Troubleshooting DAWN - What to do if it is not working

Approved for External Distribution 20/12/16

INTRODUCTION

Here is a set of symptoms for problems that may prevent anyone from using DAWN or a key part of DAWN and suggestions as to how to recover from them. **We'd strongly urge you to contact us first** (see contact details below) but in the event that we are not available, this document may provide some assistance.

Alongside investigating & restarting DAWN, please also consider what may have been added or changed around the time that the problem started, for example, a DAWN upgrade, a virus/operating system update or change of software, disaster recovery software upgrade, network/SQL Server changes and whether this could have impacted the DAWN system.

This document has been written for IT professionals supporting the application.

> (i) These are generic instructions and not specific to a particular version. Different versions may behave differently. If in any doubt, seek advice from 4S.

If All Else Fails…

> ***If you have a very serious problem with your DAWN system and none of the suggestions detailed in this document seem to resolve it, we recommend 2 steps if not previously tried:***
>
> 1. *Unload and reload the application, see* the section How to Unload and Re-start the Application
>
> 2. *If this doesn't resolve the issue, arrange to have the DAWN server rebooted, after co-ordinating this carefully with other users of this server.*

Our Contact Details

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Email: support@4s-dawn.com

If we are closed for business, please leave a message and your contact details and we will investigate the problem and call you back at the start of your business day.

SYMPTOMS/PROBLEMS

Symptom 1. No-one can get to the DAWN Logon screen/ Page Not Found/ Internet Explorer Cannot Display The Webpage is Displayed

If you see a message re "Object variable or With block variable not set 91":

For example, you may see:

An error has occurred...

PolarServer

Object variable or With block variable not set

91

Click here to try again...

Last 25 errors since the Blue Polar Application Server started:

Time	Err.nr.	Description	Calling routine
25/04/2016 13:50:26	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:50:25	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:50:24	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:50:22	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:50:21	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:49:47	91	Object variable or With block variable not set	ProcessRequest
25/04/2016 13:49:45	-10040	Database 'C:\Program Files (x86)\Polar Studio\Project\Dawn_MF_Dyn.bpd' not found.	Initialise

Look at the list of errors and see if there is one that is more 'informative' than 'Object variable or With block variable not set' as this is likely to provide a clue as to the reason for the failure.

If you can see a more informative message:

If the failure refers to something along the lines of:
…Polar Studio\Project\Dawn_MF_Dyn.bpd
or
…Polar Studio\Project\Dawn_MF_Project.bpp
Not Found or Unrecognized database format or corrupt

Then follow the instructions in the section How to replace a corrupt (or missing) dynamic or project file

If it *doesn't* refer to either of these files, then Unload & reload the application, see the section How to Unload and Re-start the Application. If this doesn't resolve the issue, follow the items in the section High Level Troubleshooting Checks below

If you *can't* see a more informative message:

This may be because DAWN only displays the last 25 errors since the system was reloaded and there may have been many attempts to log in which has resulted in the more informative message being too far down the list for you to see it. (You may instead just see, for example, 25 errors regarding 'object variable or with block…'.) In this case, do an Unload & reload the application, see the section How to Unload and Re-start the Application then look at the error messages again.

Otherwise (ie you do not see a message regarding Object variable or With block variable not set 91)

- Unload & reload the application, see the section How to Unload and Re-start the Application. If this doesn't resolve the issue, follow the items in the section High Level Troubleshooting Checks below

High Level Troubleshooting Checks

- Check the server hosting the DAWN application web site (i.e. the server running IIS) has not crashed.
- Check the server hosting the DAWN application web site is still connected to / accessible over the network.
- Check IIS is running on the server hosting the DAWN application web site and permits Active Server Pages.

Symptom 2. DAWN Log In Screen Appears But No-one Can Log In

Unload & reload the application, see the section How to Unload and Re-start the Application. If this doesn't resolve the issue, check the next steps in turn.

- Check the disc space, there should be at least 10% free. If the amount of free space is unexpectedly low, the first thing to check is the size of the SQL Server transaction log, see the section How To Check, and Truncate And Shrink A Transaction Log Using SQL.
- Check the DAWN database server (i.e the machine running SQL Server) has not crashed.
- Check the DAWN database server is still connected to / accessible over the network.
- Check that SQL Server is running on the DAWN database server.
- Check the password for the SQL Server Login that the DAWN Application uses to connect to the database is still valid (see the section How To Check and Amend the DAWN Connection Properties).

> ⊘ If the database connection has been lost, you MUST unload the DAWN application before logging back into the application once the database connection has been restored. To unload the application see section **How to Unload and Re-start the Application**.

Symptom 3. DAWN Hangs / Exhibits Unexpected Behaviour for Several/All Users

Unload the application, see section How to Unload and Re-start the Application.

If this doesn't resolve the issue, try each of the following.

> ⓘ Check whether the problem is resolved after each change you make

> ⊘ For Load balanced / clustered servers repeat on all nodes in the cluster (i.e. where you have more than one web server – not to be confused with load balanced application pools where several instances of DAWN run on the same server and share the same files).

On the DAWN application web site server open the IIS management console and perform the following:

- Recycle the DAWN Application Pool or Pools - If your system uses load balanced applications pools, there are 11 application pools. DawnAppPool_1 to DawnAppPool_10 and one for the parent application which will have a name like "Dawn", "DawnAC" or "DawnRh". In this case recycle all of these pools.
- Stop and start the web site or (where possible) stop and start IIS.

Check virus checker

- Check you are not running a virus checker with an option to intercept the Windows Scripting Host (e.g. ScriptScan in MacAfee). If so disable this option on the DAWN Server.
- If your client machines are running a virus checker web utility (such as Sophos Web Intelligence or a browser add in) that can intercept responses from a web server to a browser, disable this utility on the client machines.
- Ensure your virus checker is not running a Scan on the server during work hours and ensure the following folders (and all their subfolders) are excluded from on-access scanning:

    Polar Studio (usually c:\program files (x86)\polar studio
    Dawn Interface
    DawnMailer
    The folder(s) holding the DAWN Database and log files
    C:\windows\system32\inetsrv\config

Check, and if necessary, reduce the transaction log size

See How To Check, Truncate And Shrink A Transaction Log Using SQL for how to do this.

