Agency Express Job Queue Setup

Purpose of this document

The purpose of this document is to explain the process of setting up Job Queues to handle the processing of Agency Express transactions to and from Ceres. Job Queues are used to automate the repetitive tasks of managing the web processing queue and processing both the inbox and outbox transactions. Job Queues are initiated by a NAV service instance. Setup of NAV service instances are normally done by your Ceres implementation team and beyond the scope of this document. Documentation from Microsoft is available to setup and configure NAV service instances.

Ceres Object release 5.00.00 is required for the functionality described in this document.

Table of Contents

Job Queue Options

Before setting up the job queue, you must first decide whether or not you will be splitting the transactions into separate processes. Ceres has the ability to process the Item Availability transactions (ITQ Records) separately from all other transactions. In cases of high volume of AE activity this is may be desirable to improve performance and prevent errors due to long processing times. For smaller transaction volume sites it may be preferable to process the transactions in one Job Queue. The other benefit to splitting the transactions is that it allows the separate Job Queues to be assigned to separate database instances, providing better load balancing and possibly improving performance. This document will show the setup of 3 job queues called AE, ITQ and NON-ITQ. It is suggested that you setup all 3 job queues regardless of the method you've chosen. Once all 3 are setup you would normally activate just the AE Job Queue when using a single instance to process all transactions. If you've decided to split the item availability transactions from all other transactions then you will be activating the ITQ and NON-ITQ job queues only and will not activate the AE job queue. The ITQ Job Queue will handle the item availability transactions and the NON-ITQ job queue will handle all other transactions.

