

Syracuse logging

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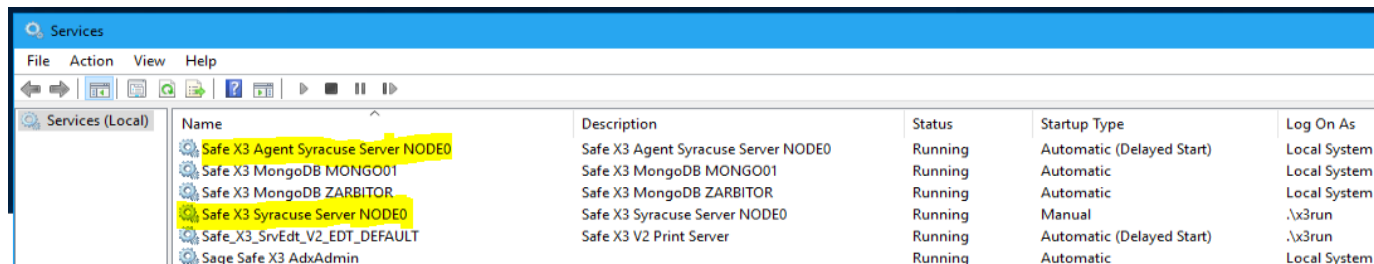
- Overview
- How to change the logging levels
- Review example Syracuse log files
- Final thoughts

Overview

Overview

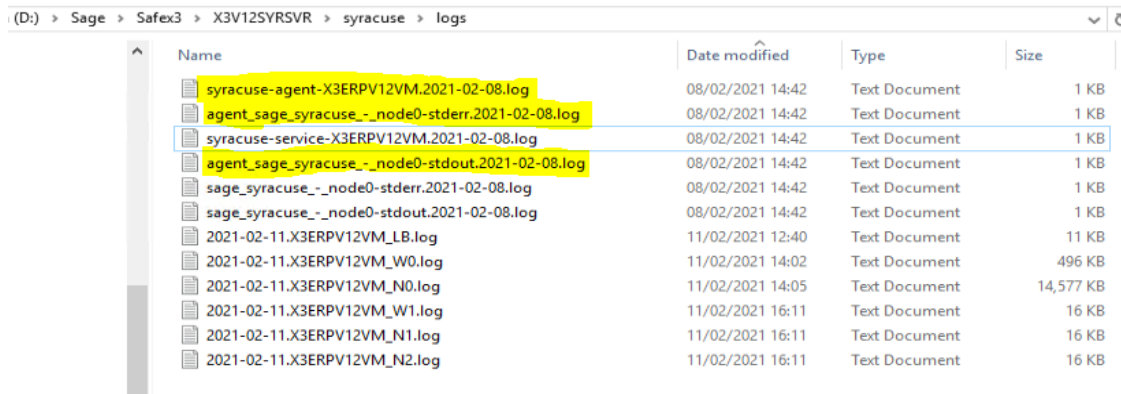
There are two Syracuse services: an Agent and the main Syracuse NODE service, which have their own sets of log files

- Agent service set to startup automatically by default and this service then starts, manages and monitors the Syracuse NODE service



Name	Description	Status	Startup Type	Log On As
Safe X3 Agent Syracuse Server NODE0	Safe X3 Agent Syracuse Server NODE0	Running	Automatic (Delayed Start)	Local System
Safe X3 MongoDB MONGO01	Safe X3 MongoDB MONGO01	Running	Automatic	Local System
Safe X3 MongoDB ZARBITOR	Safe X3 MongoDB ZARBITOR	Running	Automatic	Local System
Safe X3 Syracuse Server NODE0	Safe X3 Syracuse Server NODE0	Running	Manual	.\x3run
Safe_X3_SrvEdt_V2_EDT_DEFAULT	Safe X3 V2 Print Server	Running	Automatic (Delayed Start)	.\x3run
Sage Safe X3 AdxAdmin		Running	Automatic	Local System

- There are three logs related to the Agent service. Notice the naming convention, with each filename including the word “Agent” and the date related to when the service started



