Batch Processing User Guide

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Feedback

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Pathway 3.09 (Thick Client Version)

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Overview

This application controls the processing of printing jobs for all applications. Printed output can be sent to a specific Word Processor or to the screen or sent via email. Print Jobs can be performed immediately or scheduled to run at a particular time of the day, week or month.

Maintenance

The following topics are covered in this section:

Maintenance of Printers
Maintenance of Batch Forms
Job Maintenance

Maintenance of Printers

This section is a brief outline of how to set up printers that will be used to print batch jobs. It should be noted that automatically printing batch jobs can only be done when submitting these jobs interactively (i.e. immediate processing). To print jobs submitted to job queues, the Processed Job Print form must be called. This can be done via the Tools option on the menu bar.

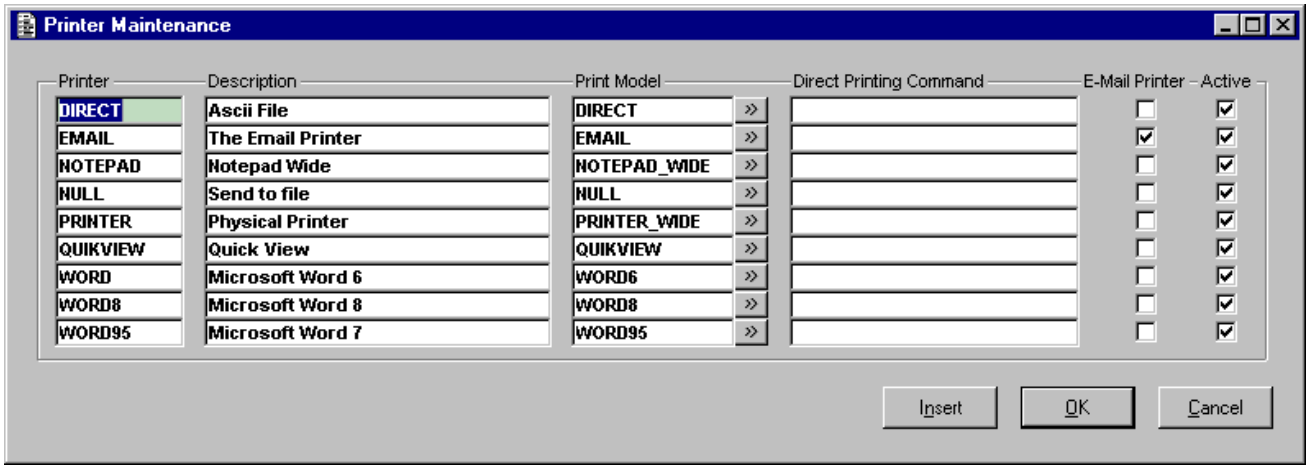
Printer Maintenance Form

This form is used to set up all printers that will be used by the Batch Processing Application.

An e-mail printer must be specified to attach reports to completion message E-mails. This can be done by adding a record to the form and specifying "E-mail/Printer" check box.

Use the Insert button to add a new printer record.

Note: Printed output can be sent to a specific Word Processor or to the screen or sent via email. When reports are sent to Notepad to be printed, it is advisable to set the default Font to MS Linedraw to ensure that lines are printed correctly. If you encounter the problem of characters printing instead of lines whilst using Notepad, then you should check that the following font file is located in your Windows directory, e.g. WINNT/Fonts/ MS Linedraw LINEDRAW.TTF.



Printer Maintenance Form

Printer
This field is used to enter the short description of the Printer record. Up to 10 alphanumeric characters may be used.

Description
This field is used to enter a longer description of the Printer record. Up to 50 alphanumeric characters may be used for this field.

Print Model
This field shows a list of the system-defined printers available to the Batch Processing application. Double clicking the field or clicking on the Pop Up button displays the list.

Direct Printing Command
The Direct Printing Command field allows a print command to be entered to enable direct printing when using a line printer. The command will usually be found in the instruction manual for the specific printer.

E-mail Printer
This field is used to specify which printer will be responsible for the generation of reports to be attached to e-mails. Only one printer can be selected for this function, and the printer selected must have the "E-mail" printer in the Printer Model field.

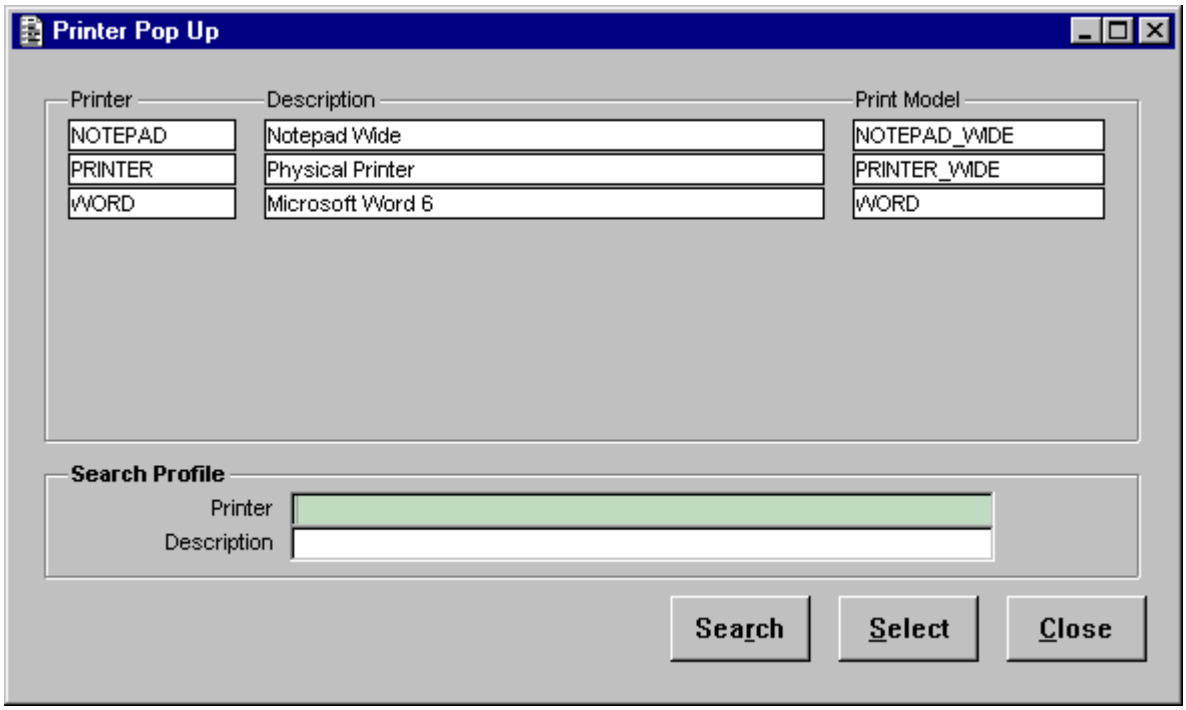
Active
This field indicates whether the printer is active or not. Making a printer inactive means that it is not available to the Batch Processing application for the production of reports.

Printer Pop Up Form

This form is used for the selection of available printers when a batch job is to be printed. The list of printers is produced from the Printer Maintenance form. Any printers in the Printer Maintenance form with a status of "Inactive" will not be available for selection.

Use the "Select" button to select the printer that is required.

Note: Printed output can be sent to a specific Word Processor or to the screen or sent via email. When reports are sent to Notepad to be printed, it is advisable to set the default Font to MS Linedraw to ensure that lines are printed correctly. If you encounter the problem of characters printing instead of lines whilst using Notepad, then you should check that the following font file is located in your Windows directory, e.g. WINNT/Fonts/ MS Linedraw LINEDRAW.TTF.



Printer Pop Up Form

Printer
This field shows a short description of the Printer record.

This field is display only and cannot be maintained.

Description
This field shows a longer description of the Printer record.

This field is display only and cannot be maintained.

Print Model
This field shows the type of printer selected for the printer record. The Print Model is selected in the Printer Maintenance form, and cannot be maintained from this form.

Search Profile - Printer
This field enables searching on the Printer. A partial Printer name (including wildcards) may be entered.

Search Profile - Description

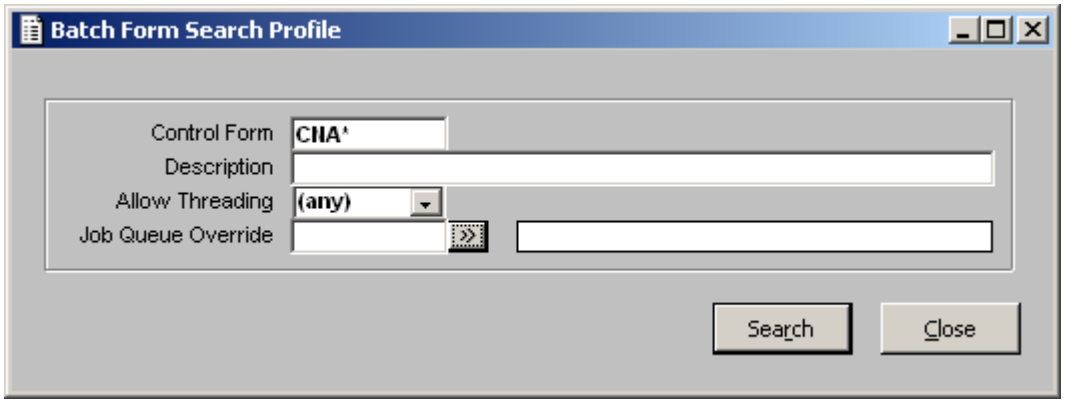
This field enables searching on the description of the printer. A partial description (including wildcards) may be entered.

Maintenance of Batch Forms

This section describes the maintenance that can be performed on individual batch forms. A Batch Form will exist for each option that uses the standard batch processing functions for submitting report and update jobs. The default parameters on each batch form are system defined, along with the extract files that apply. The extract files may be utilised by Third Party Reporting Tools (e.g. Crystal, Cognos) for creating user-defined reports, or exported to Ascii files via the “Export Entity”.

Batch Form Search Profile Form

This form enables searching on the required Batch Form to be performed, using the control form name or description



Batch Form Search Profile Form

Control Form
This field enables searching on the Control Form name. A partial Control Form name (including wildcards) may be entered.
For example
A control form search on CNA* will identify all Batch Forms used within the Name and Address system.

Description
This field enables searching on the Control Form description. A partial Description (including wildcards) may be entered.

Allow Threading
The Allow Threading search field enable the user to locate batch jobs that are capable of being ‘multi-threaded; and whether Batching queues have been assigned.

The available options for the Allow Threading search field are:-

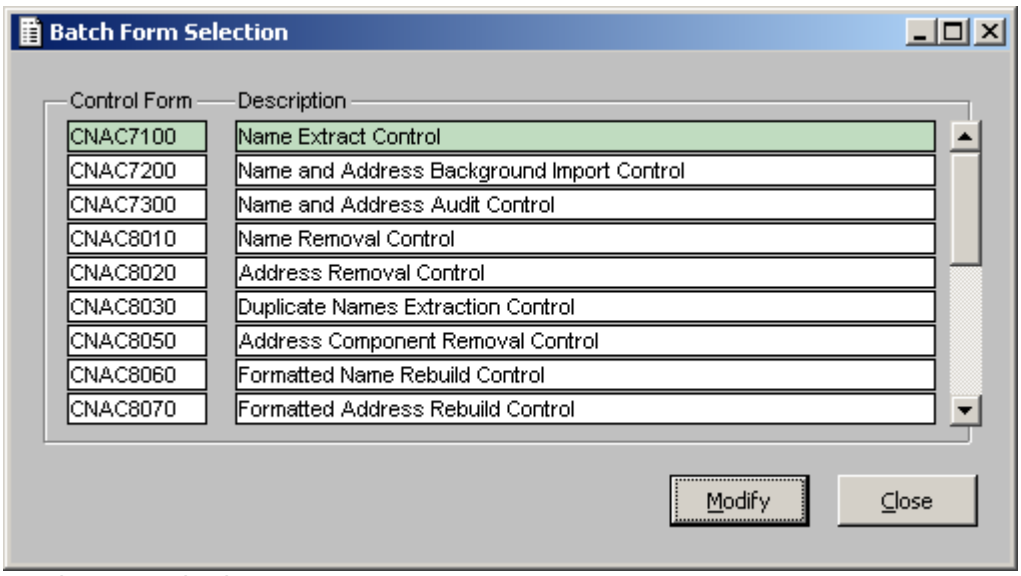
- Yes Display batch jobs that are capable of being ‘multi-threaded’
- No Display batch jobs that are not capable of being ‘multi-threaded’
- (any) Display batch jobs irrespective of whether they are capable of being ‘multi-threaded’

Job Queue Override

These fields allows a Job Queue to be entered or selected from the Pop Up to include in the Search Profile. Only those Control Forms with the nominated Override Job Queue will be displayed.

Batch Form Selection Form

This form enables the selection of a particular Batch Form from a selection list of all forms which have matched the previously entered search criteria.



Batch Form Selection Form

Control Form

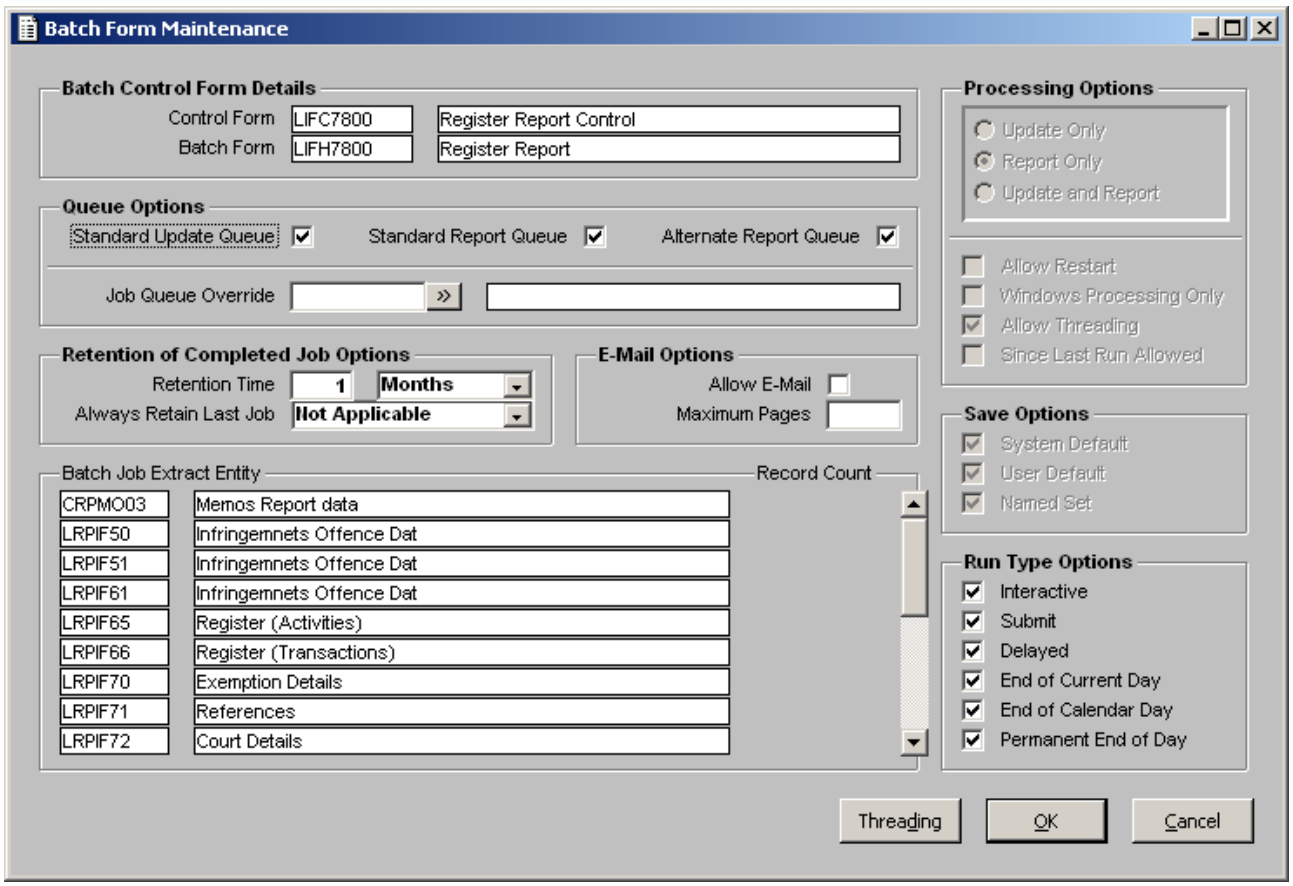
This field contains the Batch Form names which have matched the search criteria. Batch Forms may be selected for maintenance from this form.

Description

This field contains the Batch Form descriptions for each Batch Form which have matched the search criteria. Batch Forms may be selected for maintenance from this form.

Batch Form Maintenance Form

This form enables the maintenance of various batch form details (Processing options and Queue options). Other details regarding the Batch Control Form (Job Type, Restart jobs and Batch Job Extract) may be viewed.



Batch Form Maintenance Form

Batch Control Form Details - Control Form

This field contains the name of the Batch Control form which is defined for each option using the standard batch processing function. This Batch Control Form is system defined and cannot be maintained.

Batch Control Form Details - Batch Form

This field contains the name of the Batch form which controls the processing of the option, using the standard batch processing function. This Batch Form is system defined and cannot be maintained.

Processing Options

This field contains the type of processing which applies to the Batch Control Form. This Processing Option is system defined and cannot be maintained. There are Three possible options.

- Update Only
- Report Only
- Update and Report

Queue Options – Standard Update Queue

The Standard Update Queue is used when an 'Update Only' or 'Update and Report' batch function is submitted. Additionally if a 'Report Only' batch function is submitted the user can choose to process the task on this Queue or on the Standard Report or Alternate Report Job Queues.

Queue Options – Standard Report Queue

The Standard Report Queue can be nominated when a 'Report Only' batch function is submitted by a user. The user can nominate to submit the task on this Queue or on the Standard Update or Alternate Report Job Queues.

Queue Options – Alternate Report Queue

The Alternate Report Queue can be nominated when a 'Report Only' batch function is submitted by a user. The user can nominate to submit the task on this Queue or on the Standard Update or Standard Report Job Queues.

Queue Options – Job Queue Override

The Job Queue Override allows a user to assign a specific job queue for a Batch Function. When a user submits this Batch function the task is processed by the Job Queue nominated as the 'Job Queue Override'. The Standard Update, Standard Report and the Alternate Report Job Queues are ignored when a Batch Function has a 'Job Queue Override' defined.

The 'Job Queue Override' will usually only be defined for 'Windows Processing Only' Batch functions.

Processing Options - Allow Restart

If this checkbox is checked on, the Batch Control Job may be restarted via the Resume function in Submitted Job Maintenance. This feature will enable a job which has been terminated abnormally (e.g. due to power failure) to be restarted from a particular point. Only certain Batch Control Jobs will enable this capability. If this checkbox is not checked on , the batch job is not restartable and will therefore require deletion of the terminated job and re-submission.

Processing Options - Windows Processing Only

The 'Windows Processing Only' indicator is not maintainable by a user and is set by Infor. This indicator will be set on Batch Functions that use MS-Windows specific functions such as Word Processing.

If a Batch Function is recorded as 'Windows Processing Only' then a Windows Based Job Queue must be selected as the 'Job Queue Override' if any Run Type Options apart from Interactive have been specified.

This ensures that the Batch Function is not submitted to a Job Queue that is being processed by a Unix Server. If there are no Windows Based Job Queues defined then a 'Windows Processing Only' Batch Function can only be executed interactively. The 'Run Type Options' can only have Interactive checked on.

Processing Options - Allow Threading

The 'Allow Threading' indicator is not maintainable by a user and is set by Infor. This indicator will be set on Batch Functions that allow the use of 'multi-threading'.

Processing Options – Since Last Run Allowed

Retention of Completed Jobs - Retention Time

The Retention Time specified on the Batch Form is an override to the Retention Time nominated at the time of running the 'Processed Job Deletion' function. These fields can be left blank and the purge will use the value entered at the time of running the process, or you can nominate a different Retention Time for each of the individual Batch functions.

Retention Time can be nominated as a number of Days, Weeks or Months. For Example if you have entered 12 months into the fields, batch jobs run for the nominated Batch function will be deleted up to 12 months before the run date. That is, if the Batch Purge was run on the 5th January 1999, jobs with a run date prior to the 5th of January 1998 would be purged.

Retention of Completed Jobs - Always Retain Last Job

The Always Retain Last Job value is used when the 'Processed Job Deletion' function is processed.

Options available are:-

- Not Applicable
- For each User
- For the System

Not Applicable – this is the default value for the field. At the time of running the 'Processed Job Deletion' function if this field is set to 'Not Applicable' then the purge will process batch jobs using the Retention Time nominated on either the Batch Form Maintenance or the Retention Time nominated at the time of processing the purge.

For each User – at the time of running the 'Processed Job Deletion' function the purge will always retain the last job processed for each User .

For the System – at the time of running the 'Processed Job Deletion' function the purge will always retain the last job processed for the System.

E-mail Options - Allow E-mail

If the Allow E-mail field is checked on then an additional field is displayed at the time of processing the Batch function which will allow the user to check on and receive a copy of the report attached to the E-mail message sent on completion of processing.

E-mail Options - Maximum Pages
A value can be entered into this field to specify the maximum number of pages allowed for the emailing of the report. This value is used to avoid excessively large attachments being sent via E-mail.

Save Options - System Default
If this checkbox is checked on, system defaults may be defined for each Batch Control Form. Further help on defining defaults can be accessed via the Batch Job Options Chapter of this guide. This field is system defined and cannot be maintained without the appropriate authority.

Save Options - User Default
If this checkbox is checked on, user defaults may be defined for each Batch Control Form. Further help on defining defaults can be accessed via the Batch Job Options Chapter of this guide. This field is system defined and cannot be maintained without the appropriate authority.

Save Options - Named Set
If this checkbox is checked on, default parameter sets may be defined for each Batch Control Form. Further help on defining defaults can be accessed via the Batch Job Options Chapter of this guide. This field is system defined and cannot be maintained without the appropriate authority.

Batch Job Extract Entity Details

This field contains the description of the extract file which will contain the data extracted during the processing of a Batch Control Form. This Extract file may be utilised by Third Party Reporting Tools (e.g. Crystal, Cognos) for creating user defined reports or exported to Ascii files via the “Export Entity”.

Run Type Options - Interactive
If this checkbox is checked on, the Batch Control Job may be processed interactively. An interactively processed job will not be processed via the Batch Processing Job Queues, it will be processed immediately, restricting access to the session it was submitted from.
Interactive processing could be made unavailable on Batch Jobs which will require a large amount of processing time.

Run Type Options - Submit
If this checkbox is checked on, the Batch Control job may be processed as a submit job via the Batch Processing Job Queues. All submit jobs will be allocated to the appropriate job queue and processed in arrival sequence. Further help on submit job processing can be accessed via the Job Queue Maintenance Chapter of this guide.

Run Type Options - Delayed
If this checkbox is checked on, the Batch Control job may be processed as a delayed job via the Batch Processing Job Queue. All delayed jobs will be allocated to the appropriate job queue and processed at a scheduled date and time.

Run Type Options - End of Current Day
If this checkbox is checked on, the Batch Control job may be processed as part of the End of Day function. Further help on end of day job processing may be accessed via the End of Day Scheduled Job Maintenance and Submit End of Day Chapters of this guide.

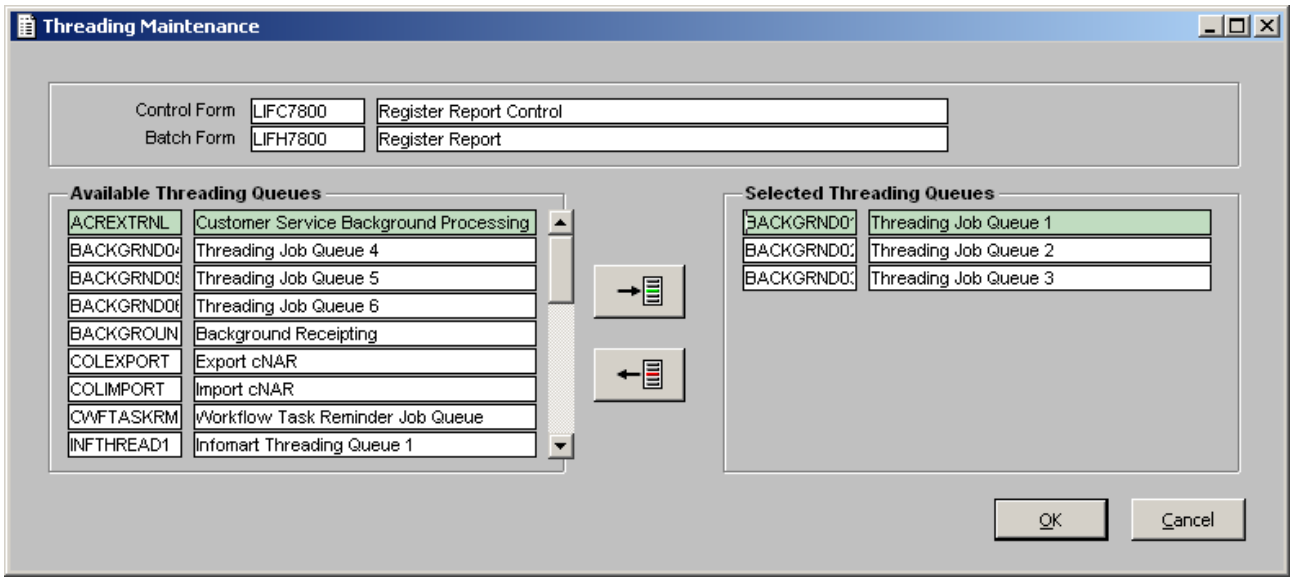
Run Type Options – End of Calendar Day
If this checkbox is checked on, the Batch Control job may be processed as part of End of Day based on a Schedule of Calendar days nominated.

Run Type Options – Permanent End of Day
If this checkbox is checked on, the Batch Control job may be processed as part of every End of Day process.

Threading
If the ‘Allow Threading’ processing option is flagged on then the Threading Option Button is available for the user to define the Job Queues that can be used for the processing of the Job.

Threading Maintenance Form

The Threading Maintenance form allows the selection of the Threading Queues that can be used for the processing of the Batch Job currently selected. Only Background Queues are displayed in the Available List. The User needs to move the appropriate Queues to the Selected list for them to be used when the Job is run.



Threading Maintenance Form

Control Form

This field contains the name of the Batch Control form which is defined for each option using the standard batch processing function. This Batch Control Form is system defined and cannot be maintained.

Batch Form

This field contains the name of the Batch form which controls the processing of the option, using the standard batch processing function. This Batch Form is system defined and cannot be maintained.

