

LOGITEK ELECTRONIC SYSTEMS, INC.

---

Networked Audio Products

JetLink

LOGITEK ELECTRONIC SYSTEMS, INC.

# JetLink Remote Software Guide

---

© 2018 Logitek Electronic Systems, Inc.  
5622 Edgemoor Drive  
Houston, TX 88081  
Phone 713.664.4470 • Fax 713.664.4479  
[www.logitekaudio.com](http://www.logitekaudio.com)  
[support@logitekaudio.com](mailto:support@logitekaudio.com)

## Notice

Every effort has been made to supply complete and accurate information. However, Logitek Electronic Systems, Inc. assumes no responsibility for its use, nor any infringement of patents or other rights of third parties, which would result.

Worldwide rights reserved. Except for your own personal use, no part of this publication may be stored in a retrieval system, transmitted or reproduced in any way, including but not limited to photocopy, photograph, magnetic or other record, without the prior agreement and written permission of Logitek Electronic Systems, Inc.

---

# Table of Contents

Before We Get Started .....	1
What Is JetLink?.....	1
Jetlink Studio.....	1
JetLink Basic.....	2
JetLink Is Licensed Per Receiver .....	2
Trial Versions .....	2
Billing .....	2
Support .....	2
Installing JetLink.....	3
System Requirements .....	3
JetLink Is 64 bit only!.....	3
Get The Latest Version of JetLink .....	3
Software Installation .....	5
Activating the Software.....	7
JetLink requires internet access!.....	7
Updating the Software.....	7
Using JetLink.....	8
Audio Send .....	9
Input Device .....	9
Input Mode .....	9
Network In/Out .....	9
Connect To: .....	9
Connect On:.....	9
Network Buffer .....	10
JetLink Devices .....	10
External Invitations.....	10
Audio Receive .....	10
Listen On.....	10
Connecting.....	10
JetLink Advanced Settings .....	12
The Settings Tab.....	12

---


Frame Size.....	12
Bitrate.....	12
Max Stream.....	12
Max Stream Buffer .....	12
PCM/OPUS.....	12
WASAPI Window .....	12

## Before We Get Started

*A quick introduction to Logitek and JetLink.*

First of all, thank you for downloading JetLink! Since 1979 Logitek has created innovative products for radio and television. We've come a long way from the early days of making analog audio consoles and meters. Our digital consoles in the late 1990s were the first in North America to be router-based and let you assign any source to any fader, we were the first to introduce virtual consoles in the early 2000s, and now we make touchscreen Audio over IP audio consoles for radio and television.

### ICON KEY

 Valuable information

 Further reading

**JetLink is something new for us.** We've partnered with Logitek Australia, a division of On Air Solutions, to create JetLink remote audio software. While JetLink will start out by simply sending broadcast quality audio between two computers, as radio continues to evolve we see this technology (and radio's need to use it) growing in the coming years in several different forms

## What Is JetLink?

JetLink sends broadcast quality audio bi-directionally between two computers across a LAN, WAN, or the public internet using the OPUS codec.

There are two license types: **Basic** and **Studio**.

### Jetlink Studio

- Can log into the JetConnect directory to get a list of other JetLink machines in your company, both Basic and Studio clients.
- Can use the JetConnect STUN server to transverse firewalls without setting up port forwarding.
- Supports up to 128kbit/sec connections

### **JetLink Basic**

- Does not log into the JetConnect Directory; you must type in the IP address of where you wish to connect.
- Does not use the JetConnect STUN server; you must forward UDP port 5006 to the computer running JetLink.
- Limited to 96 kbit/sec connections



### **JetLink Is Licensed Per Receiver**

You only need to buy licenses for the studios that you're connecting to. You don't need to buy a license for the remote end unless you want to. Therefore, you could license the computer in your studio with JetLink Studio for a small monthly fee and license a bunch of laptops to take on remote as JetLink Basic and have the studio connect to the talent in the field using JetConnect.

## **Trial Versions**

When you first install JetLink, you are enrolled into a free trial of JetLink Studio. At the end of the trial, you will have the option of entering in a credit card and continuing to use the Studio features or using the Basic features for free.