On the SQL Server open your SQL Server Management utility (e.g. Management Studio, Enterprise Manager, DbaMgr2K) and check the following:

Check how much free space there is in your DAWN database. The easiest way to do this in Management Studio is to:

- Right click on the DAWN database and choose Tasks/Shrink/Files from the context menu to show the Shrink File form. The data file should be selected by default/ Check the *Currently Allocated Space* and

Available Free Space figures (which is shown as a percentage). If the latter shows 0%, the database may be trying to Autogrow itself (allocated itself more disk space) and failing. Cancel out of this dialog once you have checked the figure.

If the database is failing to autogrow:

- Check how much free disk space you actually have available.
- Right click on the database, choose Properties/Files and ensure the autogrow settings are not set to restrict the database growth to a set maximum size.

If you have a large database, the Autogrow may take a significant amount of time to complete and may be better to do this manually, allocating a much larger amount of space for the database to grow into without needing to auto grow.

To manually allocate more space, increase the initial size setting for the Primary Data file, DawnAC_Data. By default, SQL Server attempts to grow the database by about 10% at a time (so if your database is 10Gb it would allocate approx 1Gb). If your database is large it can pay to be pro-active and allocate substantially more disk space for it to grow into over time.

Symptom 4. Nothing is Printing / Emailing / Faxing Automatically

'Automatic' Printing (as opposed to a user pressing a Print button) is controlled by a program called DawnMailer. If the automatic printing has stopped, *and you have checked that there is nothing wrong with the printer* (such as paper jam, switched off) it is most likely to be a problem with DawnMailer.

DawnMailer normally runs as a service under FireDaemon but occasionally runs as a stand-alone application on a PC.

Check the statistics on front page (7.3 onwards) – if Pending counts (other than outbound interface) are increasing, it indicates that DawnMailer may not be processing. To resolve this:

1. Stop DawnMailer via FireDaemon (or by pressing Stop if it is running as an application).

2. Open the Windows Task Manager and ensure neither DawnMailer nor the HTMLPrinter.exe are still running. End the process for each one that is still running.

3. Start DawnMailer via FireDaemon (or by pressing Start if it is running as an application).

If printing still does not start, repeat this set of steps.

If printing *still* does not start, check the printers/devices – are the printers showing?

- If the printer drivers are there, is there any other problem with the printers? Off line, queued etc. – this would then point to printer troubleshooting. Once this is fixed then restart DawnMailer and printing should resume.
- If they are not showing, then DawnMailer cannot see them so this would explain why printing has stopped. To resolve this, check the Windows printer spooler server is running and restart it if it is not. If the printer spooler service is running and no printers are visible, re-install the drivers on the DawnMailer server/machine or ensure that the machine can see the printer network.

If the problem persists:

- Stop DawnMailer as a service within FireDaemon and restart it as an application to check if any error is displayed. If it is being run on the server, DawnMailer.exe is installed in the Polar Studio/Webroot and/or Polar Studio/Bin folder – if it is in both places, check the FireDaemon service properties (by clicking the Edit icon) to see which is being used. Once DawnMailer is running Choose the TestMail option.

⚠ If DawnMailer keeps switching itself to Stopped, clear out pending messages (using the Messages List View in DAWN) and restart DawnMailer.

Note: Any messages you delete or mark as undeliverable/discarded in this way will not be sent.

You will need to generate new messages for these patients / HC Professionals so make a note of them before deleting them.

Symptom 5. INRs/Test Results and/or Demographic Updates are not coming in across the Interface

See the Interface Troubleshooting guide which is available via the 4S website at:

http://www.4s-dawn.com/support/troubleshooting-dawn/

HOW TO's…

How To 1. Unload and Re-start the Application

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- If DAWN is NOT available...
    - 1. If DAWN is the only website running under IIS then stop and start IIS
    - 2. Stop and start the DAWN web site
    - 3. Recycle the DAWN Application Pool or Pools
- If DAWN is available...
    - 1. Check if anybody is using the system
    - 2. Stop Services
    - 3. Unload the Application
        - For Load-Balanced Servers...
        - For non-Load-Balanced Servers...
    - 4. Restart the Application (if required)
    - 5. Restart the Services (if you have restarted the application)
- Appendix 1 - Extra processes to be stopped only in the rare event of a project and/or dynamic file replacement

If DAWN is NOT available...

On the DAWN application web site server open the IIS management console and try each of the following.

> ⓘ Check whether DAWN is available after each change you make

> ⓘ For Load balanced / clustered servers repeat on all nodes in the cluster (i.e. where you have more than one web server – not to be confused with load balanced application pools where several instances of DAWN run on the same server and share the same files).

1. If DAWN is the only website running under IIS then stop and start IIS

2. Stop and start the DAWN web site
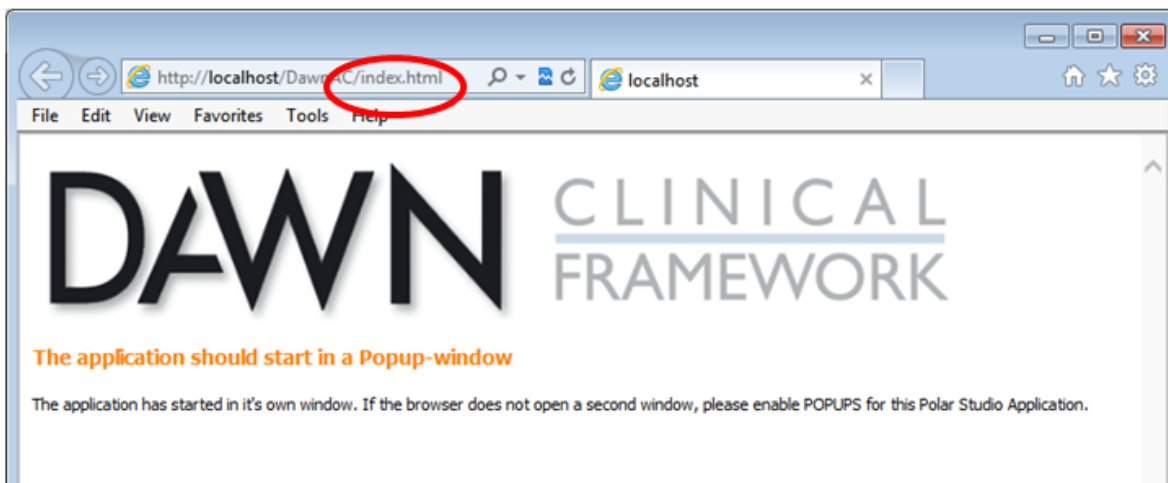
3. Recycle the DAWN Application Pool or Pools

> ⓘ If your system uses load balanced applications pools, there are 11 application pools. DawnAppPool_1 to DawnAppPool_10 and one for the parent application which will have a name like "Dawn", "DawnAC" or "DawnRh". In this case recycle **ALL** 11 of these pools.

