

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 | _ 🗆 🗙 |
|---|-------|
| Choose Install Location 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 | | | - 🗆 × |
|---|---------------------|----------------|-------|
| Installing 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: × + | | | | _ _ × |
|--------------------------------|---|-------------------|-------------------------|------------|--------------------|
| (Ifle:///C:/Program Files/x- | dream-media/x-dream-media Servus Node/o | client/index.html | | C Q Suchen | ☆ 🖨 🖡 🕈 💟 🚍 |
| tream | | | | | S 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 | | \$ {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 | 5 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.

| Veream | | 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

ream

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