There is only one free trial period per computer, even if you uninstall and reinstall.

## **Billing**

JetLink is billed by Logitek Australia, a division of On Air Solutions.

## **Support**

Email us at [jetlink.support@logitek.com.au](mailto:jetlink.support@logitek.com.au)

This email address is answered by both US and Australian support teams. You can also click on "Contact" in JetConnect.

## Installing JetLink

*How to download and install the software.*

## System Requirements

Windows 7 or 10, 64 bit only

.NET framework 4.6 installed.

If you do not have .NET framework on your computer already, you will be prompted to install it.



### **JetLink is 64 bit only!**

While we used to offer a 32 bit version of the software in an earlier beta release, we've had to discontinue support of 32 bit Windows, as two key components we use stopped supporting it. While we understand the desire to use older computers that you have on hand for remotes, we may not be able to go back and make this work on a 32 bit machine.

## Get The Latest Version of JetLink

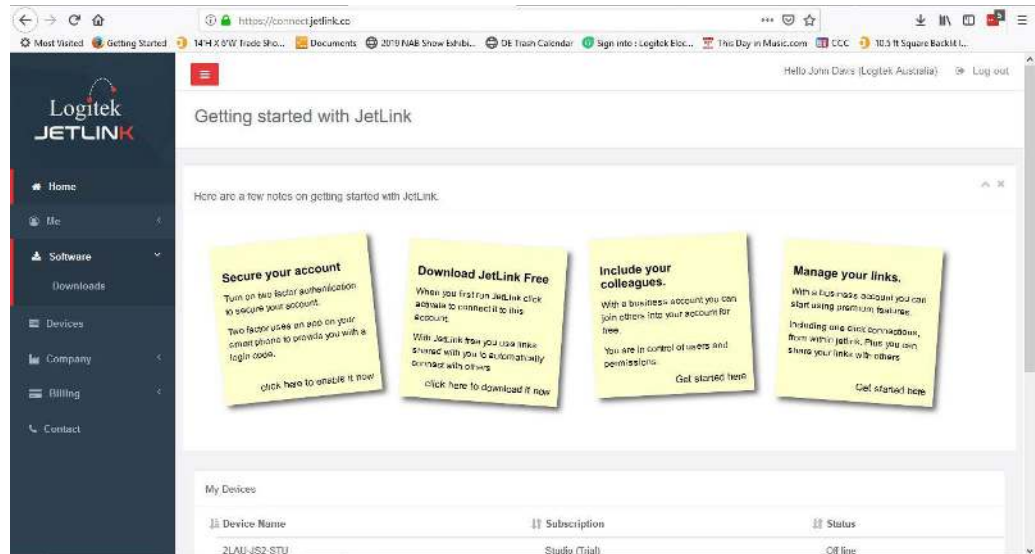
JetLink is managed through the JetConnect Portal. If you have not already signed up for JetConnect, visit <https://connect.jetlink.co> and follow the signup link.

Even if you plan to only use the Basic version of JetLink, you will need a JetConnect login to obtain the software, activate it, and manage its license. There is no charge for this.

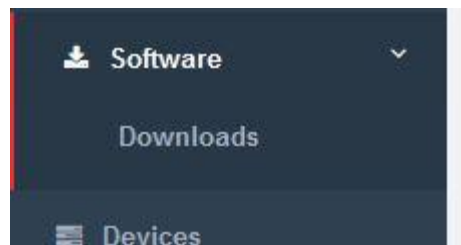
JetConnect supports Single Sign-On via Google and Microsoft Accounts. JetConnect also supports 2 Factor Authentication (2FA) via the Google Authenticator smartphone app for iOS and Android.

We recommend that you secure your account with strong passwords and 2FA.