If DAWN is available...

1. Check if anybody is using the system

Before unloading the application, depending on the situation, you may wish to see if anybody is still logged in. To do this:

Double click the DAWN link on the desktop or try to load DAWN in your normal way (if you don't use a DAWN desktop link). Close the login window if presented. You should see a screen similar to:

On the above screen click into the address bar and delete just the section that says "index.html" (if it is present) and replace with:

- If using a load balanced system

   showallusers.html

   This should give you list of all the DAWN application pools and the users currently within them.

- If not using a load balanced system

   showcurrentusers.asp

   This should give you list of all the logged on users.

2. Stop Services

It is *recommended* that the DAWN Mailer service is stopped before unloading the application. (NB if this is not possible, for example, you don't have access to it, you can still perform the unload, it may just take a few more attempts, so keep trying.)

To stop DAWN Mailer:

- Double click the FireDaemon icon on the Desktop of the server
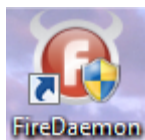

- Stop the DawnMailer service in turn by clicking on it and then clicking on the red square
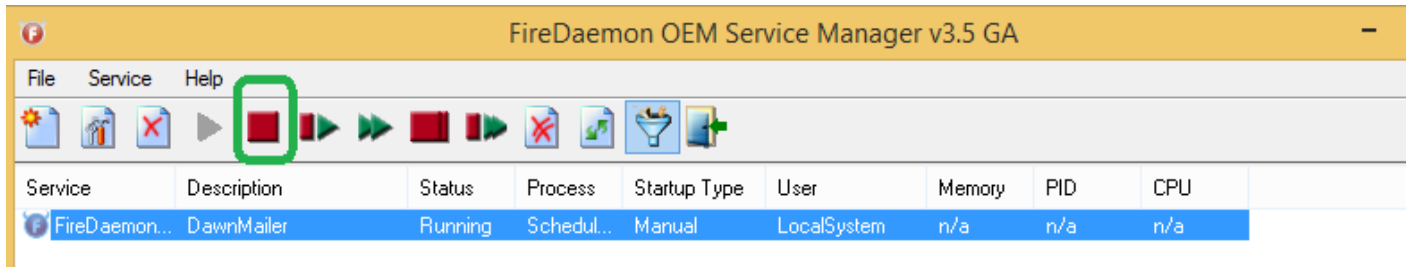
Additionally, if you are doing the unload for the **specific purpose** of replacing either a damaged project (.bpp) or dynamic (.bpd) file (nothing to do with licence/certificate file replacements), you need to stop extra programs. See Appendix 1 - Extra Processes To Stop for details of these.

3. Unload the Application

Double click the DAWN link on the desktop or try to load DAWN in your normal way (if you don't use a DAWN desktop link). Close the login window if presented. You should see a screen similar to:
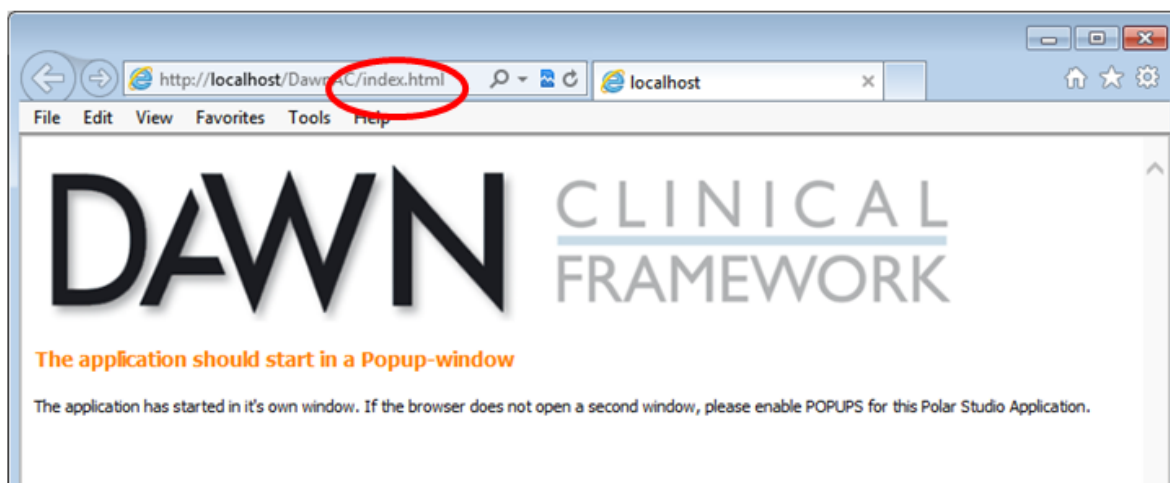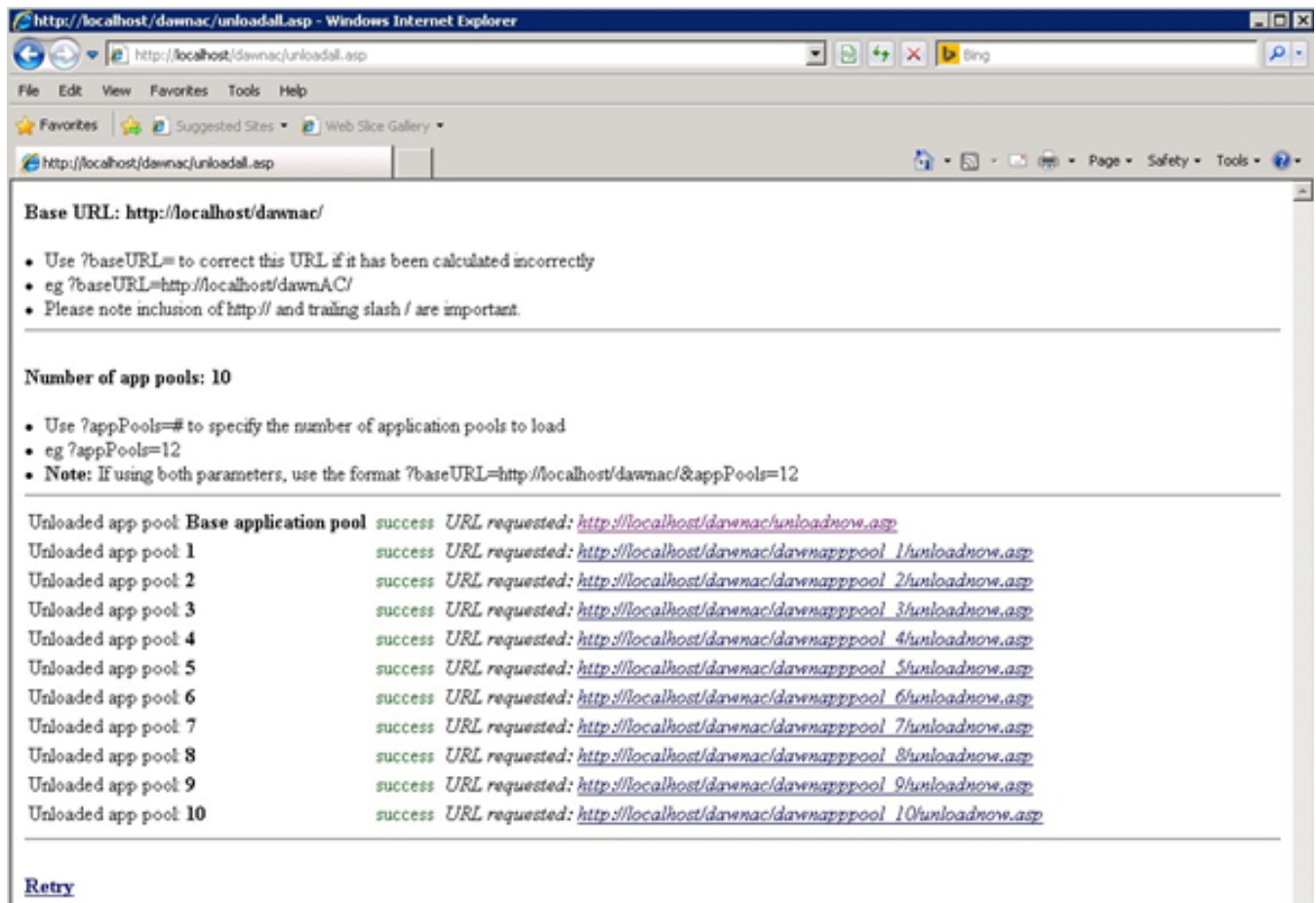

