

Understanding and troubleshooting the Sage X3 Batch Server

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Introduction

What is the Batch Server



- As defined in the [Online Help](#)
 - Batch server
 - The platform framework embeds a deferred (batch) tasks scheduling and monitoring function with a comprehensive parameters management for these processes
 - *i.e., is a thread running in background within the Syracuse (node.exe) context which monitors and manages a batch task queue (stored in table: X3.ABATRQT)*
 - Batch task
 - Unlike an interactive session, a batch task is a process launched in background mode and monitored by the task scheduler (batch server)
 - *i.e., is a task added to the batch task queue to be launched and processed in a background session, controlled by the batch server*

What is the Batch Server



- Thread of execution running within the Syracuse context
- Once the batch server is started, will randomly select a Syracuse node and child process; within which the batch server thread will run
 - Can configure the Batch Server to start-up automatically or not
- The batch server also launches a classic session (adonix.exe) which constantly runs until the batch server is shutdown. This process monitors and manages the batch job queue
- Batch tasks themselves, once eligible to be executed, are processed in their own new classic session

Where is the batch server running?

- Can check Administration, Usage, Sessions Management, Session Information

All > Administration > Usage > Sessions management

Web client sessions

Type	Session ID	User login	Status	Web client	Host	Port	Process name	Process ID	Endpoint	X3 login	X3 sessions	Badge
Batch	64f8a1ff27e2	batch	Authenticated	X3ERP12SQLVM	N0	7304	X3ERP12_X3			batch	1	ERFULL

X3 sessions Web client

Type	X3 session	X3 PID	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Function	SOAP pool	Web Service	Log	Creation date
Batch admin	4974	8840	Session created	x3erpv12sqlvm	50012	batch	en-GB	X3ERP12	X3					2022-02-15T11:17:40.305Z

- or check Syracuse log files for the “batch” entries (if logging is enabled)

```
2022-02-15 X3ERP12SQLVM_N0 log
2605 2022-02-15T11:17:38.454Z | | | batch | debug | Proceed with message db= syracuse message.code X3ERP12 message.action start
2606 2022-02-15T11:17:38.529Z | 64f8a1ff27e2 | | | batch | info | [X3ERP12] Batch server starting (old status : stopped)
2607 2022-02-15T11:17:38.732Z | 64f8a1ff27e2 | | | x3Comm.client | info | [x3Client Batch X3ERP12 x3Pid=8840 connecting batchAdmin alive] connect connected x3erpv12sqlvm folder X3 locale en-GB
2608 2022-02-15T11:17:40.243Z | 64f8a1ff27e2 | | | x3Comm.client | info | [x3Client Batch X3ERP12 x3Pid=8840 sessionCreating batchAdmin alive] createSession licenseProduct= 1 licenseVersion 12
2609 2022-02-15T11:17:40.304Z | 64f8a1ff27e2 | | | batch | info | [X3ERP12] 8840 client created on x3erpv12sqlvm:50012
2610 2022-02-15T11:17:40.305Z | 64f8a1ff27e2 | | | batch | debug | [X3ERP12]ASYRREQ representation=ASYRREQ Execute sdata request on x3erpv12sqlvm:50012 with adonix 8840 alive true url /sdata/x3/erp/X3ER
2611 "head": {
2612 "method": "GET".
```

- or check via Batch Server (Action, Diagnoses)

15/02/2022, 11:17:40: 8840 client created on x3erpv12sqlvm:50012

The batch controller X3ERP12 is running on host X3ERP12SQLVM (pid:7304) and can handle 2 queries.

Information

Auto start	Status
✓	Running

Context

Administrative endpoint	User
X3ERP12 / X3	batch
Endpoint corresponding with mother folder used for administrative tasks	Batch
	User used for administrative tasks

X3 batch controller

- or can find in MongoDB collection “dbLocks”

```
> db.dbLocks.find()
{ "_id" : "batch", "sessionId" : "batch_X3ERP12SQLVM_N0_7304", "_expire" : ISODate("2022-02-15T11:23:07.829Z"), "lockDate" : ISODate("2022-02-15T10:51:07.678Z"), "lockUser" : "internal" }
{ "_id" : "automate", "sessionId" : "automate_X3ERP12SQLVM_N0_7304", "_expire" : ISODate("2022-02-15T11:26:40.700Z"), "lockDate" : ISODate("2022-02-15T10:51:07.678Z"), "lockUser" : "internal" }
```

Configuration

Batch Server configuration



- Administration, Administration, Endpoints, Batch Server (Syracuse layer)

