Rendezvous
Best Practices Guide
Introduction

Wirecast’s built-in, peer-to-peer video conferencing system, Rendezvous, is a powerful feature that makes it easy to produce live interviews, talk shows, panel discussions, and co-hosted shows. It allows Wirecast users to connect to remote guests and bring their audio and video directly into their broadcasts and live productions without the need for third-party conferencing systems like Skype, Zoom, or Google Hangouts.

Rendezvous makes it possible to easily manage multiple callers within your live production without juggling other applications, logins, screen captures or the need to do complex audio routing. With Rendezvous you simply send your guests a link they can open in a web-browser or on their Android or iOS mobile device and they will join your broadcast.

In this guide, you will learn how to initiate a Rendezvous session and what are the best-practices you should use to make your Rendezvous sessions productive and successful.

Getting the Best Quality

Before you start inviting your guests, there are few things you’ll need to know:

Video/Audio Quality:

High-quality live interviews and remote video conferencing need a lot of bandwidth in both directions. Rendezvous will intelligently auto scale the video and audio quality of the guest(s) depending on:

1. How many guests are on the call
2. The guests’ bandwidth (upload/download)
3. The host’s bandwidth (upload/download)
4. The type of device you are connecting from

The maximum quality video Rendezvous is capable of is 1280 x 720 at 30FPS when connecting from a computer or WebRTC-enabled browser. This quality is sustainable for up to two guests plus the host, simultaneously, for a three-way conference. If you add more than two guests (Wirecast Pro users can add up to seven), their video resolution and bitrates will be scaled down accordingly. If you are connecting to Rendezvous via an iOS device, the maximum quality possible is 856 x 480p @ 15 FPS. The maximum audio bitrate for Rendezvous is 60Kbps.
Bandwidth:
In order to create a multiple guest Rendezvous session, you and your guests will need enough bandwidth set aside JUST for the purposes of your conferencing connection – THIS does not include the additional bandwidth you may need for streaming, broadcasting, IP cameras, or other network activities related or unrelated to your Wirecast production. In general, to get the best quality audio and video possible during your Rendezvous session follow these guidelines:

<table>
<thead>
<tr>
<th># of Guests</th>
<th>Recommended Bandwidth (Host &amp; Guests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>4-5 Mbps ↑ up ↓ down</td>
</tr>
<tr>
<td>3-4</td>
<td>5-8 Mbps ↑ up ↓ down</td>
</tr>
<tr>
<td>5-7</td>
<td>6-10 Mbps ↑ up ↓ down</td>
</tr>
</tbody>
</table>

You and your guests need the above amounts of bandwidth, each, for best performance. This allows all parties to see and hear all other parties in the best possible quality.

Connection Type:
There are different ways to connect to a Rendezvous session. Determine what kind of connection you and your guests will be using. Whenever possible, it is recommended that you use a hardwired Ethernet connection to minimize failure points and the chance of packet loss or connectivity issues.
Compatible Browsers/Devices:
Rendezvous uses WebRTC protocol to connect to your guests. It should work well with most WebRTC-enabled browsers and devices. Here are some recommended ones:

- **Google Chrome**
- **Mozilla Firefox**
- **iOS device**
  - Guests must use Wirecast Go (our free iOS app).
- **Android device**
  - We recommend using the Chrome browser for Android, currently there is no separate app.

Remember, whether you are the Rendezvous host or a guest, your device should be powerful enough to send and receive video in near real-time. The more Rendezvous guests connected to the conference the more resources your computer or device will need to devote to sending and receiving the audio and video for the session. Keep an eye on your processor and memory if you suspect your hardware is a limitation.

Cameras and Microphones:
The camera and microphone connection for Rendezvous guest is entirely negotiated through the browser or the WebRTC app they are using to connect to the call. Encourage them to use the best camera or microphone their browser or device will detect. Chrome and Firefox should detect most USB and UVC devices (webcams, USB microphones, etc.) and they should be selectable when joining a Rendezvous conference. Rendezvous hosts can use any live video/audio source available within their Wirecast project.
Before the Call

Now that you know the basics, let’s walk through a few tips to help you prepare for your Rendezvous call.

Run a Bandwidth Test: Both you and your guest(s) should run a bandwidth speed test. Refer to the chart above for how much bandwidth you will need to get the best quality. Try to test in the exact time of day or environment you plan on using during the live broadcast. You can use the following sites to help determine your speeds:

- www.speedtest.net
- www.testmy.net

If you or your guests are not getting the necessary bandwidth, you can try these steps to improve performance:

- Close non-critical apps/tabs in their browser or computer
- Ask other people on the network to cease using it for the duration of the Rendezvous session or use a dedicated network
- Try connecting from a different location, network or on a different device
- Contact the Internet Service Provider (ISP)

Quiet! Ask your guests to find a quiet place to participate to minimize background noise and distractions.

Lights, Camera, Action! Check the audio, video, lighting and background quality of your guests before the broadcast. Just a few simple changes can make your Rendezvous sessions look and sound much better! Even, well-lit faces without harsh shadows always look best.

Use Headphones: Both you and your guests should use headphones when participating in a Rendezvous session! This improves the audio quality and avoids feedback from the microphones.
Setting Up Your Rendezvous Session

Ok, you’ve done your due-diligence. You’re satisfied with your guests’ audio and video quality, and you’ve done so much bandwidth testing you’ll go crazy if you hear the word “Megabit” one more time... You’re ready to invite your guest(s) for a Rendezvous session. Even if this is just for practice (or more testing)... don’t worry, this is the easy part!