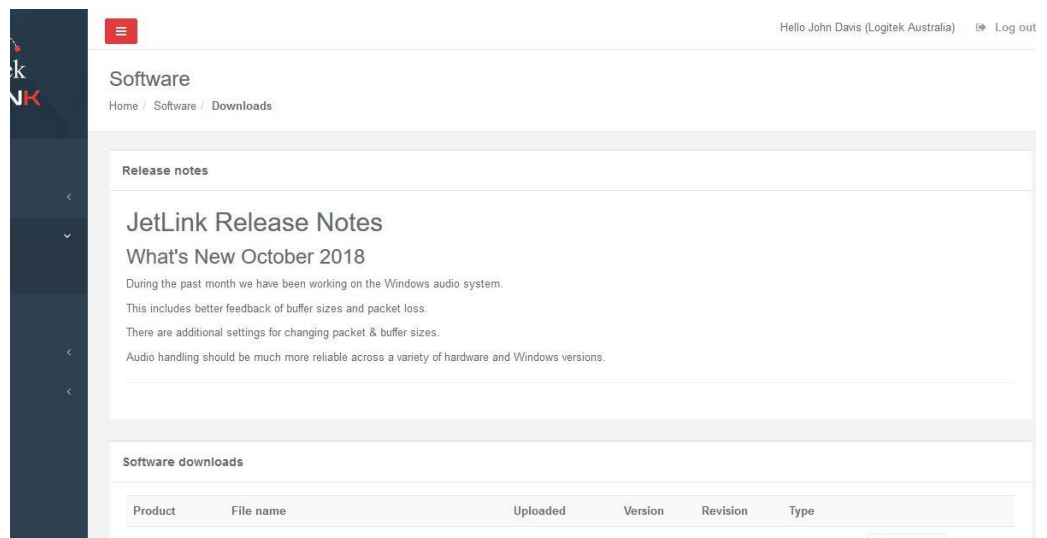
When you log into JetConnect, you will be presented with this menu:



On the right, click Software to expose the Downloads menu item



Then click Downloads to see the library. We provide release notes up top and links to the software below.





Click the Download button to save the file to your computer.

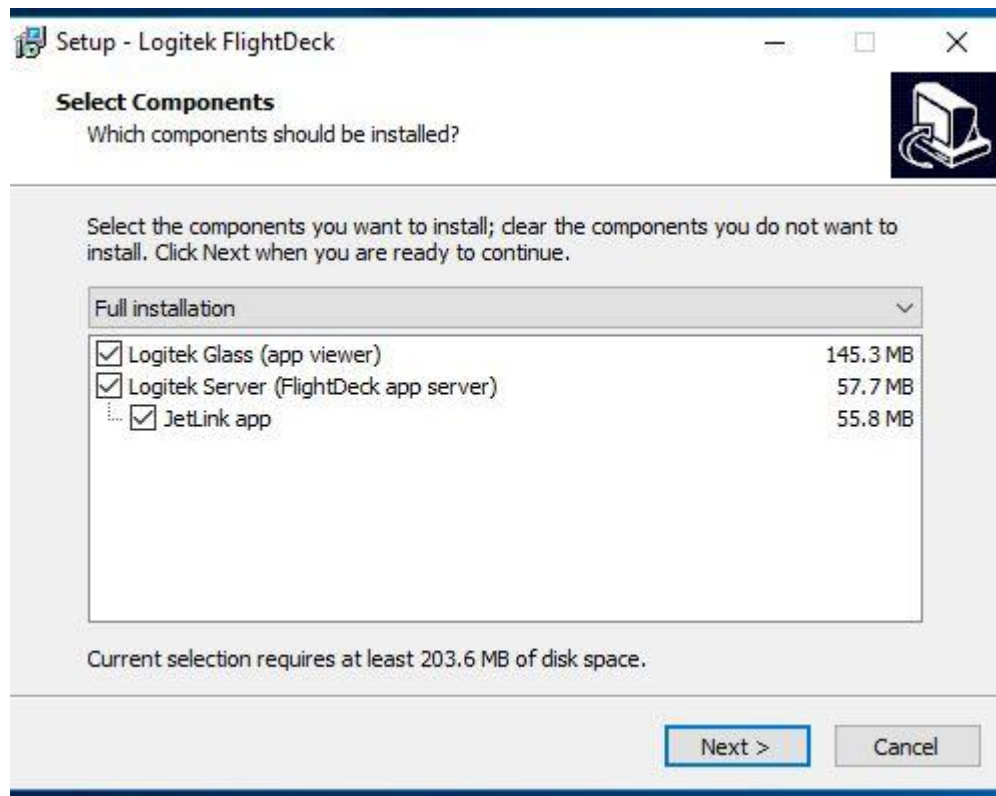
Software downloads						
Product	File name	Uploaded	Version	Revision	Type	
JetLink PC	FlightDeckSetup64bit-1810-479.exe	29 Oct 2018	479	1810-479	Preview	<a href="#">Download</a>