Setup

To access Job Queue Setup, select Departments → Administration → Application Setup → Job Queue
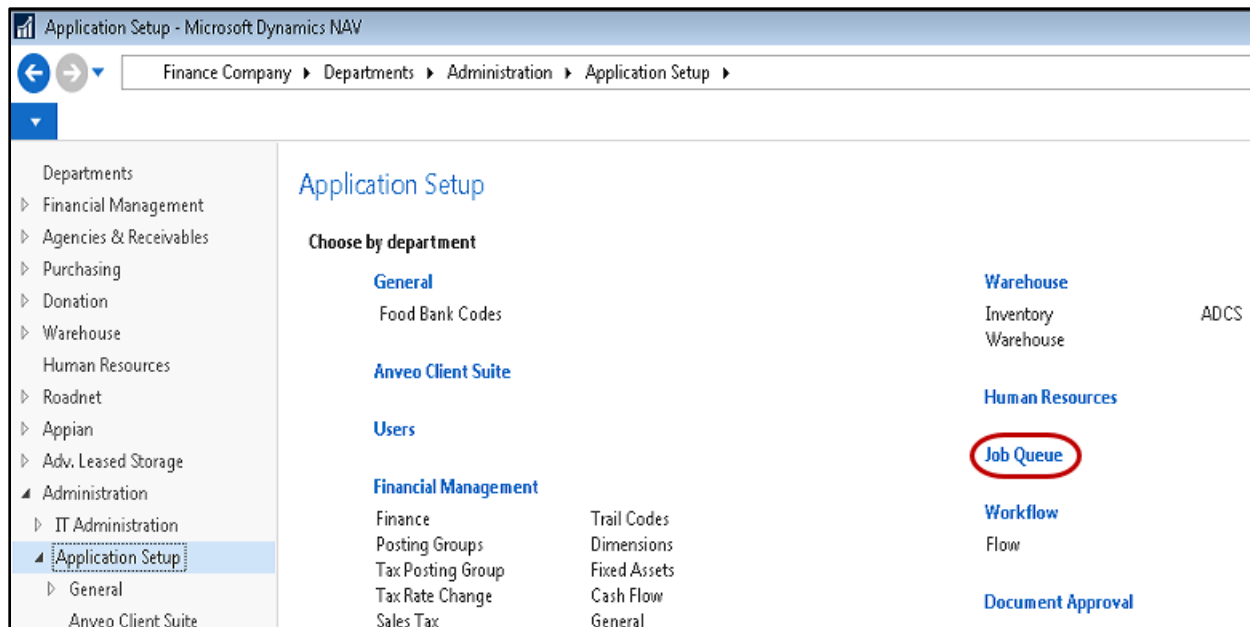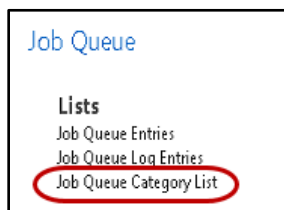
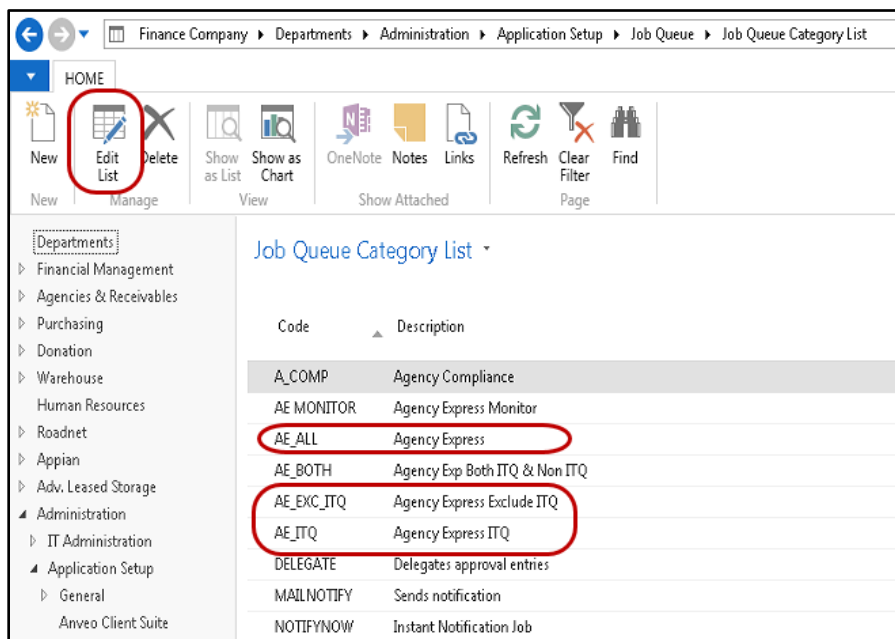This will bring you to the job queue menu:
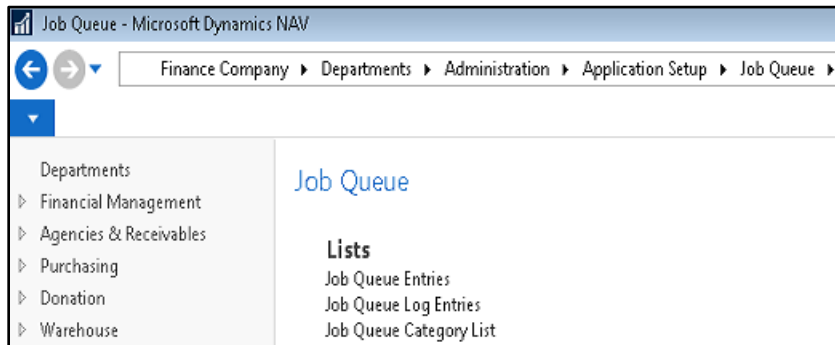
Job Queue Category List

Select Job Queue Category List from the menu:

This opens the Job Queue Category List. You will need to create 3 entries in this table. Enter the 3 Job Queue Categories as shown here, by clicking on Home → Manage → Edit List:

When you've completed setup of the 3 job queue categories, you can return back to the job queue menu.