For Load-Balanced Servers...

> On the above screen click into the address bar and delete just the section that says "index.html" (if it is present) and replace with:
>
> **unloadall.asp**
>
> Press enter in the address bar to load the page, it may not load fully the first time and you may get an error "the website cannot display the page" HTTP 500. If this happens refresh the page a few times and when you see the following screen you know DAWN is unloaded.

You may see some app pools say 'failure' rather than 'success' meaning they have failed to unload. If this happens, keep pressing 'Retry' until they are all marked as 'success'.
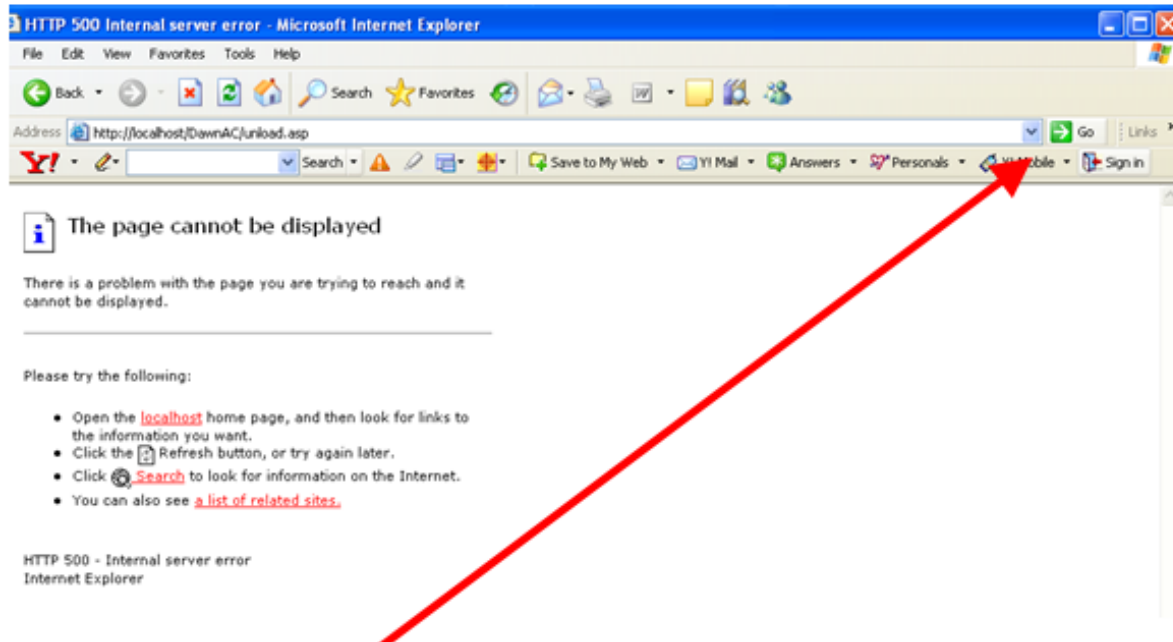
For non-Load-Balanced Servers...

