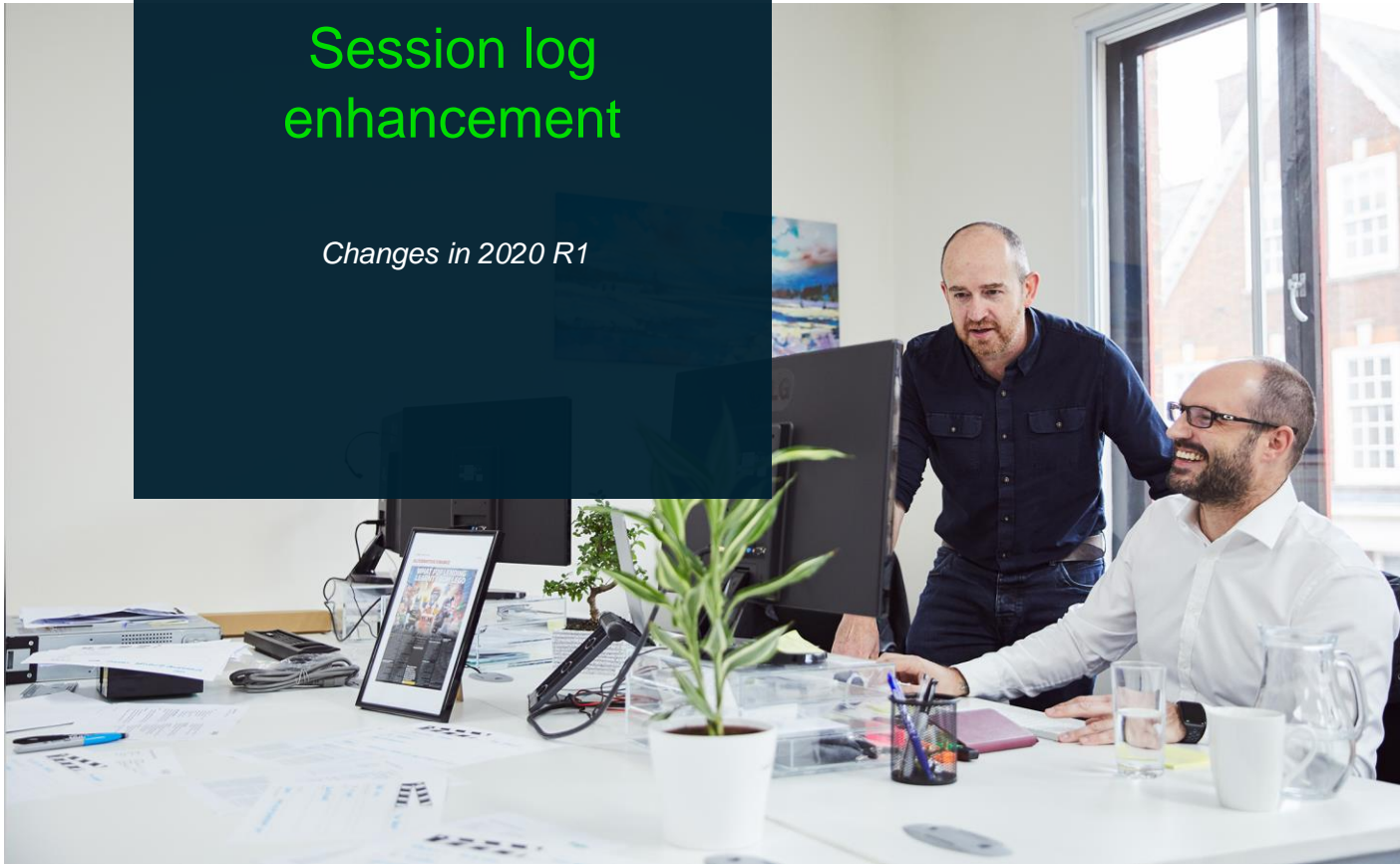


# Sage X3 Session log enhancement

*Changes in 2020 R1*



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## Introduction

The connection to X3 is done through different types of sessions. All these sessions connect through the Syracuse server, and opens various processes to display data for interactive pages or get data in service mode:

- A Syracuse session is the session opened on the node.js web server. This type of session connects on an administration endpoint; Syracuse uses mongoDB database and can manage administration pages. Such sessions can run interactively or in background (to control batch tasks or web services pools).
- An X3 session corresponds to an instance of a adonix.exe process. This process executes 4GL code and connects on the database server. An X3 session is always linked to a Syracuse session, but a Syracuse session can be connected to several X3 sessions.

The X3 sessions can have several types, depending the service they provide. The most important ones are the following:

- A web page X3 session is created when a user first connects on an endpoint. It delivers data to the portal in a stateless way.
- A classic page session is created when an X3 page developed with classic technology is used. This includes all the functions not located in the Administration menu and not linked to a class and a representation.
- A batch session is created for every batch task in execution.
- A web service session is created for every pool entry to manage web service execution.

