

### **SERVUS Node**

Ingest and Playout Server – Installation and User Manual

## Where to deploy

SERVUS – (latin "Slave") is a software-only videoserver. It can be installed on dedicated servers, virtual machines or in the cloud. It supports a very wide range of IO devices that obviously require an installation on physical servers. SERVUS runs as a service on every Microsoft Windows 7, 8.1, 10, 2008, 2012 and 2016 operating system. It can be operated via its built in webGUI or RESTful API.

# Legal information

This software makes use of ffmpeg. The libraries that are dynamically linked by this dll (RPI Plugin) are licensed within the GPLv2 License. Within this license, it is explicitly allowed to "dynamically link" to such libraries from proprietary software. As we do not make use of any code that comes with ffmpeg or any of its libraries within our dll, it does not underly the GPLv2 or any other open-source License. Users of this RPI plugin are allowed to reverse engineer or debug all deliverables of ffmpeg whilst our plugin makes use of them. Also we will not spare with answers on questions about what individual methods we make use of, if this is of interest for you.



### Installation

#### Please follow this steps on each individual node:

- Please download the latest version of SERVUS Node from the location we've provided to you.
- Please start the installer with a double click.
- The installation wizard starts.

As first you are asked for what options to be installed. Please do not make any change.

🎲 x-dream-media Servus No	de Setup			
Choose Components Choose which features of x-dream-media Servus Node you want to install.				
Check the components you wa install. Click Next to continue.	nt to install and uncheck the com	ponents you don't want to		
Select components to install:	Mandatory Files	Description Position your mouse over a component to see its description,		
Space required: 312,4MB				
Nullsoft Install System v3,01 ——	< <u>B</u> ack	Next > Cancel		

• Within the next installer dialogue you can select the location the software to be installed to.

🧊 x-dream-media Servus Node Setup	_ 🗆 🗙
<b>Choose Install Location</b> Choose the folder in which to install x-dream-media Servus Node.	
Setup will install x-dream-media Servus Node in the following folder. To install in a diffe folder, click Browse and select another folder. Click Install to start the installation.	rent
Destination Folder           C:\Program Files\x-dream-media\x-dream-media Servus Node         Browse	
Space required: 312.4MB Space available: 8.6GB	
Nullsoft Install System v3.01	ancel



• After clicking the "Install" button the installer writes the files to the installation location.

क्तिंत्र-dream-media Servus Node Setup			- 🗆 ×
<b>Installing</b> Please wait while x-dream-media Servus Node is	s being installed.		
Extract: md_binrelease_signalserver_node_n	nodules_object-keys	r_e_a_d_m_e.ht	ml
Show details			
Nullsoft Install System v3.01	< Back	Close Ca	ancel

Afterwards a commandline box shows up. It registers the services.

• The successful installation is promped as follows.

🤯 x-dream-media Servus Node Setup			
Installation Complete Setup was completed successfully.			
Completed			
Show details			
Nullsoft Install System v3.01	< Back	Close	Cancel

Please click "Close" to finish the installation.



### **GUIs and Services**

Once the installation has been performed you can start the SERVUS Administration GUI and the SERVUS API documentation via the corresponding icons at the desktop.



#### The administration GUI looks as follows.

/C:/Program%20Files/x-dream-me	di: × +				_ <b>_</b> ×
( Ifle:///C:/Program Files/x-	dream-media/x-dream-media Servus Node/o	client/index.html		C Q Suchen	☆ 🖨 🖡 🕈 💟 🚍
<b>tream</b>					<b>S</b> ERVUS
Resources		<	Job Creator		>
> Queue File Writer 🕓	Queue File Reader 🕓 Queue	Browser Page	> Start now		
Category	Name	Line	Input/Playlist (Serial)	<	Outputs (Paralell)
			Delete		Delete Logo
Source Live	NDI Receiver		Name	Duration	Name
Source Live	Medialooks DXGI/DX11 Screel	nC			
Output Live	NDI Renderer			:	
Output File/Stream	WebRTC				
Running Jobs					× .
Stop Job 👁 Open Pr	eview 📝 Edit Job 🚯 Show (	Details			
name	star	rtedat	progress		guid

#### Two servicses have been installed.

🔍 XDM Servus Node 🔍 XDM Signaling Server	Started	Automatic	Local System
🛛 🧟 XDM Signaling Server	Started	Automatic	Local System 🔽



## Configuration

There is not that much to configure. But you probably want to change the user that the SERVUS services are running as to allow access to a storage to write or read video and graphic files.

