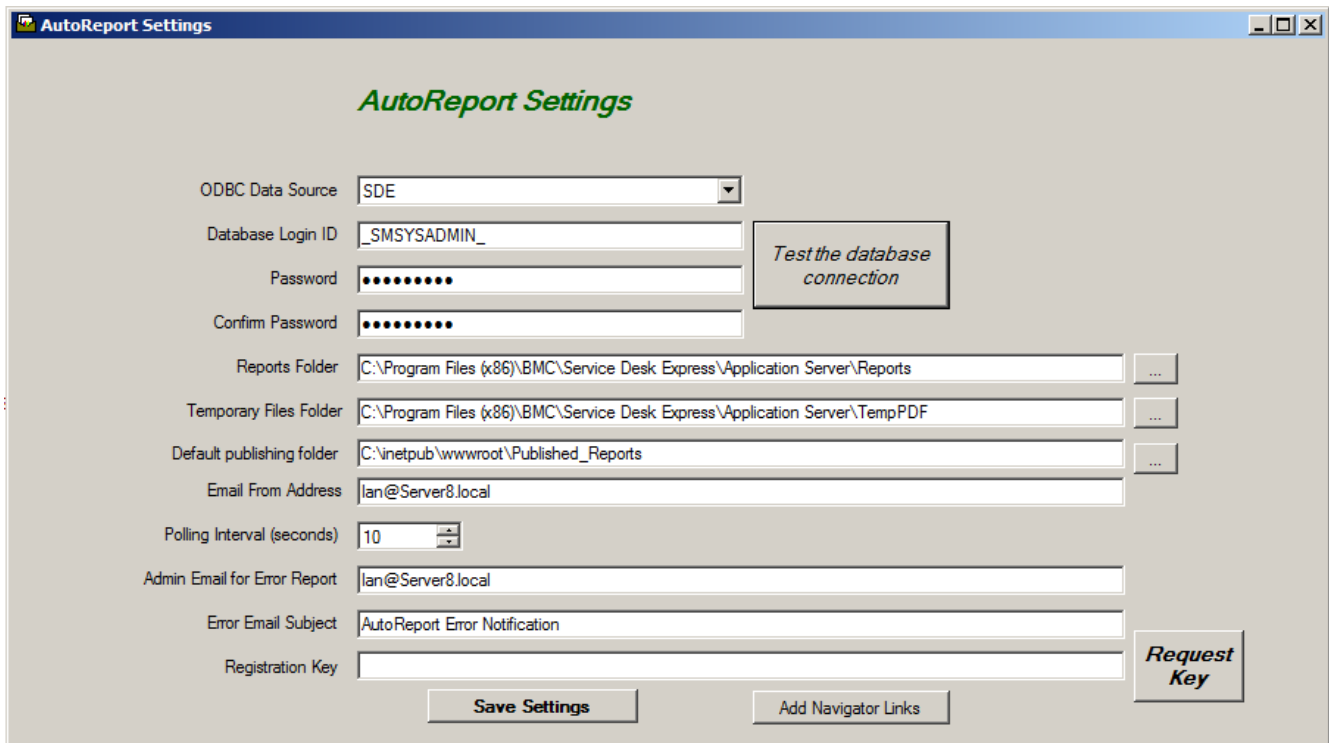
1. CT\_ScheduleList.aspx
2. CT\_ScheduleReport.aspx
3. CT\_ScheduleReportCriteria.aspx
4. CT\_ScheduleReportCriteria.aspx

*In a Service Desk Express environment using versions prior to 9.6 these files are replaced by files of the same name but with the .asp extension instead of .aspx.*

### Database

The first time the administration tool is used it will check for the existence of the ReportsSchedule table in the database and if it is missing it will create it. This table will contain the details for each report schedule created.

### Administration Tool



Upon execution of the administration tool (AutoReport Settings) a link for which is created in the users Programs Menu, the screen shown above will be displayed. The default values for the server parameters must be adjusted to your environmental requirements.

### ODBC Data Source

It is recommend that the same ODBC data source as that used by the Run Reports function in Service Desk Express (normally SCRSDE) be used although this is not a requirement and any valid ODBC data source that points to the correct database can be used.



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### **Database Login ID**

The user should either be `_SMSYSADMIN_` or an administration account to be used by the schedule service when connecting to the database and executing reports.

### **Password / Confirm Password**

The database password for the selected user must be entered twice. It is encrypted and stored in the registry.