Name	Date modified	Type	Size
syracuse-agent-X3ERP12VM.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
agent_sage_syracuse_-_node0-stderr.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
syracuse-service-X3ERP12VM.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
agent_sage_syracuse_-_node0-stdout.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
sage_syracuse_-_node0-stderr.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
sage_syracuse_-_node0-stdout.2021-02-08.log	08/02/2021 14:42	Text Document	1 KB
2021-02-11.X3ERP12VM_LB.log	11/02/2021 12:40	Text Document	11 KB
2021-02-11.X3ERP12VM_W0.log	11/02/2021 14:02	Text Document	496 KB
2021-02-11.X3ERP12VM_N0.log	11/02/2021 14:05	Text Document	14,577 KB
2021-02-11.X3ERP12VM_W1.log	11/02/2021 16:11	Text Document	16 KB
2021-02-11.X3ERP12VM_N1.log	11/02/2021 16:11	Text Document	16 KB
2021-02-11.X3ERP12VM_N2.log	11/02/2021 16:11	Text Document	16 KB

Overview



Syracuse NODE service log files

- The number of child processes is defined in Administration> Administration> Servers> Hosts
- For each “Number of child processes” there is a correlating “N” node.exe process
- For each “Number of Web Service child processes” there is a correlating “W” node.exe process
- The “LB” log file relates to the “nanny” process which manages and monitors these child processes

X3ERP12VM

Information Configuration

Information

B9822F418EBA58970456291BFE32E5010B13165A *

X3ERP12VM ☐ Deactivated ☒ Started Status OK

Configuration

Connections *

Port	Active	SSL	Client authentication	Se
8124	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
444	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	x3

Number of child processes * 3

Number of Web service child processes 2

Code version 12.9.1.1-0

PID 7532

Respawn limit 10

Return request timeout 500

Missing CA certificates

Untrusted hosts

Overview



Syracuse NODE service log files

- There are three files which relate to the overall Syracuse NODE service/process itself. The naming convention is similar to the Agent. Remember the date in the filename is the date the service started

Name	Date modified
syracuse-agent-X3ERP12VM.2021-02-08.log	08/02/2021 14:42
agent_sage_syracuse_-_node0-stderr.2021-02-08.log	08/02/2021 14:42
syracuse-service-X3ERP12VM.2021-02-08.log	08/02/2021 14:42
agent_sage_syracuse_-_node0-stdout.2021-02-08.log	08/02/2021 14:42
sage_syracuse_-_node0-stderr.2021-02-08.log	11/02/2021 16:48
sage_syracuse_-_node0-stdout.2021-02-08.log	11/02/2021 16:48

- The other files relate to the individual node.exe child processes. The naming convention is Year-Month-Day. These logs will be automatically rotated daily

2021-02-11.X3ERP12VM_LB.log
2021-02-11.X3ERP12VM_W0.log
2021-02-11.X3ERP12VM_N0.log
2021-02-11.X3ERP12VM_W1.log
2021-02-11.X3ERP12VM_N1.log
2021-02-11.X3ERP12VM_N2.log

Name	PID	Status	Username	CPU	Memory (p...	Command line
node.exe	7760	Running	x3run	00	174,824 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . N2 500 ""
node.exe	2952	Running	x3run	00	173,536 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . N1 500 ""
node.exe	7124	Running	x3run	00	119,944 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . W1 500 ""
node.exe	2572	Running	SYSTEM	00	12,236 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\agent\node.exe syragent.js
node.exe	7532	Running	x3run	00	68,400 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe nanny.js
node.exe	5960	Running	x3run	00	215,448 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . N0 500 ""
node.exe	7648	Running	x3run	00	158,012 K	D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . W0 500 ""
Notepad++ .exe	968	Running	v3admin	00	7,000 K	"C:\Program Files (x86)\Notepad++\notepad++.exe" "D:\Sage\Safex3\X3V12SYRSVR\syracuse\bin\win32_x64\node.exe . N2 500 ""