X3 batch controller X3ERP12

Information
Code: X3ERP12
Batch controller code is identical to X3 solution code
Auto start: Defines if the batch co...
Status: Running

Context
X3 solution: X3ERP12
X3 solution and batch controller cannot be unlinked
Administrative endpoint: X3ERP12 / X3
Endpoint corresponding with mother folder used for administrative tasks
User: batch, Batch
User used for administrative tasks
Role: batch role
Role used for administrative tasks
Locale preference: English (United Kingdom)
Language used for administrative tasks

Configuration
Time between two searches (sec): 30
Timeout search time (sec): 30
Maximum delay to launch a query (minutes): 0
Maximum active queries: 2
Maximum number of queries launched on the runtime pool

Runtimes
X3 runtime tags: BATCH
Comma-separated tags can be used to select your preferred X...
Runtimes used by batch

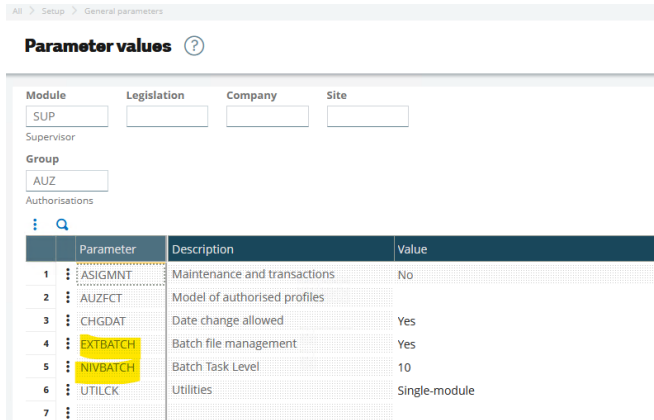
Server host	Server port	Tags	Tag exclusive	Ban timeout	Blacklisted	Auto config	Disabled
x3erpv12sylvm	50012	MAIN,WEB,BATCH	✗	5	✗	✓	✗
second	50012	MAIN,USERS,BATCH	✗	5	✗	✓	✗

Unpin

- “Maximum active queries” this runtime pool is spread across all runtime servers available to the batch server
 - Optionally use tags to control which Runtime servers are available
- “X3 server traces” shows the serveur.tra file

Batch Server configuration

- Parameters, General Parameters, Parameter Values (Classic layer)
- Two parameters directly related to Batch Server



The screenshot shows the 'Parameter values' configuration screen in Sage ERP. It includes fields for Module (SUP), Legislation, Company, Site, Supervisor, Group (AUZ), and Authorisations. Below these fields is a table with the following data:

	Parameter	Description	Value
1	ASIGMNT	Maintenance and transactions	No
2	AUZFACT	Model of authorised profiles	
3	CHGDAT	Date change allowed	Yes
4	EXTBATCH	Batch file management	Yes
5	NIVBATCH	Batch Task Level	10
6	UTILCK	Utilities	Single-module
7			

- Batch file management <https://online-help.sageerpx3.com/erp/12/staticpost/submission-of-the-requests-via-the-intermediary-of-files/>
- Batch Task Level <https://online-help.sageerpx3.com/erp/12/staticpost/batch-task-level/>
 - Users can only execute tasks at a level lower than or equal to this level

Batch Server configuration

- Parameters, Usage, Batch Server (Classic layer)

Parameters

- Common data
- Customer relation
- Projects

Usage

- Statistics
 - Statistical triggers
 - Statistical parameters
- Imports / Exports
- Data
 - Purge Parameters
 - Database Optimisation
- Printouts

Batch server

- Batch Server Parameters
- Batch server calendar
- Hourly constraints

Batch Server Parameters ?

Batch server

Server Name: X3 Use of batch files

Directory of query start files (.job): D:\sage\X3V12\folders\X3\SRV\jobRun

Template file directory: D:\sage\X3V12\folders\X3\SRV\jobTemplate

Status file directory: D:\sage\X3V12\...

Directory of in-pr...: D:\sage\X3V12\...

Directory of penc...: D:\sage\X3V12\...

Directory of quer...: D:\sage\X3V12\...

Start request dir...: D:\sage\X3V12\...

