

Video and Audio Options

This white paper describes the use of video and audio accessories with Netviewer Support and Meet.

Besides strong desktop sharing features, the Netviewer application offers additional options such as audio and video functions to complete the portfolio of unified communications. The Netviewer video and audio functions support a wide range of multimedia devices. Firstly this white paper shall give an overview of the Netviewer functions and the devices and interfaces which can be used with it. Secondly it describes some technical parameters.

The "Video" tray

To transmit the videos to the participants of the session, the participants need to open the "Video" tray and to switch on their video signal by clicking on the on-button. The Netviewer panel can display up to 6 of the participants' videos (figure 1). If a participant moves the mouse onto a video, the name of the respective participant will be displayed. He can also make the video smaller or larger or pause it.



Figure 1

The moderator always has the possibility to grant or revoke the participants the right to show the video by clicking on the related icon next to the participant's name (see figure 2). So if more than 6 participants attend a Meet session, the moderator can redistribute the 6 video channels to other participants. By clicking the microphone or video icons above Moderators or Participants

all videos and voice signals can be switched on or off at once.

Netviewer offers several alternatives beside the possibility of displaying the videos of the participants described above.

It is possible, for example, to drag away the video tray from the Control Panel and freely position it on the screen. The Netviewer panel can be retracted and only the Netviewer window containing the screen content of the participant in Show mode, his video and the little Netviewer clip are displayed.

Using the "Theatre Mode", the participants in Watch mode will only see the Netviewer window, the chat window and up to 6 videos of participants.

Figure 2 shows the session tray where the moderator can choose which of the participants are allowed to transmit their videos to the other participants.

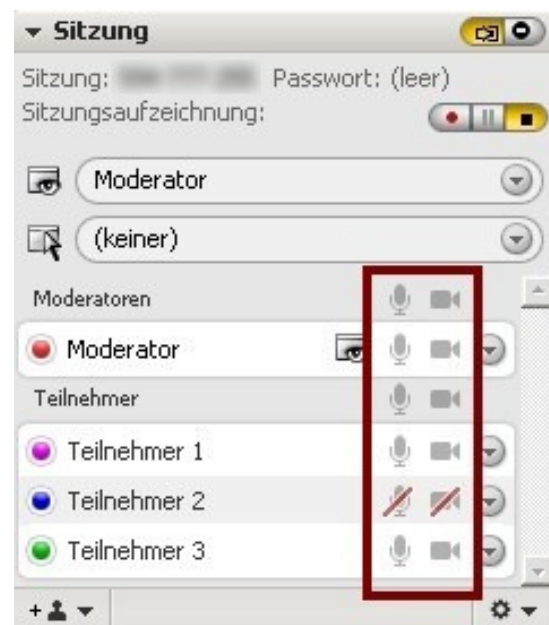


Figure 2

The "My Video" tray

In the "My Video" tray of the Netviewer panel, videos from internal or external sources can be displayed. If the participant clicks on the on-button of the "My video" tray, his video is transmitted to all participants. If he clicks on off, the transmission stops.

It is possible to use different input interfaces to display a video in this tray. Web-cams or Camcorders can be connected via USB or firewire (IEEE1394). Also internal devices recognized by DirectX as "Video Capture Source", like TV Cards or Video Cards will be listed in the pull-down menu of the video tray.

The user can pause the transmission of his picture or video and thus decide during an ongoing session what he wants to transfer to the other participants.

The video source can be chosen through a pull-down menu in the video tray (an example is shown in figure 3).



Figure 3

Figure 2 shows a video from an USB Camcorder.

It is possible to select one of the following:

- **No video source:** i.e. nothing will be shown.
- **Picture:** show a picture from the hard disk in bmp or jpeg format.
- **Video:** show a video from the hard disc, but without sound (see below).
- **Logitech QCPro 5000:** (here as an example), use an external webcam.
- **USB Video device:** use a camcorder as video source.
- **Microsoft Digital DV or VCR:** source connected by firewire (not shown in figure 2).

It is possible to change the video source during a session.

Technical details for videos

The frame rate of the videos depends on the connection of the participating computers to the Netviewer communication server. Ideally, the frame rate will be between 4 – 5 frames per second. The resolution of the video is 228x171 pixels.

The picture quality of the user's own video or picture can be improved by using the adjustment bar in the "My video" tray.

The following video formats are supported:

- MPEG 1 and MPEG 2
- AVI, if the needed codec is installed.

Netviewer stores the settings in the registry and uses the last choice of devices when starting a new session. The settings of the Windows OS are independent of this setting. It is possible to use the internal speaker of a PC to listen to music, but take the headset for a Netviewer session to avoid echoes.

In the standard configuration, the video files are transmitted without sound as the sound channel is used for VoIP. It is possible to transmit the sound as well by selecting "Stereomix" or "wave output" as record source in the Windows control panel/Sounds and audio devices/. The user guidance differs from version to version of Windows OS. In this case the system sounds of Windows will also be transmitted and VoIP can only be used to listen.

The "VoIP" tray

The Netviewer application supports the full-duplex transmission of 6 participants' audio signal in a session. The moderator in a Meet session can grant or revoke the session partner's speech rights. The participants, however, will always be able to hear.

Besides the internal audio hardware of a laptop Netviewer also supports external equipment. These external components can be connected by cable (USB, firewire or a common 3,5mm TRS connector) or wireless, e.g. via Bluetooth.

For hands-free working a headset or a special conference speakerphone are recommended. Using the built-in devices of a laptop may cause echoes during the call. The Netviewer

application supports all devices recognized by the Windows operating system.

To use the VoIP functionality, the feature has to be activated by clicking the on button if not switched on by default.

The playback device and the microphone can be chosen in the pull-down menu in the VoIP tray (see figure 4).



Figure 4

In this example a headset is connected via USB and can be chosen instead of the built-in loudspeakers of the laptop.

It is possible to change the playback device even during a Netviewer session.

Also special conference speakerphones connected via USB are supported and available in different qualities and at different prices. Please ask your computer hardware dealer.

Summary:

The Netviewer programs offer the possibility to connect different video or audio devices to be used for a Netviewer session.

It is possible to use webcams or even high quality camcorders as a video source. These components will be connected via USB or firewire and recognized by the Windows plug-and-play function.

Audio devices like headsets or conference speakerphones can be connected via USB, firewire or analogue interfaces.

To activate the device the user simply opens the pull-down menu of the respective tray and makes a choice.

The moderator can always grant or revoke the session partners' speech rights and the right to display the videos.

Version 1.3 - January 2010

Reference to Server- and Client Version: G3 & G3.1

© 2010 Netviewer AG. Netviewer Support, Meet, Admin, Server, and the Netviewer Logo are registered trademarks of Netviewer. All rights reserved. All other trademarks are the property of their respective owners.