### **Reports Folder**

The Reports Folder provides the server with information on where to find the Crystal Reports files required for each schedule. This can be entered manually or the button to the right of the field can be clicked to open a directory search window and allow the user to navigate to the reports folder. The resulting string in the entry field should *not* contain a trailing backslash character.

### **Temporary Files Folder**

The Temporary Files Folder is the place where the report output files are created prior to distribution by Email. For each run of each scheduled report a file is created with the name of the schedule and an extension appropriate for the format being distributed. Since the same name is used for each run any existing report for the particular schedule will be overwritten. The scheduler will not delete any report files. Like the report folder definition a button is provided to allow the user to navigate to the temporary folder and the resulting string should not contain a trailing backslash character. It is recommended that a new folder be created for this use.

### **Default Publishing Folder**

Not currently used but will be available to pre-fill the publishing folder when setting up a schedule.

### **Email From Address**

Email From Address specifies the from address passed in the email submitted to the local SMTP service for distribution. Depending on environment this may need to be a valid email address in the system to ensure successful delivery of reports. The local SMTP server should be configured to use an IP Address of '(All Unassigned)'.

### **Polling Interval**

Polling interval is the number of seconds that the scheduler will sleep between each run. On each run the scheduler will read any rows from the ReportSchedule table where the Next\_Run field specifies a date in the past. The polling overhead is quite but since reports can only be scheduled to run at most once per hour it should probably be set to 60 seconds or more to reduce and database

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loading. The reports scheduler does not maintain an open connection during this sleep period instead connecting at the beginning of the poll and disconnecting before the beginning of the wait period.

### **Admin Email for Error Report**

If AutoReport encounters any errors, this is the email address that will be used to send copies of the error messages to.

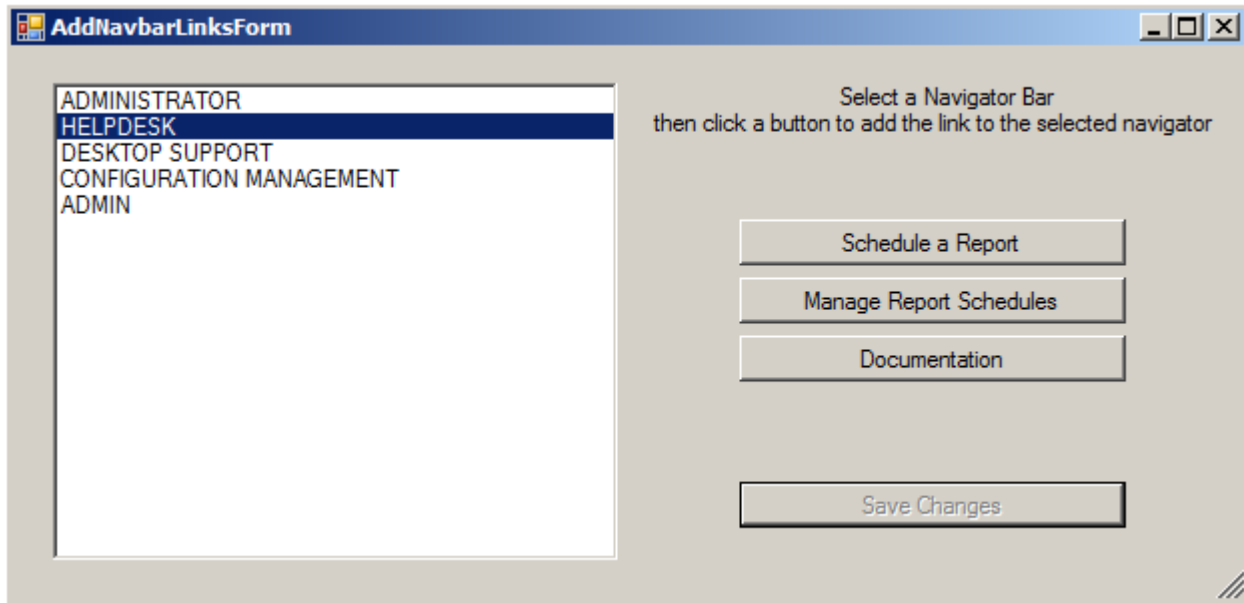
### **Error Email Subject**

The subject line used for any error message emails.