Batch server calendar

Calendar *	Description
2022	Bank holidays 2022

	Start date	End date
1	03-01-22	03-01-22
2	15-04-22	18-04-22
3	02-05-22	02-05-22
4	02-06-22	03-06-22
5	29-08-22	29-08-22
6	26-12-22	27-12-22
7		

Hourly constraints

Constraints * Description: OOH Out of hours

Work days

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Other days calendar

Calendar: 2022

Hours/Days worked

	Start time	End time
1	00:00	07:00
2	19:00	23:59
3		

Hours (worked) other days

	Start time	End time
1	00:00	23:59
2		

Task configuration

- Usage, Batch Server, Task Management

All > Usage > Batch server

Task Management

Task Code * Description

Module

Active

Task Type
 Processing
 Script

Time-out (Minutes) Allowable delay (minutes) Authorisation level Hourly constraints

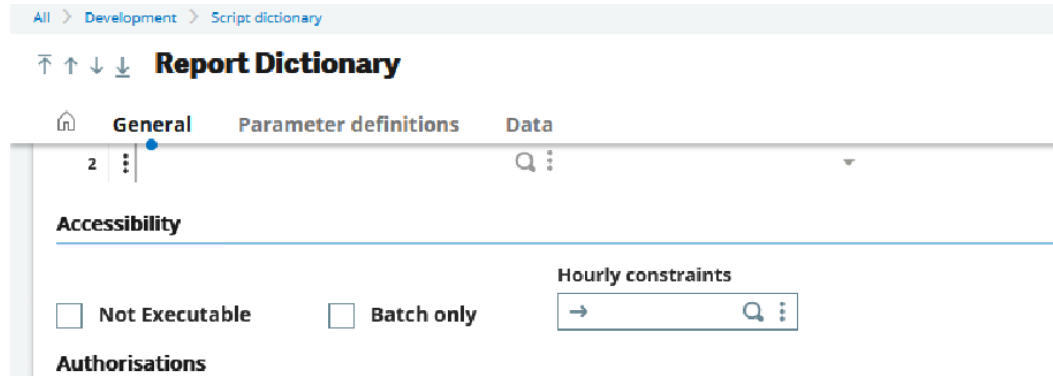
Function Script

Multi-folder Single User Message - User

- Hourly constraints only apply to directly submitted batch tasks (not Recurring Tasks)
- Use “Single user” sparingly, as it can only run if able to get exclusive use of the Batch Server, it then blocks other tasks from running whilst it’s being executed.

Reports

- Development, Script dictionary, Reports

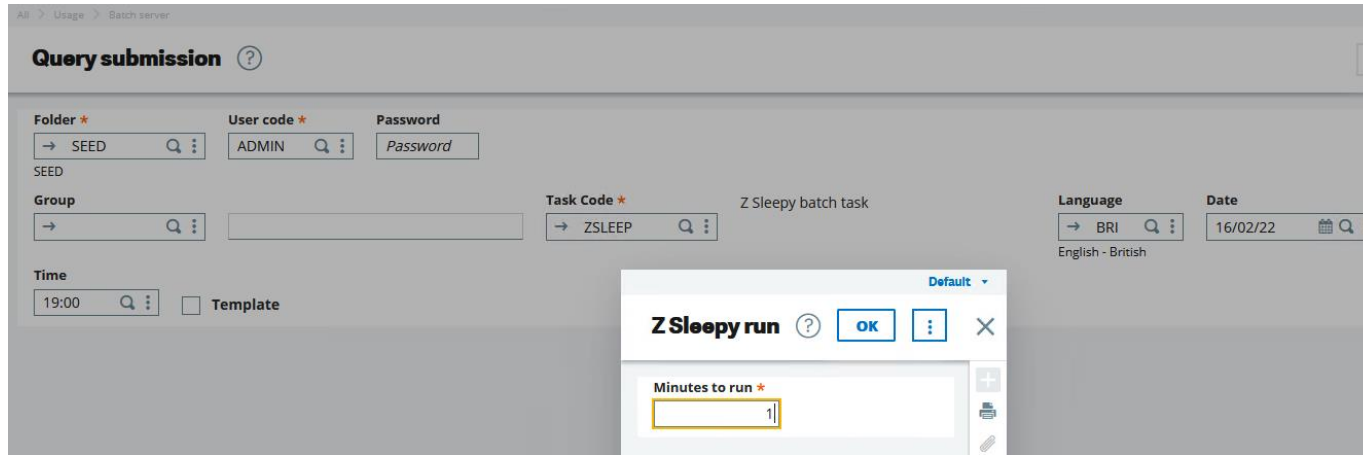


- Hourly constraints can apply to user submitted reports, as well as batch server task submission
- “Batch only” sets the report to only be runnable via the batch server