On the above screen (or similar) click into the address bar and delete just the section that says "index.html" (if it is present) and replace with:
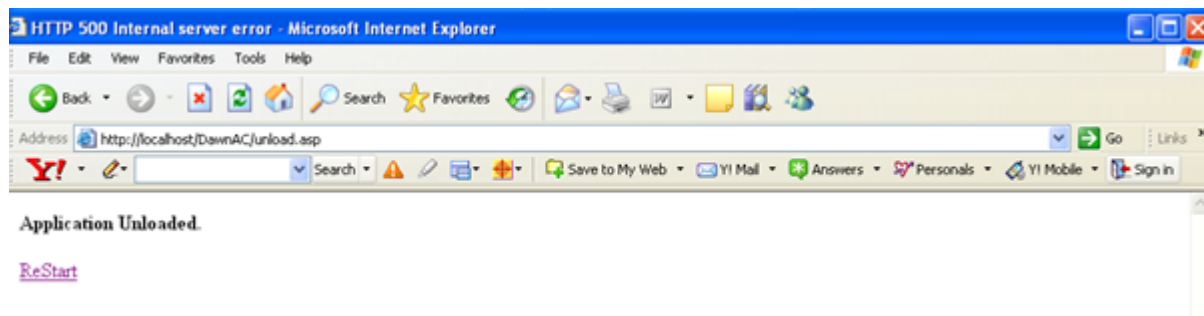
unloadnow.asp

Press enter in the address bar to load the page

You should find that a screen similar to below appears.

If so keep pressing return to refresh the page until you get the screen below.

(If the unload script times out you may get a Page Not Found or Remote Procedure Call failed error on the first one or two attempts).

**4. Restart the Application (if required)**

Load up the DAWN link as normal (after closing any other DAWN related windows), this will start DAWN up again.

5. Restart the Services (if you have restarted the application)

Double click the FireDaemon icon on the Desktop of the server

When prompted "A program needs your permission to continue" and it shows FireDaemon, click continue

Start up all services that you stopped (e.g. DawnMailer) by clicking on them then clicking on the green arrow
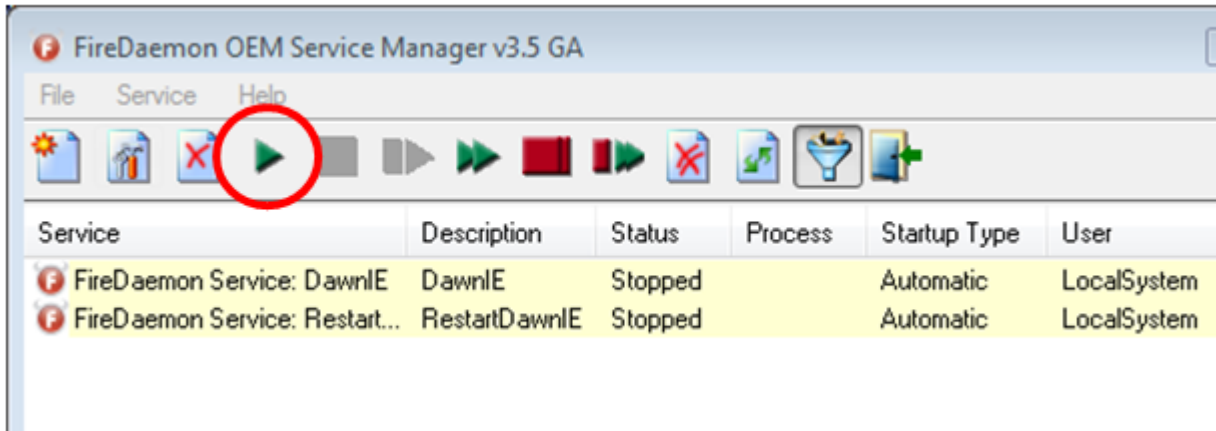
If you were doing a damaged project file replacement and so had to also stop extra services as described in the appendix below, restart them as well.

Appendix 1 - Extra processes to be stopped only in the rare event of a project and/or dynamic file replacement

If you are doing the unload for the **specific purpose** of replacing either of a damaged project (.bpp) or dynamic (.bpd) file, you need to stop other programs in addition to DAWN Mailer (to prevent them holding on to the file you wish to replace).

NB depending on your system set-up, not all all of the following programs may be present.

1. Stop *any* DAWN related services with FireDaemon (this is likely to be DawnIE and associated programs).

2. Stop the following services from the Computer Management Services window:

- Timed Message Processing
- Close Visits
- DawnMessageService

Additionally, if DAWN Mailer was not visible & therefore not stopped within FireDaemon, check whether it is running as an application and, if so, stop it.

3. If you are on version 7.9.43 or later, you must also stop the PolarStudioActionTimer.exe and PolarTimerManager.exe processes, if they are running. To do this:

- Open the Task Manager by right-clicking on the start bar and clicking Task Manager
- Locate the PolarStudioActionTimer.exe and PolarTimerManager.exe processes, as shown
- Right click each of these processes and click "End Task" (Note: These processes must both be stopped within a few seconds, or they will automatically restart each other. If the processes restart, repeat the process again)

> ⓘ The PolarStudioActionTimer.exe and PolarTimerManager.exe processes will **NOT** need restarting manually later

How To 2. Check and Amend the DAWN Connection Properties

a) Unload the application, see section How to Unload and Re-start the Application.

b) Using Windows Explorer, locate the Dawn_MF_Project.bpp file in your Polar Studio\project folder on the server (this is normally located within your program files folder).

If you are running DAWN version 7.1 or earlier, locate the Dawn_AC_7_Project.bpp file instead.

c) Double click on the project file. You are prompted for a password.

d) Enter *sydney1* in the password field (leave the *New Password* and *Confirm* fields blank).

e) Press OK to login. You may be prompted to convert the project to the latest version, in this case press Yes (this option does not affect your application, it simply lets you open the project file in the Polar Studio editor).