To obtain access to the Save Settings button to save the modified setting to the registry the user must first click the Test the Database Connection button. If the database settings are valid and a Service Desk Express database is found at the location specified, the Save Settings button will be made active. If the product is not licensed an addition field will be displayed into which a valid licence key can be placed after obtaining it from Cedar Technology. A button is also displayed which, when pressed, will provide further instructions on how to obtain this key. The product will work in full mode for a period of 60 days from first installation to allow adequate evaluation to take place.

## Add Navigator Links

Click this button to add AutoReport links to selected navigators. A dialogue will appear...

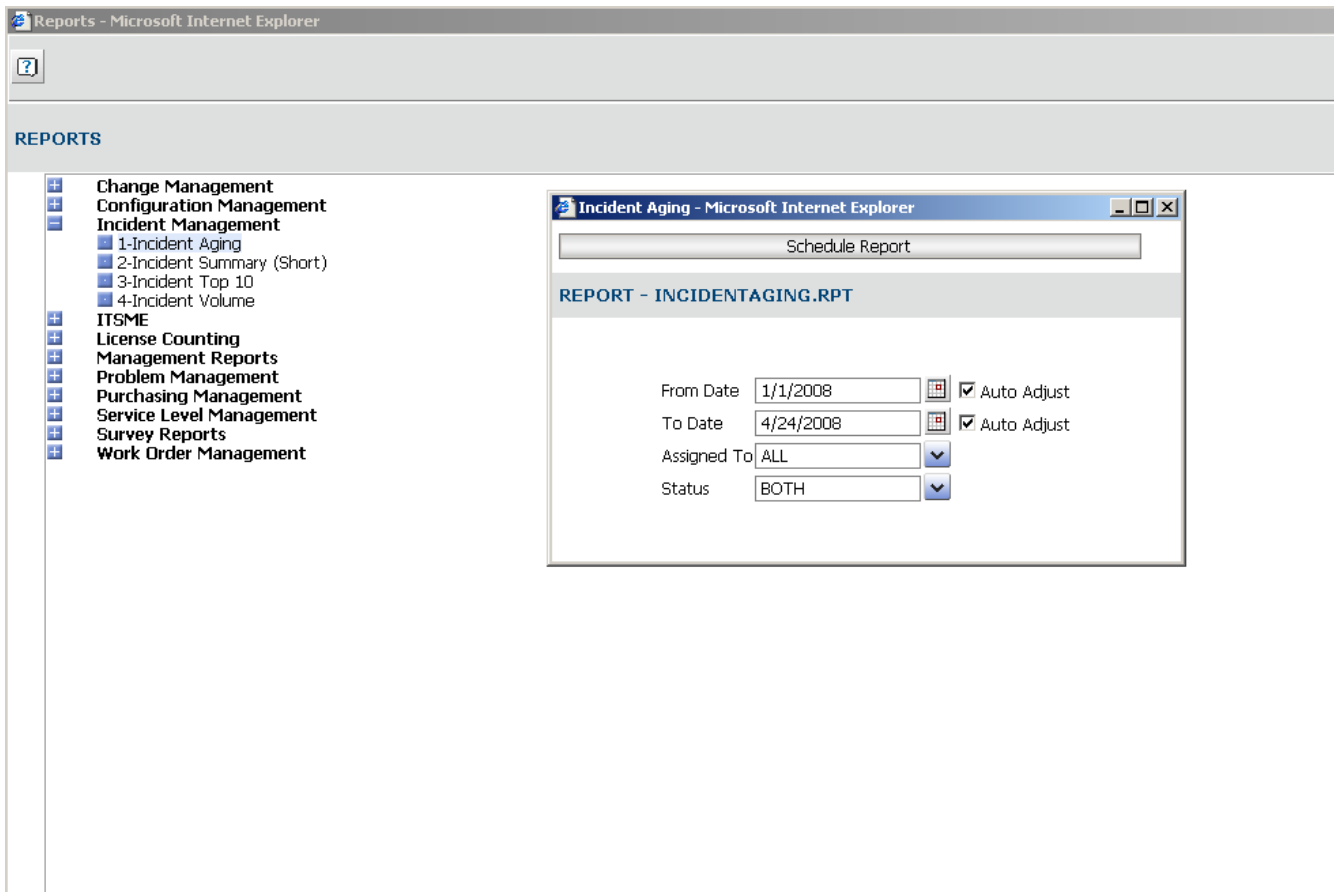


Click on a navigator then click the buttons to add the relevant links. The Schedule and Manage Schedule links are added to the Reports header. The Documentation link is added to the Documentation header. Once a link is added you can save the changes by clicking the Save Changes button. If a button is greyed out the link is already present in the selected navigator. You can add the links to any of the available navigators by clicking the navigators in turn. Once the Save Changes button is pressed the updated navigators will be saved and the application servers are informed to update the navigators. It may take up to 90 seconds for the application server to see the changes after which any open sessions with navigators will need to be refreshed to reflect the changes.