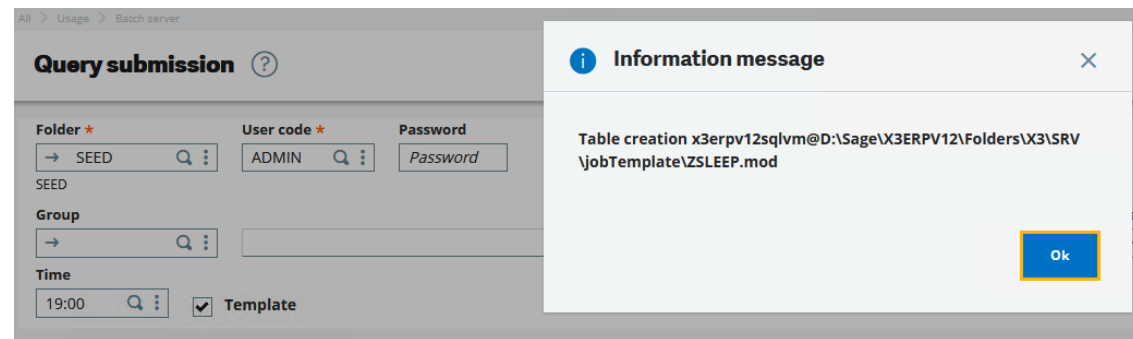
Task management

Query (task) submission

- Usage, Batch Server, Query submission



- Click validation to enter any appropriate parameters
- Check “Template” to generate a template file to disk, if using file-based submissions (Change to “.job” file extension)



Recurring tasks

- Usage, Batch Server, Recurring Task Management
 - Won't appear in the task queue as a separate entity until the first time it's run
 - “One single query” treats task as single task running continuously all day, although still only executes at the defined frequency

The screenshot shows the configuration page for a recurring task named 'ZSLEEP' (Sleepy task). The interface is organized into several sections:

- Recurring Task *:** Description: Sleepy task
- Characteristics:** Folder: SEED, User code: BATCH, Password: Password, Group: (empty), Task Code: ZSLEEP, Language: English - British
- Active:** Checked, Last execution: 15/02/22
- Frequency:** Weekly (selected), Excluded Days: (empty)
- Weekly:** All days (Monday through Sunday) are checked.
- Monthly:** Days of the month: (empty), Month end: (unchecked)
- Time range:** Start time: 19:00, End time: 23:59, Frequency (min): 5. Options: One single query (unchecked), Purge (unchecked), Proceed if error (unchecked).
- Fixed hours:** Time: (empty), Forced execution (unchecked)
- Relative date:** (empty)

At the bottom, there is a table with columns: Date Field, Base date, Increment, Time Unit, and Formulas. The first row contains a '1' in the Date Field column.

Processing the batch task queue



- When the batch server polling process wakes up, it reviews the tasks which are eligible to run and takes the oldest in the queue first. It can take multiple tasks from the queue, up to the number specified as the Maximum Queries, minus the number currently executing.
 - It will also consider things like “Allowable delay” and “Single user mode”, for example
- Then picks a process server to run on (round robin basis), then creates new classic sessions, one per new task to be executed.
 - In multiple runtime environment all these new sessions will go to the same runtime server, but the next cycle will recalculate the runtime server to be used.
- Once the batch task has completed, the classic session is closed.
- The batch server monitors for any tasks that need to be killed, for example where a “time-out” is specified for that task.

See what's going on

- Usage, Batch Server, Query Management

The screenshot shows the 'Query management' interface. At the top, there are buttons for 'Query', 'Refresh', and 'Log'. Below the buttons is a table of requests with the following columns: Number, Folder, Task Code, L..., User, Date, Time, One..., Status, End T..., End date, Task Type, Script, and Server. The table contains 12 rows of data. On the right side, there is a sidebar with a search bar and several menu items: Purge, Information, SELECTION, UTILITIES, BROWSING, HELP, and DIAGNOSIS...

Number	Folder	Task Code	L...	User	Date	Time	One ...	Status	End T...	End date	Task Type	Script	Server
1	1195 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
2	1194 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
3	1193 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
4	1192 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:44	16/02/22	Processing	BATCHCPT	X3ERP125QLVM
5	1191 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:45	16/02/22	Processing	BATCHCPT	X3ERP125QLVM
6	1190 SEED	AWRKSIG	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing		
7	1189 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:45	16/02/22	Processing	BATCHCPT	X3ERP125QLVM
8	1188 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:07	No	Finished	16:07:45	16/02/22	Processing	BATCHCPT	SECOND
9	1187 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:07	No	Finished	16:07:47	16/02/22	Processing	BATCHCPT	SECOND
10	1186 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:05	No	Finished	16:05:43	16/02/22	Processing	BATCHCPT	X3ERP125QLVM
11	1185 SEED	AWRKSIG	BRI	ADMIN	16/02/22	16:07	No	Error	16:07:45	16/02/22	Processing		SECOND
12	1184 SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:05	No	Finished	16:05:43	16/02/22	Processing	BATCHCPT	X3ERP125QLVM

- Log button shows “serveur.tra”
- Query button allows you to submit new query
- SELECTION, Selection allows you to filter the list using calculator

The screenshot shows the 'Selection criteria' dialog box. It has a title bar with a question mark icon. Below the title bar, there is a section titled 'Selection criterion' with a text input field containing the expression '[F]TACHE="ZSLEEP"'. The input field is highlighted with a blue border.