Available Threading Queues

The Available Threading Queues list displays the Queues that are available to be selected as those to be used when processing the Job and multi-threading is in use.

Selected Threading Queues

The Selected Threading Queues list displays the Queues that have been nominated to be used when processing the Job.

Batch Multi-Threading

Many Batch functions within the Pathway system take a significant time to process.
A new “Threading” model has been incorporated into the Batch system to reduce the time taken to process Batch functions.

The only Batch functions that have been modified in Release 2.14 to use the new “Threading” model are the “Rebuild Formatted Names” and “Rebuild Formatted Addresses” menu options available from the Name and Address Housekeeping menu branch.
Additional Batch function will be modified to use the “Threading” model over time.

Batch “Threading” Model Concepts.

The “Threading” model uses “Background Job Queues” similar to that used to perform Receipt background apportionment and Customer Services background Email generation.

When a standard Pathway Batch function is executed the entire processing set is broken down into blocks of 100 entries.
Each block of 100 entries is processed individually in sequential order and a “Progress” message is displayed between each block.

When a “Threading” Pathway Batch function is executed the entire processing set is broken down into blocks of 100 entries as per a standard Pathway Batch function.
The “Threading” model will allocate these blocks of 100 entries to the available “Threading Background Queues” thus enabling multiple blocks of entries to be processed simultaneously.
This can significantly reducing the total elapsed time required to process all the entries.

The Pathway Batch “Threading” model implementation is optional in that all Pathway Batch functions will continue to operate regardless of whether any “Threading Background Queues” have been defined.

The number of “Threading Background Queues” that should be defined for a particular Pathway Batch function is dependant on the processing capacity of the Pathway Batch Server and the Pathway Database Server and the processing requirements of the actual Pathway Batch function.

For Example
If three “Threading Background Queues” are defined for the “Formatted Name Rebuild” batch function and the CPU, Main Memory and Network Communication utilization of the Pathway Batch and Database Servers does not exceed critical performance levels then the number of “Threading Background Queues” can be increased to further reduce total processing time.
If any critical performance levels are exceeded on either server or the communications link between the servers then the number of “Threading Background Queues” needs to be reduced.

Different Pathway Batch functions have different processing requirements and therefore the number of “Threading Background Queues” defined for each Pathway Batch function may differ.

As a general rule each Pathway Batch function that is “Threading” enabled should have three “Threading Background Queues” defined as an initial starting point.

Establish a Batch “Threading” Model.

The establishment of a Pathway Batch “Threading” model can best described with a fully functional example that utilizes three Threading Background Queues.
It is recommended that you adopt this example as an initial base and perform any adjustments after analyzing the load placed on the Pathway Batch Server and Pathway Database Server.

Create “Threading Background Queues”.

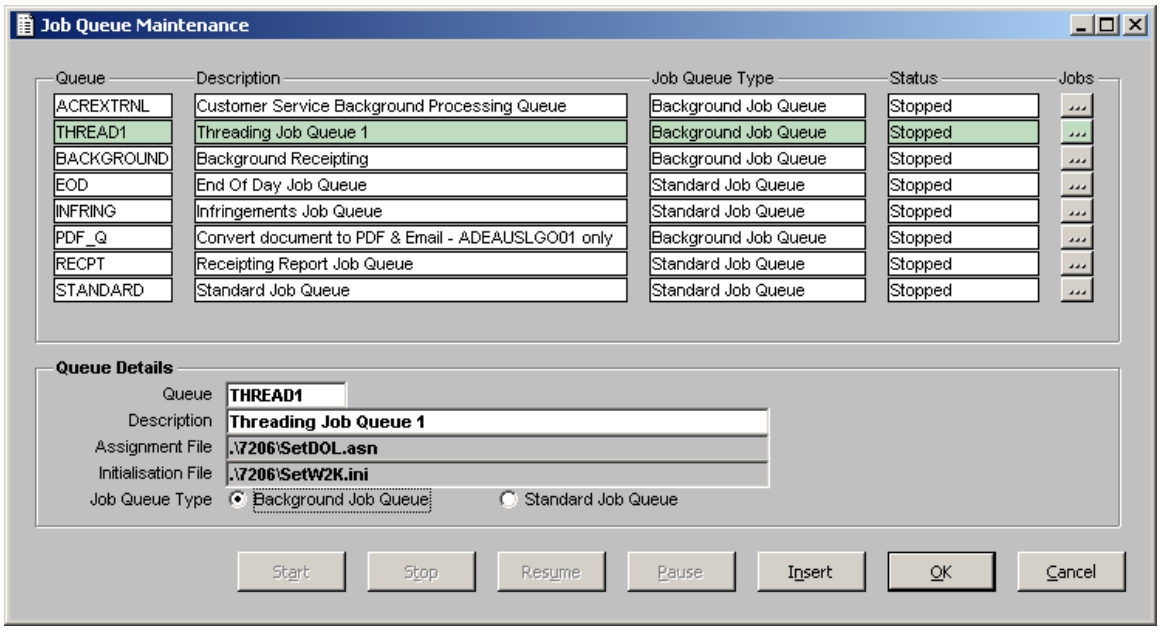
Select the “Batch Processing >> Maintain Job Queues Administrator Level” menu option.

Use the [Insert] button to create a THREAD1 Background Job Queue with the following attributes:

Queue: THREAD1
Description: Threading Job Queue 1
Assignment File: (Leave as the default value signified by the grey edit box)
Initialisation File: (Leave as the default value signified by the grey edit box)
Job Queue Type: Background Job Queue

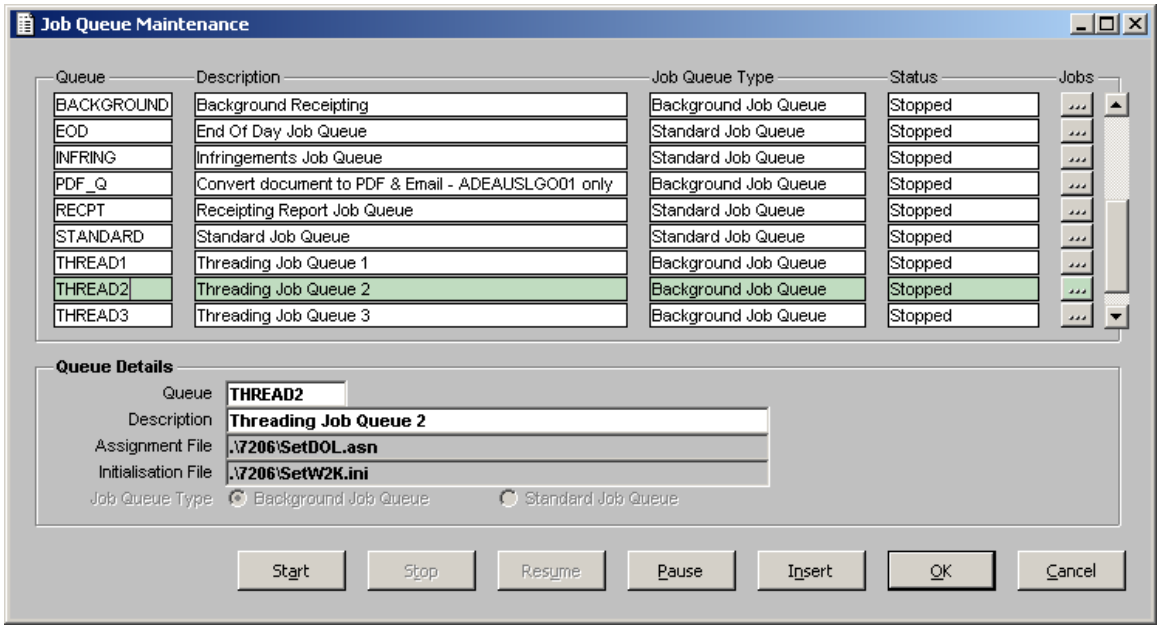
Ensure that you select the Job Queue Type as “Background Job Queue” as this value cannot be modified once the queue has been created.

Ie:



Create a further two Background Job Queues called THREAD2 and THREAD3.

Ie:



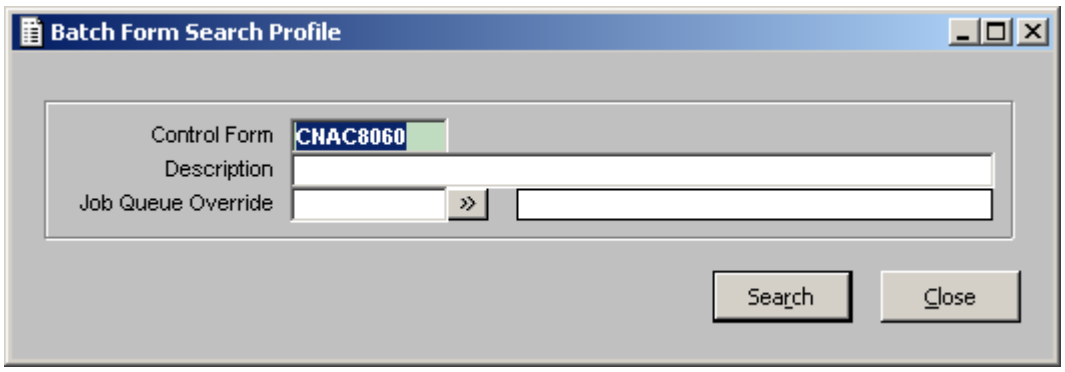
Allocate “Threading Background Queues” to Pathway Batch Functions.

As previously stated the only Pathway batch functions use the new “Threading” model are the “Rebuild Formatted Names” and “Rebuild Formatted Addresses” functions.
The “Threading Background Queues” need to be defined for these two Pathway Batch functions.

Select the “Batch Processing >> Batch Form Maintenance” menu option.

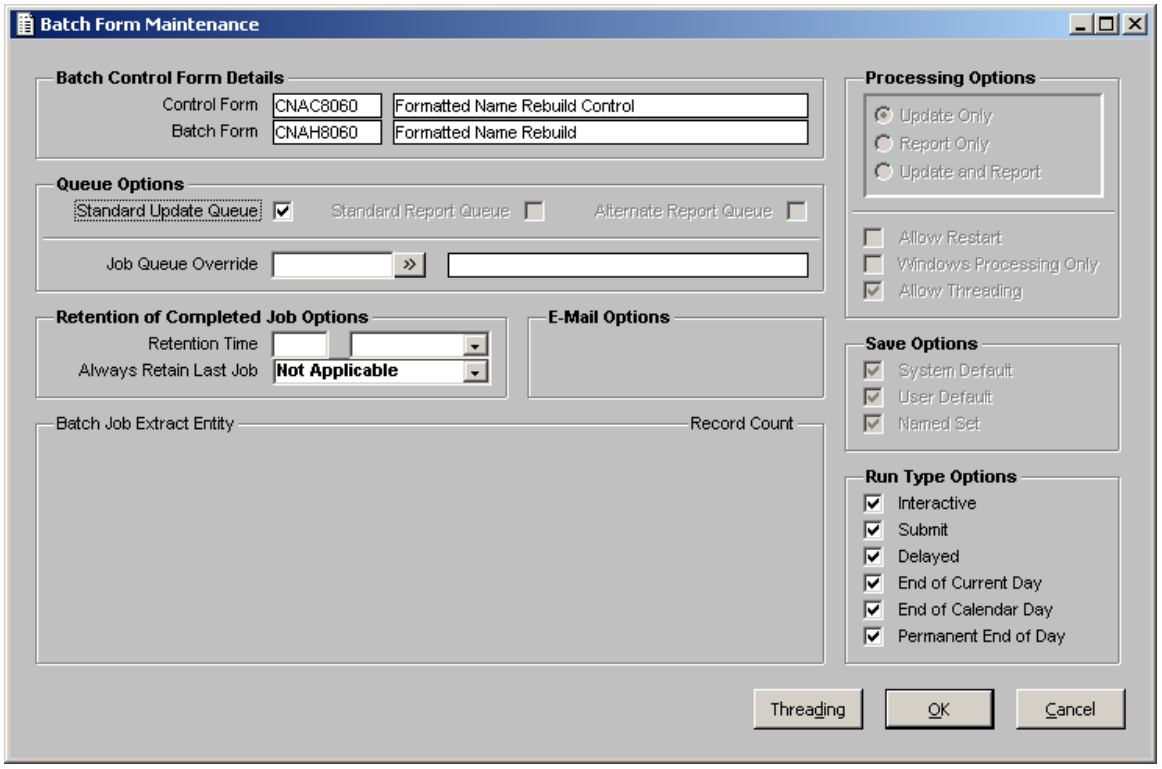
Enter “CNAC8060” into the Control Form search profile field.

Ie:



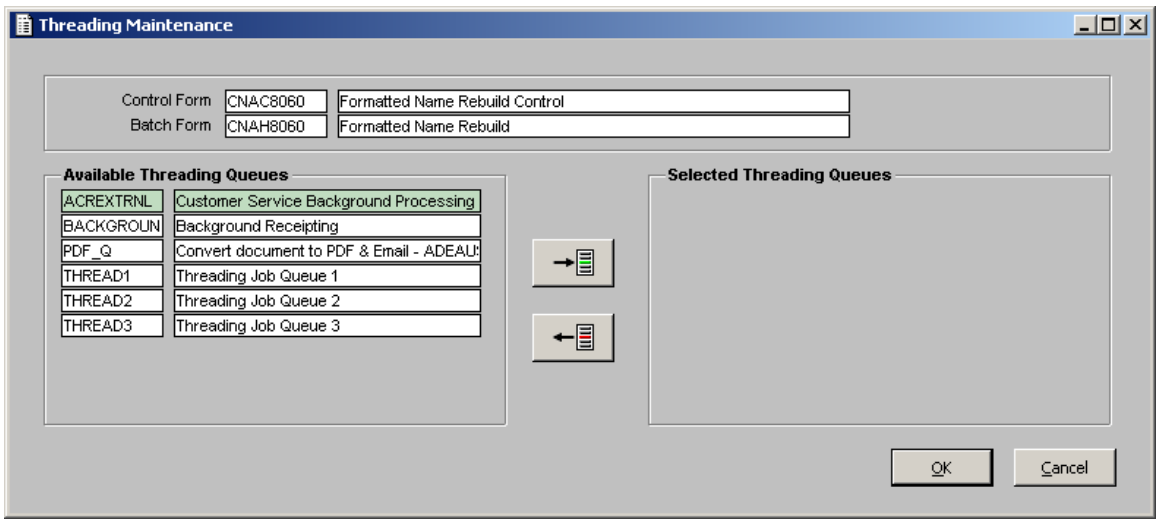
Select the [Search] button to display the “Formatted Name Rebuild Control” Batch Form details.

Ie:



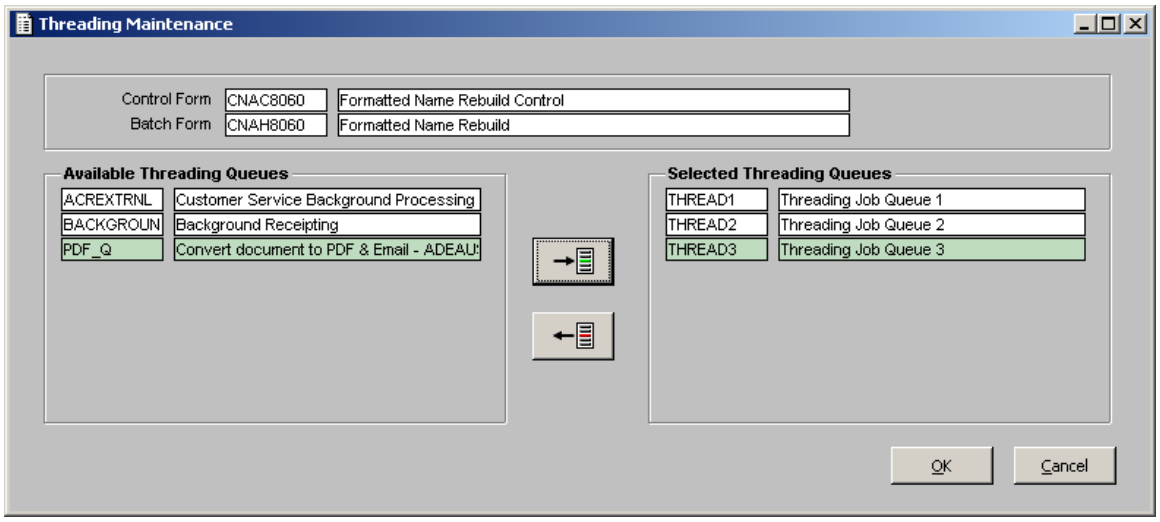
Select the [Threading] button to display the “Available Threading Queues”.

Ie:



Use the [Move Right] button to select the THREAD queues previously defined.

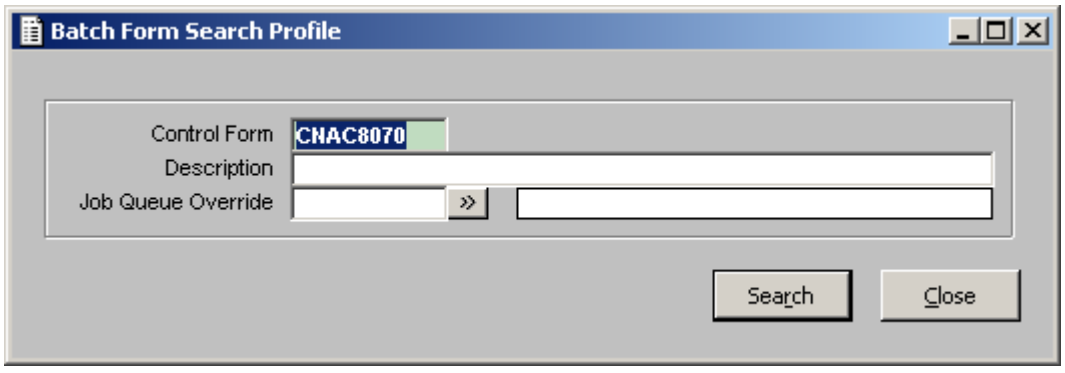
Ie:



Select the [OK] button on the “Threading Maintenance” screen and the [OK] button on the “Batch Form Maintenance” screen to apply the updates.

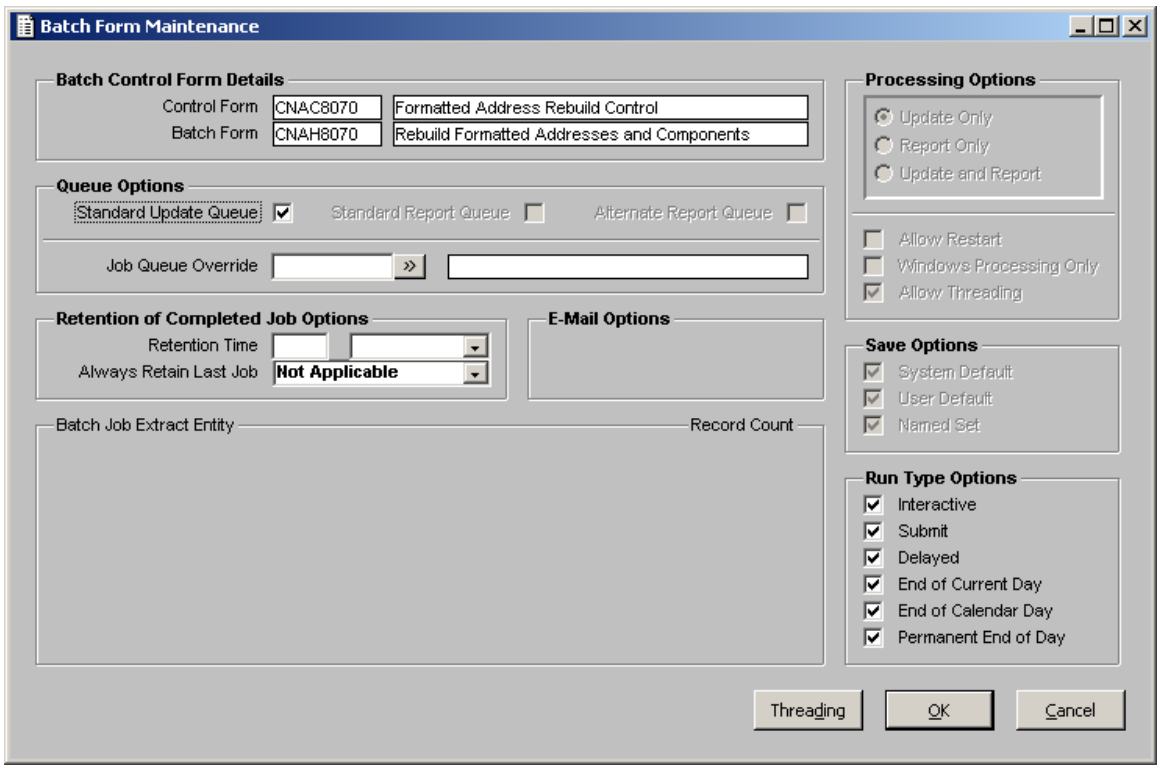
Enter “CNAC8070” into the Control Form search profile field.

Ie:



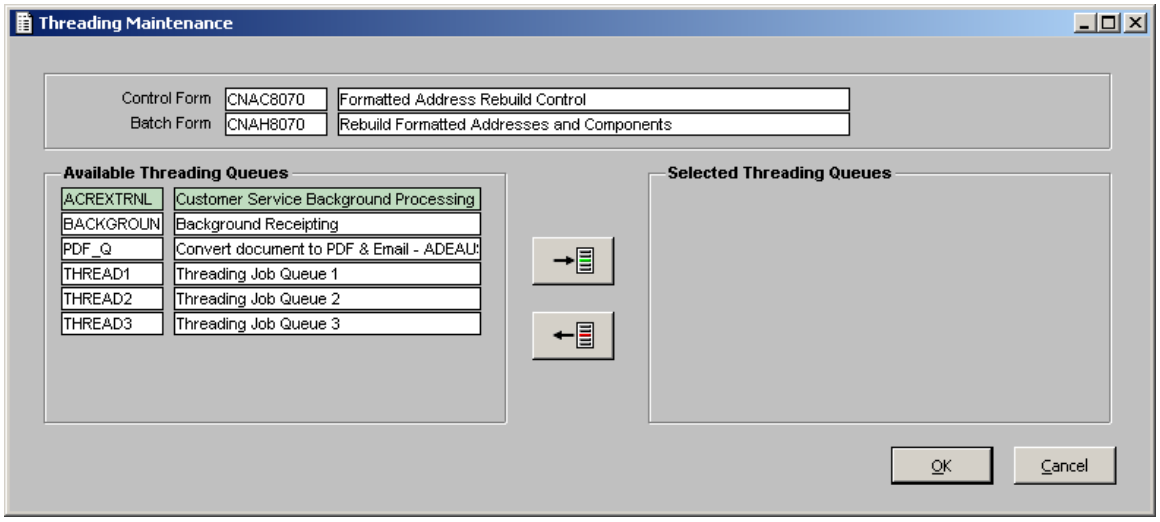
Select the [Search] button to display the “Formatted Address Rebuild Control” Batch Form details.

Ie:



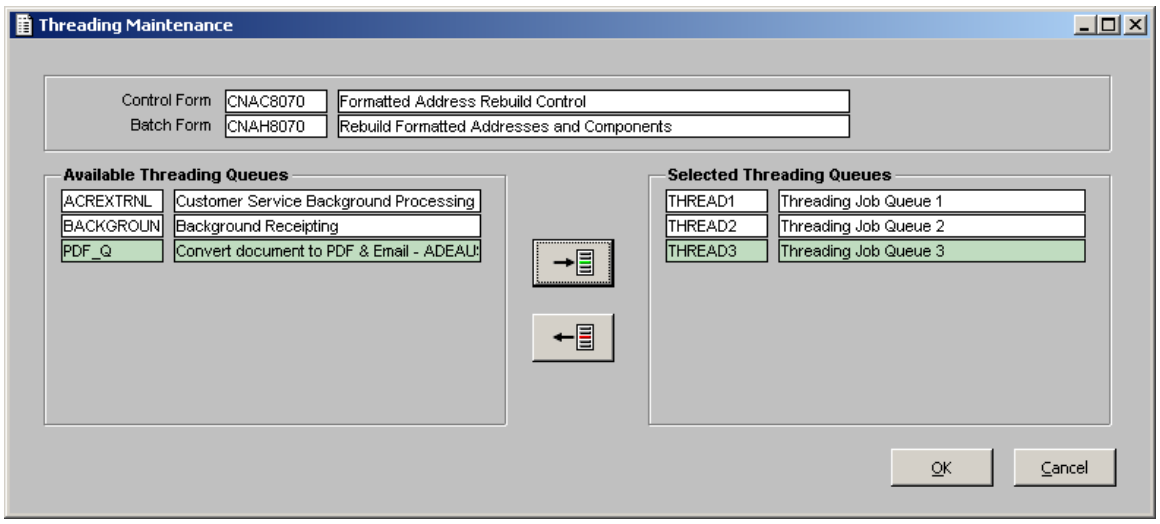
Select the [Threading] button to display the “Available Threading Queues”.

Ie:



Use the [Move Right] button to select the THREAD queues previously defined.

Ie:



Select the [OK] button on the "Threading Maintenance" screen and the [OK] button on the "Batch Form Maintenance" screen to apply the updates.

Starting "Threading Background Queues".

The "Threading Background Queues" need to be started in the same manner as any other Background Job Queues on the Pathway Batch Server.
If you have created a scheduled task to start All Job Queues on the Pathway Batch Server then the new "Threading Background Queues" will also be started.

If the "Threading Background Queues" have not been started and a Pathway Batch function that uses these queues is executed then a status message indicating that the queues have not been started will be displayed and the function will be performed without utilizing the background job queues.

Running a "Threading" Pathway Batch function.

There is no variation in submitting or running batch function interactively regardless of whether it has been "Threading" enabled or not.

The only variation is in the status messages that are displayed when a "Threading" enabled batch function is performed.

Towards the completion of a "Threading" batch process additional status messages will be displayed indicating that the job is:
1) "Processing any remaining Threading Background Jobs waiting on the Background Job Queues."
2) "Waiting for all Threading Background Jobs to complete."

At the completion of a "Threading" batch process messages are added to the message frame to indicate the number of blocks processed by each "Threading Background Queue".

Note: the following information complements and updates the above information (it was made available in a later update).

The introduction of the “multi-batching” batch model has increased the number of job queues and therefore additional features have been provided within the “Batch Processing >> Maintain Job Queues Administrator Level” menu option to allow for better control over these queues.

To obtain the maximum performance benefits from the multi-batching batch model the Batching queues can be distributed across multiple computers, whether they be Unix Servers, Windows Servers, or desktop PCs.

The use of these new job queue control features is optional in that all established job queue start and stop operations will continue to operate regardless of whether any new control options are defined.