How to change the logging levels

Logging levels



Navigate to Administration> Administration> Settings> Global Settings

- Don't get too carried away, but may be sensible to change some settings from default, for example:
 - Logs section
 - Maximum file size (MB) set to "200" (10 default)
 - Maximum number of files per day "5" (5 default)
 - Maximum number of days "14" (5 default)
 - Enable web client logs (Checked)
 - Web client logs level = Error
- Only the child node log files (LB, N and W) are rotated, per the rules above. The other log files only rotate when the Syracuse service is restarted

Logging levels



Navigate to Administration> Administration> Settings> Global Settings

- In the "Server Logs" grid, consider setting the following to "Info" log level as standard
 - http--> in
 - http--> out

Logs

Maximum file size (MB)

Maximum number of files per day

Maximum number of days

200

5

15

☒ Enable web client logs

Web client logs level

Error

Server logs

Expand all

Code	Description	Level
http		
in		Debug
out		Debug
imports	Enterprise administration data imports	Error

- Changes take effect as soon as you save the page

Logging levels – additional notes



- The log messages controlled here are written to the Syracuse log files
- All logging messages, and what is written at each log level, is decided by the developers
- Due to the way Windows reports date/time and sizes on open files, it may not always be obvious what files have been recently updated
 - May be better to rely more on the filename date, rather than the date/timestamp on the file
- When Sage Support ask for Syracuse logs for a particular day, we would normally expect to receive:
 - All of the LB, N and W logs for the date concerned
 - The “sage_syracuse_-_node0-stderr.log” and “sage_syracuse_-_node0-stdout.log” covering the date concerned
 - The “Agent” log files are normally only useful if there is a problem with the service starting

Logging levels – what else to change?



- Other changes will be driven by what you are interested in seeing. Most headings are self explanatory:
 - Issues with batch server (or just curious what it's doing)
 - Batch → Batch server controller
 - MTD issue
 - sage-rr
 - Multi-Runtime server selection
 - x3Comm → loadBalancer

DEMO



Launch Global Settings and show the server logs grid

Server logs

Collapse all

Code	Description	Level
genericScheduler		
publish		Info
submit		Info
help	Online help	Error
hrm	Sage X3 People portal	
loadBalancer	Load balancer	Error
proxy	Proxy calls	Error
unittest	Sage X3 People unit test	Error
http		
in		Info
out		Info
imports	Syracuse administration data imports	Error
ldap		
import		Info
license		Error
loadBalancer	Load balancer	
http	Http requests	Info
ipc	IPC	Info
main	Main	Info
mock	Mock	Info
session	Session	Info

Review example Syracuse log files

DEMO



Review sample set of log files (V12 Patch 24 with multiple Runtimes)

- Agent logs
- NODE0 service and stderr/stdout
- Child process logs
 - LB, N and W

DEMO



Log file format for child processes

- 7 columns separated by pipe "|"
 1. Date/time (GMT timezone)
 2. SessionID (Syracuse "sid")
 3. Not used (always blank)
 4. Request sequence number (per process)
 5. Module
 6. Log level
 7. Message

Demonstration setup steps

- User USR01 logged in with incorrect password 09:06 (Check file N2)
- TOMMYZ wrong user 09:06 (Check files STDERR and N0)
- TOMMY user timeout from Purchase Orders (GESPOH) 09:06 login (File N0)
 - Note there are Multiple Classic runtimes available on this instance
- SOAP test 09:09 – 09:14 (2 timeout errors 09:09:41 from 1321 requests)
- N2 killed 09:10 and 09:47 (File LB and N2)

Final thoughts

Final thoughts



In normal running, have a good balance of useful logging, but not so much that it generates huge files all the time

- Turn on DEBUG or SILLY level logging only when needed, and turn them off when finished
- Consider setting “Enable web client logs”, “http.in” and “memory” to “Info” as standard for all systems

Review and change the log rotation policy to ensure it suits your requirements

- Keeping logs for default 5 days is probably too short a time period

Review the log files periodically to see if there is anything “odd” looking

SUMMARY



- Overview
- How to change the logging levels
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Thank you