See what's going on

- Usage, Batch Server, Query Management
 - To remove a task (that has not yet started), click the line and use the “delete” button (on the right)

Query management

23 Records Page size: 25

	Number	Folder	Task Code	Language	User	Date	Time	One User	Status	End Time	End date	Task Type	Script	Server
1	1218	SEED	AWRKSIG	BRI	ADMIN	16/02/22	16:26	No	Standby		16/02/22	Processing		
2	1214	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished	16:23:45	16/02/22	Processing	BATCHCPT	SECOND
3	1213	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished	16:23:45	16/02/22	Processing	BATCHCPT	SECOND

- Previously run tasks can be relaunched, or can view the log file

Query management

Requests

	Number	Folder	Task Code	Language	User	Date	Time	One User	Status
1	1218	SEED	AWRKSIG	BRI	ADMIN	16/02/22	16:26	No	Standby
2	1214	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished
3	Popup view	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished	
4	Parameter Entry	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished	
5	Log	ZSLEEP	BRI	BATCH	16/02/22	16:26	No	Standby	
6	Relaunch query	ACCBATCH1	BRI	ADMIN	16/02/22	16:21	No	Finished	
7	Follow-up recur entry	AWRKSIG	BRI	ADMIN	16/02/22	16:23	No	Error	

See what's going on



- Usage, Batch Server, Query Management
 - Running tasks can be interrupted if required. This marks them to be killed in the next Batch Server cycle

All > Usage > Batch server

↑ ↓ Query management

Requests

⋮ 🔍

	Number	Folder	Task Code	L...	User	Date	Time	One ...	Status
1	1218	SEED	AWRKSIG	BRI	ADMIN	16/02/22	16:27	No	Error
2	1214	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished
3	1213	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished
4	1212	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:23	No	Finished
5	1211	SEED	ZSLEEP	BRI	BATCH	16/02/22	16:27	No	In progress
6	Popup view		ACCBATCH1	BRI	ADMIN	16/02/22	16:21	No	Finished
7	Parameter Entry		AWRKSIG	BRI	ADMIN	16/02/22	16:23	No	Error
8	Interruption		ACCBATCH1	BRI	ADMIN	16/02/22	16:21	No	Finished
9	Log		ACCBATCH1	BRI	ADMIN	16/02/22	16:21	No	Finished
10	Relaunch query		ACCBATCH1	BRI	ADMIN	16/02/22	16:19	No	Finished
11	Follow-up recur entry		ACCBATCH1	BRI	ADMIN	16/02/22	16:19	No	Finished

See what's going on



- Administration, Administration, Endpoints, Batch server

- Select “List of queries”