Job Queue Entries Setup

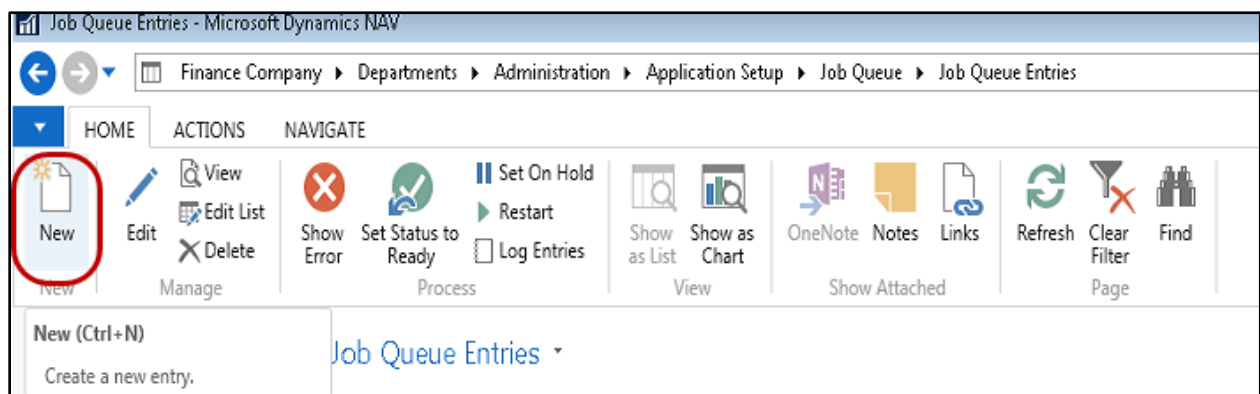Select Job Queue Entries from the Job Queue menu:
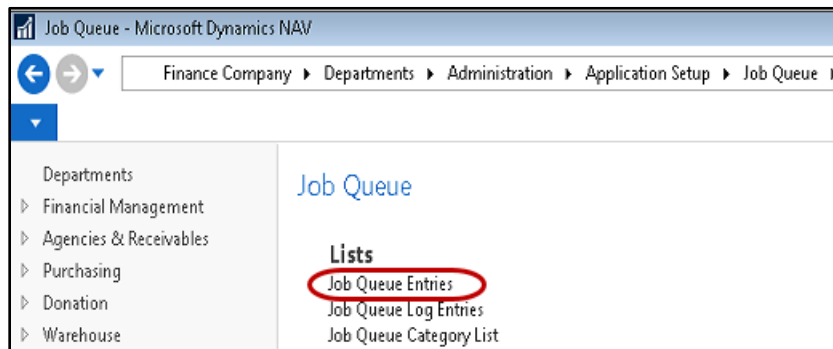
This will open the list of Job Queue Entries. We will be setting up 3 as shown here.

      Note: that they will not exist in this window before they have been set up

To create the first new Job Queue Entry, select New from the Home Ribbon:

A new Job Queue Entry card will be displayed.

General Fast Tab

Object Type to Run: Select from the drop-down list to run either a report or codeunit.

Object ID to Run: Enter the object ID of the report or codeunit to run.

Description: Enter a description of the entry task being run.

Parameter String: Enter any parameter that must be passed to the report or codeunit. The report or codeunit must be setup to accept a parameter string. If the object is not setup to handle a parameter this field should be left blank.

Job Queue Category Code: Enter a valid Job Queue Category Code from the drop-down list if desired. This field is used to tie Job Queue with Job Queue Entries to determine which Job Queue will execute the Job Queue Entry. This can be used for segregation of jobs or load balancing.

User ID: this field will be updated automatically with your user ID.

Timeout (sec.): Enter the number of seconds when this entry should timeout. This can be useful to prevent a run-away job consuming resources with completing. If this field is used you should allow enough time for the Job Entry to complete normally and some buffer time. Leave this field set to 0 to indicate that the job should not timeout automatically and should continue until completion.

Maximum No. of Attempts to Run: This field can be used in conjunction with the timeout to automatically restart a job a number of times if it times out. If left at zero (0), the job will not attempt restart if it times out. These fields are used primarily when it is known that a certain condition will routinely occur that will interfere with the normal job completion and the user wants to restart it a number of times before entering into an error condition.

Last Ready State: This field is automatically updated by the system and reports the Job Queue Entries last known time that the job was at the job status of ready. This can be useful information to determine how long a job entry has been inactive.

Earliest Start Date/Time: Specifies the first date and time on which the job runs. This can be left blank to indicate a job that will run continuously or until changed by the user.

Expiration Date/Time: Specifies the last date and time on which the job runs. The job will not run after this date. This can be left blank to indicate a job that will run continuously or until changed by the user.

Priority: Specifies the priority of the job queue entry compared to other entries in the job queue. For example, 1. The lower the number, the higher the priority. The default priority is set to 1000.

Run as User: Indicates that the job queue entry will be processed in a session that has already been started by the user at the time the job was queued. This field is automatically updated.

Status: Ceres sets the initial status of a job to **On Hold**. This allows time for you to finish set up before a job is run. To change the status, on the **Home** tab, in the **Process** group, choose **Set Status to Ready**. After job queues are set up and running, Ceres gives you updated status information. The following is a list of the available **Status** codes:

> **On Hold** – Job Queue is set to on hold by a user and will not run. You must set the status to ready to re-engage automatic execution of this Job Queue.

Ready – This status indicates that the job is ready and waiting until it needs to run based on the next execution date and time.