You'll notice that the file is usually called Flight Deck and if you were to look in Windows 'add & remove programs' you'll see an entry for "Logitek Flight Deck." It's a long story, but JetLink is part of a bigger project called Flight Deck, and the development team often uses the terms interchangeably, much to the dismay of the marketing and support teams. Rest assured, this is the correct program!

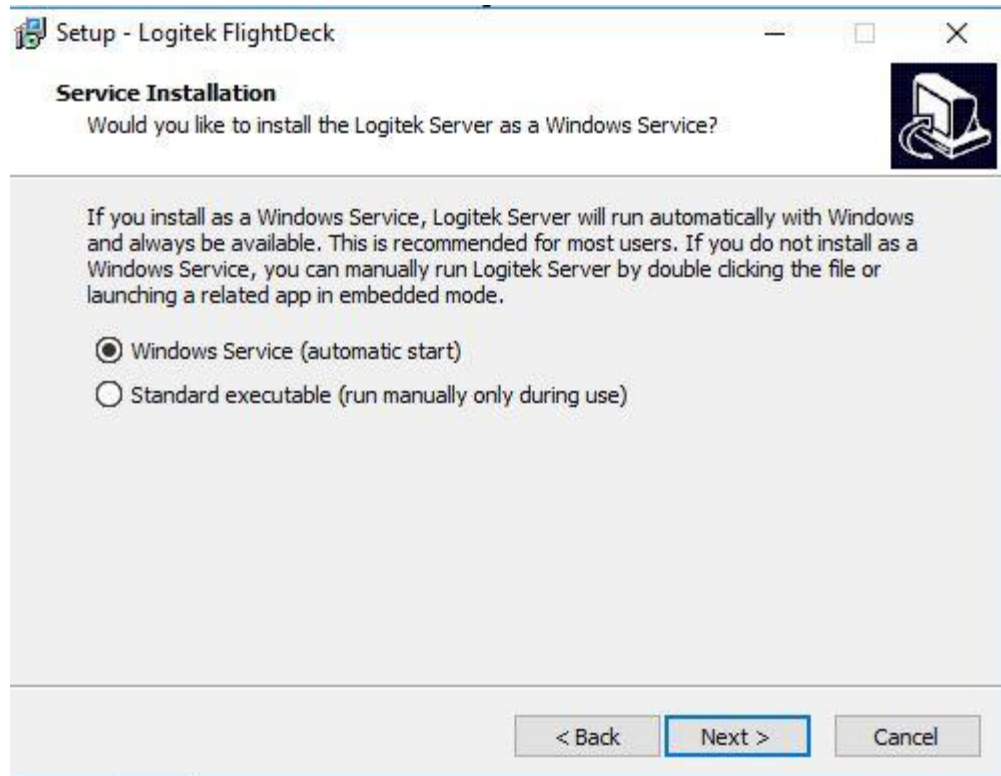
The top entry in the list is the latest, and generally speaking is the one you will want to download. If you plan to install on multiple machines, you can copy the file you downloaded to the other computers. You can even send the file to a friend – if they don't have a JetConnect account, they can make one during the activation process!

## Software Installation

Launch the installer exe and follow the wizard. Accept the default components to install:



You will be asked if you want to run this as a service. YOU WANT THIS. Accept the default.



Why do you want to run Logitek Server as a service? There's two parts to JetLink. First is the aforementioned Flight Deck, which is a tiny server program that handles the audio and talks to the user interface (which runs in a program called Glass). By running as a service, your computer is always ready for a remote to connect to you, even if you haven't opened up the user interface yet. This means that when you roll in to do a remote early in the morning before the board op gets to the station, you in the field can connect and hear the sweet sound of return audio.