– More intuitive filtering available

Cancel sort Clear filter Page size: 50

Status	Query	Folder	Task	User	Date	Time	Start time	End time	Language	Server	Port	Group	Recurring task	Identifier
In progress	1 179	SEED	ZSLEEP	BATCH Batch user	16/02/2022	16:07	16:07:46	00:00:00	BRI English	SECOND	50 012	ZSLEEP3	6 22	
Finished	1 147	SEED	ZSLEEP	BATCH Batch user	16/02/2022	15:47	15:47:46	15:59:47	BRI English	SECOND	50 012	ZSLEEP3	6 19	
Finished	1 112	SEED	ZSLEEP	BATCH Batch user	16/02/2022	15:27	15:27:45	15:39:46	BRI English	SECOND	50 012	ZSLEEP3	6 16	
Finished	1 080	SEED	ZSLEEP	BATCH Batch user	16/02/2022	15:08	15:08:30	15:20:30	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	6 12	
Finished	1 047	SEED	ZSLEEP	BATCH Batch user	16/02/2022	14:48	14:48:32	15:00:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	6 09	
Finished	1 012	SEED	ZSLEEP	BATCH Batch user	16/02/2022	14:28	14:28:32	14:40:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	6 05	
Finished	980	SEED	ZSLEEP	BATCH Batch user	16/02/2022	14:08	14:08:31	14:20:31	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	6 02	
Finished	948	SEED	ZSLEEP	BATCH Batch user	16/02/2022	13:48	13:48:33	14:00:33	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 98	
Finished	916	SEED	ZSLEEP	BATCH Batch user	16/02/2022	13:28	13:28:32	13:40:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 94	
Finished	885	SEED	ZSLEEP	BATCH Batch user	16/02/2022	13:08	13:08:32	13:20:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 91	
Finished	854	SEED	ZSLEEP	BATCH Batch user	16/02/2022	12:48	12:48:32	13:00:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 87	
Finished	823	SEED	ZSLEEP	BATCH Batch user	16/02/2022	12:28	12:28:31	12:40:32	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 84	
Finished	801	SEED	ZSLEEP	BATCH Batch user	16/02/2022	12:08	12:08:34	12:20:34	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 81	
Aborted	739	SEED	ZSLEEP	BATCH Batch user	16/02/2022	12:04	12:04:11	12:07:43	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 81	
Finished	678	SEED	ZSLEEP	BATCH Batch user	16/02/2022	10:52	10:52:14	11:04:14	BRI English	SECOND	50 012	ZSLEEP3	5 75	
Finished	617	SEED	ZSLEEP	BATCH Batch user	16/02/2022	09:40	09:40:11	09:52:11	BRI English	X3ERP12SQLVM	50 012	ZSLEEP3	5 69	
Finished	582	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:57	07:57:13	07:59:13	BRI English	SECOND	50 012	ZSLEEP2	5 60	
Finished	576	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:50	07:50:13	07:52:14	BRI English	SECOND	50 012	ZSLEEP2	5 59	
Finished	570	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:43	07:43:12	07:45:13	BRI English	SECOND	50 012	ZSLEEP2	5 58	
Finished	564	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:36	07:36:12	07:38:12	BRI English	SECOND	50 012	ZSLEEP2	5 58	
Finished	562	SEED	ZSLEEP	BATCH Batch user	16/02/2022	08:28	08:28:12	08:40:13	BRI English	SECOND	50 012	ZSLEEP3	5 63	
Finished	560	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:29	07:29:12	07:31:12	BRI English	SECOND	50 012	ZSLEEP2	5 57	
Finished	554	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:13	07:13:13	07:15:13	BRI English	SECOND	50 012	ZSLEEP2	5 57	
Finished	548	SEED	ZSLEEP	BATCH Batch user	16/02/2022	07:06	07:06:12	07:08:12	BRI English	SECOND	50 012	ZSLEEP2	5 56	

Purging

Purging



There is a need to purge batch server job records to ensure the batch server tables and log files do not grow too big and start causing issues with performance. With tasks such as Accounting Tasks and Workflow Signatures which may be running every minute or so, the number of records in the batch tables can grow very quickly.

- NOTE :for all purging methods available, although all task log files will be removed as well as the records from the database tables, you still need to manually archive the “**serveur.tra**” file, located in directory “..\Folders\X3\SRV\TRA”

Purging



Purge historic batch server records

- Connect to X3 folder as batch server tables are in the X3 schema
 - Parameters, Usage, Data, Purge Parameters

All > Setup > Usage > Data

↑ ↑ ↓ ↓ **Purge Parameters**

94 Records Page size: 25 1 2 3 4

	Code	Description	Archive	Days	Frequency	Date	Purge	Days	Frequency	Date
1	ABATCH	Batch requests	No				Yes	15		20/06/12
2	AIMPCAC	Import/export storage	No				Yes	30	10	07/17/09

Purging

Purge historic batch server records

- Configure a recurring task to run as required:
 - Usage, Batch Server, Recurring tasks

All > Usage > Batch server

Recurring tasks

ZPGBATCH Purge Batch Server logs

Characteristics

Folder * X3 User code * ADMIN Password Group Task Code * AHISTO Language English - British

Reference folder Last execution

Active

Frequency

Frequency Weekly Monthly Excluded Days

Weekly

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Monthly

Days of the month

Time range

Start time End time Frequency (min) One single query Purge Proceed if error

Fixed hours

Time Forced execution

Archive/Purge ?

Code ABATCH

Batch requests

Archive Purge

All companies Company *

Detailed log file Simulation

Purging

- Recurring tasks allow you to specify that batch server records are automatically purged on success of the task.