Set up Wirecast
Open your Wirecast project or document. (Make sure you’ve added your other sources, titles, graphics, etc.). Setup your shots the way you want them, configure your destinations (Facebook, YouTube, etc.).

Create Rendezvous Session
When you are ready to connect to your Guests via Rendezvous, click the “+” button on any layer in your Master Layers or Shot List. This will open the “add source” popup menu, now select “Rendezvous Session > Create New Rendezvous Session”.

Copy Invitation Link
This will open a new window, the with some instructions and a custom new Rendezvous link you can copy and send to your guests. Click the link to copy it, and a green check mark will appear letting you know you have successfully copied the link.

Open Rendezvous Dashboard
Click “OK.” Now a new window, the “Wirecast Rendezvous Dashboard,” will appear. This is where you will manage your audio/video and your guests’ connections for the Rendezvous session.

Configure Audio/Video
Before you invite your guests, take a moment to configure your own audio/video. Click the “sprocket” icon under your video image, and select the correct audio and video source for you. This is what your guests will see and hear.
Send Invite Link
Now, invite your guests. Send them the custom Rendezvous link you copied. You can do this by emailing it to them, chatting it, or texting it to them. If you need to copy it again, you can do so at the bottom of the Dashboard window.

Guest(s) Click to Open
All your guests need to do to join is click on the link you sent them and open it in a compatible web browser or in Wirecast Go.

iOS Users
If your guest is connecting from an iOS device, they will be prompted to download Wirecast Go in order to join the session. This is free to download to use with Wirecast Rendezvous, but it is required for participating from an iOS device. There is no other way to connect to a Rendezvous Session from an iOS device.

Watch Your Notifications
When a guest clicks on the link you sent them, a notification will pop-up in your System OS notifications (Mac & Windows). You will also see a notification in the lower left corner of the Rendezvous Dashboard, as well as below the Live Window in the main Wirecast document window. Click on any of these to accept your guest into the Rendezvous Session.

Add Your Guest(s)
Once all your guests are connected, you should now be able to add their individual video and audio feed as a live source to any layer or shot in your Wirecast project. Just select the “+” again, and choose “Wirecast Rendezvous > [Guest Name],” All connected guests should appear listed there with the names they used to identify themselves.

Configure Guest(s) Slots
Take a moment to arrange your shots and put your guests in the correct compositions. Now you are ready to start your live production using Rendezvous! Have fun!
Disconnecting and Reconnecting to a Rendezvous Session

One of the great things about Rendezvous is that you can invite anyone to join your Rendezvous session, or disconnect them at any time. They cannot rejoin your Rendezvous session without your permission even if they have the link. Each time they connect you must approve their request to join.

Even better, you do not have to create a new Rendezvous session and send out a new link every time you want to invite people to join. You can re-open your last session, and anyone with the link can still request to rejoin by clicking on the old link, you can also resend this link to new participants. This makes it easy to quickly take up where you left off, or use one Rendezvous Session link for multiple live broadcasts. However, if you do create a new Rendezvous Session, that will generate a new link, and the old link will no longer work. You will need to send out the new link to anyone you want to join.

Muting and Managing Audio

All audio and video for your Rendezvous guests can be muted in your Rendezvous Dashboard. Guests will all hear each other and the host’s audio at all times unless they mute themselves.

If the Rendezvous Dashboard is closed you will not hear your guest’s audio unless their audio is in a shot that is actively being monitored (if the “Monitor” checkbox is checked) in either the Preview or Live Windows. Your guests will still hear you and each other, even if the Dashboard window is closed, unless you mute your return audio in the Dashboard.

Audio Echoes

You (the host) will not hear your own voice in the Rendezvous dashboard, as Rendezvous automatically filters out your voice (mix-minus), based on the audio input device selected. However, Wirecast does not automatically turn off monitoring in active shots, so if you add your microphone or audio input device in an active shot in the Shot List, you will hear your own voice unless you un-check the “Monitor” box in the device settings tab.
Similarly, if the Rendezvous Dashboard is open you will hear your guests’ audio, but you will hear it again (an echo) if your guest’s audio is actively being monitored in a shot in the Live or Preview Windows unless you uncheck the “Monitor” check box.

Returning your Live Broadcast or Program Video

Wirecast 8.3 or later allows you send your Rendezvous guests the Wirecast live program output (what the audience sees). This way they can see if they are on camera and get a good idea of the program content as it is occurring. To return the program video to your Rendezvous guests, select “Live Output from ‘[Wirecast Document]’” in your Rendezvous Dashboard as your video input for your camera. Note: you can only select live output video, not audio.

Returning Mix-Minus or Program Audio

Wirecast does not yet allow you to output sub-mixes to your guests. For example, you cannot send your guest the broadcast mix, minus their voice. All Rendezvous audio is limited strictly to the Rendezvous participants’ audio. By this we mean that Rendezvous guests will hear every other guest’s and the host’s voice. The host will hear all the guests’ voices.

Using Screen Sharing

It is possible for Rendezvous guests to share their screen with the Wirecast host. This is perfect for live demos, remote screen shares and more. This only works on desktop computers using Chrome* or Firefox browsers to connect to the Rendezvous session.

To choose a screen to share, Rendezvous guests should
1. Join an active Rendezvous Session
2. Click the Settings button in the lower left corner of the Rendezvous browser console
3. From the “Camera” section, select “Share Screen”
4. Select which screen you wish to share

*Chrome users may be prompted to install the Wirecast Rendezvous screen sharing extension.
Tally Lights

So that your guests will know when their shot is live in the Wirecast program output, a red dot will appear in their Rendezvous console letting them know that they are currently live and the audience can see and hear them. Red means they are live. Green means they are in the preview window and they should get ready to be live.