When you're not doing a remote, Flight Deck will occasionally ping JetConnect to tell others in your company that you're available for connection. Otherwise, it's just sitting idle and not consuming many resources. Take the default and run it as a service.

The final question will be whether to add an icon to your desktop for JetLink. If you choose to not accept this default, we will still place an icon under Logitek in your start menu.

After installation is complete, click the icon to launch JetLink like any other program.

## Activating the Software

The first time you run JetLink, you will see a red Activate button on the upper right.

Click that and you will be taken to JetConnect in a pop-up web browser window. Log in using your JetConnect credentials and complete the activation process.



### **JetLink requires internet access!**

JetLink needs to see the internet in order to connect to the JetConnect server.

Even if you opt for JetLink Basic, JetLink will check in over the internet to JetConnect in order to validate your software license.

After you have activated the software, the computer will be added to your company in the JetConnect directory and others in your company will be able to connect to you.

When activation is complete, the screen in JetLink should refresh and the Activate button will be replaced with a “Start” button. If not, close the window and restart JetLink.

## Updating the Software

If you already have JetLink installed and you wish to update to a new version, download and install over top of the existing installation. It is not necessary to uninstall first. Your existing activation will remain valid and you will not need to activate again.

## Using JetLink

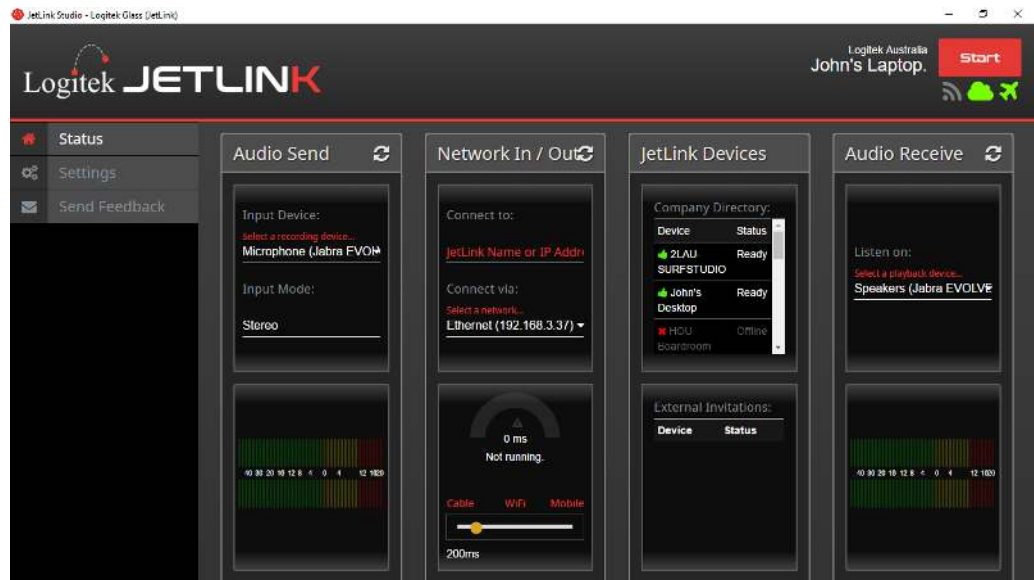
*Or, in the words of Rhianna, “This Is What You Came For.”*

When you first launch JetLink, you will get a grey screen and a “Just a Moment” message. Please wait. Please also ignore the “tip” at the bottom of the page!



The “tip” telling you to right-click for in-flight options doesn’t really apply. Glass, which displays our user interface, places this message there by default and we can’t change it. If you were to right-click, it’s not going to do anything that’s going to help you. So just follow the advice in the big print and wait a moment for JetLink to load!

Here's the good stuff:



What you need to set:

### **Audio Send**

#### **Input Device**

This is the input to the sound card, or the audio that you're going to send to the other end. Click to pick the available input from the list.