All > Usage > Batch server

Recurring tasks

Recurring Task *
WACCC9E553 SEED ACCENTRY01

Description

Characteristics

Folder * User code * Password Group Task Code * Language

→ SEED ADMIN Password → → ACCBATCH1 → BRI

SEED Accounting Document Valid... English - British

Active Last execution

16/02/22

Frequency

Frequency Excluded Days

Weekly Monthly

Weekly

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Monthly

Days of the month

Time range

Start time End time Frequency (min)

05:00 22:00 1 One single query Purge Proceed if error

Fixed hours

Purging



- “Purge” option available from the Query management screen

The screenshot displays the 'Query management' interface. At the top, there are navigation links for 'All', 'Usage', and 'Batch server', along with a 'Default' dropdown menu. Below this is a toolbar with 'Query', 'Refresh', and 'Log' buttons. The main area is titled 'Requests' and contains a table with 23 records. The table has columns for Number, Folder, Task Code, L..., User, Date, Time, One..., Status, End TI..., End date, Task Type, Script, and Server. The first row is highlighted, showing details for request 1195. To the right of the table is a sidebar with a 'Purge' button and a menu with options like 'Information', 'SELECTION', 'UTILITIES', 'BROWSING', 'HELP', and 'DIAGNOSIS...'. Below the main interface, a 'Query purge' dialog box is open, featuring an 'OK' button and a date selection field set to '15/02/22'.

	Number	Folder	Task Code	L...	User	Date	Time	One ...	Status	End TI...	End date	Task Type	Script	Server
1	1195	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
2	1194	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
3	1193	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing	BATCHCPT	
4	1192	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:44	16/02/22	Processing	BATCHCPT	X3ERP12SQLVM
5	1191	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:45	16/02/22	Processing	BATCHCPT	X3ERP12SQLVM
6	1190	SEED	AWRSIG	BRI	ADMIN	16/02/22	16:10	No	Standby		16/02/22	Processing		
7	1189	SEED	ACCBATCH1	BRI	ADMIN	16/02/22	16:09	No	Finished	16:09:45	16/02/22	Processing	BATCHCPT	X3ERP12SQLVM

Troubleshooting

Batch server logs



- The batch server logs are located in “.. \Folders\X3\SRV\TRA” directory
 - “serveur.tra” is the overall log file
 - “RQTxxxxxx.tra” individual batch task log file

```
serveur.tra x
2511 =1000 00001258 17-02-22 10:25:37 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2512 >0001 00001258 17-02-22 10:25:37 (Application server time) FINREQ - Ended query management: Request terminated with war
2513 =1000 00001260 17-02-22 10:27:39 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2514 =1000 00001261 17-02-22 10:27:39 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2515 =0000 00001260 17-02-22 10:27:39 (Application server time) FINREQ - Ended query management: Request terminated (00000)
2516 =0000 00001261 17-02-22 10:27:39 (Application server time) FINREQ - Ended query management: Request terminated (00000)
2517 =1000 00001262 17-02-22 10:27:40 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2518 =0000 00001262 17-02-22 10:27:40 (Application server time) FINREQ - Ended query management: Request terminated (00000)
2519 =1000 00001263 17-02-22 10:29:38 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2520 =1000 00001259 17-02-22 10:29:38 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2521 =0000 00001263 17-02-22 10:29:38 (Application server time) FINREQ - Ended query management: Request terminated (00000)
2522 >0001 00001259 17-02-22 10:29:38 (Application server time) FINREQ - Ended query management: Request terminated with war
2523 =1000 00001264 17-02-22 10:29:38 (Application server time) EXEC_RQT - Query execution management: Request activation (S
2524 =0000 00001264 17-02-22 10:29:38 (Application server time) FINREQ - Ended query management: Request terminated (00000)
2525 =6000 00000000 17-02-22 10:30:01 (Application server time) Shut-down order transmitted to the server X3ERPVL2SQLVM (500
2526 <0000 00001256 17-02-22 10:30:01 (Application server time) ABATCH_STOP_SERVREQ - Query Stop management: Modification of
2527 <0000 00001257 17-02-22 10:30:01 (Application server time) ABATCH_STOP_SERVREQ - Query Stop management: Modification of
2528 <0010 00001256 17-02-22 10:30:01 (Application server time) ETAT_RQT - Sessions to be killed management: Closing session
```

```
RQT00001255.tra x
1 #<AdxVL>@(#)%I$ Batch request log FUNIDUCLO
2 =1000 17-02-22 10:21:40 (Application server time) Request activation (51000)
3
4 +-----+
5 !Production Site      : FR011
6 !Work Order Close    : Complete
7 +-Starting - Ending Range-----+
8 !WO number           :
9 !Product              :
10 !Date                 : / / / /
11 !Project              :
12 !Order                :
13 +-Filters-----+
14 !Completed WO only   : No
15 +-Block-----+
16 !If at least one oper is pending : No
17 !If at least one rel. prod not produced : No
18 !If at least one material not consumed : No
19 !If the completed qty < planned qty : No
20 +-Automatic Functioning-----+
21 !Track automatic materials : No
22 !Automatic tracking of operations : No
23 !Production Cost Price : No
24 +-----+
25
26 Mass closure/completions - Site FR011
27 WOFR0110002 : Work Order Closed
28 WOFR0110016 : Work Order Closed
29 2 Mass change(s) done
30 =0000 17-02-22 10:21:42 (Application server time) Request terminated (00000)
31
```