In Process – This status is set by the system when the Job Queue is currently running. Upon completion it will change to status Finished. If the Job Queue is reoccurring, the status will then be changed to Ready for the next run.

Error - This status indicates the job queue has failed to complete normally. There can be a number of reasons for failure. You can view the errors associated with the job queue to determine what corrective actions can be taken to resolve the error. Job Queues in this status will not run any longer until action is taken by the user to resolve and reset the status to Ready.

Finished – This status indicates that the Job is complete and is not schedule to run again. Typically these jobs are automatically removed from the Job Queue upon completion. Job Queues remaining with a finished status may to be set back to Ready status if they are reoccurring.

Note: After a job is run successfully, it is removed from the list of job queue entries unless it is a recurring job. If it is a recurring job, the earliest start time field is adjusted to be the next time that the job is expected to run.

Recurrence Fast Tab

Recurring Job: This field is updated automatically and will be checked if any of the "Run on Day of Week" fields is checked.

Run on Mondays – Run on Sundays: Place a check in any of the days that you wish this job to run. Check all seven if the job is to run every day.

Starting Time: Enter a starting time that the job should begin running during the day. Leave it blank if the job should run throughout the day (24 hours).

Ending Time: Enter an ending time that the job should stop running during the day. Leave it blank if the job should run throughout the day (24 hours).

No. of Minutes between runs: Enter the number of minutes between job runs. This number should be large enough to allow the job to complete normally. As all jobs will consume resources care should be taken to ensure that the job runs as often as needed without impacting performance.

Setting up the AE_ALL Job Queue Entry

These are the recommended settings for the AE_ALL Job Queue Entry. The time between runs will need to be adjusted based on volume of transactions.

Codeunit · 14012266 · NAS Web Management

General

Object Type to Run:	Codeunit	Maximum No. of Attempts to Run:	5
Object ID to Run:	14012266	Last Ready State:	3/30/2015 11:29:00.740 AM
Object Caption to Run:	NAS Web Management	Earliest Start Date/Time:	3/30/2015 3:55:22.937 PM
Description:	NAS Web Management	Expiration Date/Time:	
Parameter String:	ALL	Priority:	1000
Job Queue Category Code:	AE_ALL	Run in User Session:	
User ID:	SWPROS\WWH	Status:	On Hold
Timeout (sec.):	0		

Recurrence

Recurring Job:	☑	Run on Saturdays:	☑
Run on Mondays:	☑	Run on Sundays:	☑
Run on Tuesdays:	☑	Starting Time:	
Run on Wednesdays:	☑	Ending Time:	
Run on Thursdays:	☑	No. of Minutes between Runs:	5
Run on Fridays:	☑		

OK

Setting up the AE_ITQ Job Queue Entry

These are the recommended settings for the AE_ITQ Job Queue Entry. The time between runs will need to be adjusted based on volume of transactions.

Setting up the AE_EXC_ITQ Job Queue Entry

These are the recommended settings for the AE_EXC_ITQ Job Queue Entry. The time between runs will need to be adjusted based on volume of transactions.

Codeunit · 14012266 · NAS Web Management

General

Object Type to Run:	Codeunit	Maximum No. of Attempts to Run:	0
Object ID to Run:	14012266	Last Ready State:	3/30/2015 4:08:26.967 PM
Object Caption to Run:	NAS Web Management	Earliest Start Date/Time:	3/30/2015 4:10:25.910 PM
Description:	NAS Web Management	Expiration Date/Time:	
Parameter String:	EXCLUDE_ITQ	Priority:	1000
Job Queue Category Code:	AE_EXC_ITQ	Run in User Session:	☐
User ID:	SWPROS\WWH	Status:	On Hold
Timeout (sec.):	0		

Recurrence

Recurring Job:	☑	Run on Saturdays:	☑
Run on Mondays:	☑	Run on Sundays:	☑
Run on Tuesdays:	☑	Starting Time:	
Run on Wednesdays:	☑	Ending Time:	
Run on Thursdays:	☑	No. of Minutes between Runs:	5
Run on Fridays:	☑		

OK

Note: Once the setup is completed, use "Set on Hold" for the other Agency Express Job Queue Entries and stop the related Job Queue. Use "Set Status to Ready" on the two new Job Queue Entries and start the related Job Queue.

Related Topics

1. Agency Express Item Validate and Reservation Revisions
2. Agency Express Managing Web Orders
3. Agency Express Overview of File Structure and Data Synching