## Scheduling a Report

To schedule a report, click on the Schedule Report link in the navigator configured above. The familiar reports menu form will be displayed showing all the reports available to this navigator. Navigate to a report and select it by clicking the report name just as you would to run the report immediately.

A report criteria form will open that looks very similar to the standard run reports form in Service Desk Express...



The primary difference is the lack of viewer selection and the addition of check boxes next to all date or date/time parameters. You select the report format on the next page. The check boxes by the date and date/time fields are initially checked signifying that these dates will be automatically adjusted each time the report is run. To prevent this action and keep the date fixed to the specified value simply uncheck the box next to the appropriate field.

When all the criteria have been specified, click the Schedule Report button on the top of the form to open the Scheduling form.



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### **Schedule The Report**

#### **Schedule Name**

Schedule Name must be a unique name for this schedule and should provide a clue as to the nature of this scheduled report.

#### **Next Run**

Enter (or use the calendar to select) the next date and time to run the report.

#### **Publish Report**

Check this box to save the report to a folder such as a WEB site instead of sending the report as an attachment. The email body can contain a link to the published file. When checked, a text box appears where the folder location can be specified. The folder must be accessible for writing to the NETWORK\_SERVICE user unless the identity of the AutoReport service is changed to different account. In addition, a check box to the right of the text box is displayed where the user can specify whether to overwrite any existing file or to create a unique file name and reserve any previous output. When 'Keep Existing File' is checked the name of the file will be set to the schedule name with the date and time appended.

#### **Send To**

Enter the email addresses, separated by commas, of all the intended recipients of the report. This can be a distribution list maintained in your email system as long as it has a valid SMTP address and is reachable by the local SMTP service on the server.

#### **Format**

Select one of the available report formats using the drop list. The attached file will be named using the schedule name with an appropriate extension based on the format selected e.g. PDF format files will be sent as ScheduleName.pdf.

#### **Every**

Use these two fields to specify how often the report is to be distributed.

#### **Subject**

This entry will be used to fill the subject field in the outgoing emails.

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## Message

This entry will be used to write the body of the email message. The message is sent in plain text format unless it contains the tags <html> and </html> enclosing the message. If the report is to be published, a link to the published file can be specified in the body of the mail message. e.g.

```
<html>
```

```
You report is ready. <a href="http://server/Reports/{***filename***}">Click Here</a>
```

```
</html>
```

When the report is created and the mail message is created and the text {\*\*\*filename\*\*\*} is replaced by the actual name of the file produced. This text must include the star and curly brace characters and the word filename but is not case sensitive.

### Setting up the Publish Folder

An example of publishing reports might be to create a folder called

```
c:\inetpub\wwwroot\Published_Reports
```

on the SDE application server. In IIS Administration a virtual directory can be created called Reports to point to this new folder. Ensure that NETWORK\_SERVICE has write access to the folder so that AutoReport can save the published reports. In the Publish Report folder box specify C:\inetpub\wwwroot\Published\_Reports. In the email body the link should point to [http://SERVER/Reports/{\\*\\*\\*filename\\*\\*\\*}](http://SERVER/Reports/{***filename***}) assuming SERVER is the name of the SDE application server. Access to this virtual directory can be controlled from IIS Administration.



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### **Managing Scheduled Reports**

Select the Manage Scheduled Reports navigator link to open the schedule list...

This form lists all scheduled reports. To make changes to the schedule or to delete the report simply click the relevant row.



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Notice that there is now a delete button provided to delete the schedule.

When changes are made, the list of schedules is automatically refreshed.

If you need to make changes to the parameter values for a report you must delete the schedule and create a new one from scratch.



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### **Un-installing**

To un-install the AutoReport reports scheduler system use the Add/Remove programs applet in the control panel. This will stop the service and remove all the files from the server but it will not affect the database. Having removed the application you may delete the ReportSchedule table from the Service Desk Express database using your normal database administration tool if it is no longer required.

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