The new control features can be applied to both “Standard Batch Queues” and “Background Job Queues” but are not supported for Unix based job queues.

The Unix based queues will continue to be started and stopped by the “cron” jobs defined on the Unix server.

Additional features have been provided in the “Maintain Job Queues Administrator Level” menu option that are applicable to both Windows and Unix based job queues and are detailed below.

Maintain Job Queues Administrator Level

When the “Maintain Job Queues Administrator Level” menu option is selected a check is performed to determine whether any “Processing” batch jobs have been inactive for more then one hour.
This situation arises when a batch job commences processing on a Client PC in Interactive mode, or on a Windows batch server in Submitted mode, or on a Unix batch server in Submitted mode and the session that is servicing the job terminates due to some form of system problem.
The batch jobs that are deemed to be “Processing” but “Inactive” are automatically terminated and an eMail message is sent to the user that initiated the job.
This function has been modified to provide an interactive dialog message to allow the user to specify whether an e-Mail message should be sent to the users whose jobs have been terminated.

Ie:
“Detected processing jobs that failed to complete. Do you want to send E-Mail messages to the users that submitted the jobs to indicate that their jobs have been terminated? Yes,No”

Status messages are placed in the Message Frame to indicate what batch jobs have been terminated regardless of whether e-Mail messages are sent.

Ie:
Batch Job with Run Number 276892 submitted by user EDALI failed to complete and has been terminated.

Scheduled Jobs Maintenance and Background Jobs Maintenance

The “Scheduled Jobs Maintenance” and “Background Jobs Maintenance” functions invoked via the [Jobs] button for a particular job queue have been enhanced to display the new “Last Started on Server” and “Last Active Date/Time” information.

For Unix based job queues the “Last Started on Server” field will always contain “UNIX”.
For Windows based job queues the “Last Started on Server” field will contain the “Computer Name” of the Windows based computer that last started the queue. This information is useful in determining the actual server on which the queue is started.

The “Last Active Date/Time” is periodically updated by the session that is servicing a job queue as it processes an actual batch job or actively polls for the arrival of new batch jobs. If the “Last Active Date/Time” is not periodically updated then this usually means that the session that is servicing the queue has terminated abnormally.

The “Last Active Date/Time” information is used upon selection of the “Maintain Job Queues Administrator Level” menu option to determine whether a “Started” queue has been inactive for more than one hour.

This situation arises when a job queue is started on a Windows batch server or on a Unix batch server and the session that is servicing the job queue terminates due to some form of system problem.
The batch queues that are deemed to be “Started” but “Inactive” and are automatically “Stopped” and a status messages is placed in the Message Frame to indicate what batch queues have been stopped.

Ie:
Job Queue NORMAL_Q has been updated from Started to Stopping as there has been no activity on the queue for one hour.
Job Queue NORMAL_Q has been updated from Stopping to Stopped as there are no processing jobs on the queue.

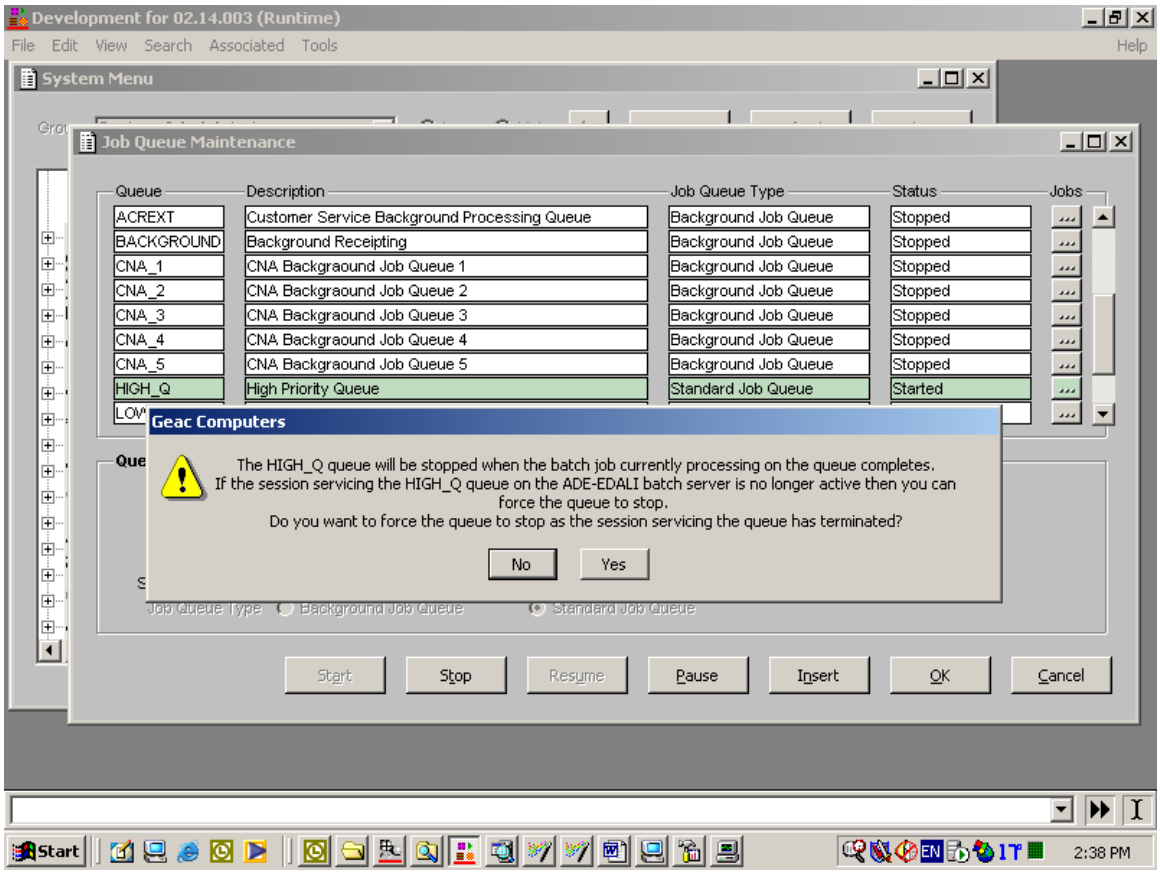
This new functionality will prevent job queues being shown as “Started” when the actual session on the batch server has been terminated.

Forcing a Queue to Stop

When a job queue is stopped via the “Maintain Job Queues Administrator Level” menu option the queue is placed into a “Stopping” state until the batch job currently being processed completes.
If the session that is servicing the job queue has terminated then the job queue will remain in a “Stopping” state until the “Processing” batch job is deemed “Inactive” and automatically terminated.
It may take as long as one hour for “Processing” job to be deemed as “Inactive” and therefore the queue cannot be restarted during this period.

The job queue Stop function has been modified to detect this situation and provide an interactive dialog message to allow the user to force the queue to stop.

Ie:



The option to force the queue to stop should only be selected if it can be independently verified that the session servicing the queue is no longer active.
If care is not taken in this respect it is possible that the same queue may be serviced by two sessions which could lead to potential problems.

Job Queue Start Method

A new facility has been provided on the “Maintain Job Queues Administrator Level” menu option to control how and where job queues are started.

This new facility is only applicable to Windows based job queues.
Unix based job queues will continue to operate via the “cron” job entities.

The “Start Method” determines how Windows based job queues are started and the following options are available:
1) Automatically on any Server
2) Manually on any Server
3) Automatically on Specific Server

Automatically on any Server

This is the default option and applied to all preexisting queues.

The queue will automatically start on the first Windows based batch server that performs a scheduled Start All Job Queues operation.

This Start Method should be defined for all general purpose “Standard Job Queues” and “Background Job Queues”.

Manually on any Server

The queue can only be started manually via the “Maintain Job Queues Administrator Level” menu option.

The automatically scheduled Start Batch Queue operations will not affect any queues defined with this method.

This Start Method should be defined on “Background Job Queues” used for specific functions and therefore the queues do not need to be started automatically on a daily basis.
Eg:
Background Job Queues that are specifically used for Multi Threading the periodic Rates Generation batch functions.

Automatically on Specific Server

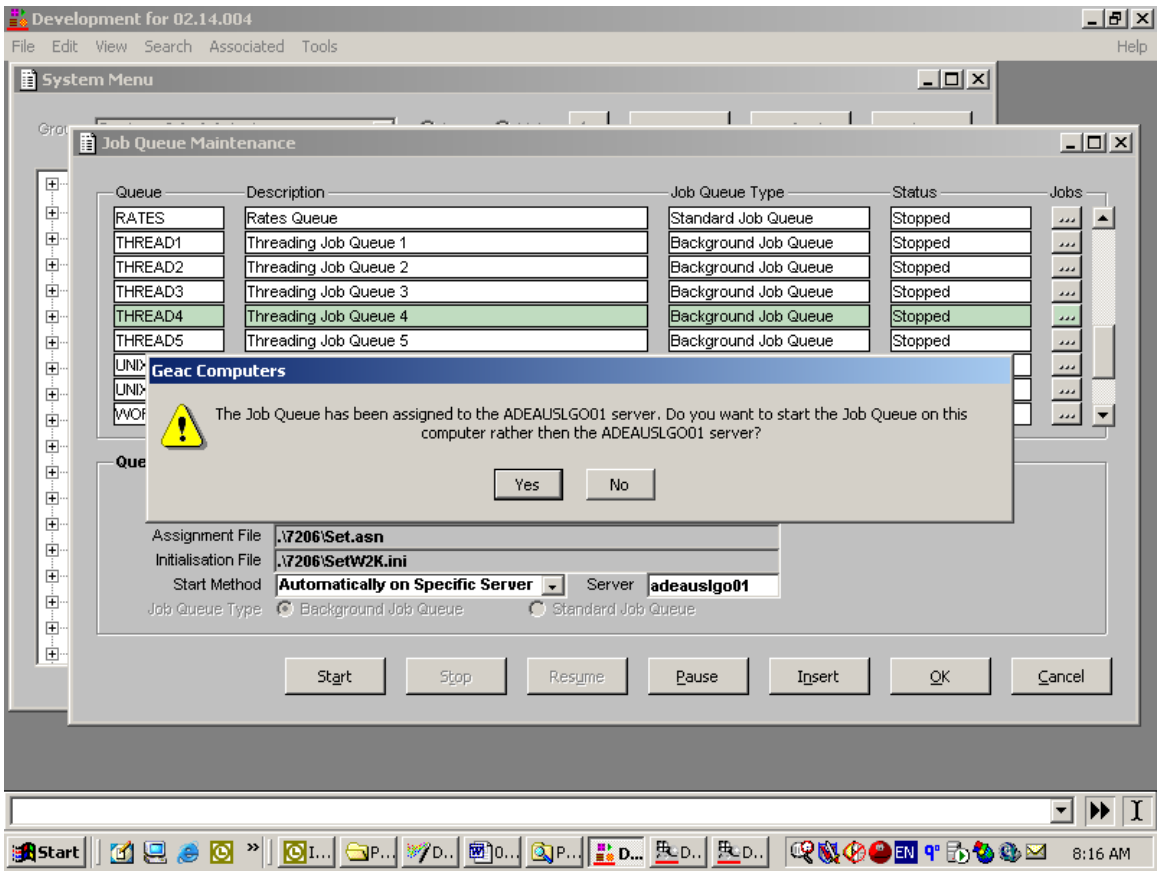
This Start method is used in conjunction with the new “Server” field to determine which Windows based batch server should start the queue.

The queue will only be started when the automatically scheduled Start Queue operation is performed on a server specified in the “Server” field.
The queue will not be started when the automatically scheduled Start Queue operation is performed on a server that is different to that specified in the “Server” field.

This Start Method should be defined on “Background Job Queues” used for Multi Batching across multiple batch servers.
Eg
If you have defined a Multi Batching environment with six “Background Job Queues” that are serviced by two different Windows based batch servers.
Specify the first batch server for the first three queues and the second batch server for the second three queues.

A queue that has been defined to start on a specific server can still be manually started on any server via the “Maintain Job Queues Administrator Level” menu option.

Ie:



Stopping Job Queues

When an automatically scheduled Stop All Job Queues operation is performed on a server then all the job queues started on that server will be stopped regardless of the Start Method.

If a job queue has been specifically assigned to the server but manually started on another server then it will also be stopped.

New Scheduling Command String

Prior to this release the following “Command Strings” were available to Windows based scheduling systems to automatically Start and Stop job queues.

Start All Job Queues specifically assigned to the server or not assigned to a specific server
…\uniface.exe /ini=… /asn=… CSY_BCH

Start One Queue where ### is the TPKCBTJOBQ of the queue to start.
…\uniface.exe /ini=… /asn=… CSY_BCHQ ###

Stop All Queues running on the server or specifically assigned to the server
…\uniface.exe /ini=… /asn=… CSY_BCHX

Stop One Queue where ### is the TPKCBTJOBQ of the queue to stop.
…\uniface.exe /ini=… /asn=… CSY_BCHY ###

All previously defined “Command Strings” in scheduled tasks will continue to operate however it is recommended that you modify the schedule task “command strings” to use the new “command string” structure.
Future Pathway releases will only support the new “command string” options.

The new “command string” options are detailed below:

Start All Job Queues specifically assigned to the server or not assigned to a specific server
…\uniface.exe /ini=… /asn=… CSY Start

Start One Queue where ### is the TPKCBTJOBQ or the NAME of the queue to start.
…\uniface.exe /ini=… /asn=… CSY Start ###

Stop All Queues running on the server or specifically assigned to the server
…\uniface.exe /ini=… /asn=… CSY Stop

Sop One Queue where ### is the TPKCBTJOBQ or the NAME of the queue to start.
…\uniface.exe /ini=… /asn=… CSY Stop ###

An example of a fully defined command string to start all job queues specifically assigned to the server or not assigned to a specific server is:
P:\Pathway\Uniface\7206\W2K\bin\uniface.exe /ini=.\7206\SetW2K.ini /asn=.\7206\Set.asn CSY Start

Limiting the Job Queues Displayed

New [View] – [Job Queue …] pull down menu options have been provided on the "Maintain Job Queues Administrator Level" menu option.
These new pull down menu options limit the job queues that are displayed.

The additional [View] – [Job Queue …] pull down menu options are:
Job Queue Servers
- Windows
- Unix

Job Queue Types
- Standard
- Background

Job Queue Status
- Started
- Paused
- Stopped
- Stopping

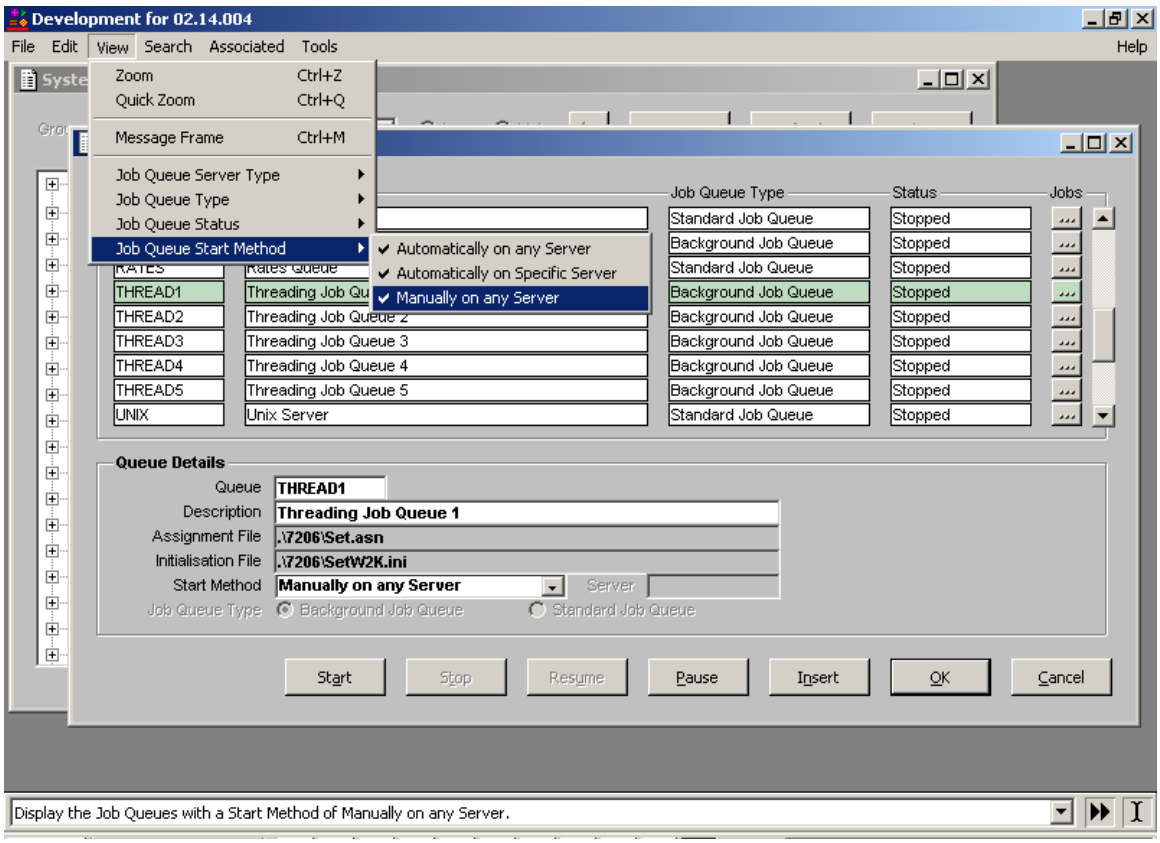
Job Queue Start Method
- Automatically on any Server
- Automatically on Specific Server
- Manually on any Server

By default all [View] – [Job Queue …] pull down options are checked on and therefore all queues are displayed.
If any of the [View] – [Job Queue …] pull down options are changed then the settings will be retained for the remainder of the Pathway session.
Ie:
If the "Maintain Job Queues Administrator Level" menu option is accessed for a second time then any modified [View] – [Job Queue …] settings from the previous access are retained.
If a new Pathway sessions is started the [View] – [Job Queue …] pull down options revert back to the default setting and all queues are displayed.

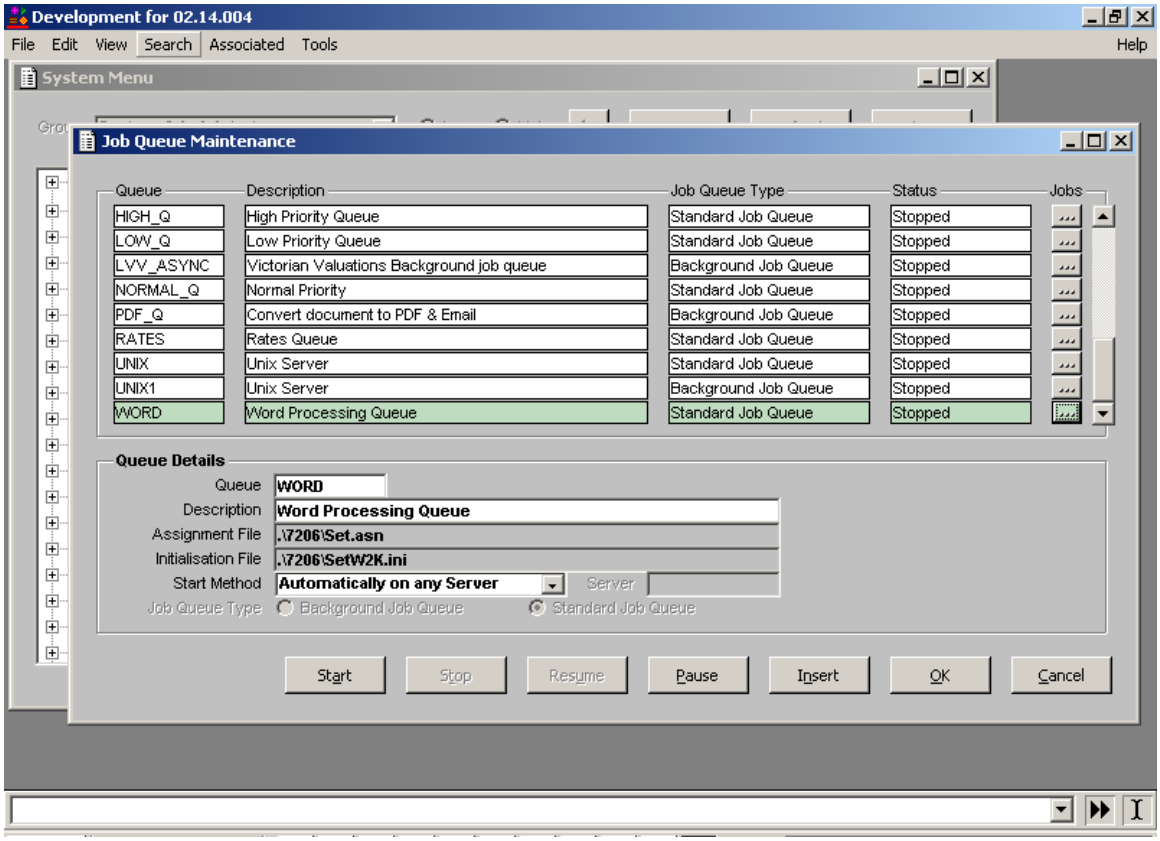
Example Usage

If Background Job Queues that are specifically used for Multi Batching the periodic Rates Generation batch functions have been a assigned a Start Method of "Manually on any Server" then they can be eliminated them from the display by checking off the [View] – [Job Queue Start Method] – [Manually on any Server] pull down menu option.

Ie:



Selecting the “Manually on any Server” option will toggle the check indicator to off and all the Job Queues with this Start Method are eliminated from the display.

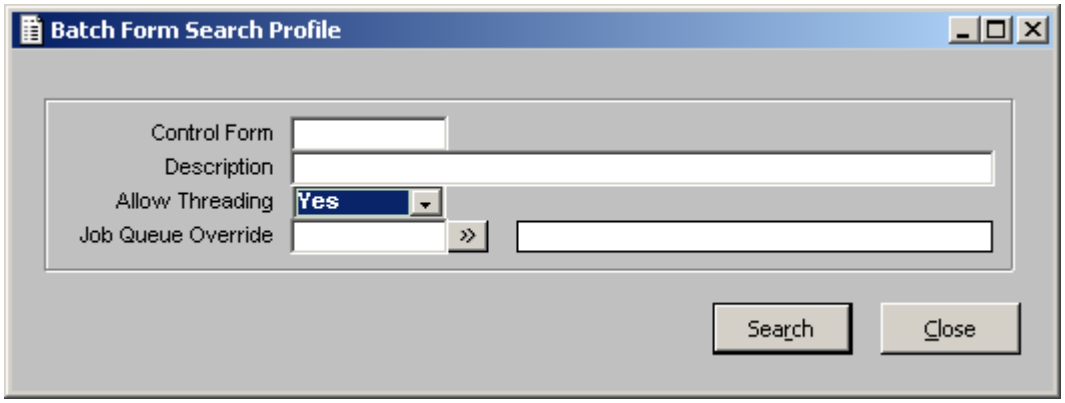


Batch Form Maintenance

An additional “Batching Allowed” search field has been provided on the “Batch Processing >> Batch Form Maintenance” menu option.

The available options for the “Batching Allowed” search field are:
1) Yes - Display batch jobs that are capable of being “multi-threaded”.
2) No - Display batch jobs that are not capable of being “multi-threaded”.
3) (any) - Display batch jobs irrespective of whether they are that are capable of being “multi-threaded”.

The new search profile field enables you to locate batch jobs that are capable of being “multi-threaded” and determine whether Batching queues have been assigned.
Ie:



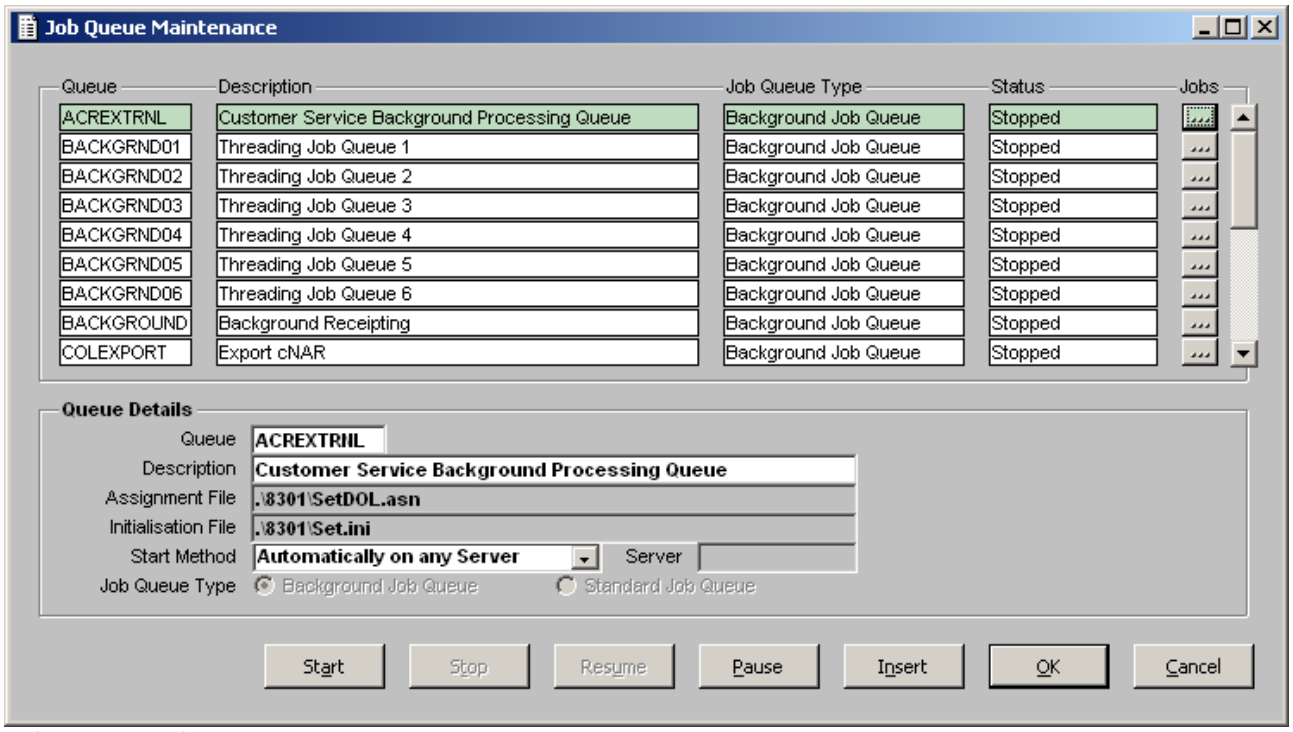
Job Maintenance

This section describes the options available for maintaining and monitoring the job queues used within the Batch Processing system as well as the jobs which have been submitted for processing to these job queues. The options available will depend on whether Job Queue Maintenance is accessed at an Administrator authority level.