- Also check “.. \Folders\X3\SRV\tmp” directory for any temporary files
- There may be additional task specific output files in the child folder TRA directory, for example in “.. \Folders\SEED\TRA” for the Accounting Entry process

Syracuse logging



Change Syracuse logging to give more information

- Navigate to Administration, Administration, Settings, Global Settings

In the logs section, set the following parameters to ensure the log files can grow big enough for the logging needed, and the log files do not get removed too quickly. These suggested settings assume you have the default values currently set:

- Maximum file size (MB) set to "200" (10 default)
- Maximum number of days "15" (5 default)

In the "Server Logs" section, set the following sections to "Info" or "Debug" log level

--- batch

Add any other settings related to the issue you are experiencing, for example the classic sessions logging may often also be useful:

- session
- x3Comm.client
- x3Comm.dispatcher
- x3Comm.print
- x3Comm.runtime
- x3Comm.sadfsq

NOTE: changes take effect immediately when you save. Ensure you reset back to the original values (Generally "Error") once the troubleshooting process is complete.

Engine tracing



Available from 2021 R3

- Navigate to Administration, Usage, Logs, X3 session logs
 - “Batch query” type allows you to enable tracing for specific batch jobs. Enter just the task code, and/or can enter a specific task number

All > Administration > Usage > Logs

X3 session log

File Target Level selection Attached X3 sessions

File

Label	Description	Enabled	Max log time (min.)	Expired at
reprot	report	✓	720	2022-03-16T22:23:13.585Z

Target

Type	Batch server	X3 user login	Task code
Batch query	X3ERP12 X3 batch controller	:	ZSLEEP

Task number: 0

Level selection

Levels

LOG_MEMORY Memory usage : LOG_X3SM Session management : LOG_DEBUG Standard debug log : LOG_TRT1 All 4GL instructions :

Level digest: 10754

Attached X3 sessions

Type	X3 session	X3 PID	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Function	Web Service	SOAP pool	Creation date	Last access	Expiry date	WS count
Batch query	18449	4540	Session created	x3erpv12sqlvm	50012	batch	en-GB	X3ERP12	SEED				2022-03-16T10:25:47.496Z	2022-03-16T10:25:47.496Z	2022-03-16T10:45:47.496Z	
Batch query	18451	9084	Session created	x3erpv12sqlvm	50012	batch	en-GB	X3ERP12	SEED				2022-03-16T10:25:47.497Z	2022-03-16T10:25:47.497Z	2022-03-16T10:45:47.497Z	

Sage Support Investigation Scripts



- “mzBatchJobs.sql” located in “.. \InvestigationScripts\SQL” may be useful

Latest patches for improved performance and stability



- For sites with large numbers of batch jobs executing every minute (50+), there is significant stability fix in Syracuse 12.15 (2022 R2) which would be worth taking.

Appendices

Appendix A: Additional reading



Online Help <https://online-help.sageerpx3.com/erp/12/>

- <https://online-help.sageerpx3.com/erp/12/staticpost/sage-x3-batch-controller/>
- [Explanation of batch server operation](#) (Out of date, but still of some use)
- [Submission of the requests via the intermediary of files](#)

Appendix A: Additional reading



Knowledgebase articles

https://support.na.sage.com/selfservice/microsites/msbrowse.do?UMBrowseSelection=SG_SAGEX3_1

- Batch Server Tasks fail with ECONNRESET errors
 - Windows Heap size
<https://support.na.sage.com/selfservice/viewdocument.do?externalId=109315>
 - Windows TCP settings
<https://support.na.sage.com/selfservice/viewdocument.do?externalId=105883>
- Is there a way to schedule the batch server start and stop
 - <https://support.na.sage.com/selfservice/viewdocument.do?externalId=95511>

Appendix A: Additional reading



Blog articles <https://www.sagecity.com/gb/sage-x3-uk/b/sage-x3-uk-support-insights>

- Batch server: allowable delay (Planned)
- Batch server: relative dates (Planned)
- Batch server: user permissions (Planned)
- Batch server: group of tasks (Planned)

Thank you

The Sage logo, consisting of the word "sage" in a lowercase, rounded, sans-serif font. The letters are a vibrant green color.