f) Choose Applications/ DawnAC/ Application-settings from the menu tree on the left to display the application settings.
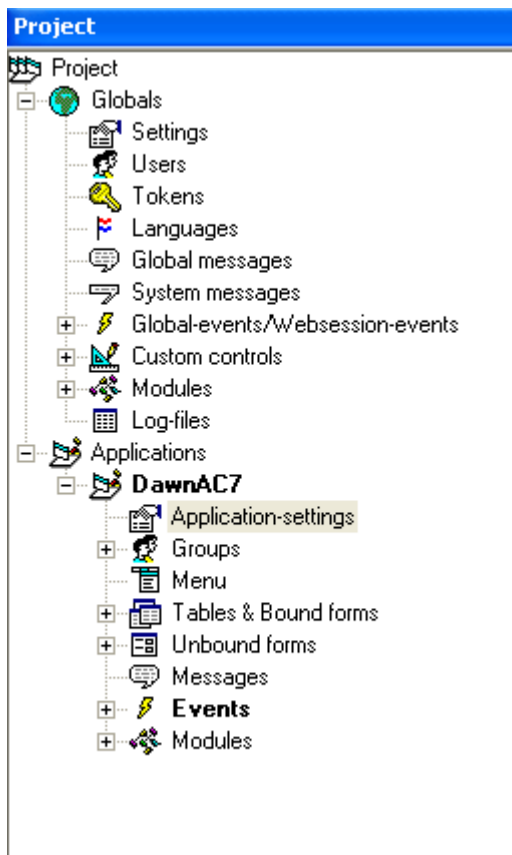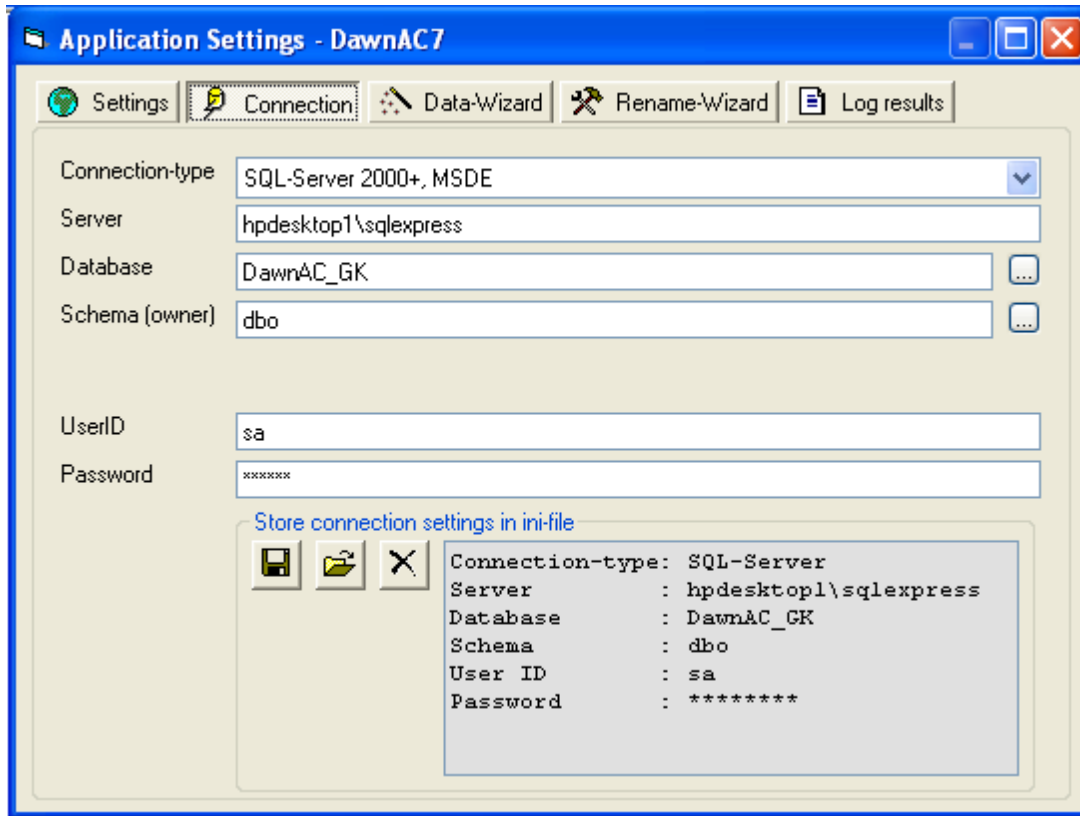

g) Select the Connection tab.

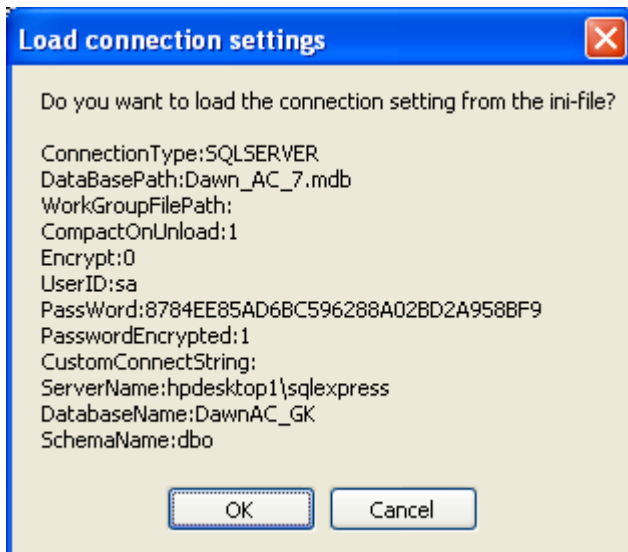h) Edit the connection properties as shown below:

Press the Open file

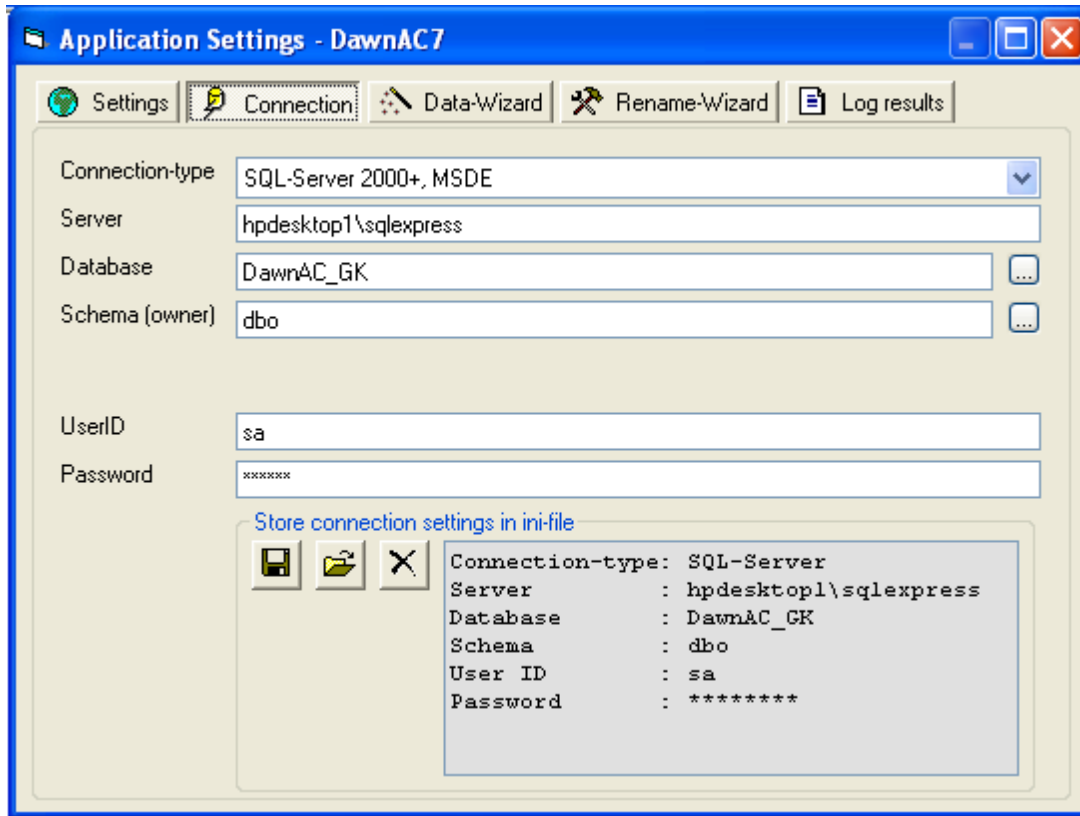icon to load the current connection settings from the project ini file
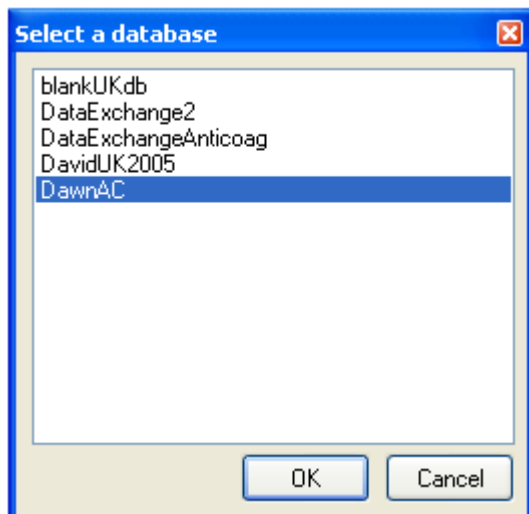
Press OK to load the settings
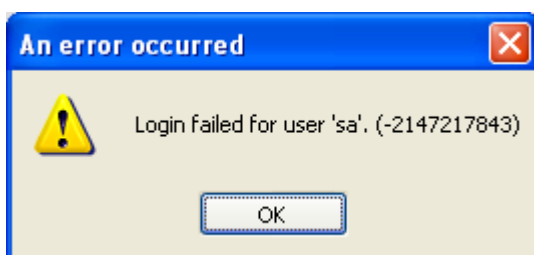

Press the Browse button

beside the database field to read the list of databases hosted by the SQL Server
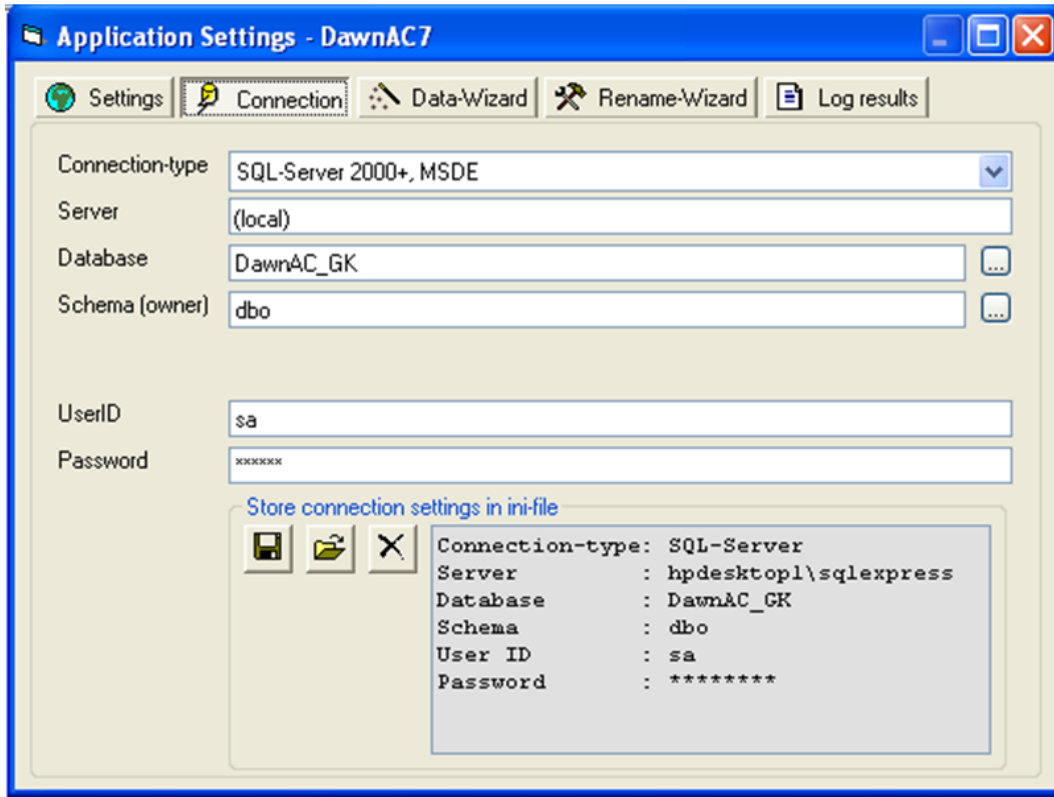
If a list of databases is displayed, the connection properties are correct. In this case press Cancel and close Polar Studio without making any changes

However, if you receive the following error, either the user name or password has changed.