Job Queue Maintenance Form

This Form enables the maintenance of certain aspects of the defined job queues. If accessed with an Administrator authority level, the current status of the job queues can be controlled and new job queues may be added. If not accessed with an Administrator authority level, this form will allow enquiry on job queue details only.

Additionally the User is able to further define the display of the Queues by using the View / Job Queue pull down menu options available on the form. Please refer to the heading 'Limiting the Job Queues Display' below the form picture.



Job Queue Maintenance Form

Limiting the Job Queues Displayed

New [View] – [Job Queue …] pull down menu options are provided on the "Maintain Job Queues Administrator Level" menu option. These pull down menu options limit the job queues that are displayed.

The additional [View] – [Job Queue …] pull down menu options are:
Job Queue Servers
- Windows
- Unix

Job Queue Types
- Standard
- Background

Job Queue Status
- Started
- Paused

Stopped
Stopping
Job Queue Start Method
Automatically on any Server
Automatically on Specific Server
Manually on any Server

By default all [View] – [Job Queue …] pull down options are checked on and therefore all queues are displayed.

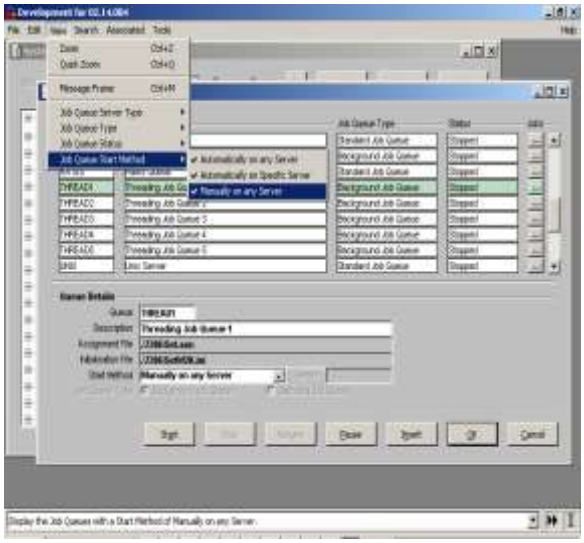
If any of the [View] – [Job Queue …] pull down options are changed then the settings will be retained for the remainder of the Pathway session.
I.e.:
If the "Maintain Job Queues Administrator Level" menu option is accessed for a second time then any modified [View] – [Job Queue …] settings from the previous access are retained.

If a new Pathway sessions is started the [View] – [Job Queue …] pull down options revert back to the default setting and all queues are displayed.

Example Usage

If Background Job Queues that are specifically used for Multi Batching the periodic Rates Generation batch functions have been a assigned a Start Method of "Manually on any Server" then they can be eliminated from the display by checking off the [View] – [Job Queue Start Method] – [Manually on any Server] pull down menu option.

I.e.:



Selecting the "Manually on any Server" option will toggle the check indicator to off and all the Job Queues with this Start Method are eliminated from the display.

Queue
This field contains the names of the available queues for job processing. No modification or deletion of this field is allowed. Maintenance of queue details can be performed on the lower part of the form if required.

Description
This field contains the names of the descriptions associated with the available queues for job processing. No modification or deletion of this field is allowed. Maintenance of queue details can be performed on the lower part of the form if required.

Job Queue Type
The type of Job Queue that the Queue has been defined is displayed in this field. This is either 'Standard Job Queue' or 'Background Job Queue'.

Status

This field contains the current status of the job queue. No modification or deletion of this field is allowed. The status of the Job Queue may be one of the following.

- Started - jobs may be submitted and will be processed
- Stopping – the current job will complete processing, no further jobs will be processed but they may be submitted
- Stopped - no jobs will be processed but they may be submitted
- Paused - no jobs will be processed but they may be submitted

The Status of the job queue may be amended using the buttons available on the Job Queue Maintenance form (Start, Stop, Pause, Resume). These buttons will only be available with an Administrator authority level.

Jobs Detail Button
By selecting the Jobs Detail Button, the jobs that are currently scheduled, terminated abnormally or processing on the selected job queue may be viewed and maintained.

Queue
This field contains the name of the queue which is highlighted on the top part of the form. The job queue names may be up to 10 characters. The naming of queues is user definable, therefore they may be named High, Low, Normal or given other descriptions (e.g. created for individual Applications).

Description
This field contains a further description of the queue which is highlighted on the top part of the form.

Assignment File
This field contains the assignment file which will control the batch processing function. The assignment file will default from the System Parameter file and may be overridden if required.

This field is also used to define that the queue is a Unix job queue. By entering in the word 'UNIX' in this field the system identifies the job queue as being able to run on the Unix server.

Initialisation File
This field contains the initialisation file which will control the batch processing function. The initialisation file will default from the System Parameter file and may be overridden if required.

Start Method
The Start Method field is used to control how and where Job Queues are started.

NOTE: This facility is only applicable to Windows based Job Queues. Unix based Job Queues continue to operate via the 'cron' job entities.

The 'Start Method' determines how Windows based Job Queues are started. The following options are available via the dropdown:

- Automatically on any Server
- Manually on any Server
- Automatically on Specific Server

Automatically on any Server
This is the default Option. The Job Queue will automatically start on the first Windows based batch server that performs a scheduled State All Job Queues operation.

This Start Method should be defined for all general purpose 'Standard Job Queues' and 'Background Job Queues'.

Manually on any Server
The queue can only be started manually via the 'Maintain Job Queues Administrator Level' menu option.

The automatically scheduled Start Batch Queue operations will not affect any Queues defined with this method.

This Start Method should be defined on "Background Job Queues' used for specific functions and therefore the queues do not need to be started automatically on a daily basis.

An example of this would be Background Job Queues that are specifically used for Multi Threading the periodic Rates Generation batch functions.

Automatically on Specific Server
This Start Method is used in conjunction with the 'Server' field to determine which Windows based batch server should start the Queue.

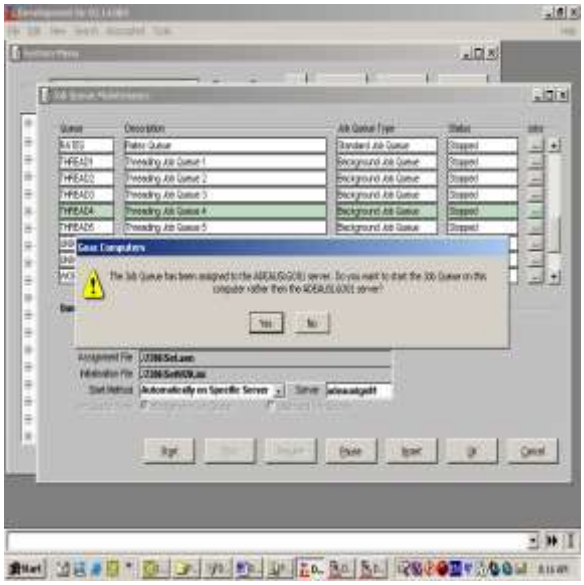
The Queue will only be started when the automatically scheduled Start Queue operation is performed on a server specified in the 'Server' field.

The Queue will not be started when the automatically scheduled Start Queue operation is performed on a server that is different to that specified in the 'Server' field.

This Start Method should be defined on 'Background Job Queues' used for Multi Batching across multiple batch servers.

For example if you have defined a Multi Batching environment with six "Background Job Queues' that are serviced by two different Windows based batch servers, specify the first batch server for the first three queues and the second batch server for the second three queues.

A Queue that has been defined to start on a specific server can still be manually started on any server via the "Maintain Job Queues Administrator Level" menu option. When the Queue is manually started on another server via this menu the following message is displayed:



Server
If the Start Method has been defined as 'Automatically on Specific Server' then the Server field is available for the User to enter in the Server Name that the Job Queue is to run on.

Job Queue Type
The Job Queue Type determines what type of Job Queue the Queue is used for. The available options are 'Background Job Queue' or 'Standard Job Queue'.

Start Button
By pressing this button, a job queue with a status of 'Stopped' will be "Started". All jobs that are submitted to a Started job queue should be processed on arrival sequence.

Stop Button
By pressing this button, a job queue with a status of "Started" will be "Stopped". Jobs that are submitted to a Stopped job queue will not be processed until the job queue is restarted.

Forcing a Queue to Stop

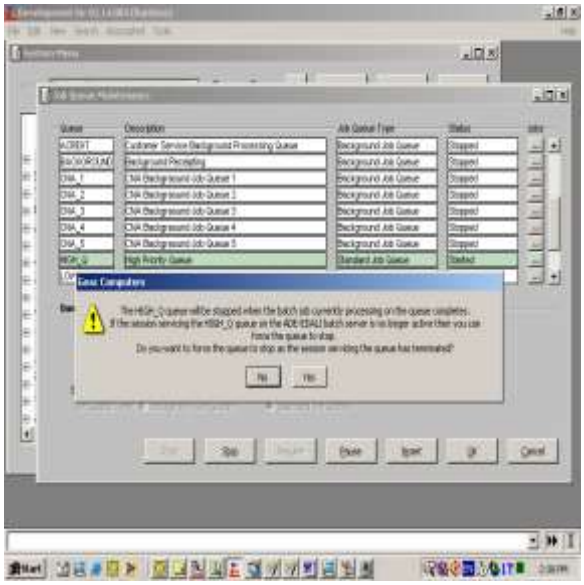
When a job queue is stopped via the "Maintain Job Queues Administrator Level" menu option the queue is placed into a "Stopping" state until the batch job currently being processed completes.

If the session that is servicing the job queue has terminated then the job queue will remain in a “Stopping” state until the “Processing” batch job is deemed “Inactive” and automatically terminated.

It may take as long as one hour for a “Processing” job to be deemed as “Inactive” and therefore the queue cannot be restarted during this period.

The job queue Stop function detects this situation and provides an interactive dialog message to allow the user to force the queue to stop.

I.e.:



The option to force the queue to stop should only be selected if it can be independently verified that the session servicing the queue is no longer active.

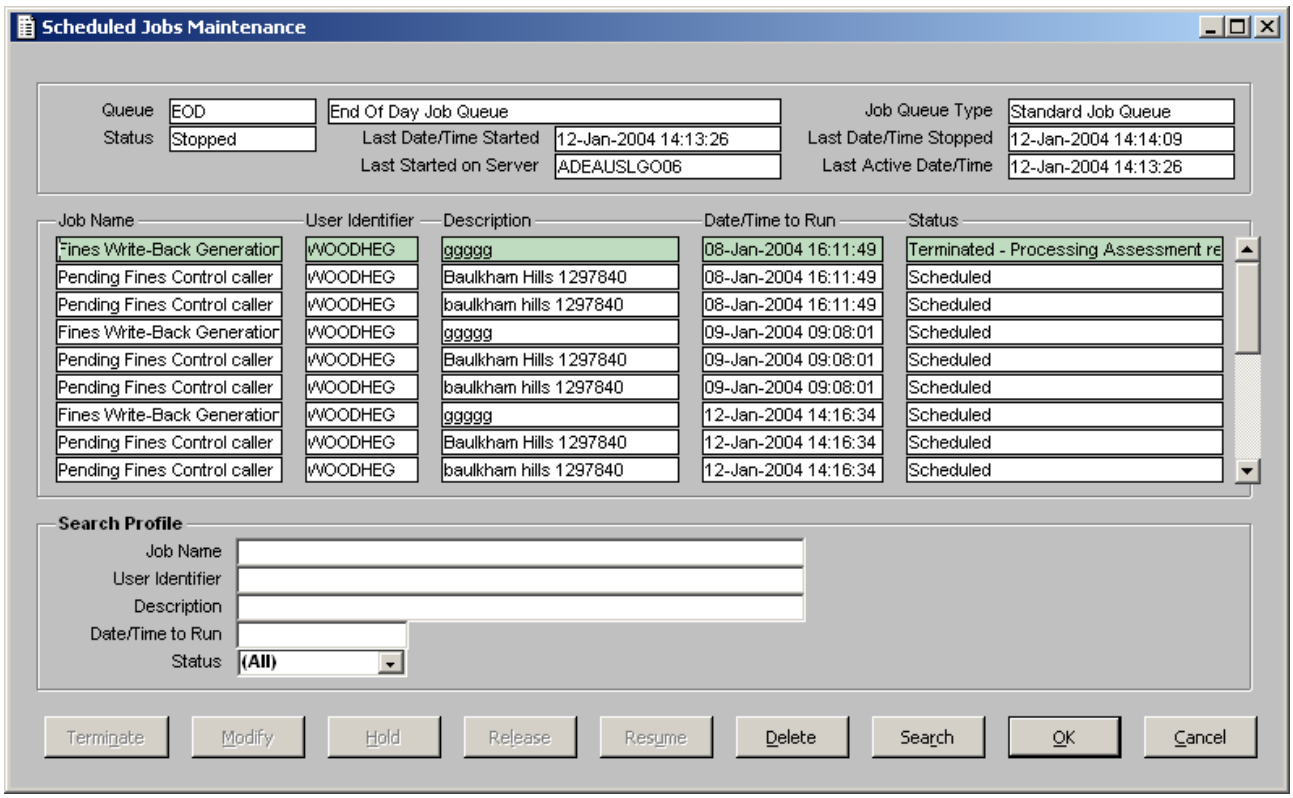
If care is not taken in this respect it is possible that the same queue may be serviced by two sessions which could lead to potential problems.

Resume Button
By pressing this button, a job queue with a status of “Paused” will be “Resumed”.

Pause Button
By pressing this button, a job queue may be “Paused” from processing jobs. The Pause button may be used to temporarily stop the processing of jobs.

Submitted Job Maintenance Form – Standard Job Queue

This form enables the maintenance and deletion of jobs that have been submitted to the selected job queue. The maintenance features that are available include the ability to hold a submitted job from processing, change the job queue, change the date and time that a job is to begin processing and change the priority of a job.
The ability to Resume a terminated job (which is restartable) also exists from this form.



Submitted Job Maintenance Form

Queue

This field contains the name and description, type and status of the job queue which contains the listed submitted jobs. No modification or deletion of this field is allowed.

Job Queue Type

The Type of Job Queue being viewed is displayed in this field. This could either be Standard Job Queue or Background Job Queue

Status

This field contains the current status of the job queue. No modification or deletion of this field is allowed. The status of the Job Queue may be one of the following.

- Started - jobs may be submitted and will be processed
- Stopping – the current job will complete processing, no further jobs will be processed but they may be submitted
- Stopped - no jobs will be processed but they may be submitted
- Paused - no jobs will be processed but they may be submitted

The Status of the job queue may be amended using the buttons available on the Job Queue Maintenance form (Start, Stop, Pause, Resume). These buttons will only be available with an Administrator authority level.

Last Date / Time Started

The Date and Time the Job Queue was last Started is displayed in this field.

Last Date / Time Stopped

The Date and Time the Job Queue was last Stopped is displayed in this field.

Last Started on Server

For Unix based Job Queues the 'Last Started on Server' field will always contain 'UNIX'. For Windows based Job Queues the 'Last Started on Server' field will contain the 'Computer Name' of the Windows based computer that last started the Queue. This information is useful in determining the actual server on which the Queue is started.

Last Active Date / Time

The 'Last Active Date/Time' field is periodically updated by the session that is servicing a Job Queue as it processes an actual batch job or actively polls for the arrival of new batch jobs. If the 'Last Active Date/Time'

is not periodically updated then this usually means that the session that is servicing the Queue has terminated abnormally.

The 'Last Active Date/Time' information is used upon selection of the 'Maintain Job Queues Administrator Level' menu option to determine whether a 'Started' queue has been inactive for more than one hour. This situation arises when a Job Queue is started on a Windows batch server or on a Unix batch server and the session that is servicing the Job Queue terminates due to some form of system problem.

The batch queues that are deemed to be 'Started' but 'Inactive' are automatically 'Stopped' and a status message is placed in the Message Frame to indicate what batch queues have been stopped.

For example
Job Queue NORMAL_Q has been updated from Started to Stopping as there has been no activity on the queue for one hour.
Job Queue NORMAL_Q has been updated from Stopping to Stopped as there are no processing jobs on the queue.

This functionality prevents job queues being shown as 'Started' when the actual session on the batch server has been terminated.

Job Name
This field contains the name of the job which has been submitted for processing. Jobs submitted to the job queue may be report, update or report and update. Jobs which have been scheduled but have not commenced processing, may be deleted from the job queue if required.

User Identifier
This field contains the identifier of the user who submitted the job for processing.

Description
This field contains the description of the job which has been submitted. The description can be entered when a job is submitted and can be used to further identify the job which is to be processed.

Date/Time to Run
This field contains the date and time that the scheduled job is due to run. This information will enable jobs which have been submitted with a delayed date or time to be identified.

Status
This field contains the current status of the submitted job. Submitted jobs may have one of the following status.

- Scheduled - job has been submitted but has not commenced processing
- Processing - job is currently being processed by the batch processing function
- Held - job has been manually held using the Hold button, or scheduled as a held job
- Terminated - job has ended abnormally

Jobs which do not contain one of these status will be removed from the Submitted Job Maintenance list (i.e. Completed jobs).

The Search Button may be used to refresh the screen as the status is changed during the processing of a job.
 Zoom the Status Field of a "Processing" job to see the percentage complete.

Search Profile - Job Name
Enter a Job Name on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - User Identifier
Enter a User Identifier on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Description
Enter a Description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Date/Time to Run
Enter a Date/Time to Run on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Status
Select a Status on which to base your search and use the Search button to initiate the search. Five options are available from the drop-down list.

- Held
- Processing
- Scheduled
- Terminated
- (All)

Hold Button
By pressing this button, a job which has been scheduled, but has not yet begun processing, may be Held from processing. All jobs submitted to the job queue will 'jump' a held job and process normally.

Modify Button
By pressing this button, a job which has been scheduled, but has not yet begun processing, may be displayed to modify information such as the Queue, Date / Time to Run and Priority.

Release Button
By pressing this button, a job which has been previously submitted as held, or manually held, may be released. Providing the current job queue is Started, the job should commence processing as soon as it has been released and the current job completes.

Resume Button
By pressing this button, jobs which have ended abnormally (e.g. power failure, abnormal PC shutdown) may be restarted.

Note - only certain jobs are able to be restarted. Refer to Batch Form Maintenance parameter to determine whether a job is restartable.

Terminate Button
This button is used by the system administrator to terminate Batch Jobs with a "Processing……." status. The button is dimmed for any other user accessing the Submitted Job Maintenance.

Selecting the Terminate button will display a conformation message along the lines of "Do you really want to Terminate the XXXXX Batch Job?" (XXXXX denotes the Batch Job that will be terminated).

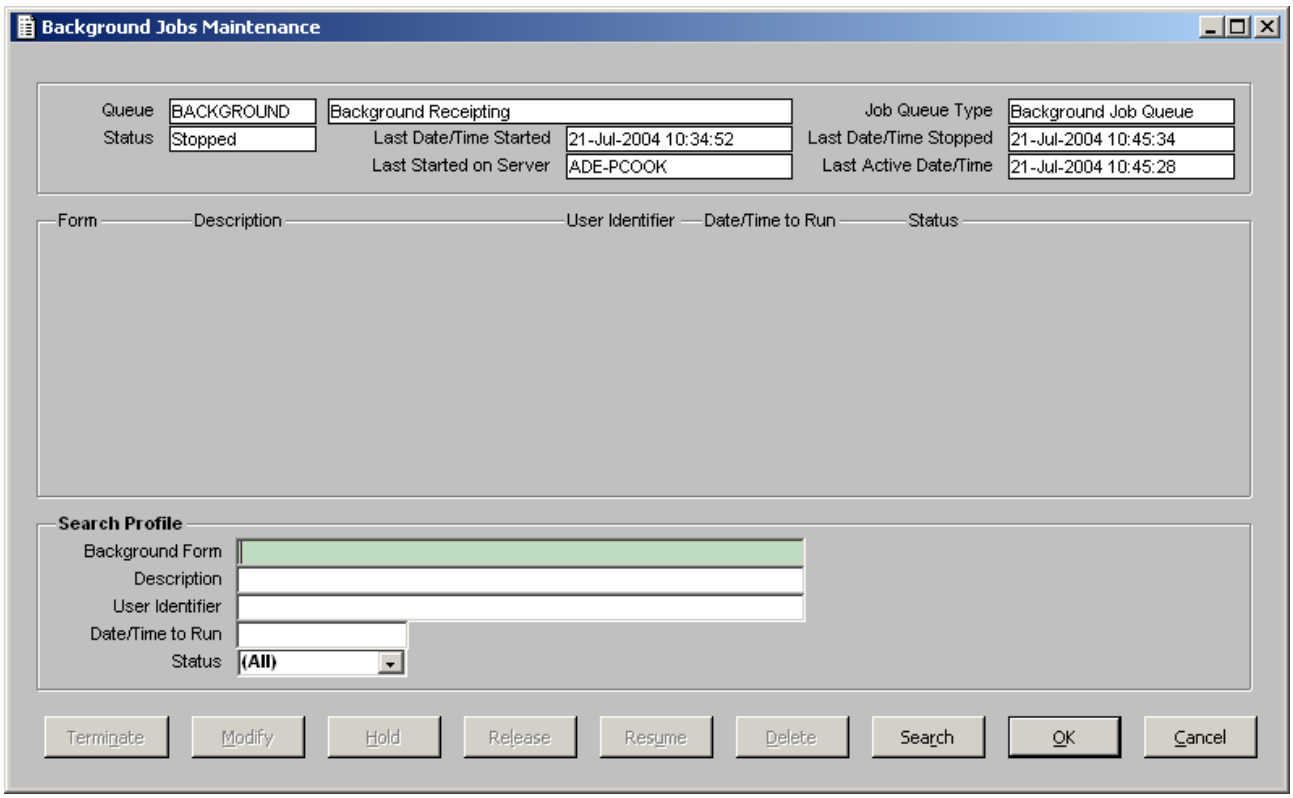
Selecting "Yes" to this message will result in the status of the Batch Task being switched from "Processing….." to "Pending Termination – Processing…...". In addition, an e-mail message will be sent to the user that submitted the job informing them of the termination.

All batch jobs are designed to periodically search for a status of "Pending Termination" and when one if found, the status of the Batch Task will change to "Terminated – Processing….."

Delete Button
This button is used to delete Batch Jobs that are waiting to process or have been terminated. Highlight the Batch Job to be deleted and select the Delete Button or press F11.

Submitted Job Maintenance Form – Background Job Queue

This form enables the maintenance and deletion of jobs that have been submitted to the selected job queue. The maintenance features that are available include the ability to hold a submitted job from processing, change the job queue, change the date and time that a job is to begin processing and change the priority of a job.
The ability to 'Resume' a terminated job (which is restartable) also exists from this form.



Background Jobs Maintenance Form

Queue
This field contains the name and description, type and status of the job queue which contains the listed submitted jobs. No modification or deletion of this field is allowed.

Job Queue Type
The Type of Job Queue being viewed is displayed in this field. This could either be Standard Job Queue or Background Job Queue

Status
This field contains the current status of the job queue. No modification or deletion of this field is allowed. The status of the Job Queue may be one of the following.

- Started - jobs may be submitted and will be processed
- Stopping – the current job will complete processing, no further jobs will be processed but they may be submitted
- Stopped - no jobs will be processed but they may be submitted
- Paused - no jobs will be processed but they may be submitted

The Status of the job queue may be amended using the buttons available on the Job Queue Maintenance form (Start, Stop, Pause, Resume). These buttons will only be available with an Administrator authority level.

Last Date / Time Started
The Date and Time the Job Queue was last Started is displayed in this field.

Last Date / Time Stopped
The Date and Time the Job Queue was last Stopped is displayed in this field.

Last Started on Server
This field shows the Server that the Background Queue was last started on.

Last Active Date / Time
The Date / Time that the Background Queue was last active on the Server displayed in the Last started on Server field.

Form
This field contains the Form name of the process which has been submitted for processing.

Description
This field contains the description of the process which has been submitted

User Identifier
This field contains the identifier of the user who submitted the processing form.

Date/Time to Run
This field contains the date and time that the scheduled job was placed on the background queue.

Status
- This field contains the current status of the submitted process.

The Search Button may be used to refresh the screen as the status is changed during the processing of a job.
Zoom the Status Field of a "Processing" job to see the percentage complete.

Search Profile – Background Form
Enter a Background Form on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Description
Enter a Description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - User Identifier
Enter a User Identifier on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Date/Time to Run
Enter a Date/Time to Run on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Status
Select a Status on which to base your search and use the Search button to initiate the search. Five options are available from the drop-down list.

- Held
- Processing
- Scheduled
- Terminated
- (All)

Hold Button
By pressing this button, a job which has been scheduled, but has not yet begun processing, may be Held from processing. All jobs submitted to the job queue will 'jump' a held job and process normally.

Modify Button
By pressing this button, a job which has been scheduled, but has not yet begun processing, may be displayed to modify information such as the Queue, Date / Time to Run and Priority.

Release Button
By pressing this button, a job which has been previously submitted as held, or manually held, may be released. Providing the current job queue is Started, the job should commence processing as soon as it has been released and the current job completes.

Resume Button
By pressing this button, jobs which have ended abnormally (e.g. power failure, abnormal PC shutdown) may be restarted.

Note - only certain jobs are able to be restarted. Refer to Batch Form Maintenance parameter to determine whether a job is restartable.

Terminate Button

This button is used by the system administrator to terminate Batch Jobs with a “Processing…….” status. The button is dimmed for any other user accessing the Submitted Job Maintenance.

Selecting the Terminate button will display a conformation message along the lines of “Do you really want to Terminate the XXXXX Batch Job?” (XXXXX denotes the Batch Job that will be terminated).

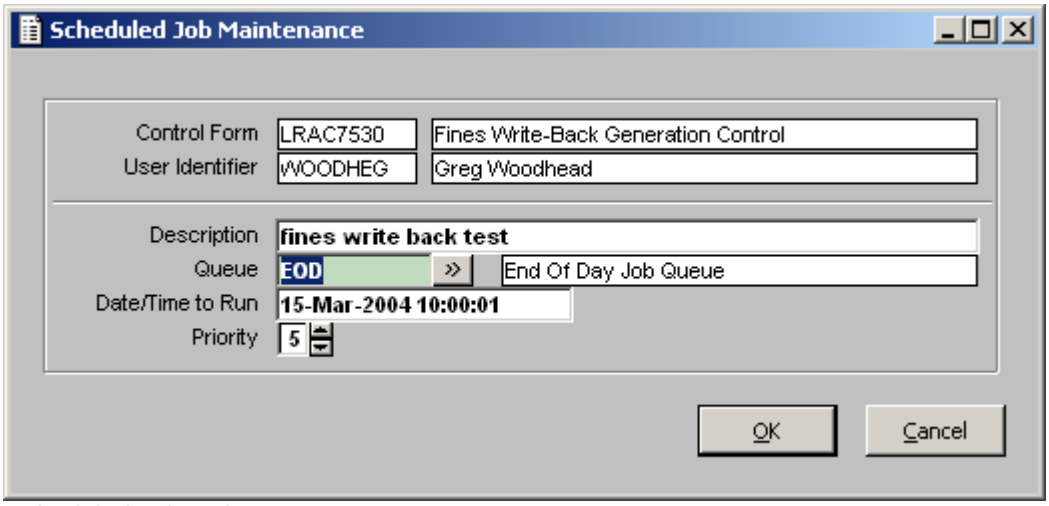
Selecting “Yes” to this message will result in the status of the Batch Task being switched from “Processing…..” to “Pending Termination – Processing……”. In addition, an e-mail message will be sent to the user that submitted the job informing them of the termination.