Other sessions exist (when the engine is launched from Eclipse, from the console for example), but the most important are listed above.

Before 2021 R1, we had a function that allowed to list the Syracuse sessions, and a function that allowed to list the X3 sessions. But the link between both was difficult to follow because we had two different pages.

The release 2021 R1 brings a new and better presentation of the sessions.

## Global nested view of Syracuse / X3 sessions

The new page displays in a list all the Syracuse sessions (**Standard** being interactive sessions, and **Batch** being batch controlling sessions). From a line, you can directly unfold the line to get the detailed list of the X3 sessions associated to the Syracuse session. You know at a glance how the sessions are linked:

- The second standard Syracuse session is associated to a first **Web page** X3 session (that populates the portal), and 2 **classic pages** opened in two different browser tabs (one associated to the function called AREQUETE, the second one associated to the function GESATB)
- The batch controlling Syracuse session is associated to 2 **batch X3 sessions**.

The screenshot displays the 'Web client sessions' interface. At the top, there are navigation tabs for 'X3 sessions' and 'Web client'. Below this, a table lists sessions. Two sessions are expanded to show their associated X3 sessions.

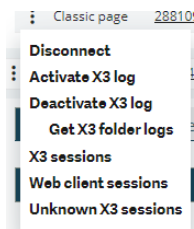
Type	X3 Session	X3 Pid	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Function	Soap Pool	Creation date	Last access	Expiration date	Ws Count
Web page	286967	13	Session created	x3_runtime	1801	admin	en-US	REPOSX3	REPOSX3			2021-01-18T07:42:00.000Z	2021-01-18T07:42:00.000Z	2021-01-18T13:52:00.907Z	
Classic page	287346	2966	Used	x3_runtime	1801	admin	en-US	REPOSX3	REPOSX3	AREQUETE		2021-01-18T09:58:57.000Z	2021-01-18T17:07:30.000Z	2021-01-18T10:19:03.899Z	
Classic page	288109	11325	Used	x3_runtime	1801	admin	en-US	REPOSX3	REPOSX3	GESATB		2021-01-18T17:06:39.000Z	2021-01-18T17:06:50.000Z	2021-01-18T23:16:40.546Z	
Batch	286987	16	Session created	x3_runtime	1801	admin	en-US	REPOSX3	REPOSX3			2021-01-18T07:43:02.000Z	2021-01-18T07:43:02.000Z	2021-01-18T13:53:02.507Z	
Batch	288091	4750	Session created	x3_runtime	1801	admin	en-US	REPOSX3	REPOSX3			2021-01-18T16:59:09.000Z	2021-01-18T16:59:09.000Z	2021-01-18T23:09:09.023Z	

This page is automatically refreshed every 10 seconds (before, it was only refreshed when refreshing the browser page) so you can really have a real time view of the session that run.

On every X3 session, we can also see the **creation date time, the last access date time and the expiration date time** in GMT format. Hovering over such a **date displays it in the time zone of your browser.**

Type	X3 Session	X3 Pid	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Function	Soap Pool	Creation date	Last access	Expiration date	Ns
Web page	<a href="#">286967</a>	13	Session created	x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3			2021-01-18T07:42:00.000Z	2021-01-18T07:42:00.000Z	2021-01-18T15:32:00.907Z	
Classic page	<a href="#">287346</a>	2966	Used	x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3	AREQUETE		2021-01-18T09:58:57.000Z	2021-01-18T17:07:30.000Z	<a href="#">2021-01-18T10:19:03.899Z</a>	
Classic page	<a href="#">288109</a>	11325	Used	x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3	GESATB		2021-01-18T17:06:39.000Z	2021-01-18T17:06:50.000Z	<a href="#">Monday, January 18, 2021 11:19:03 AM</a>	

This allows you to identify classic pages functions that remains opened until expiration date time even if no function is opened (there is an optimization to keep these sessions as reusable for other classic pages).by clicking on the three vertical dots icons:



You can notably manage different actions (all of them might not be available depending on the type of session). The most important are the following ones:

- close a session
- access to logs when they are relevant
- jump from one view to the other
- display *Unknown X3 sessions* (see below).

## Global view of X3 sessions

The global view of all the X3 sessions can also be displayed through the *X3 sessions* link (available also globally on the right action panel.:

**X3 sessions** Actions

32 Results Display: 20

Type	X3 Session	X3 Pid	Status	Session id	Soap Pool	User login	X3 host	X3 port	X3 user login	X3 locale code	Soluti...	Folder	Function	Host	Process	Pid	Endpoint	Creation date
Batch	<a href="#">272882</a>	309	Session created	<a href="#">7d242b018807</a>			x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3		<a href="#">ba314f37b763</a>	12		<a href="#">REPO3X3_REPO3X3</a>	2020-11-12T17:25:37.00
Web page	<a href="#">272922</a>	350	Session created	<a href="#">a0fc635437a6</a>	DOCKER		x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3		<a href="#">ba314f37b763</a>	12		<a href="#">LOCALDEV</a>	2020-11-12T17:26:23.00
Batch	<a href="#">273313</a>	12	Session created	<a href="#">4c8a7d3fca79</a>			x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3		<a href="#">ba314f37b763</a>	12		<a href="#">REPO3X3_REPO3X3</a>	2020-11-13T06:51:12.00
Batch	<a href="#">273497</a>	12	Session created	<a href="#">ac2f333b5703</a>			x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3		<a href="#">ba314f37b763</a>	12		<a href="#">REPO3X3_REPO3X3</a>	2020-11-13T07:11:02.00
Batch	<a href="#">275541</a>	12	Session created	<a href="#">6a9212a70e1d</a>			x3_runtime	1801	admin	en-US	REPO3X3	REPO3X3		<a href="#">7de8425cbb3f</a>	14		<a href="#">REPO3X3_REPO3X3</a>	2020-11-20T11:00:05.00

## Unknown X3 sessions

It might rarely happen that an X3 session remains running without having a Syracuse session attached to it. This happens in some very particular cases (VT terminals for instance) and can also happen if your session is in an endless loop (usually linked to a bad written function). These type of X3 sessions are displayed by using the *Unknown X3 session* present on every pop-up link in the different pages, and on the right panel:

In the example below, there is no unknown session present on the server

The screenshot shows a web application interface. On the left, there is a sidebar menu with an 'Actions' dropdown containing options like 'Activate X3 log', 'Deactivate X3 log', 'Help', 'Web client sessions', 'Unknown X3 sessions', and 'Pin'. The main content area has a header with the 'sage' logo and 'X3' text. Below the header, a message states 'No unknown session found'. A table titled 'Unknown X3 sessions' is displayed with the following columns: Session ID, Client, Type, Web client, Login, Folder, Service, Module, Function, System login, Date, UTC time, Date + UTC time, and Type. The table is currently empty, showing 'No data to display'.

Session ID	Client	Type	Web client	Login	Folder	Service	Module	Function	System login	Date	UTC time	Date + UTC time	Type
No data to display													

Even if this doesn't happen frequently, having this additional feature allows to identify sessions that might uselessly consume CPU. The page allows to kill these sessions.

## Web services session views

The same hierarchized view can also be directly displayed in real time for the sessions associated the web services. In this page, additional information has been added to allow to control how the web services are running:

- the number of web services waiting in queue for execution, and the total calls executed since the pool started are displayed.
- The number of web service calls executed by every X3 session are also displayed.

### Soap pool configuration: TESTCLOUD

Information X3 connection Channels

guest  
Guest

**Channels**

Maximum size: 4      Initialization size: 2      Unused timeout (mn): 2      Life timeout (mn): 720

State

Host	Port	Process	Pid	Status	Endpoint	User login	Locale	Last action	Action By	Ws Queue	Ws Count
FRPQ401641	8124	W0	19928	Started	X3INDCLOUD_TESTCLOUD	guest	en-US	Manual start	guest	11	224

X3 Session	X3 Pid	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Creation date	Last access	Expiration date	Ws Count
2718017	3460	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:43 PM	10/1/2020 2:45 PM	10/2/2020 2:43 AM	59
2718018	3482	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:43 PM	10/1/2020 2:45 PM	10/2/2020 2:43 AM	59
2718027	3783	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:45 PM	10/1/2020 2:45 PM	10/2/2020 2:45 AM	54
2718028	3785	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:45 PM	10/1/2020 2:45 PM	10/2/2020 2:45 AM	52

X3 Session	X3 Pid	Status	X3 host	X3 port	X3 user login	X3 locale code	Solution	Folder	Creation date	Last access	Expiration date	Ws Count
2718019	3512	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:44 PM	10/1/2020 2:45 PM	10/2/2020 2:44 AM	38
2718020	3535	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:44 PM	10/1/2020 2:45 PM	10/2/2020 2:44 AM	38
2718029	3787	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:45 PM	10/1/2020 2:45 PM	10/2/2020 2:45 AM	31
2718030	3789	Used	aws-x3-indcloud.sagefr.adinternal.com	20100	admin	en-US	X3INDCLOUD	TESTCLOUD	10/1/2020 2:45 PM	10/1/2020 2:45 PM	10/2/2020 2:45 AM	31

FRPQ401641 8124 W1 17156 Started X3INDCLOUD\_TESTCLOUD guest en-US Manual start guest 11 138

Actions

Edit  
Start/Update  
Stop  
Delete  
List of soap pools  
Help  
Excel report  
Soap pools state  
Soap pool events log

## Conclusion

The new features available in Sage X3 from the 2021 R1 release will streamline and simplify the follow-up of sessions especially on servers that might manage several thousands of sessions:

- It identifies clearly the links between the sessions
- It gives a global overview of all the types of sessions
- It gives a better view on the reusable sessions
- It displays statistics about web service execution

We will continue to improve the troubleshooting tools in the future releases to simplify the support and simplify the management of the performance on customers who continue to grow and scale up.