🍳 XDM Servus Node	
🎑 XDM Signaling Server	

Started	Automatic
Started	Automatic

.\encoding .\encoding

# **Creating Jobs**

In advance to a new Job to be created and started you need to prepare the Sources and Outputs. This is done via the buttons "Queue File Writer", "Queue File Reader" and "Queue Browser Page". The usage is as follows:

- "Queue File Writer" – Supports many video file formats and many video stream formats as outputs:

-			_ 🗆 ×	
		Path/URL:		Job Create
> Queue File Writer	🕓 Queue File Reader	C:\Source_Files\XDCAM_HD_1080i_MXE File Path or Stream URL, e.g. rtmp://localhos	t:1935/live/live or \\server\s	hare\file.mp4 art nov
Category	Name	Save		Input/Playl
		Cancel		Delete
Output Live	NDI Rendere			Name
Source Live	NDI Receiver			
Source Live	Medialooks (			
Output File/Stream	WebRTC			

- "Queue File Reader" – Supports any video file format and many video stream formats as source:

	Add File or Stream Writer	□ × <	
> Queue Fi	Path/URL: C:)Outputitiest auf		> Start no
ategory	File Path or Stream URL, e.g. rtmp://localhost:1935/live/live Encoding Settings:	or \\server\share\file.mp4	Input/Play
Output Live	Save		Delete Name
Source Live			



"Queue Browser Page" - Allows to convert an automatic scroll through a webpage to a video clip:

Resources Ad	d Browser Page Reader	_ 🗆 ×	<	Job Creator
> Queue Fi				> Start now
ategory	url of website, e.g. www.google.com	ine		Input/Playlis
<m< td=""><td>-props scrollbars.enabled="true" scroll.speed_v</td><td>=1.:</td><td></td><td>Delete</td></m<>	-props scrollbars.enabled="true" scroll.speed_v	=1.:		Delete
Dutput Live	Save			Name
ource Live	Cancel		:	
iource Live				

When you load a Source or define an Output the SERVUS engine verifies the correctness of your settings.

The SERVUS webGUI supports drag and drop actions. To create a new job simply:

- select a Source from the "Ressources" section and drag it to the "Input/Playlist" section and
- select an Output from the "Ressources" section and drag it to the "Outputs" section.

You can have multiple sources what will result in a Playlist and you can have multiple Outputs what will result in parallel deliveries to be performed. When you move a Source into the Input list it queues the Sources for immediated usage.

That very moment when you press the "Start now" button the jobs is immediately executed.

media		<b>\$</b> {RVU\$
Resources		< Job Creator >
📏 Queue File Writer 🕓 Queu	e File Reader 🛛 🛇 Queue Browser Page	Start now
Category	Name Line	Input/Playlist (Serial) < Outputs (Paralell)
		Delete Logo
Source Live	NDI Receiver	Name Duration Name
Source Live	Medialooks DXGI/DX11 ScreenCapture	C:\Source_FilesWDCAM HD 1080I.MXF -1 WebRTC
Output Live	NDI Renderer	
Output File/Stream	WebRTC	
Output File/Stream	C:\Output\test_out	
Source File/Stream	C:\Source_Files\XDCAM HD 1080i.MXI	
Source File/Stream	http://www.x-dream-media.com/	
Running Jobs		···
Stop Job 👁 Open Preview	🕼 Edit Job 🚯 Show Details	
name	startedat	progress guid
Anonymous Job	10.8.2017, 16:05:26	0 eee198d6-255f-447a-97a4-390575ab4b6a



## Viewing of Job Output

The output of running jobs can be viewed via a player popup dialogue in the webGUI. This player requires a WebRTC Output has been added to the Output list. Please open the WebRTC player dialogue via the "Open Preview" button.

Running Jobs	<b>5</b> 4		~
Stop Job 📀 Open Preview	🖌 Edit Job 🚯 Show Details		
name	startedat	progress	guid
Anonymous Job	10.8.2017, 16:17:42	0	9b7ecc99-f840-48be-9663-043f99cde371

It will show the SERVUS Node processing with lowest delays.





# Adding Logos

A logo graphic can get overlayed to any Output. Please select the intended Output from the list and click on "Logo" above the list. A Logo Configuration dialogue opens. Please enter the path to the logo file and adjust the size and position settings are required.

<b>Veream</b>		Logo Configuration	_ 🗆 ×			581
Resources	lueue File Reader	File Path: C:\Source_Files\xdm_logo.png Width: 100		Job Creator		
Category	Name	Height: 100 Pos X:		Input/Playlist (Serial) Delete	<	Outputs (Paralell) Delete Logo
Source Live Source Live	NDI Receiv Medialook:	25 Pos Y 25 Alpha 50		Name C:\Source_Files\XDCAM HD 1080i.MXF	Duration -1	Name WebRTC
Output Live Output File/Stream Output File/Stream	NDI Rende WebRTC C:\OutputV		- 1			1
Source File/Stream	C:\Source_	Save	_			

## **Modification of Jobs**

Jobs can be modified at any time. Just highlight the job to be modified and click on the "Edit Job" button above it".

Running Jobs			
🔳 Stop Job 🛛 👁 Open Preview 🕼 Edit Job	Show Details		
name	startedat	progress	guid
Anonymous Job	10.8.2017, 16:17:42	0	9b7ecc99-f840-48be-9663-043f99cde371

A popup dialogue will open that allows to directly influence the running job. The following changes are possible:

- Adding a source to the list of queued sources
- Removing a source from the list of queued sources
- Switching to another source
- Pausing the job

	CommandForJob	_ = ×		
Resources	Add Reader:		<	Job Creato
> Queue File Writer 🕓 Queue	F Remove Reader:			> Start now
Category	Jump to Source Index:			Input/Playli
	2			Delete
Output Live	Pause (0 or 1):			Name
Source Live	-			C:\Source_Fil
Source Live	Save			
Output File/Stream	Cancel			
Output File/Stream				

On clicking the "Save" button the change will immediately executed.

### Version

Version 1.0

DEMO Limitation: logo burn in

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