All batch jobs are designed to periodically search for a status of “Pending Termination” and when one if found, the status of the Batch Task will change to “Terminated – Processing…..”

Delete Button
This button is used to delete Batch Jobs that are waiting to process or have been terminated. Highlight the Batch Job to be deleted and select the Delete Button or press F11.

Scheduled Job Maintenance Form

This form enables the Queue, Date/Time of processing and Priority of a job to be maintained for jobs which are not currently being processed. This form is accessed using the Modify button from Submitted Job Maintenance Form for a Job Queue that is defined as a ‘Standard Job Queue’ Type.



Scheduled Job Maintenance Form

Control Form
The Name of the Control Form and its Description of the submitted Job are displayed in these fields.

User Identifier
The User Identifier and the Name of the User who has submitted the Job are displayed in these fields.

Description
The Description that was entered when the Job was submitted is displayed in this field. The Description can be changed or updated from this form.

Queue

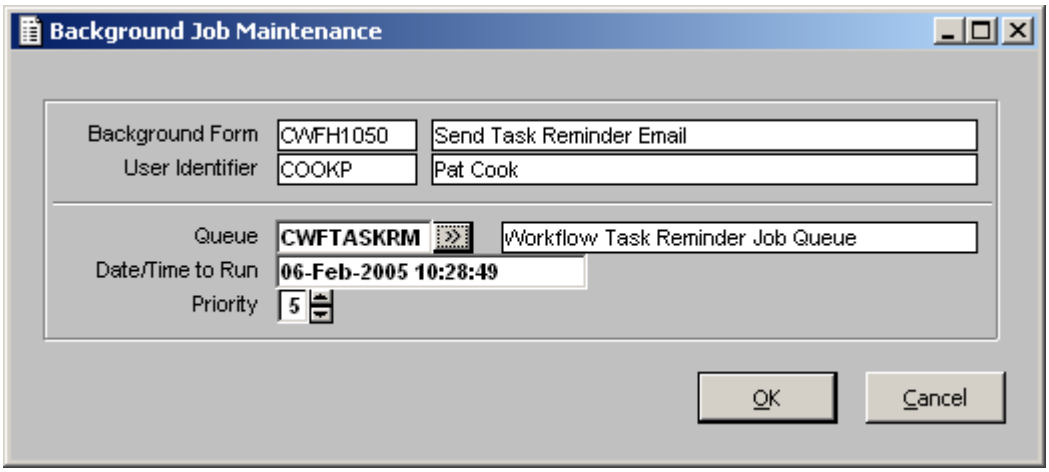
This field enables a job to be directed to a different job queue for processing. The pop-up button may be used to select from a list of available job queues.

Date/Time to Run
This field contains the date and time that a job is scheduled to run and may be amended as required. Double clicking on the field will initiate the default calendar which can be used to nominate the required date and time of processing. Jobs may be delayed for later in the day, or for a future day if required.

Priority
This field enable the priority of a scheduled job to be amended. Those jobs with a lower priority number will be processed first within the job queue.

Background Job Maintenance Form

This form enables the Queue, Date/Time of processing and Priority of a job to be maintained for jobs which are not currently being processed. This form is accessed using the Modify button from Submitted Job Maintenance Form for a Job Queue that is defined as a 'Background Job Queue' Type.



Background Job Maintenance Form

Background Form
The Name of the Control Form and its Description of the submitted Job are displayed in these fields.

User Identifier
The User Identifier and the Name of the User who has submitted the Job are displayed in these fields.

Queue
This field enables a job to be directed to a different job queue for processing. The pop-up button may be used to select from a list of available job queues.

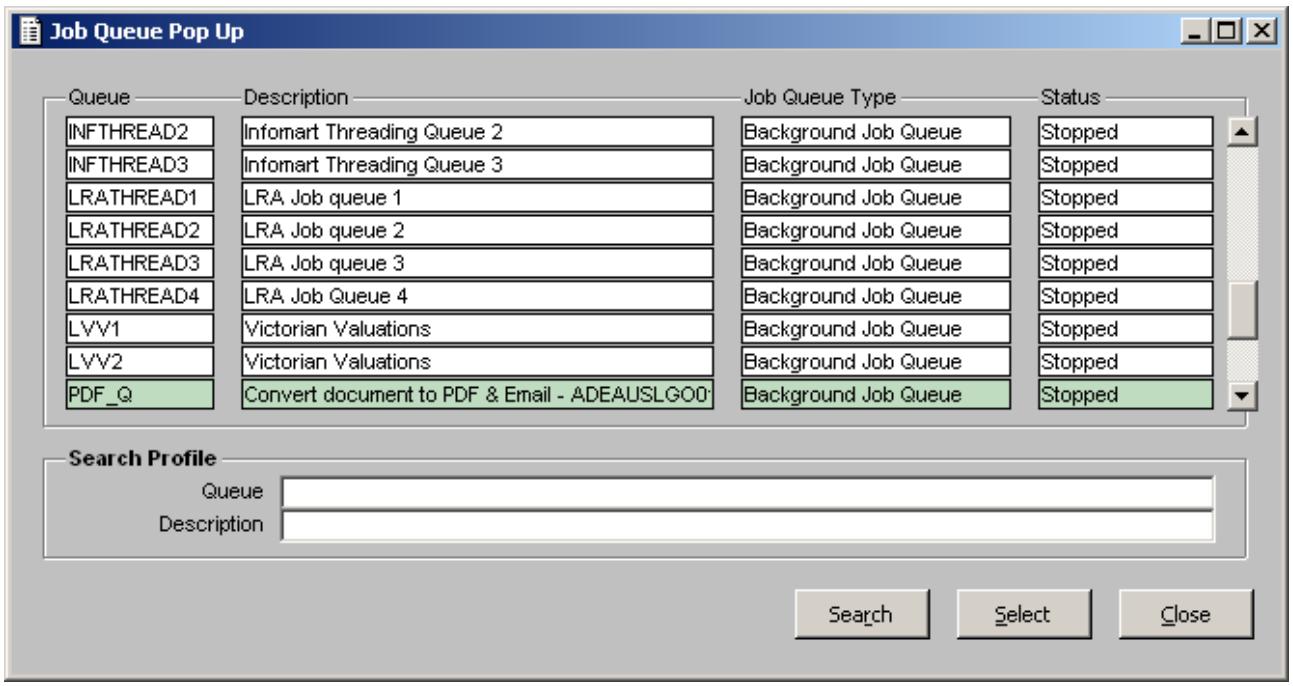
Date/Time to Run
This field contains the date and time that a job is scheduled to run and may be amended as required. Double clicking on the field will initiate the default calendar which can be used to nominate the required date and time of processing. Jobs may be delayed for later in the day, or for a future day if required.

Priority
This field enable the priority of a scheduled job to be amended. Those jobs with a lower priority number will be processed first within the job queue.

Job Queue Pop Up Form

This form enables selection of a job queue from a list of available options when redirecting jobs to different queues.

Note: This form is also used as a Selection Form when accessing the Maintain Job Queue option in non-administrator mode. This enables a particular job queue to be selected to view the currently processing and scheduled jobs.



Job Queue Selection Form

Queue
This field contains the job queues which are available for selection.

Description
This field contains a further description of the job queues which are available for selection.

Job Queue Type
The Job Queue Type displays whether the Queue has been set as either a Background Job Queue or a Standard Job Queue.

Status
This field contains the current status of each listed job queue. Where the Job Queue Pop Up form is being utilised to move a job to a different job queue, this enables you to identify immediately, the status of all current job queues.

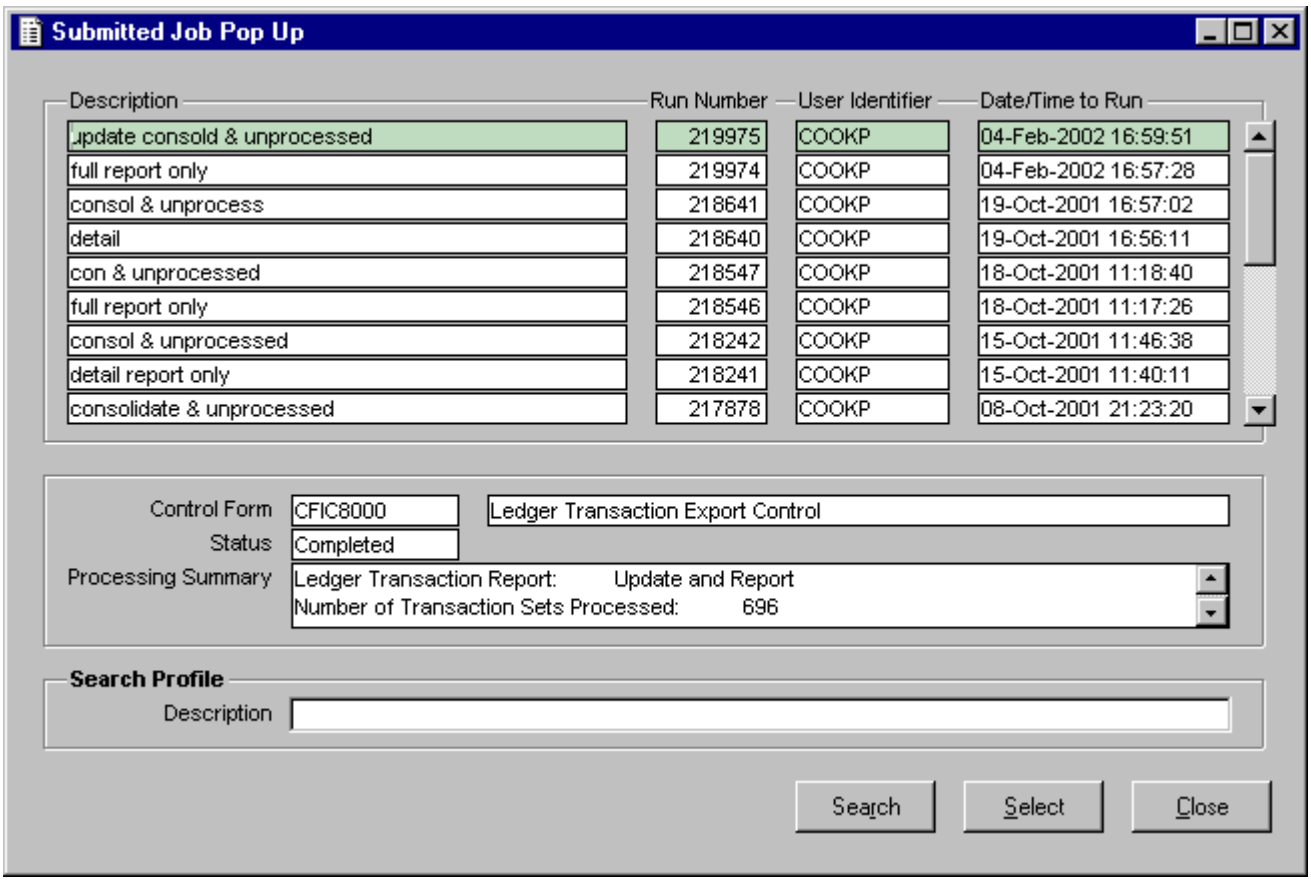
Search Profile - Queue
Enter a job queue on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Description
Enter a job queue description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Submitted Job Pop Up

This form enables selection of Jobs that have been submitted The form displays the status of the Job. The status could be Completed, Terminated or Processing.

Note - this form is displayed when the Run Number Pop Up button has been selected from the Export Control Form.



Submitted Job Pop Up Form

Description
The Description of the Job that was entered by the User is displayed in this field.

Run Number
The Run Number associated to the Job is displayed in this field.

User Identifier
The Identifier of the User who submitted the Job is displayed in this field.

Date/Time to Run
The Date and Time that the Job was processed is displayed in this field.

Control Form
The Control Form and its Description are shown in this field for the Job that was submitted.

Status
The Status of the Job is displayed in this field. The Status can be Completed, Terminated or Processing.

Processing Summary
The Processing Summary information displays a brief update of what the Job has done. For example 'Number of Transactions Processed', 'Number of Transactions Exported'.

Search Profile - Description
Enter a job queue description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Options

The following topics are covered in this section:

Command Strings
Batch Job Options
Batch Form Enquiry

Command Strings

This section describes the command strings for schedule tasks. These include Starting Job Queues and also scheduling End of Day Batch Processing to occur.

JOB QUEUES

The 'command string' options are:-

Start All Job Queues specifically assigned to the server or not assigned to a specific server
…\uniface.exe /ini=… /asn=… CSY Start

Start One Queue where ### is the TPKCBTJOBQ or the NAME of the queue to start.
…\uniface.exe /ini=… /asn=… CSY Start ###

Stop All Queues running on the server or specifically assigned to the server
…\uniface.exe /ini=… /asn=… CSY Stop

Stop One Queue where ### is the TPKCBTJOBQ or the NAME of the queue to start.
…\uniface.exe /ini=… /asn=… CSY Stop ###

An example of a fully defined command string to start all job queues specifically assigned to the server or not assigned to a specific server is:
P:\Pathway\Uniface\7206\W2K\bin\uniface.exe /ini=.\7206\SetW2K.ini /asn=.\7206\Set.asn CSY Start

END OF DAY BATCH PROCESSING

The Pathway End of Day process allows for the automatic submission via scheduling software thus eliminating the need for manual submission on a regular basis.

The scheduling software used to automatically start and stop the Pathway Batch Queues should also be used to automatically submit the Pathway End of Day process.
Eg:
- The JobSched.exe program supplied with Pathway in the "msc" directory.
- The standard Windows "Scheduled Task" available from the Control Panel.
- The "crontab" entries for Unix.

End of Day Parameters

The End of Day processing parameters indicate what applications are to be processed.
A special "ENDOFDAY" Named Set must be established to indicate what applications are to process when a Pathway End of Day is automatically submitted.

Submit End of Day Command Strings

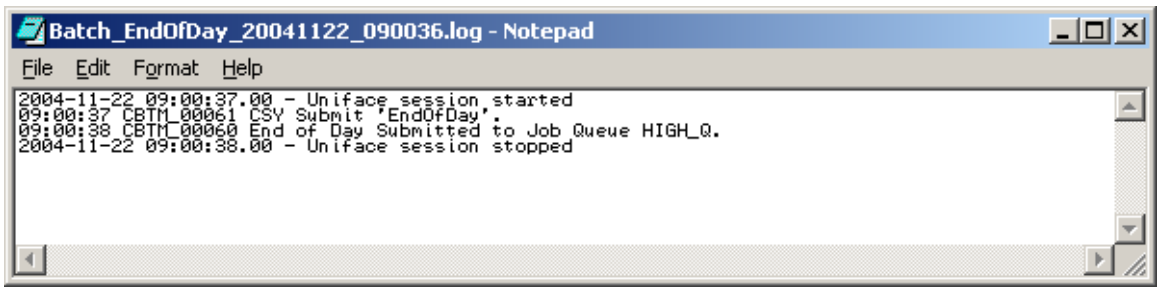
Either of the following "command string" can be used in the scheduling tools to submit the ENDOFDAY process:

…\pathway.exe /EndOfDay
…\uniface.exe /ini=… /asn=… CSY EndOfDay

The "command strings" are identical to those used start or stop Pathway Batch queues apart from the "EndOfDay" suffix.

If the "uniface.exe" command string is used then the standard log file will be updated to indicate whether the End of Day process was automatically submitted.

If the "pathway.exe" command string is used then a unique log file will be created in the "tmp" directory whenever the End of Day process was automatically submitted.



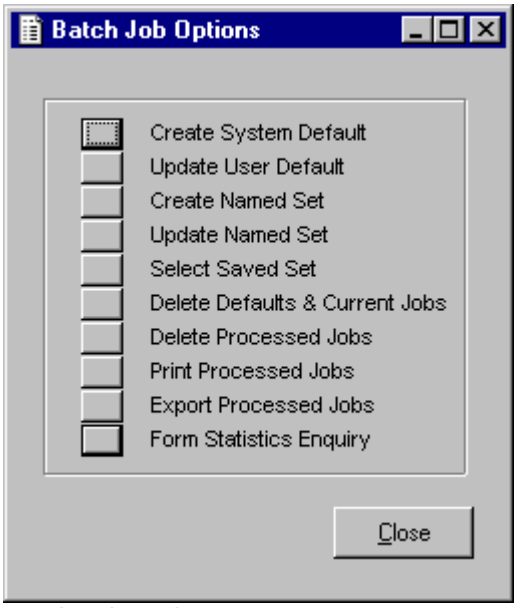
NOTE: Please refer to the End of Day section of the manual for full details on setups required.

Batch Job Options

This section describes the various batch options which are available within the Batch Processing system. These options are accessed via the Options button on individual Batch processing control forms and relate specifically to the selected options.

Batch Job Options Form

This form allows the selection of various options which include saving defaults, selecting saved defaults, removing defaults and scheduled jobs, removing and reprinting processed jobs.



Batch Job Options Form

Batch Job Option Buttons

By pressing the options button for each of the listed batch options, further details on the option will be accessed. The following options are available:

Create System Default / Update System Default

This option will allow access to the Processing Options Maintenance form to enable options to be entered and saved as a system default. This means that whenever the form is activated by any user, the form will use the system default.

The Option will change from Create System Default to Update System Default once a System Default has been created. This will allow the System Default to be modified instead of having to delete the Default and recreate it again. Once the System Default information has been modified it will only be necessary to select the Option Button and then select the Update System Default button. This will then update the System Defaults and display the Processing Options Maintenance form to allow further changes to it if necessary.

If the System Default is deleted the Option will revert back to Create System Default.

Create User Default / Update User Default

This option displays the Processing Options Maintenance Form to enable options to be entered and saved as a user default. This means that whenever the form is activated by a particular user, the user's defaults will be used.

The Option will change from Create User Default to Update User Default once a User Default has been created. . This will allow the User Default to be modified instead of having to delete the Default and recreate it again. Once the User Default information has been modified it will only be necessary to select the Option Button and then select the Update User Default button. This will then update the User Defaults and display the Processing Options Maintenance form to allow further changes to it if necessary.

If the User Default is deleted the Option will revert back to Create User Default. Note that only the User who the Default is for is able to delete their User Default.

Create Named Set

This option displays the Parameter Set Maintenance Form which enables a set of parameters to be named and saved for later use.

Update Named Set

This Option is only available once a Saved Set has been selected. When a Saved Set has been selected, if the Saved Set is to be modified then once the information has been retrieved and updated, selection of the Option button will display the Update Named Set button. Selection of the Update Named Set will allow the original Saved Named Set to updated with the new information, rather than having to delete the original and create a new Named Set.

Select Saved Set

This option displays the Saved Parameter Set Selection Form from which a saved set can be selected. Once a Saved Set has been selected it is possible to change the information and update the Saved Set by using the Update Named Set Option as long as the selected Saved Set was created as a Named Set and not a User or System Default.

Delete Defaults and Current Jobs

This option displays the Defaults and Job Maintenance Form which enables Saved Sets, Scheduled and Submitted Jobs to be deleted.

Delete Processed Jobs

This option displays the Processed Jobs Deletion Form which enables processed jobs to be deleted.

Print Processed Jobs

This option displays the Processed Job Print Form which allows processed batch jobs to be selected for printing.

Export Processed Jobs

This option displays the Export Entity Selection Form which enables Batch Reporting Entities to be exported to an ASCII file directly from the Batch Processing Options Form. This avoids the need to access the Query System menu options to define an export format and perform the actual export of a reporting entity. The button is dimmed if no processed jobs exist.

Form Statistics Enquiry

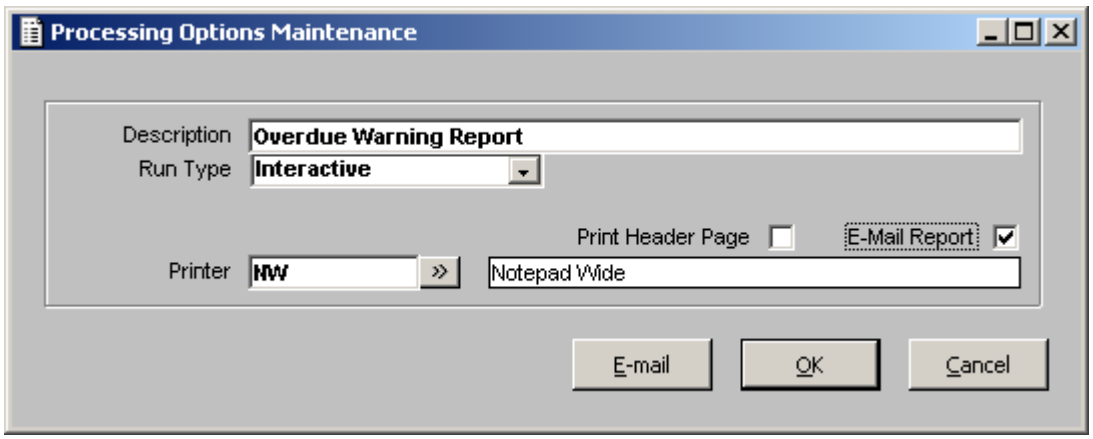
This option displays the User Job Enquiry Form which allows searching on users to display details of jobs run by each user.

Processing Options Maintenance Form

This form will be accessed in two situations:

When saving System / User defaults and Named Sets via the Options button for a particular Control Form. This enables a standard set of processing options to be defined along with the application specific details
When processing a job using the Process button, this form will also be accessed. If no defaults have been defined, all appropriate details will be required before the job can be submitted.

The existing facility to email a batch job's report to the submitting user has been enhanced (in Release 2.16) to allow extra email recipients to be nominated. If *Allow E-Mail* has been checked on for a given control form within Batch Form Maintenance, a new button labelled *E-mail* is visible when the Processing Options Maintenance form is accessed from that control form. It is enabled when the *E-Mail Report* option is checked on.



Processing Options Maintenance Form

Description
This field enables a user definable description to be entered for the submitted job. This will be particularly relevant where defaults are being created, in order to describe the default record which is being saved.
For example
Full Name Removal - Report only
The description details will be seen on the Submitted Job Maintenance form which contains all jobs which are scheduled or currently processing.

Run Type
This field contains the method that the job will processed by. Six options are available from the drop-down list.

- Interactive - job not processed via the job queues, but immediately on the local PC
- Delayed - job submitted to job queue to be processed at a scheduled date and time
- Submit - job submitted to the job queue to be processed in arrival sequence when the job queue is 'Started'.
- End of Current Day - job is scheduled to run during the End of Day processing
- End of Calendar Days - job is scheduled to run during the End of Day processing based on a Schedule of Calendar days nominated.
- Permanent End of Day - job is scheduled to run during every End of Day process

NOTE - The selections available in the drop-down list may exclude some of the listed options if they have been defined as unavailable for the selected job. (E.g. Interactive processing may not be allowed on jobs which have a potentially long processing times).

Hold on Job Queue
If this checkbox is checked on, the selected job will be submitted to the required job queue with a status of Held. This will require a manual release (via the Release button) on the Scheduled Job Maintenance form.

Run Date/Time
This field will only be available on jobs with a 'Delayed' Run Type when submitting the job via the Process button. It enables a date and time of process to be nominated. This can be used to delay the job by minutes, hours or even days.

Printer
This field enables selection of where to send the output of the job. Selection of printers, notepad or word will be available to enable printing or spooling of interactive jobs.

Job Queue
This field enables a job queue to be selected on which to process the submitted job. The drop-down list will provide a list of available options. The available job queues will depend on the options defined for the selected job. Refer to the Batch Form Maintenance Chapter of this guide for further information on defining available job queues.

Print Header Page
If this checkbox is checked on ,the final report produced will include a header page. The header page is a standard prefix to the report which indicates the processing selections which were made during the report submission.

Late End of Day
When this option is checked, the job can be run after the end of the current day. This option is used if, for some reason, the End of Day job is not run at the end of the current day (e.g. power failure).

When this option is not checked, the job cannot be run after the end of the specified day.

E-mail Report
When this option is checked on, the Email button will become available.

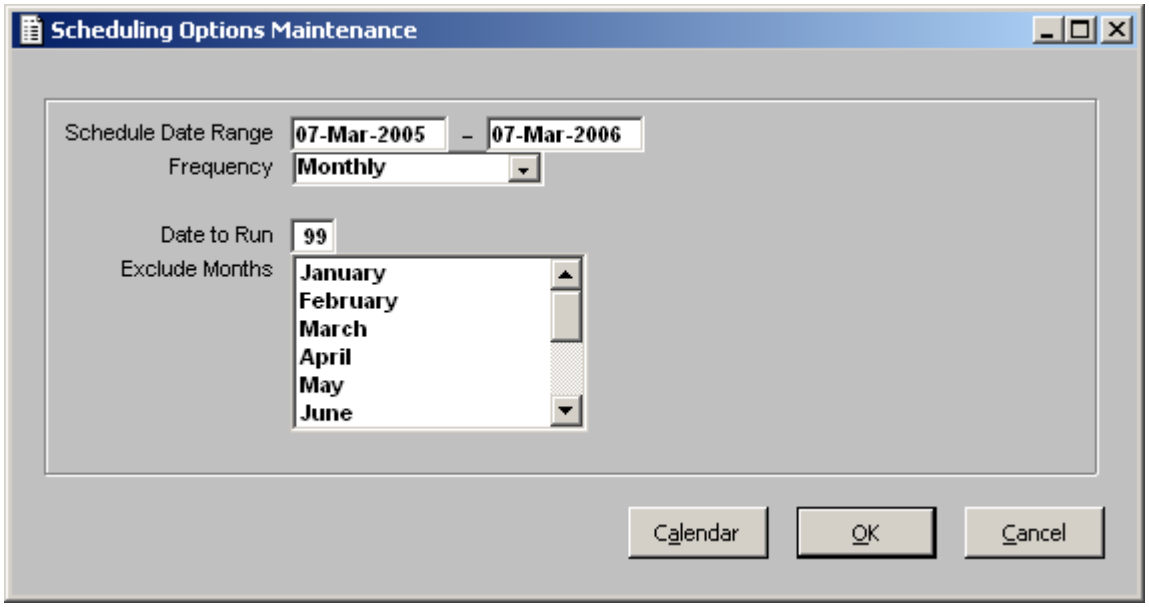
Selecting the *E-mail* button displays the Email Report Recipient Maintenance form which allows email addresses to be set up. When the job is processed a copy of the report will be included as an attachment to the e-mail sent to notify the user, and any other email recipients which have been set up, that the job has completed processing.