In this case, correct the UserID and Password

… then press the Save icon to update the settings in the ini file.

If you receive the following error the Server property is incorrect.
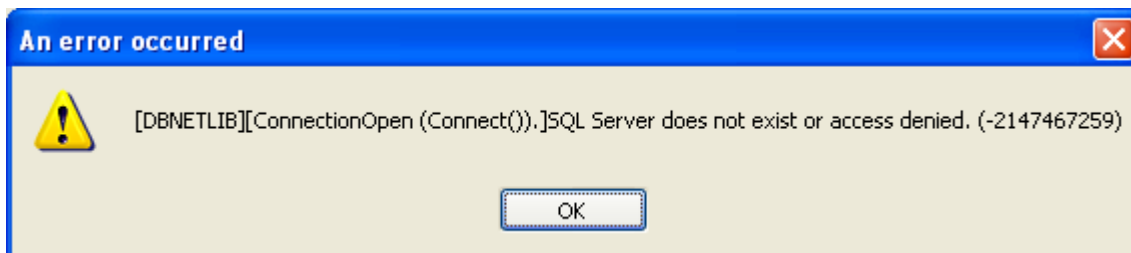
If this is set to:

"." or "(local)"

…it is a looking for a default (unnamed) instance of SQL Server on the same server as the project file. If your SQL Server instance resides on another machine or has been given a specific name, enter the correct server name in the Server property field.

How To 3. Check, Truncate And Shrink A Transaction Log

To Check your Recovery Mode

On the SQL Server server, open your SQL Server Management utility (e.g. Management Studio, Enterprise Manager, DbaMgr2K) and check the following:

- Right click on the DAWN database, choose *Properties* then select the *Options* tab and check the setting for *Recovery Model*. If this says "Simple", then the transaction log size is not the issue. If this says "Full", then perform the following steps to check, truncate and shrink the log.

To Check the Transaction Log Size

- Right click on the DAWN database and choose *Tasks/Shrink/Files*.
- Choose *Log* as the *File Type* and check the *Currently Allocated Space* and *Available Free Space* figures.

    If the *Currently Allocated Space* is very large and the *Available Free Space*, a relatively small percentage, the transaction log needs truncating and shrinking.
    If the *Currently Allocated Space* is large but is nearly all free space, this should not be a problem, but you may still want to shrink the file (without truncating it) in order to free up the disk space.

To Truncate & Shrink the Transaction Log

All insertions, updates and deletions to the database are written first to the transaction log. The "transactions" are then applied to the database in the background. Once a transaction has been written to the database, its status is updated in the log.

When you run a transaction log backup, it removes all written transactions from the log. However, if you do *not* run transaction log backups or your transaction log backups have not been working, the log may grow very large.

To remove written transactions from the log

Either:

- Make a transaction log backup, or
- Truncate the transaction log (without backing up the log).

> ⊘ **IMPORTANT NOTE:** If your transaction log backups are not running then there is a possibility your *full* backups are not running either.

If your transaction log has grown very big, it may not be practical (or even possible with the free disk space available) to backup the transaction log so truncating the log may be preferable. However, this means losing the ability to restore any data since your last full backup. If your last full backup is out of date, you must try to free sufficient space to make a new full backup before attempting to truncate the log.

If you cannot make a transaction log back up but you have got an up to date full backup, you can truncate your transaction log by changing the Recovery Model (see 3.3.1 above) to simple and saving your change.

When you remove the written transactions from the log, SQL Server does not automatically recover the disk

space used. The log file remains the same size; it simply comprises predominantly free space as opposed to predominantly used space. If you are making regular transaction log backups this is desirable as reserving this space for use by the transaction log as it grows again avoids potential file fragmentation. However, if the log has grown very large, you may need to recover the space.

To recover the space by Shrinking the transaction log

- Right click on the DAWN database and choose *Tasks/Shrink/Files*. Choose *Log* as the *File Type*. Check the *Currently Allocated Space* and *Available Free Space* figures. The *Available Free Space* figure should now be over 90%.
- Press OK to shrink the file,

If you do not have Management Studio because you are running SQL 2000, you can use the following commands to truncate and shrink the transaction log:

a) Enter the following command and press the execute button (often depicted using **!** or) – substitute your own database name for DawnAC if different)

Use DawnAC
BACKUP LOG DawnAC WITH TRUNCATE_ONLY

SQL Server truncates the database (this query does not return anything). N.B. this command does not work in SQL Server 2008 onwards.

b) To recover the space freed (if necessary), enter the following command and press the execute button:

Use DawnAC
DBCC SHRINKFILE (DawnAC_Log, 1)

> ⓘ **IMPORTANT –** once you have **truncated and shrunk** your transaction log, ensure you change your **Recovery Model** back to **Full**.

How To 4. Replace a corrupt (or missing) dynamic or project file

If you have been advised or suspect that either the dynamic or project file is missing or corrupted, you can put in a replacement as follows:

Obtain a replacement file

Copies of both files are stored in folders within the site installation for easy access as follows:

Dynamic File - Polar Studio\Project\BPDDynamicFile\Dawn_MF_Dyn.bpd
Project File   - Polar Studio\Project\ProjectFile\Dawn_MF_Project.bpp

(These are both updated with every upgrade so should always match the in-use versions in the *Polar Studio\Project* folder.)

Replace the corrupt (or missing) dynamic file

1. Unload the Dawn Application (but **do not** restart it). (See section How to Unload and Re-start the Application)

2. Open the Polar Studio\Project folder in Windows Explorer and rename your existing Dawn_MF_Dyn.bpd file (If it exists) to "Corrupt Dawn_MF_Dyn.bpd". Please note if you are running an early version of Dawn the name of the dynamic file might be slightly different in which case look for the file ending _dyn.bpd and note down its original name (e.g. Dawn_AC7_dyn.bpd) before renaming it.

3. Copy in the new dynamic file from its replacement location. (If your original file was named differently, rename the new dynamic file to match the original file name).

4. Restart DAWN (either by clicking the restart hyperlink or by opening DAWN in the normal way) and check you can log in without error.

5. If as part of the unload, you have stopped the DAWN IE service, restart the services (as per the Unload document) and check interface updates are now coming into Dawn.

Replace the corrupt (or missing) project file

As above but using the Dawn_MF_Project.bpp instead.