In addition to the sound card inputs, there is a Silence entry if you wish to send nothing to the other end, or a loopback if you wish to send the audio looped through the output back to the sender for confidence.

#### **Input Mode**

Set this to Stereo, mono, LL (left on both sides), RR (right on both sides, Lx (left channel audio, silence on right), xR (silence on left, right channel audio) Phase (phase invert). Click to pick the mode from the list.

Note: you must choose the source and mode before you connect! If the sound card settings change while the program is open (example, you plug in a new USB microphone or sound card), click the refresh icon (the circular arrows) to refresh the input list.

### **Network In/Out**

#### **Connect To:**

If you are connecting to a JetLink Basic machine, you would type the IP address of the machine you are connecting to here. Otherwise, when you click on a computer in the directory it will be filled in here automatically.

#### **Connect On:**

Click on the line to choose which network card you want to connect to. JetLink will only show you valid network cards that have an IP address assigned to them. Example: you

have both WiFi and a wired Ethernet connection available; click on the one you want to use.

Note: you must choose the network before connecting! If the list of network adaptors changes (example, WiFi is turned on after launching JetLink) click the refresh (circular arrows) to refresh the list.

#### **Network Buffer**

The default setting is 200 ms. Slide to the left to decrease the buffer and to the right to increase it. When you are connected, the meter will show you the status as well as a buffer underrun alarm icon.

The object here is to get the shortest delay possible given the network bandwidth you have available. You should aim for a green meter that's hanging in the middle without any red buffer empty alarms. A full blue meter will be very reliable but will have more delay. If you are on a very busy WiFi or LTE network, you will get better results with a bigger buffer. If you are on a fast wired connection, you can get good results with a buffer as short as 50 ms.

#### **JetLink Devices**

This is the directory of all of the JetLink clients registered to your company. If you are licensed for JetLink Studio, you can see if the computer you wish to connect to is online and ready before clicking to set JetLink to connect to it.

#### **External Invitations**

This is reserved for future use.

#### **Audio Receive**

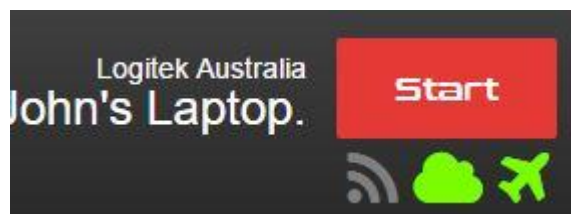
##### **Listen On**

Click this drop-down list to see what sound card outputs are available and choose where you want the audio you're receiving from the other end to go.

You must select the output before connecting. If the list of outputs changes while JetLink is running (example, you plug in a USB sound card), you can refresh this list by clicking the circular arrow icon.

## **Connecting**

Once you have everything set exactly the way you want, click the big red Start button in the upper right.



Your computer will connect to the device you selected and everything will come to life!



Happy broadcasting!

When you're through, click Stop.

## JetLink Advanced Settings

### *Fine Tune Your Audio*

Let's start this section by saying that the default settings will work for pretty much everyone. But if you know what you're doing, you can fine tune for maximum performance here.

## The Settings Tab

### **Frame Size**

This is the Opus frame size, and will default to 20ms on installation of version #479. It can be set to 10ms if your WASAPI Window is also 10ms. The lower frame sizes are not supported with Windows Audio and are for future use (so are disabled at this time). Frame size will contribute to overall latency, so we recommend 10 or 20ms for most users.

### **Bitrate**

This is the Opus bitrate. We have found 128kbit/s to provide good overall results for most content. Please note - on JetLink Basic using direct IP connection, only 96kbit/s is supported (this will be applied automatically).

### **Max Stream**

Reserved for future use. The team lead on this project is named Max and he's cooking up something...

### **Max Stream Buffer**

See Max Stream

### **PCM/OPUS**

At this time, only Opus is supported.

### **WASAPI Window**

This is the size of audio chunks received from the Windows audio input system. The default is 20ms and should work well on most machines. 10ms is supported on modern hardware and may require latest versions of Windows and Audio drivers. This is recommended only for advanced users looking to use low latency connections.