Scheduling Options Maintenance Form

This form enables scheduling details to be completed for all batch jobs which are submitted with a Run type of End of Calendar Days. The scheduling options may be accessed via the Schedule button, with the additional option of accessing a Calendar to further finalise scheduled dates. Batch Jobs can be scheduled up to 5 years in advance.

The following example is for a job scheduled monthly. The following frequency options are available

- Daily - provides the ability to exclude certain days
- Weekly - provides the ability to nominate the day of the week to run in addition to the entry of a recur value.
- Fortnightly - provides the ability to nominate the day of the week to run
- Monthly - provides the ability to nominate the day of the month to run (99 indicates the last day of the month). Also able to exclude certain months.
- <None> - The calendar may be utilised to nominate certain days for processing.



Scheduling Options Maintenance Form

Schedule Date Range

This field enable you to nominate the date range that the scheduled dates will apply for. For example you may wish to schedule a certain job over a week, month or year. The job will be scheduled for End of Day processing over this date range. Using F2 or double clicking on the date range fields will initiate the Calendar pop up which may be utilised in selection of required dates. The Date Range can be up to 5 years.

Frequency

This field enable the required frequency of processing to be selected. There are five options available from the drop-down list.

- Daily
- Weekly
- Fortnightly
- Monthly
- <None>

Recur Every Week(s)

Where the Frequency has been set as weekly the Recur Every field will be displayed to allow the use to nominate when the Frequency is to occur over the weekly cycle. If set to 1 then it will run on a weekly basis. If set to 2 then it will process the function every two weeks.

Exclude Days

This field enables certain days of the week to be excluded from processing. Multiple days may be highlighted if required. This field will only be displayed if a Frequency of Daily is selected.

Recur every weeks

The Recur every number of Weeks field is only available when the Frequency of Weekly has been nominated. It is used in conjunction with the Run Day field. It is used to specify a recurring weekly interval for the running of the batch function. The default value is 1 (i.e. the function will be scheduled to run every week) but can be altered to any required higher value. For example if 3 was entered into this field then the process would be run every three weeks.

Run Day

This field enables the day of the week that you wish the job to be processed to be selected. The drop-down list enables the days Monday through to Sunday to be selected. This field will only be displayed if a Frequency of Weekly or Fortnightly is selected.

Date to Run

This field enables you to nominate the day of the month that you wish the job to be processed. This field will only be displayed if a Frequency of Monthly is selected

An entry of 99 will process the job on the LAST DAY of the month.

Exclude Months

This field enables certain months of the year to be excluded from processing. Multiple months may be highlighted for exclusion if required. This field will only be displayed if a Frequency of Monthly is selected.

Calendar Button

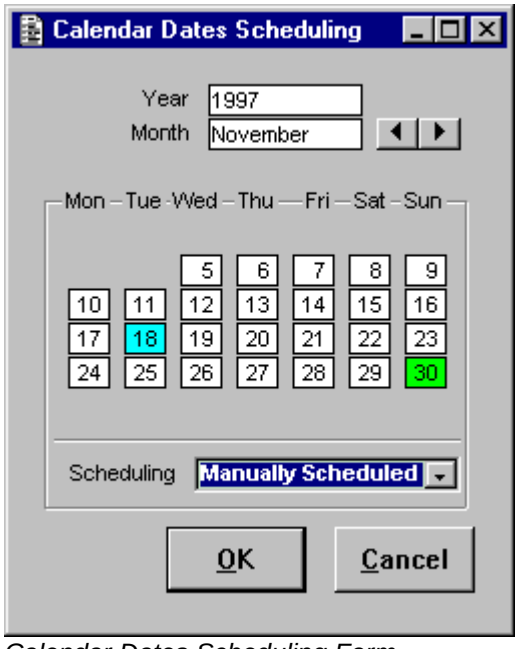
By pressing this button, additional calendar scheduling may be performed (i.e. Manually Exclude or Include calendar days). The calendar button may be used in conjunction with a selected Frequency OR used to specifically schedule required days where no frequency is nominated.

Calendar Dates Scheduling Form

This form enables the following processes to be performed

- View all automatically scheduled dates (from the previous Scheduling Options Maintenance Form)
- Manually schedule additional days for a certain job
- Manually exclude scheduled days
- View all scheduled days for the previously nominated date range

All scheduled jobs will be indicated using the video attribute colours which have been defined via the Calendar colour parameters. (Refer to the Calendar User Guide).



Calendar Dates Scheduling Form

Year
This field will contain the year that the previously entered Start Date was entered in. The next/previous buttons enable you to view other years which fall within the entered range.

Month
This field will contain the year that the previously entered Start Date was entered in. The next/previous buttons enable you to view other months which fall within the entered range.

Next/Previous Buttons
By pressing the next and previous buttons, next and previous year and month details may be viewed, and calendar dates maintained if required.

Calendar Days
This field contains all the existing calendar days for the displayed year and month. (E.g. Calendar Days of 1 to 31 will exist for December 1997).

Note - if the Start or End Date entered previously is within a month, the days displayed will start and end from these dates.

Scheduling
This field indicates the scheduling status of all highlighted days. The following options are available from the drop-down list
<None> - no scheduling for the highlighted calendar day
Manually Scheduled - the highlighted calendar day has been manually selected for scheduling via the Calendar Dates Scheduling form
Manually Excluded - the highlighted calendar day has been manually excluded from scheduling via the Calendar Dates Scheduling form.
Automatically Schedule - the highlighted calendar day has been previously selected for scheduling via the Scheduling Options Maintenance form.

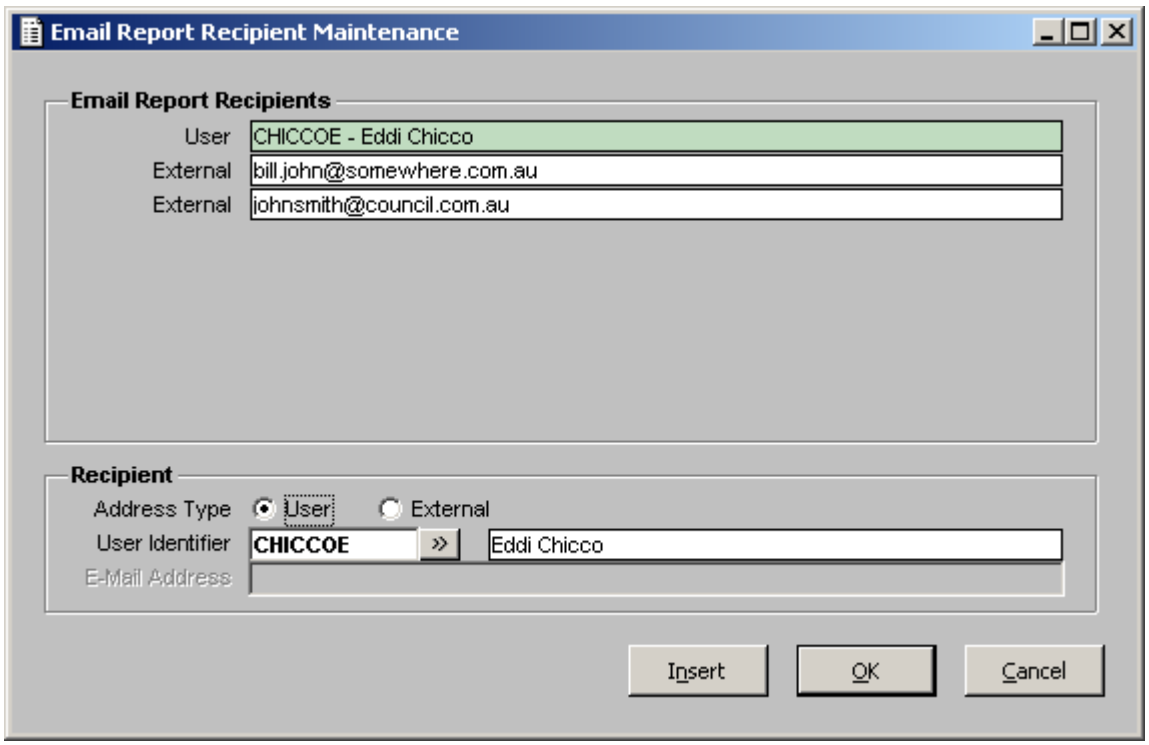
Email Report Recipient Maintenance Form

This form allows any number of internal or external email recipients to be set up to receive email generated from the Report process.

It allows both Pathway users and external addressees to be nominated as extra email recipients. This begins with selecting the relevant *Address Type* in the Recipient details at the bottom of the form. If an Address Type of *User* is chosen, the *User Identifier* field is enabled and the *E-Mail Address* field is disabled. User Identifiers entered must have been defined in the User Maintenance option on the System Administration / Menu menu, and the standard User Pop Up form is available for selecting active users. If an Address Type of *External* is chosen, the User Identifier field is disabled and the E-Mail Address field is enabled. This is a free-format field in which any text typed is accepted as a valid external address. An error message is displayed if duplicate User Identifier or E-Mail Address values are inserted.

Recipients entered on the Email Report Recipients Maintenance form are carbon copy addressees on the email sent when the relevant job completes. The exception is if the submitting user has no email address, in which case the recipients entered are the primary addressees. If any of the addresses cannot be resolved, an error message is written to the message log, and the email is not sent.

Email Report Recipients can be saved with System Defaults, User Defaults and Named Sets.



Email Report Recipients

Email addresses (either internal or external) are added to this section of the form using the Insert button. The entry section is located at the bottom of the form in the Recipient details. Select either the User or External buttons and then either select or key in the relevant email address and click the Insert button to add it to the list of recipients.

Recipient – Address Type

This field allows the user to specify whether the email address is to be an internal or an external one. If it is to be an internal address, then the User button needs to be flagged on. This will cause the User Identifier fields to become available and the Email Address field to become dimmed. For an external address, the External button needs to be selected. This will cause the User Identifier fields to dim and the Email Address field to become available.

The options available for selection are as follows:

- User
- External

Recipient – User Identifier

These fields become available when User is selected in the Address Type field. A Userid may be keyed in or one may be selected from the Pop Up, then Tab pressed to add the email address to the list. The User description is also loaded into the Description field. Selecting the Pop Up button displays the User Pop Up form where a User may be selected.

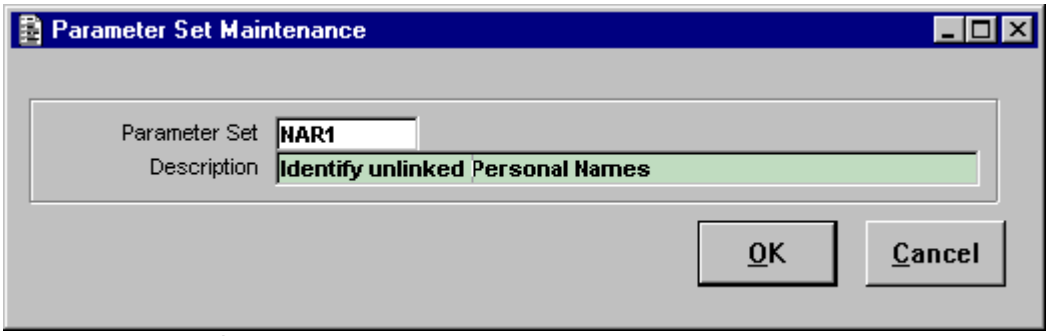
Note: User Identifiers entered must have been defined in the User Maintenance option on the System Administration / Menu menu, and the standard User Pop Up form is available for selecting active users.

Recipient – Email Address

If an Address Type of *External* is chosen, the User Identifier field is disabled and the E-Mail Address field is enabled. This is a free-format field in which any text typed is accepted as a valid external address. An error message is displayed if duplicate User Identifier or E-Mail Address values are inserted.

Parameter Set Maintenance Form

This form enables individual parameter sets to be defined for a particular batch form.



Parameter Set Maintenance Form

For example:

A Cash Drawer Balance report may be required daily, with different submission parameters for each cash drawer in use. If the required reports are defined as parameter sets (including processing options), the process of submitting the reports will become much quicker and easier to perform.

Parameter Set

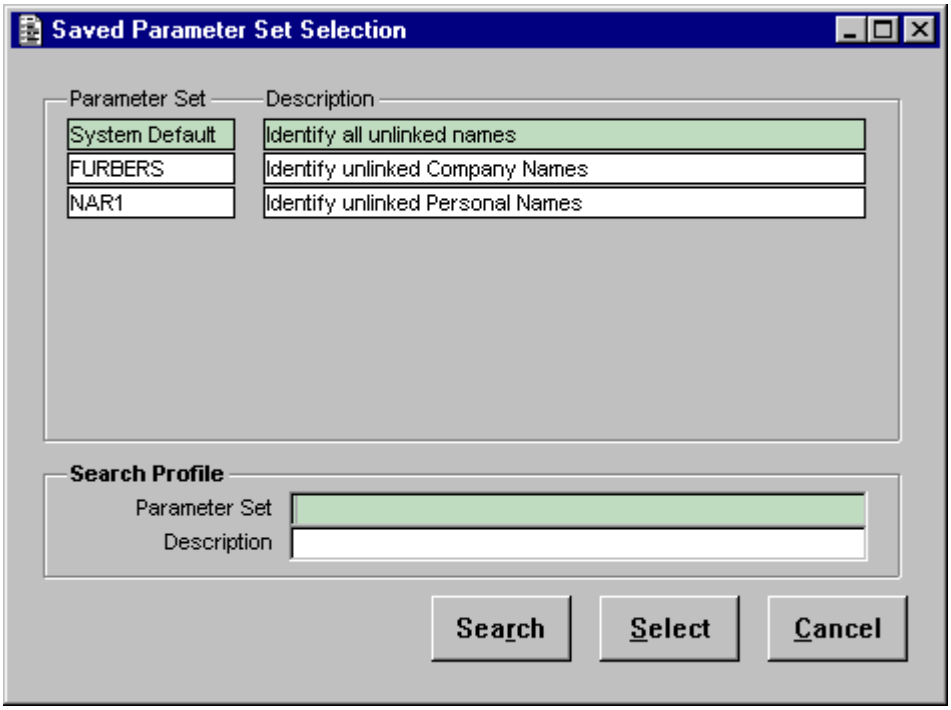
This field enables a 25 character code to identify each new Parameter set.

Description

This field contains a further description of each new Parameter set.

Saved Parameter Set Selection Form

This form will list all the parameter sets available for selection. This includes the System Default, individual User Defaults and any individual saved Parameter sets



Saved Parameter Set Selection Form

Parameter Set

This field contains the available parameter set codes. The following codes will be available
System Default
User Default (the code will be the user id)
Parameter Set Defaults (code will be as defined)

Description

This field contains a further description of the available parameter set codes.

Search Profile - Parameter Set
Enter a Parameter set identifier (or part thereof) and use the Search button to initiate a search. Wildcard searching is available on this field.

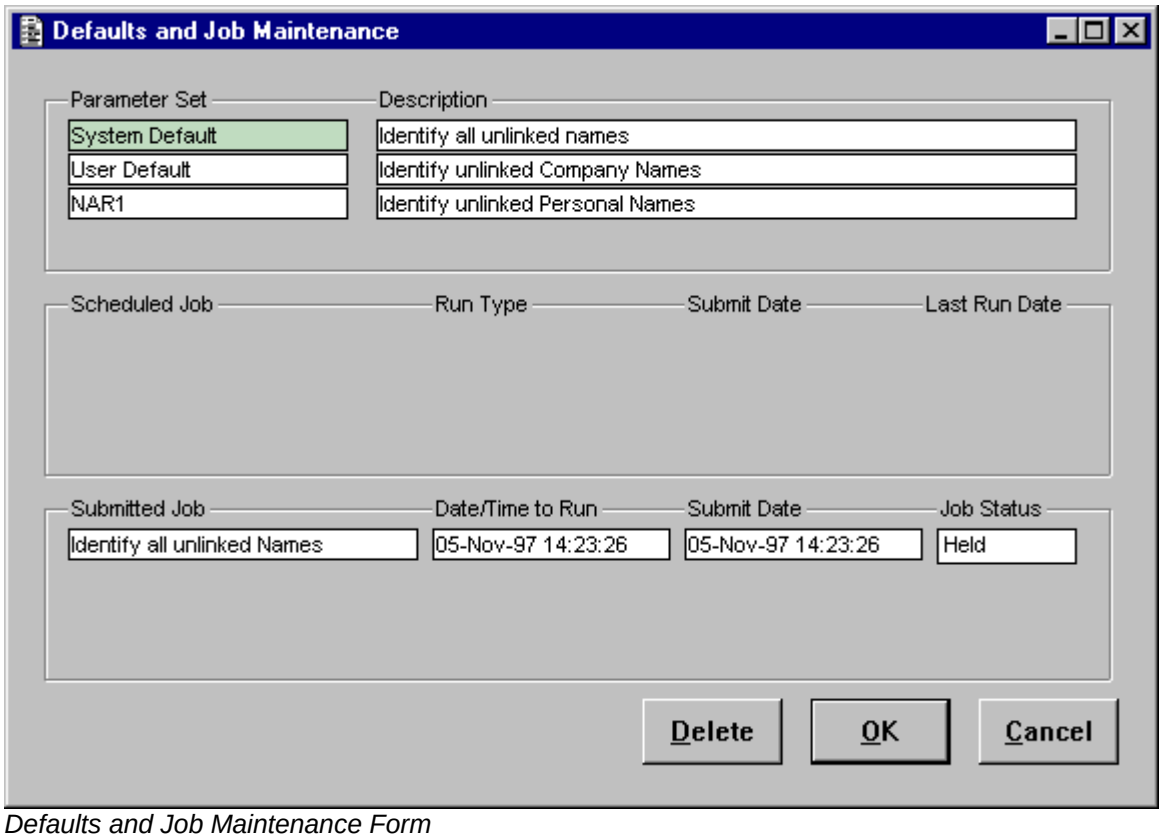
Search Profile - Description
Enter a Description (or part thereof) and use the Search button to initiate a search. Wildcard searching is available on this field.

Defaults and Job Maintenance Form

This form is accessed from every option which allows batch processing. It enables an enquiry and deletion of the following details.

- Saved User, System and Parameter set defaults for the selected option.
- End of day scheduled jobs (current, calendar and permanent.
- Submitted jobs which have not yet been processed (this will include any jobs terminated abnormally).

Note - the end of day scheduled job list will include jobs which were scheduled to End of Day, did not run and were not flagged as Late End of Day. These jobs will have a submit earlier than the current date and will not be scheduled in the current End of Day. These jobs will need to be removed manually, as they will not process in the future.



Defaults and Job Maintenance Form

Parameter Set
This field contains a the short description of each default record. There are three types of defaults that may be included

- System Defaults - the parameter set heading will be System Default. There may be only one system default.
- User Defaults - the parameter set heading will be the user id that it was created under. Each user may have one user default record.

- Saved Parameter sets - the parameter set heading will be the heading that was assigned when the default set was saved. There may be multiple saved parameter set defaults.

Description
This field contains a more detailed description of each parameter set default. This description is entered when the default was created.

Scheduled Job
This field contains a description of all scheduled End of Day jobs. This description is entered when the job is requested for processing.

Run Type
This field contains the Run Type of the scheduled End of Day jobs. This will indicate whether the scheduled job is

- End of Current day - will run for the current End of Day only
- End of Calendar days - the calendar system has been utilised to submit the job on selected calendar days
- Permanent End of Day - will run every end of day.

Submit Date
This field indicates the date and time that the job was requested for processing.

Last Run Date
This field indicates the date that the job was last run by the batch system. This enables Calendar and Permanent End of Day jobs to be tracked in regards to their processing times.

Submitted Job
This field gives a description of the job which have been submitted for processing but processing has not completed. This will include the following scenarios.

- Job has been submitted to batch, but the required job queue is stopped or paused
- Job has been submitted to batch as delayed and the processing time has not been reached
- Job has been terminated abnormally during processing
- Job has been submitted as a held job

Date/Time to Run
This field indicates the date and time that the job was scheduled to run. This information could help to determine whether the submitted job is not processing as it has been delayed, or whether there is another reason that it is held.

Submit Date
This field indicates the date and time that the job was requested for processing.

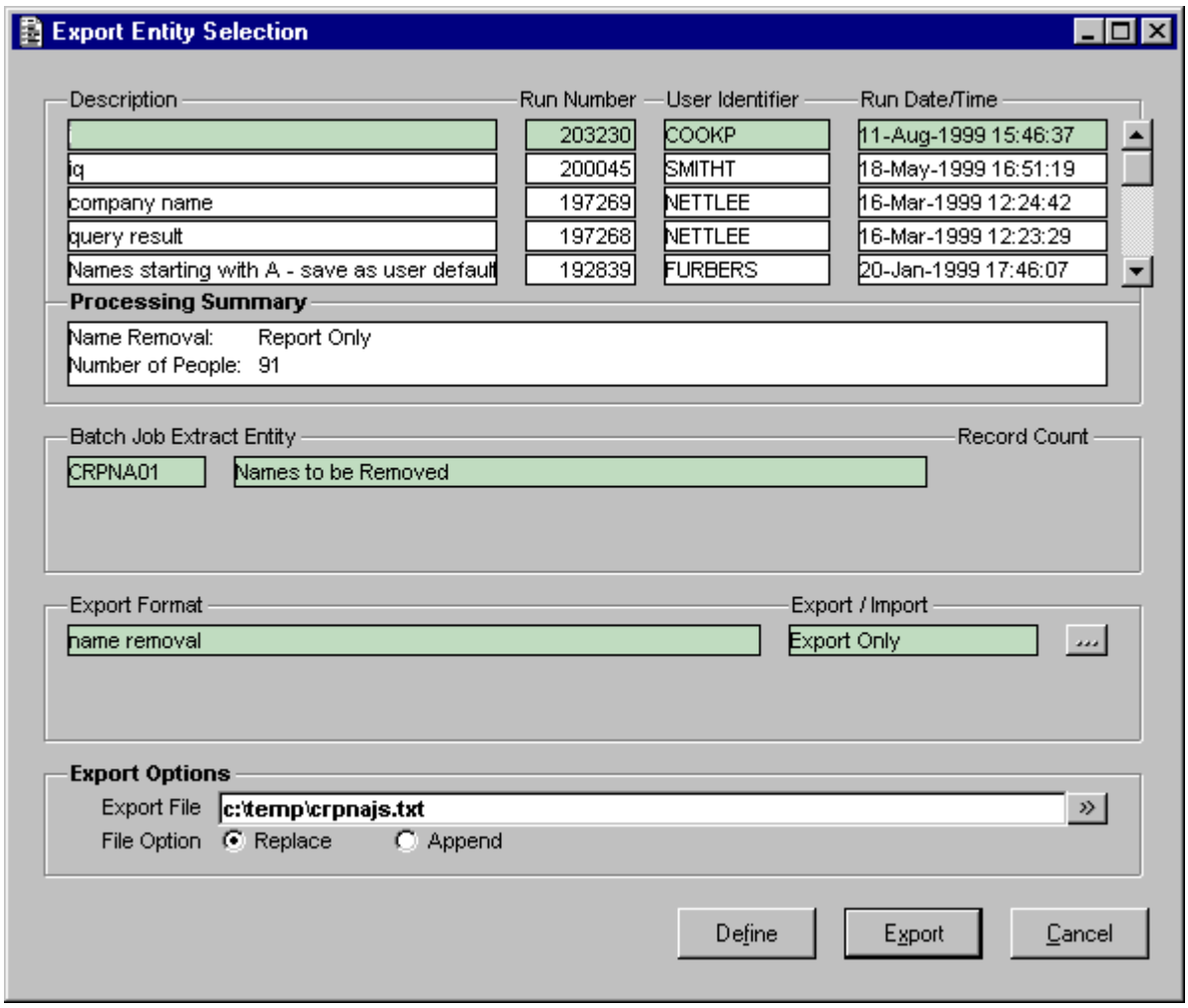
Job Status
This field indicates the current status of the job. The job status is likely to be one of the following

- Scheduled - job has been submitted but has not commenced processing
- Held - job has been scheduled as a held job
- Terminated - job has ended abnormally

Export Entity Selection Form

This form is invoked by the Export Processed Jobs option button, and is used to perform the following functions:

- Select a processed job, reporting entity, export format and perform an ASCII export.
- Maintain and/or create Export Formats for the reporting entities created by the batch form.
- Pull down menu check option (View/Record Count) can be used to display the number of records in each export entity for the selected processed job. (This facility is useful to determine the approximate size of the ASCII file prior to the export being performed.
- Display the “Processing Summary” details for the selected processed job.



Export Entity Selection Form

Description
The description entered at the time the job was processed is displayed in this field.

Run Number
The Run Number automatically assigned to the job at the time the job was processed is displayed in this field. The Run Number is a unique number assigned to all processing functions.

User Identifier
The User Identifier is the userid for the person who submitted the job.

Run Date/Time
The Run Date and Time that the job commenced processing are displayed in this field.

Processing Summary
Information relating to each processed job is displayed in this field. For example the name of the report and the number of records that have been extracted or updated could be displayed. The information will change as you move through the list of jobs displayed.

Batch Job Extract Entity
The entity associated with the Batch Job is/are displayed in this area. There could be more than one entity associated to the process. If this is the case, all the associated extract entities would be displayed.

Record Count
The number of records that have been extracted into the Extract Entity is displayed in this field. To display the record count value select View / Record Count and the value will be calculated. Moving through the list of Batch Jobs will change the Record Count value to represent the Batch Job currently highlighted.

Export Format

Any Export Formats that have been defined over the Extract Entity are displayed in this area. The name of the Export Format is displayed in this field.

Export/Import
The Export/Import field value shown advises of the type of Format that has been defined.

Detail Button
Selection of the Detail Button will display the Export Format.

Export Options – Export File
The Export File is defaulted from the Export Format currently highlighted. If there is no default value, or the file needs to be changed, then the user can either type in the new file or use the PopUp button to select the required information.

Export Options – File Option
There are two File Options available
- Replace
- Append

If Replace is selected then the original file is deleted (if it existed) and the new file written out with the same file name.

If Append is selected then the information is appended to the nominated file and any data already contained in the file is retained.

Define Button
Selection of the Define Button will display the Export/Import Format Maintenance form. From here you are able to define a new Export Format over the Export Entity.

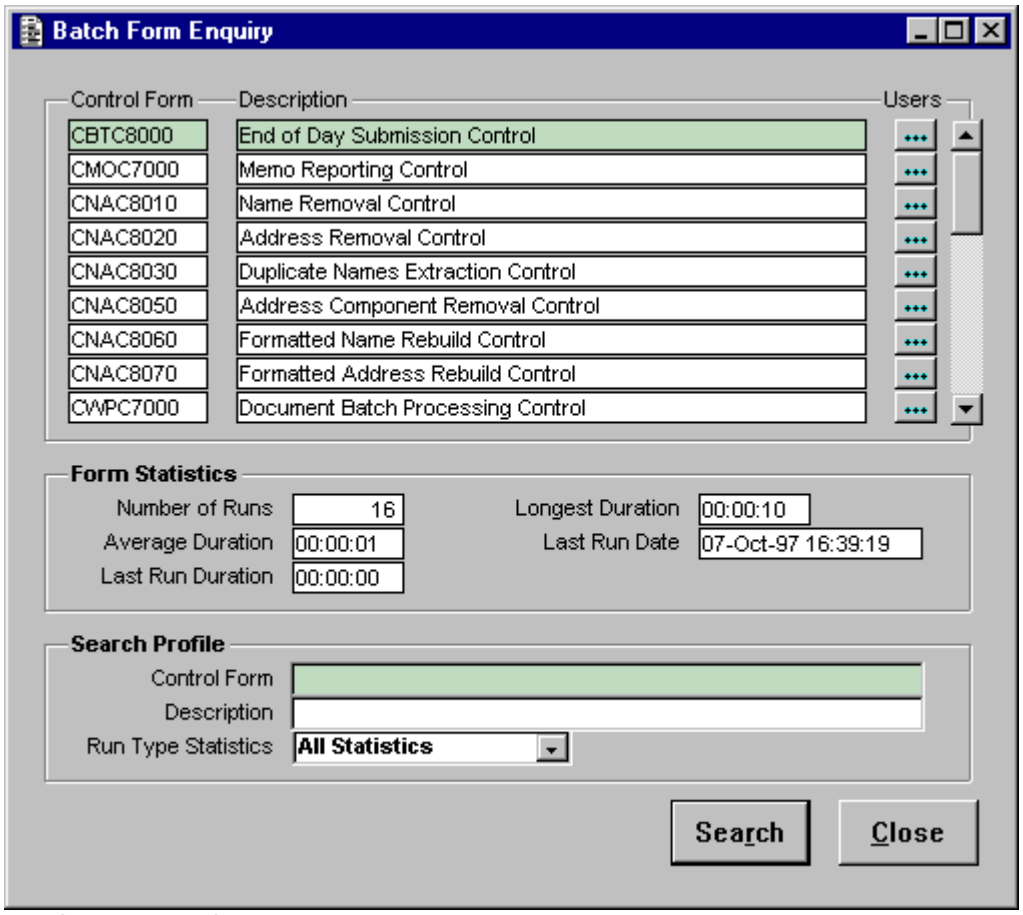
Export Button
Selection of the Export Button will process the export and produce the output into the nominated file.

Batch Form Enquiry

This section deals with the processes for obtaining statistics on processed Batch jobs.

Batch Form Enquiry Form

This form can be utilised to obtain statistics on all options which have had jobs processed via the Batch system. Statistics may be obtained overall, or conditioned based on the Run Type of the jobs (e.g. batch, interactive, end of day).



Batch Form Enquiry Form

Control Form
This field contains the control forms which have been processed. These control form codes are system defined and cannot be maintained.

Description
This field contains a further description of each of the listed control forms which will assist in identifying which option. (e.g. Name Removal Control).

Users Detail Button
By pressing the Users button, the statistics for each batch control form can be viewed for individual user identifier.

Number of Runs
This field will indicate the number of times that each control form has been processed. Click and highlight the required batch form and the Form Statistics will display for this form. The number of runs can be conditioned using the Search Profile - Run Type option if required.

Average Duration

This field will indicate the average duration of processing time for each control form. Click and highlight the required batch form and the Form Statistics will display for this form. The average duration can be conditioned using the Search Profile - Run Type option if required.

Calculating Averages - :Averages are calculated by adding total processing time (in seconds) and dividing by the total number of runs. The average figure is displayed to 2 decimal places.

Last Run Duration
This field will indicate the amount of processing time required, the last time each control form was processed. Click and highlight the required batch form and the Form Statistics will display for this form. The last run duration can be conditioned using the Search Profile - Run Type option if required.

Longest Duration
This field will indicate the amount of processing time required for the longest processing time of each control form. Click and highlight the required batch form and the Form Statistics will display for this form. The longest duration can be conditioned using the Search Profile - Run Type option if required.

Last Run Date
This field will contain the date and time that the control form was last run. This may be relevant in interpreting the statistics associated with the last run.

Search Profile - Control Form
Enter a control form on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

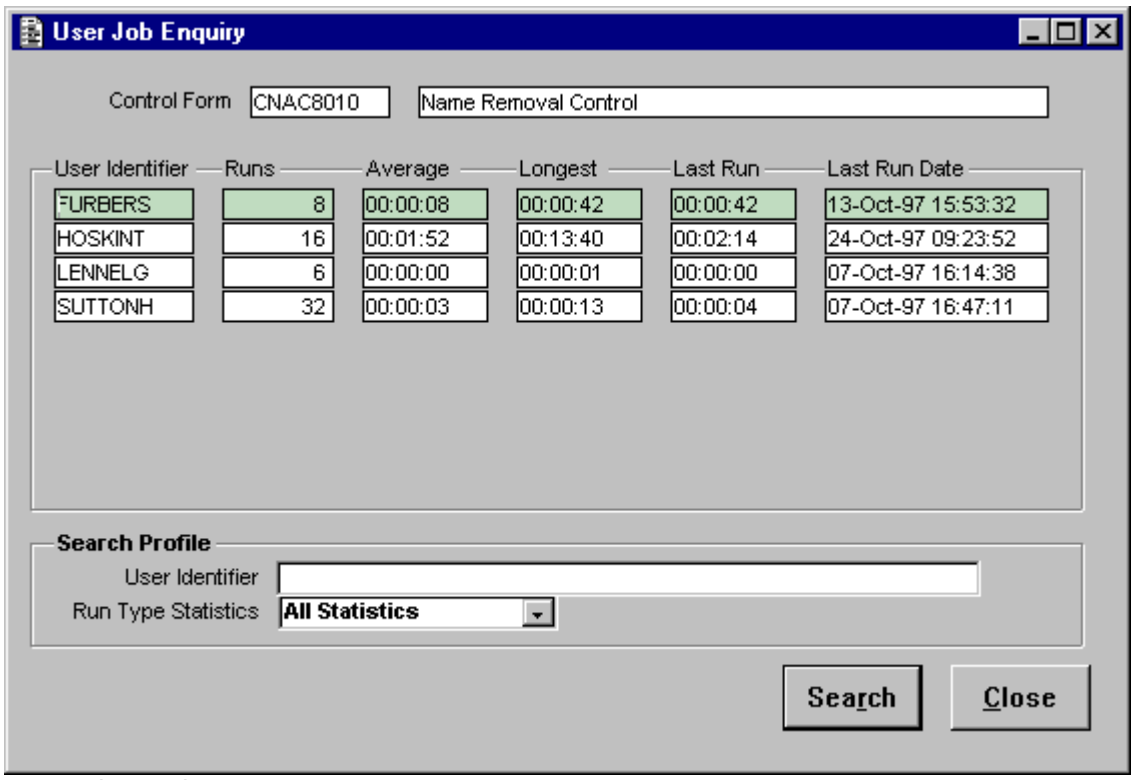
Search Profile - Description
Enter a description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field

Search Profile - Run Type Statistics
Select a run type statistic option from the drop-down and use the Search button to initiate the search. The following options are available from the drop-down and may be utilised to condition the form statistics.

- Display Interactive Statistics (Interactive Run Type)
- Display Batch Statistics (Submit or Delayed Run Types)
- Display End of Day Statistics (Current, Calendar and Permanent End of Day)
- Display All Statistics

User Job Enquiry Form

This form can be utilised to obtain statistics on all options which have had jobs processed via the Batch system. This is based on the individual user identifiers (i.e. users who have submitted the jobs). Statistics may be obtained overall, or conditioned based on the Run Type of the jobs (e.g. batch, interactive, end of day).



User Job Enquiry Form

Note - this form may also be accessed via each individual batch form.
E.g. Select Name Removal Control option. Select the Form Statistics Enquiry option from the Option button. In this scenario, the statistics will relate directly to the selected batch form.

Control Form

This field contains the control form code and description that was selected to display user based statistics.

User Identifier

This field contains the identifier of each user who has submitted the selected job. This will not only provide statistical information, but a basic auditing tool for determining which users have submitted certain jobs.

Runs

This field will indicate the number of times that the control form has been processed, by each user. The number of runs can be conditioned using the Search Profile - Run Type option if required.

Average

This field will indicate the average duration of processing time for the selected control form, for each user. The average duration can be conditioned using the Search Profile - Run Type option if required.

Calculating Averages - :Averages are calculated by adding total processing time (in seconds) and dividing by the total number of runs. The average figure is displayed to 2 decimal places.

Longest

This field will indicate the amount of processing time required for the longest processing time for the selected control form, for each user. The longest duration can be conditioned using the Search Profile - Run Type option if required.

Last Run

This field will indicate the amount of processing time required, the last time each control form was processed, for each user identifier. The last run duration can be conditioned using the Search Profile - Run Type option if required.

Last Run Date

This field will contain the date and time that the control form was last run for each user identifier. This may be relevant in interpreting the statistics associated with the last run.

Search Profile - User Identifier

Enter a user identifier on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field.

Search Profile - Run Type Statistics

Select a run type statistic option from the drop-down and use the Search button to initiate the search. The following options are available from the drop-down and may be utilised to condition the user form statistics.

- Interactive Statistics
- Batch Statistics
- End of Day Statistics
- All Statistics

End of Day

The End of Day facility enables a group of scheduled reports and updates to run as one submitted process, rather than individual jobs. An End of Day could be scheduled for a time during the day when general maintenance is minimal, or even outside of normal working hours.

The following topics are covered in this section:

End of Day Scheduled Jobs Maintenance
Submit End of Day
End of Day Processing using Scheduling Software

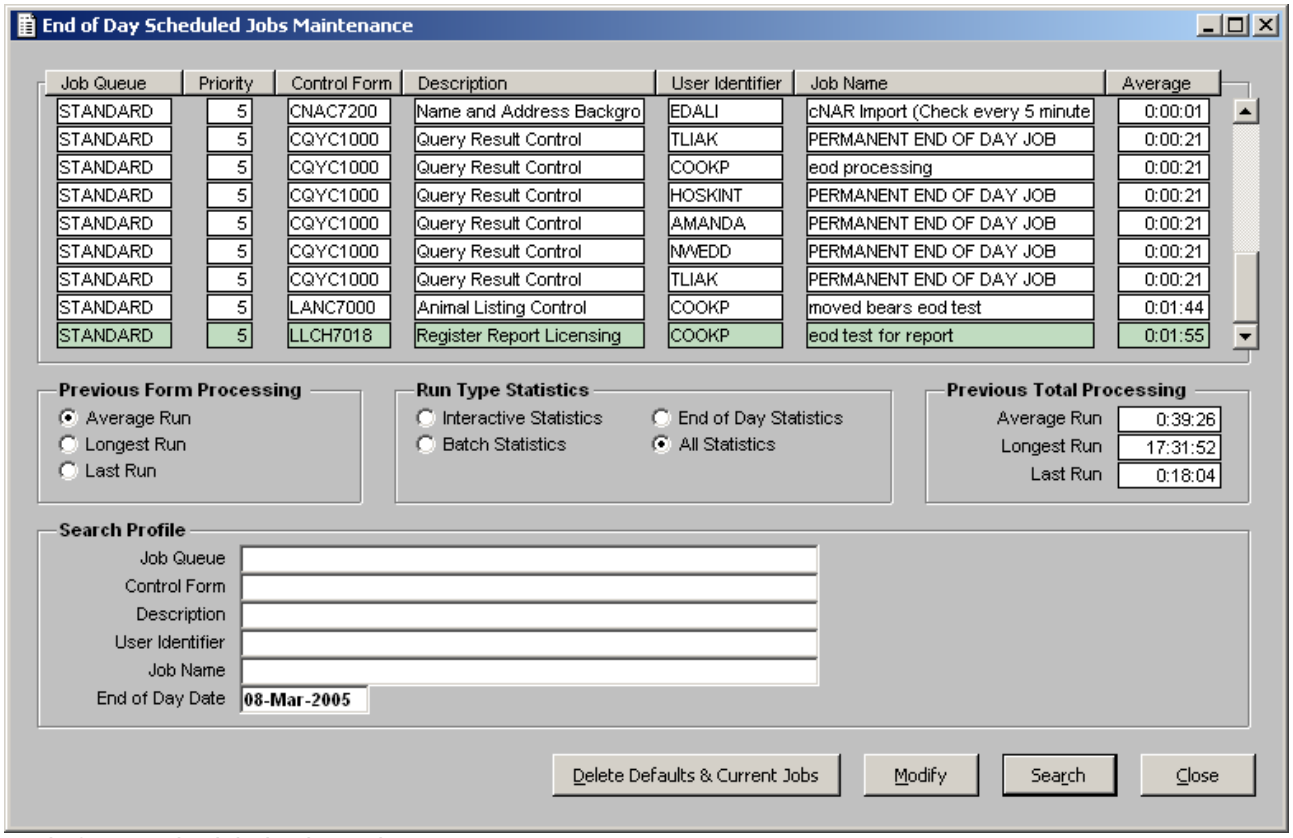
End of Day Scheduled Jobs Maintenance

Prior to processing an End of Day, the End of Day Enquiry option is available to provide statistics on previous job processing. This will assist in determining when to submit end of day, and potentially how long it will require to complete processing. This Chapter describes the features of the End of Day enquiry function.

End of Day Enquiry Form

This form enables jobs submitted to a current or future End of Day to be viewed. The End of Day Enquiry form provides statistical information per form and for the total scheduled end of day. These statistics are based on average, longest and last runs.

The sequence of the display can be changed by clicking on the header name of the field and the data will be sorted by the column/field.



End of Day Scheduled Jobs Maintenance Form

Job Queue

The Job Queue that the End of Day Process is to run on is displayed in this field.

Priority

The Priority of the Job is displayed in this field.

Control Form

This field contains a list of control forms, which are individual jobs scheduled for end of day. The control form names are system defined and cannot be maintained.

Description

This field contains a further description of each of the listed control forms which will assist in identifying the option. (e.g. Name Removal Control).

User Identifier

This field contains the identifier of the user who has submitted the job for processing to End of Day.

Job Name

This field contains the name of the job submitted to End of Day. This job name is entered when the job is submitted for processing.

Average/Longest Run/Last Run

This field contains one of the following statistics, depending on the Previous Form Processing Time selection.

- Display the average processing time for each individual job
- Display the longest processing time for each individual job
- Display the last processing time for each individual job

Previous Form Processing Time

This field enables one of the statistical options to be selected. The option selected will control the statistical information which displays alongside each batch job scheduled for End of Day. There are three options available.

- Average Run
- Longest Run
- Last Run

Run Type Statistics

This field enables the statistical information displayed to be tailored by Run Type. The following options are available

- Display Interactive Statistics (Interactive Run Type)
- Display Batch Statistics (Submit or Delayed Run Types)
- Display End of Day Statistics (Current, Calendar and Permanent End of Day)
- Display All Statistics

The individual scheduled jobs and Previous Total Processing statistics will be tailored based on this parameter selection.

Previous Total Processing - Average Run

This field contains an average processing time statistic for ALL the jobs which are currently scheduled for End of Day. This will assist in estimating the time which will be required to process a complete End of Day. This statistic is based on previous processing times and may be tailored by Run Type.

For example - you may wish to tailor your estimate to only include jobs which have been previously processed during End of Day. The Run Type Statistic selection made will control the statistics displayed.

Previous Total Processing - Longest Run

This field contains a longest processing time statistic for ALL the jobs which are currently scheduled for End of Day. This will assist in estimating the time which will be required to process a complete End of Day. This statistic is based on previous processing times and may be tailored by Run Type.

For example - you may wish to tailor your estimate to only include jobs which have been previously processed during End of Day. The Run Type Statistic selection made will control the statistics displayed

Previous Total Processing - Last Run

This field contains the last processing time statistic for ALL the jobs which are currently scheduled for End of Day. This will assist in estimating the time which will be required to process a complete End of Day. This statistic is based on previous processing times and may be tailored by Run Type.

For example - you may wish to tailor your estimate to only include jobs which have been previously processed during End of Day. The Run Type Statistic selection made will control the statistics displayed.

Search Profile – Job Queue

Enter a Job Queue on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field. The scheduled End of Day jobs which display will be those that match the search criteria.

Search Profile - Control Form

Enter a Control form on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field. The scheduled End of Day jobs which display will be those that match the search criteria.

Search Profile - Description
Enter a Description on which to base your search and use the Search button to initiate the search. Wildcard searching is available on this field. The scheduled End of Day jobs which display will be those that match the search criteria.

Search Profile - User Identifier
Enter a user identifier on which to base your Search and use the search button to initiate the search. Wildcard searching is available on this field. The scheduled End of Day jobs which display will be those that match the search criteria.

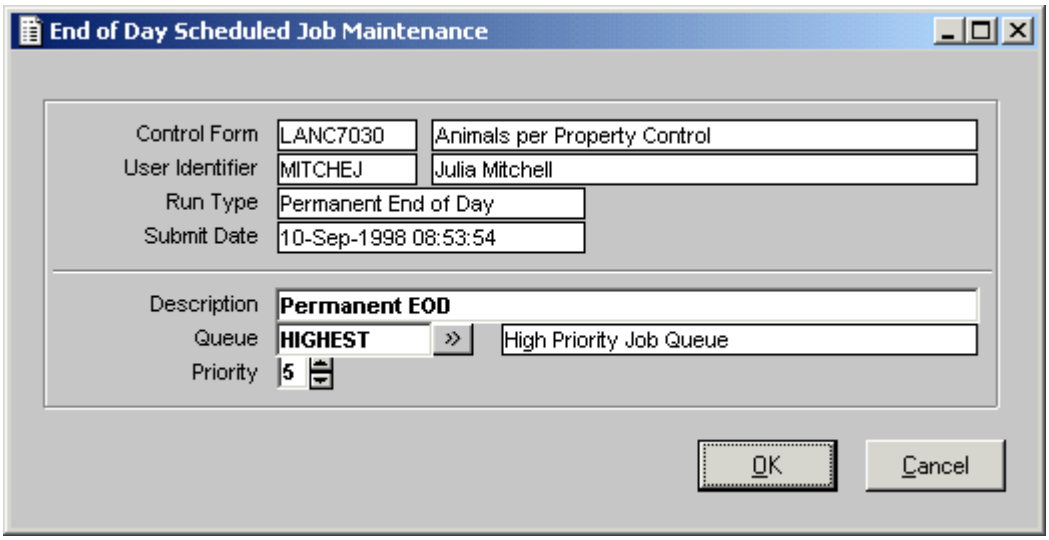
Search Profile - Job Name
Enter a job name on which to base your search and use the search button to initiate the search. Wildcard searching is available on this field. The scheduled End of Day jobs which display will be those that match the search criteria.

Search Profile - End of Day Date
Enter a date, or double click on the field to initiate the Date Pop Up, to enable a date to be selected for searching. Click on the Search button to initiate the search. This search enables jobs scheduled for future End of Days (calendar or permanent jobs) to be viewed. This will assist in the management and scheduling of End of Day jobs.

Delete Defaults & Current Jobs
Selecting this Option Button will display the Defaults and Job Maintenance Form from where you are able to delete Defaults and Jobs based on being signed on as the System Administrator User. This will remove the End Of Day Jobs so that they will no longer be run as part of any End Of Day processing.

End of Day Scheduled Job Maintenance Form

This form enables a job submitted to a current or future End of Day to be viewed. The End of Day Schedule Job Maintenance form provides the Job Queue details and allows for this information to be changed.



End of Day Scheduled Job Maintenance Form

Control Form
The Control Form and its Description of the Schedule End of Day Job is displayed in these fields.

User Identifier
The User Identifier and Description of the User who has scheduled the End of Day Job is displayed in these fields.

Run Type
The Type of Run that has been used to place this Job on the End of Day Schedule is displayed in this field. For example ' Permanent End of Day'.

Submit Date

The Date and Time that the Job was originally submitted is displayed in this field.

Description

The Description that was given to the Job when it was originally submitted is displayed in this field. This Description can be changed or updated from this form if required.

Queue

The Job Queue that the End of Day Job will place this Job on to run is displayed in this field. This can be changed to another Job Queue if required by entering in the required Job Queue, if know, or use the Pop Up form to display a list of valid Job Queues that can be used.

Priority

The Priority field display the Priority that the Job will be placed on the Job Queue when the End of Day processing commences. The default for a submitted job is '5'. The lower the Priority the higher in the list the Job is run. For example if there were 3 jobs submitted to the same Job Queue for End of Day processing. The Job with a Priority of '2' would be submitted to run before a Job with a Priority of '4'. And the Job with a Priority of '5' would be submitted to run after the Job with a Priority of '4'. If all Jobs have the Priority of '5' then they are processed based on the order they appear in the End of Day Scheduled Jobs Maintenance Form.

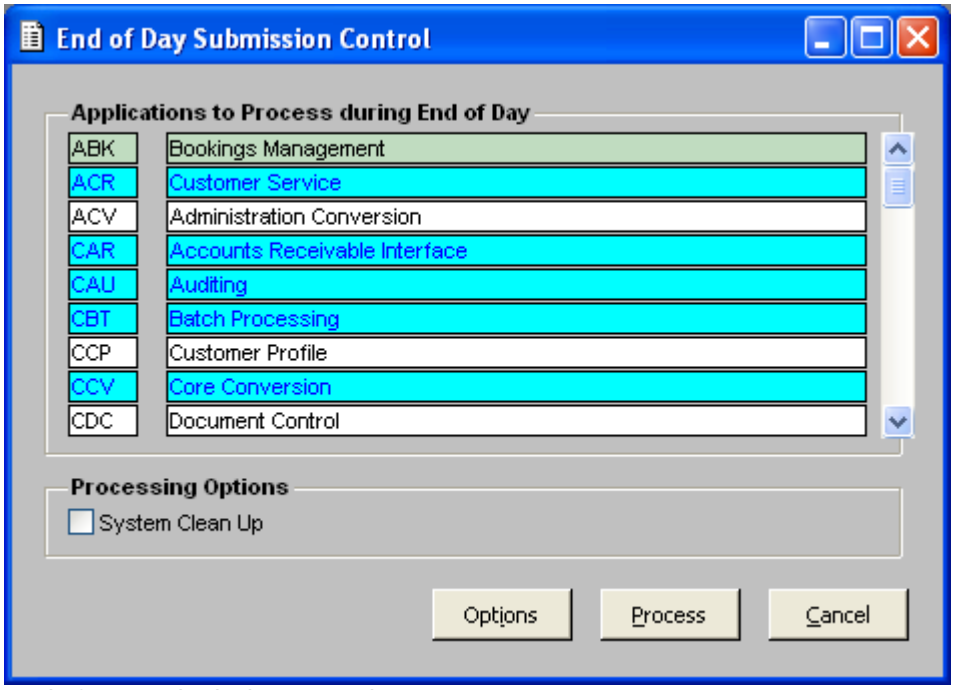
Submit End of Day

This Section describes the process required to submit and End of Day process. End of Days may be run for selected or all applications. On completion of a successful End of Day, all processed jobs will be removed from the End of Day Enquiry and may be accessed via the Processed Job Deletion or Reprint options.

The option is also available to automatically remove obsolete content from Pathway database tables and reduce the data storage requirements.

End of Day Submission Control Form

This form enables the application to be processed at End of Day to be selected. If the Name and Address application is selected, all scheduled Name and Address functions will run. This is a multi selection form, which enables one or more application codes to be selected for processing.



End of Day Submission Control Form

Applications to Process during End of Day

This field contains a list of application codes and descriptions. These are the standard application modules which may be processed via End of Day.
The standard Options and Process buttons can be utilised to log defaults and submit the End of Day job for processing.

Suggested Methodology

1. Save a “System Default” that selects all applications.
2. Use the [Process] button to create “Delayed” jobs for each individual date that End of Day processing is required for the current month.

This will avoid the need to submit the End of Day process on a daily basis.

System Clean Up

Check this box on to automatically remove obsolete content from Pathway database tables and reduce the data storage requirements.
The ‘System Clean up’ option will remove obsolete Query results for all MyPathway dashboard charts along with obsolete content from other Pathway database tables. The database tables affected are:

Query Result: All rows where DESCR='MyPathway Chart Result' will be removed from the CQYRSLT and OCQYRSLT database tables.

SQL Select Result:	All rows will be removed from the CQYSLCT database table.
File Transfer Header:	All rows will be removed from the CSYFILE and OCSYFILE tables.
File Transfer Part:	All rows will be removed from the CSYFILP and OCSYFILP tables.

End of Day Processing Using Scheduling Software

The Pathway End of Day process allows for the automatic submission via scheduling software thus eliminating the need for manual submission on a regular basis.

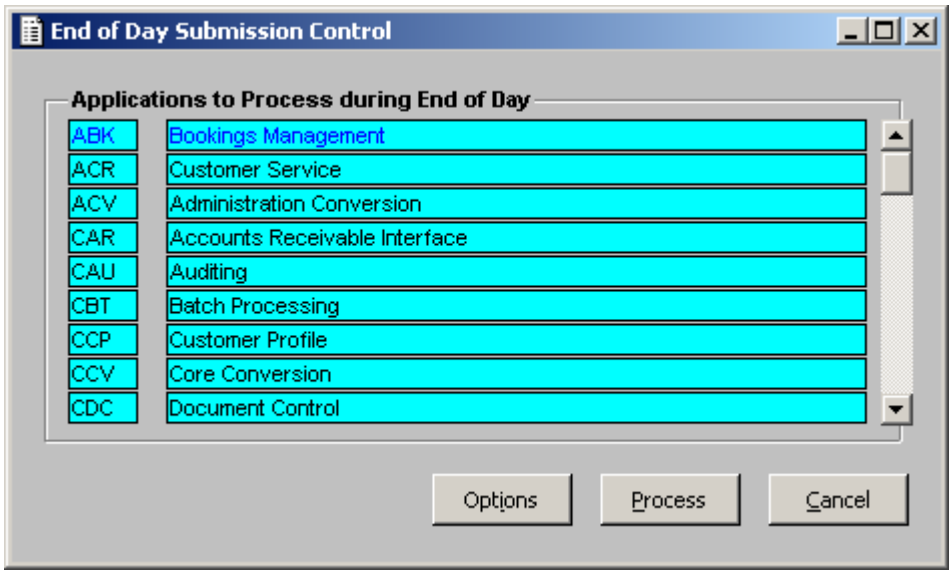
The scheduling software used to automatically start and stop the Pathway Batch Queues should also be used to automatically submit the Pathway End of Day process.
Eg:
- The JobSched.exe program supplied with Pathway in the “msc” directory.
- The standard Windows “Scheduled Task” available from the Control Panel.
- The “crontab” entries for Unix.

The following are instructions on how to setup the End of Day process to run automatically.

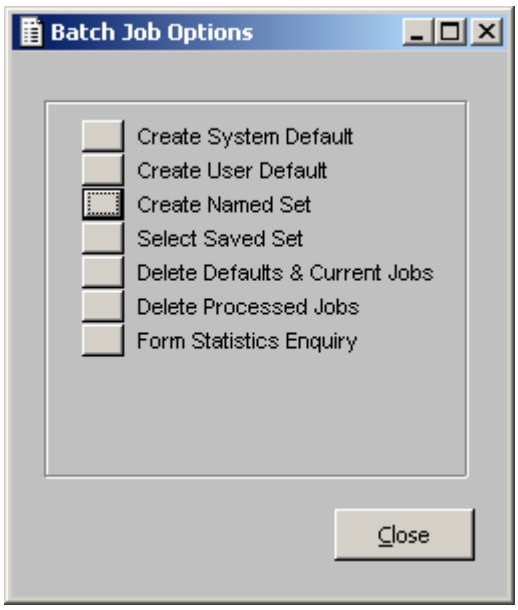
The End of Day processing parameters indicate what applications are to be processed.
A special “ENDOFDAY” Named Set must be established to indicate what applications are to process when a Pathway End of Day is automatically submitted.

Select menu option: Batch Processing >> Submit End of Day

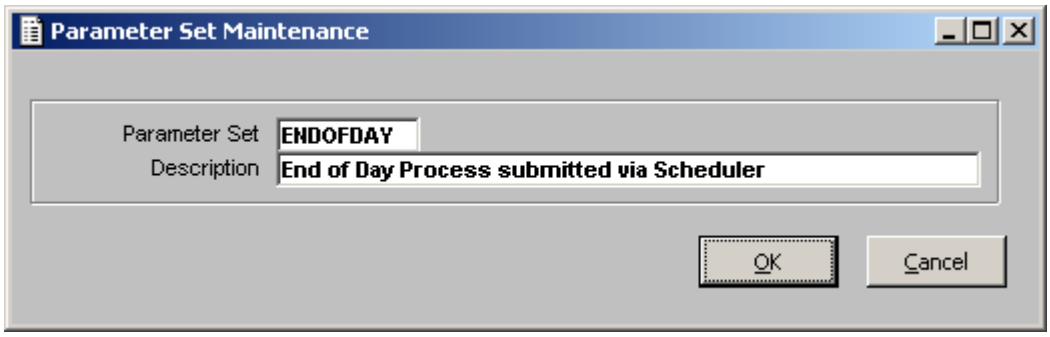
Highlight the appropriate Applications:



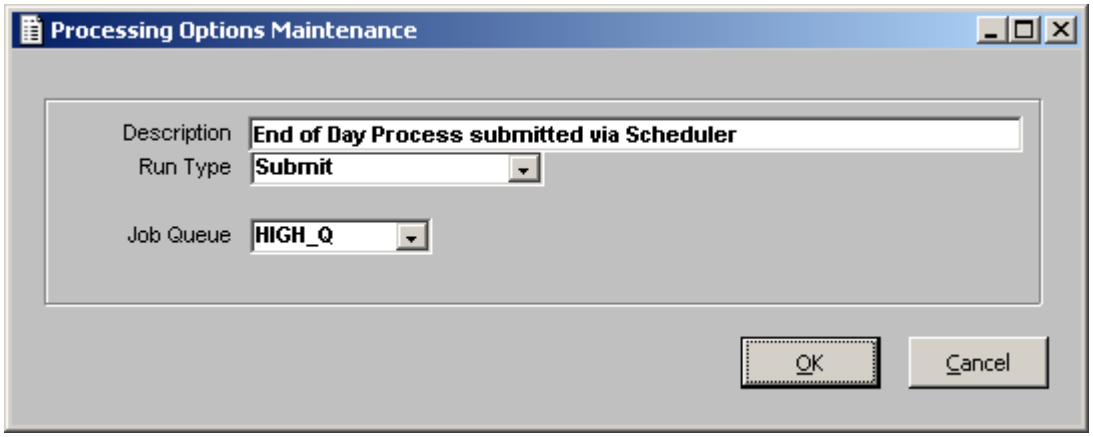
Select the [Options] button followed by the [Create Named Set] button:



Enter a Parameter Set name of “ENDOFDAY” and a meaningful description:



Select the [OK] button to record the Processing Options:



Select the [OK] button to save the Processing Options:

Submit End of Day Command Strings

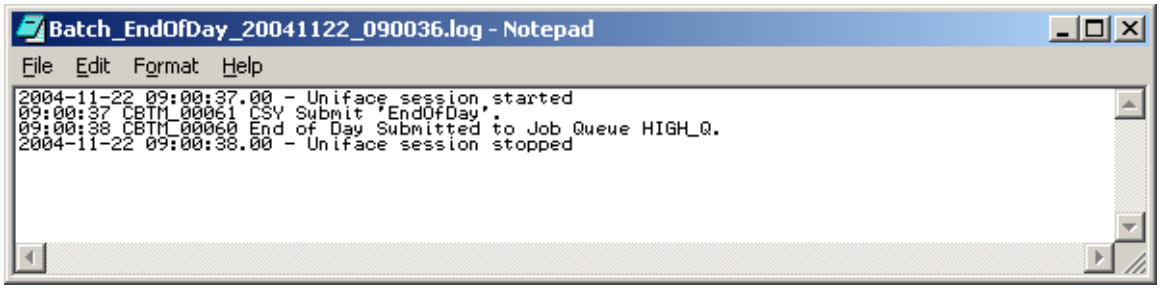
Either of the following “command string” can be used in the scheduling tools to submit the ENDOFDAY process:

…\pathway.exe /EndOfDay
…\uniface.exe /ini=… /asn=… CSY EndOfDay

The “command strings” are identical to those used start or stop Pathway Batch queues apart from the “EndOfDay” suffix.

If the “uniface.exe” command string is used then the standard log file will be updated to indicate whether the End of Day process was automatically submitted.

If the “pathway.exe” command string is used then a unique log file will be created in the “tmp” directory whenever the End of Day process was automatically submitted.



Menu Options

The following topic is covered in this section:

Processed Job Printing

Processed Job Printing

This section describes the menu options available for processing batch jobs. The options will vary depending on which application and control form is selected.

Processed Job Print Form

This form is accessed from either the Tools option on the menu bar, or by selecting “Print Processed Jobs” in the Batch Job Options form. The form is broken up into three distinct sections - Application, Control Form and Job Description. When an Application is selected with the mouse, the relevant Control Forms that are associated with that Application are displayed.

For example, selecting the CNA-Name and Address Application will show:

- Name Removal Control
- Duplicate Names Extraction Control
- Address Removal Control etc

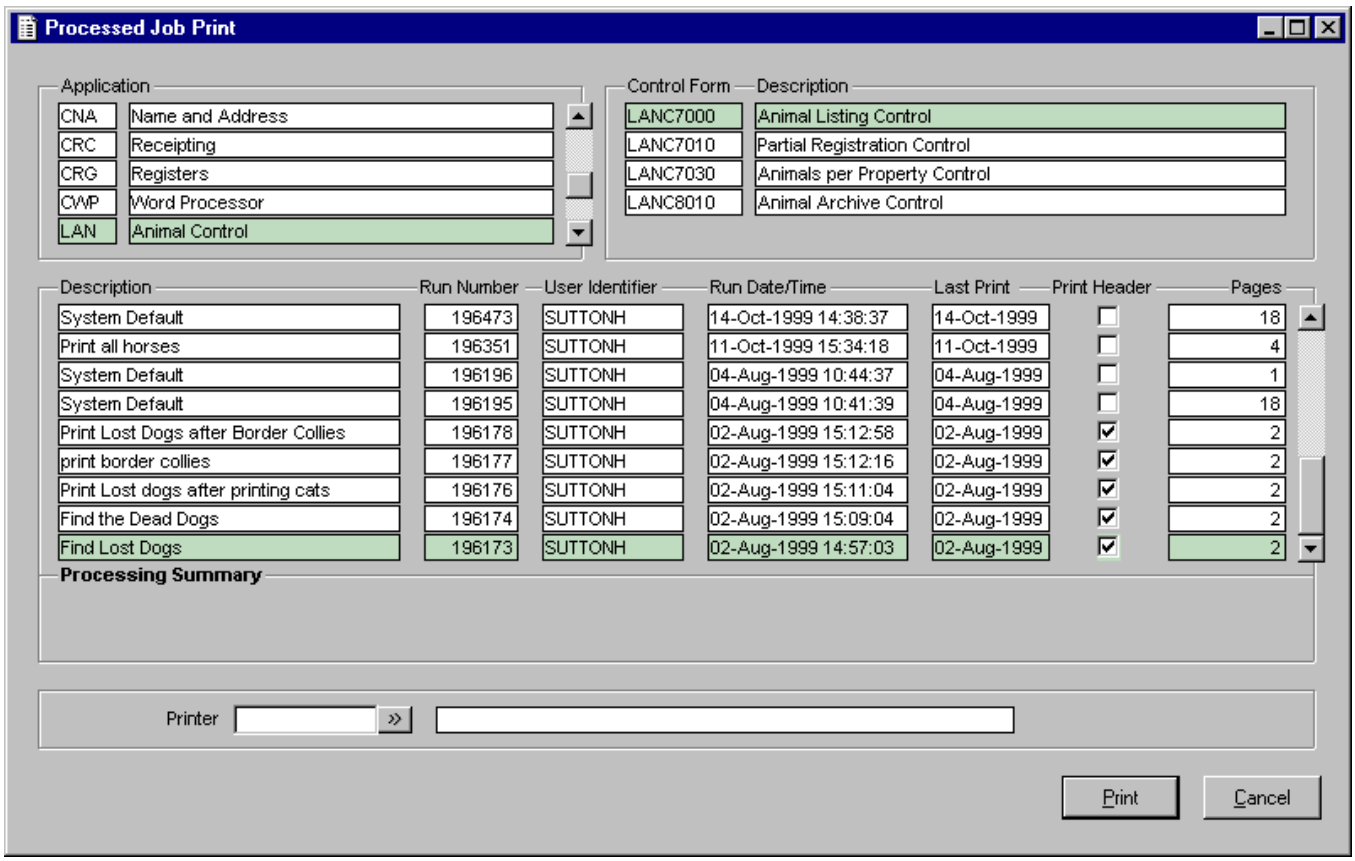
When appropriate Control forms are presented, when one is selected, a list of processed jobs for that Control form will appear in order (most recent first) in the next frame. A user is then able to select one or more of these processed jobs for printing.

When accessing this form via the Tools menu option, only those batch jobs processed by the current logged in user will be seen. If the current logged in user is the System Administrator, all processed batch jobs will be displayed.

When accessing this form from a Control form, all processed batch jobs will be displayed.

When entering this form from a Control Form (e.g. Property Report - Options), the Control form will already be highlighted for quick and easy reprinting. When entering from the Tools menu option, the first records will be highlighted.

The Pull down menu check option View/Record Count can be used to display the total number of records in all report entities for the selected processed job rather than the number of previously printed pages. This facility is useful to determine the approximate size of the report prior to printing.



Processed Job Print Form

Application

This field shows the Application which can be chosen to display a list of associated control forms. For example:

- LPA Property
- CNA Name and Address
- LRA Rates Accounting

This field is display only and cannot be maintained.

Control Form

This field shows the Control Forms that are associated with the Application selected.

This field is display only and cannot be maintained.

Form Name Description

This field shows a description of the Control Form. For example:

- Property Report Control
- Property Description Rebuild Control
- Formatted Address Rebuild Control

This field is display only and cannot be maintained.

Run Number

When a batch job is run, it is given a unique number by which it can be identified. This field represents this number.

This field is display only and cannot be maintained.

Batch Job Description

This field shows the description used when the selected batch job was performed.

This field is display only and cannot be maintained.

User Identifier

This field shows the User ID of the user who performed the batch job.

This field is display only and cannot be maintained.

Run Date/Time
This field shows the Run Date and Time of the processed batch job.

This field is display only and cannot be maintained.

Last Print Date
This field shows the Last Print Date of the selected batch job. This field will only have a value in it if the selected batch job has been previously printed.

This field is display only and cannot be maintained.

Printer Header
This field shows whether the Header Page was printed when the process was run. This box can be ticked off or on when the process is reselected for printing.

Pages/Record Count
This field shows the total number of pages that were taken to produce the report. This field will only have a value in it if the selected batch job has been previously printed.

This field is display only and cannot be maintained.

The Pull down menu check option View/Record Count can be used to display the total number of records in all report entities for the selected processed job rather than the number of previously printed pages. This facility is useful to determine the approximate size of the report prior to printing.

Processing Summary
This field displays the Processing Summary details for the selected processed job.

Printer
This field shows the printer that will be used to reprint the selected batch job(s). Use the Pop Up button to display a list of available printers, or type in the selected printer.

Processed Job Deletion Form

This form is accessed from either the Tools option on the menu bar, or by selecting “Delete Processed Jobs” in the Batch Job Options form. The form is broken up into three distinct sections - Application, Control Form and Job Description. When an Application is selected with the mouse, the relevant Control Forms that are associated with that Application are displayed.

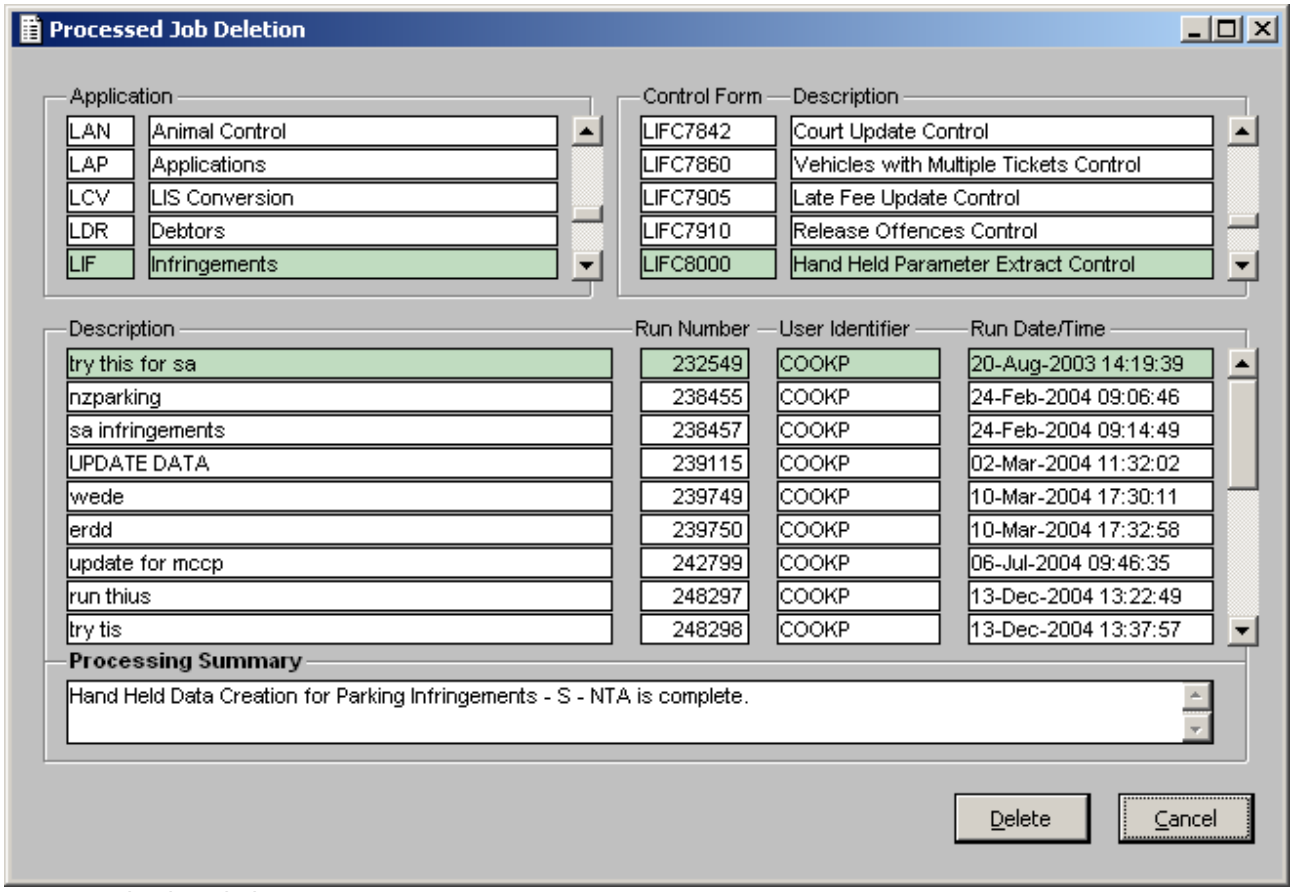
For example, selecting the CNA-Name and Address Application will show:
- Name Removal Control
- Duplicate Names Extraction Control
- Address Removal Control etc

When appropriate Control forms are presented, when one is selected, a list of processed jobs for that Control form will appear in the next frame. A user is then able to select one or more of these processed jobs for deletion.

When accessing this form via the Tools menu option, only those batch jobs processed by the current logged in user will be seen. If the current logged in user is the System Administrator, all processed batch jobs will be displayed. Batch jobs processed will be displayed from the oldest job first.

When accessing this form from a Control form, all processed batch jobs will be displayed.

When entering this form from a Control Form (e.g. Property Report - Options), the Control form will already be highlighted for quick and easy deletion. When entering from the Tools menu option, the first records will be highlighted.



Processed Job Deletion Form

Application

This field shows the Application which can be chosen to display a list of associated control forms. For example:

- LPA Property
- CNA Name and Address
- LRA Rates Accounting

This form is display only and cannot be maintained.

Control Form

This field shows the Control Forms that are associated with the Application selected.

This field is display only and cannot be maintained.

Control Form Description

This field shows a description of the Control Form. For example:

- Property Report Control
- Property Description Rebuild Control
- Formatted Address Rebuild Control

This field is display only and cannot be maintained.

Batch Job Description

This field shows the description used when the selected batch job was performed.

This field is display only and cannot be maintained.

Run Number

When a batch job is run, it is given a unique number by which it can be identified. This field represents this number.

This field is display only and cannot be maintained.

User Identifier
This field shows the User ID of the user who performed the batch job.

This field is display only and cannot be maintained.

Run Date/Time
This field shows the Run Date and Time of the processed batch job.
This field is display only and cannot be maintained.

Processing Summary
The Processing Summary information displays a brief update of what the Job has done. For example 'Number of Transactions Processed', 'Number of Transactions Exported'.

Batch Purge

The following topic is covered in this section:

Batch Purge Functionality

Batch Purge Functionality

Before the Batch Purge is run, the first thing that is required is to specify on each control form the required retention time (depending on the nature and importance of the job). If this is not done, jobs will be deleted according to the retention time specified on the Processed Job Deletion Control form.

On each control form, there is the ability to specify the length of time the user wants the job held (for example, two days, one week, three months). This is accessible via Batch Processing -> Batch Form Maintenance.

There is also the option of retaining the last job done for that control form.

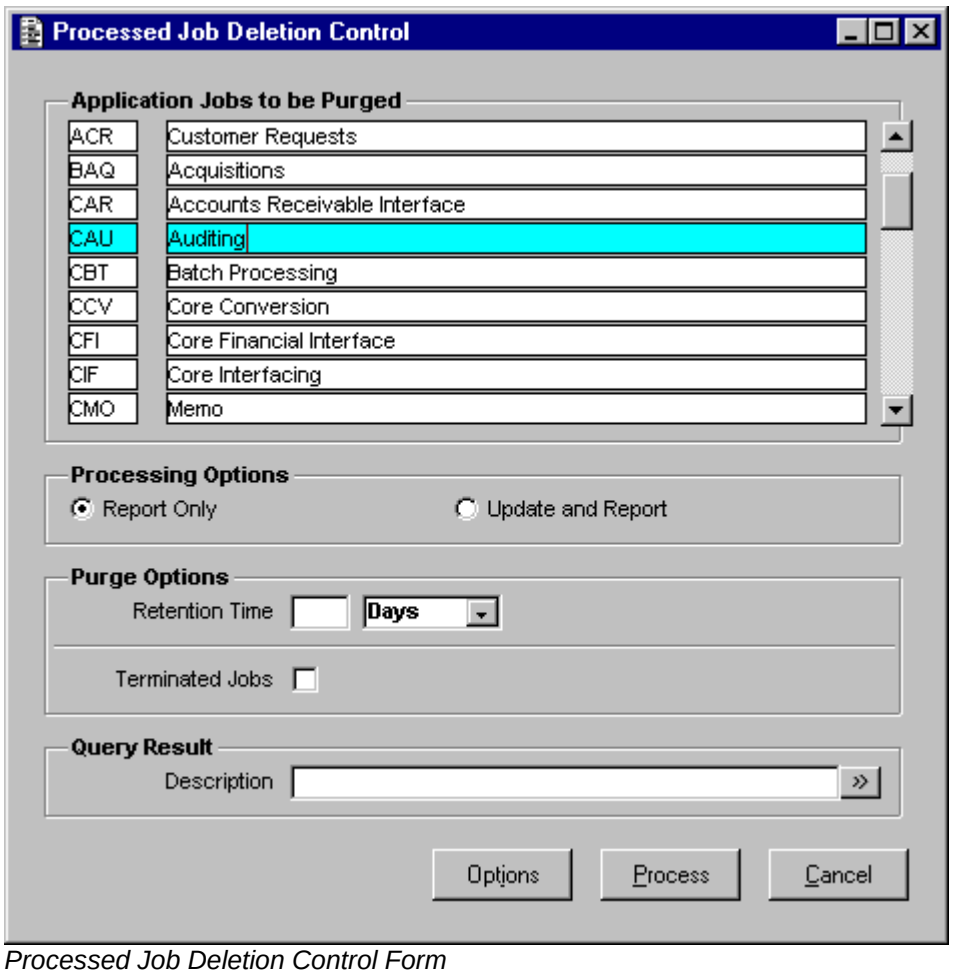
On the Processed Job Deletion Form you can specify which applications you wish to be included in the purge. You can also specify a Retention Time for all control forms.

Specifying a Retention Time on this form will not override others that may have been set differently on each control form. For example, if you want to keep all Handheld Uploads for one month prior (specified on the control form), but specify a period of one week on the Processed Job Deletion form, no Handheld Upload jobs will be removed.

When a processed job is deleted, not only is the job deleted, but the records associated to that job are deleted (from the appropriate LRP entities).

It is suggested that this process be run in Report Only mode first, and the information obtained checked before the final purge is done.

Processed Job Deletion Control Form



Processed Job Deletion Control Form

Application jobs to be Purged

These fields display the Application Codes and Application Descriptions which have batch jobs that can be purged. More than one of these can be selected at a time, by using the Control or Shift keys.

These fields are display only and cannot be maintained.

Processing Options

The options available are:

- Report Only
- Update and Report

Select Report Only to generate a report without updating the database.
Select Update and Report to generate a report as well as updating the database.

Purge Options - Retention Time

These fields allow you to specify a retention time for the purge. For example, if you have entered 12 months into the fields, batch jobs run for each application selected will be deleted up to 12 months before the run date.

That is, if the Batch Purge is run on the 5th of January 1999, jobs with a run date prior to the 5th of January 1998 will be purged (depending on separate control form specifics).

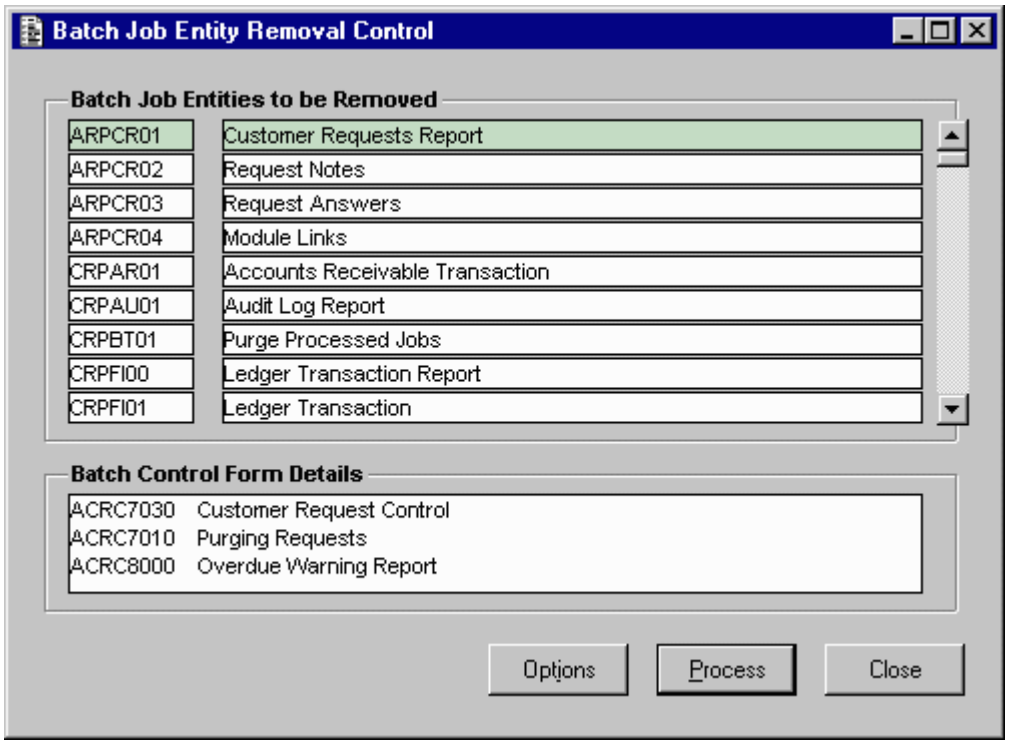
Purge Options - Terminated Jobs

This checkbox is used to specify whether you wish “Terminated Jobs” to be deleted when the purge is run. These terminated jobs will only be deleted if their application has been selected at the top of the form. This option will also delete “Background” terminated tasks.

Query Result - Description

This field may be used to specify a previously created query definition to identify a group of records. Alternatively, a query may be selected from the pop up.

Batch Job Entity Removal Control Form



Batch Job Entity Removal Control Form

Batch Job Entities to be Removed

These fields list the entities and descriptions which are available for selection.

Batch Control Form Details

This field displays the Batch Control Forms associated with the selected entity.