

# Session:

## Remote Instruction and Services for Blind and Low Vision Participants



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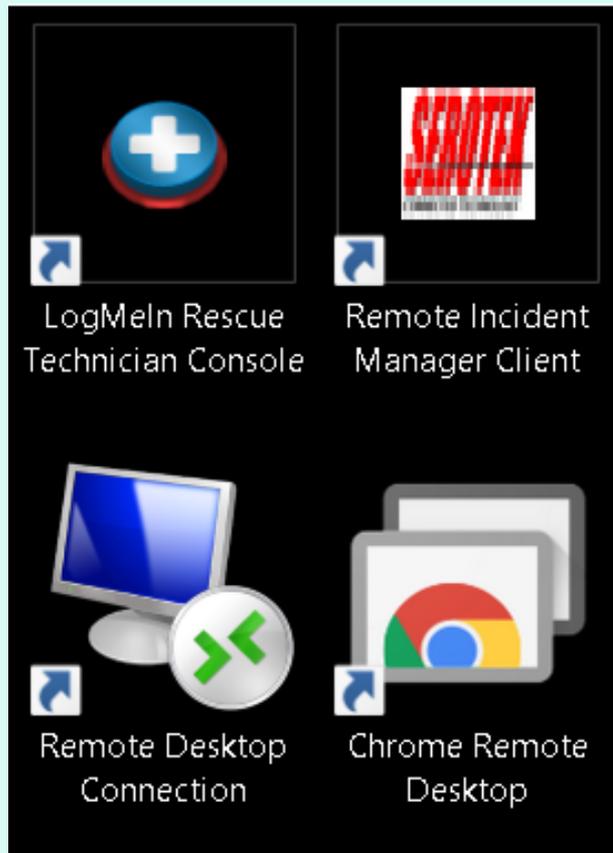
Technology Training and Vocational  
Coordinator at the Lighthouse for the  
Blind of the Palm Beaches

**AFB** Virtual Leadership  
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# Remote Instruction and Services for Blind and Low Vision Participants



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# Objectives

- I. Describe at least 3 advantages and 3 disadvantages of remote instruction for people with vision loss.
- II. List the pros and cons of at least 4 different remote software programs for remote instruction and services for people with vision loss.
- III. Discuss 3 recommended tools and methods for implementing remote instruction for people with vision loss.

Part I:  
Advantages and disadvantages  
of remote instruction for people  
with vision loss.

# Advantages of Remote Training

- Eliminates (or reduces) the need for travel
- Allows for flexibility (Anywhere/Anytime learning)
- Using remote software, the instructor can demonstrate skills or “take over” to adjust more complex settings on a device
- What other advantages can you think of?

# Like the Instructor Is in the Room

- “Remote training was just like the instructor was sitting next to me.”

# Helps Solve Issues of Face-to-Face Training

- “Remote training is a valuable tool in providing training for reasons such as transportation, economy, and health issues...”
- “Remote training is another way to reach clients that may feel like giving up because of their situation.”

# Comfort of Own Environment

- “In terms of the technical aspects it was just as effective. In terms of logistics and transportation it was so convenient and most helpful not to have to arrange transportation.”
- “To be in a comfortable and familiar environment made for a more conducive learning atmosphere.”

# Need for Remote Training Options

- “Others, however, described age-related mobility impairments or periods of illness that prevent them from using communal computers and help centers. Hence, those who may benefit the most from learning to use ICT to stay connected and go online may be least able to secure access to such resources” (Piper, Brewer, & Cornejo, 2017, p. 706).

# Challenges of Remote Training

- Some students (and professionals) prefer face-to-face
  - Quote from Lighthouse survey: “I believe that I would have had a better comprehension if it was face to face. Also I am old school, I rather hands on.”
- Initial setup is often easier face-to-face
  - Recruit family or other household members when needed
- Often necessary to open ports on a router to allow access to remote software
- Intrinsic motivation is important
- Unable to assist physically with hardware
  - Walk through verbally and recruit household members

# Common Applications for Remote Instruction

- eLearning using online learning environments (Blackboard, Canvas, Google Classroom, etc.)
- Keyboarding (touch typing) instruction
- AT instruction
  - Magnification software
  - Screen reading software
  - Smart devices and apps
  - Accessible OCR software
  - Stand alone devices
  - Braille technologies, and much more

# How else can remote instruction and services be applied?

- Independent living skills and various areas of the **Expanded Core Curriculum**
- Adjustment to blindness, case management, and counseling services
- Support for participants to transition to eLearning and working from home
- Staying connected to the outside world

# What professionals can apply remote instruction and services?

- Teachers of the Visually Impaired (TVIs)
- Certified Vision Rehabilitation Therapists (CVRTs)
- Certified Low Vision Therapists (CLVTs)
- Certified Rehabilitation Counselors (CRCs), counselors, and case managers
- Certified Assistive Technology Instructional Specialists for People with Visual Impairments (CATIS) and other AT professionals
- Others: be creative in your approach!

## Part II:

Pros and cons of remote software programs for remote instruction and services for people with vision loss.

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# Audio and Video Conferencing Software

- Many are free from device to device.
- Fees for some tools and more advance use with more than two participants.
- Computer may be heard Skype, Zoom, Google Hangouts (Meet) on the instructor's end.
- Screen Sharing with Skype, Zoom, Google Hangouts (Meet).
- When phone connectivity is limited, these options allow another option for voice and video chat.
- There are many other options (Facetime, social media messengers, etc.)
- Most are compatible across a variety of OSs.

# Audio/Video: Cons

- Instructor cannot perform commands or control student's computer.
  - Google **Hangouts** Meet and Zoom are two examples that allow remote control.
- Connectivity issues are possible, especially when there is low bandwidth.
- This must be installed/setup on all devices.
  - Students must first learn how to use the tools.
  - Some are easier than others and more accessible.

# Phone: Pros

- Almost everyone has a phone (or access to one).
- Speaker phone allows student to be hands-free.
- Works well when there is a device that is not compatible with remote control software.
  - Sometimes the only option when a student does not have a computer or smart device **available**.
  - Consider using video call features for training where the student or teacher would benefit from being able to see each other, materials, or surroundings.

# Phone: Cons

- Usually need to use along with other software when remote control is needed.
- If a lesson is on using apps on the same device, this is challenging.
- Fees can be an issue when student does not have unlimited minutes.
- If no speaker phone is available or if a student does not know how to use it, the student cannot work hands-free.
  - Can be an issue if student needs to put the phone down and cannot hear the instructor.

# Cloud-Based Software and Collaboration

- G Suite (Docs, Drive, Slides, etc.)
- OneDrive
- Dropbox
- iCloud
- Many others...

# Text, Audio, or Video Chat options

- There are many options for audio and video chat:
  - Zoom
  - Google Hangouts Meet
  - Facetime
  - Skype
  - Social Media Messengers
  - There are many other options.
- Many of you have likely used other tools
- Accessibility and compatibility with AT software is critical!

# Other Remote Software Tools

- [Chrome Remote Desktop](#) (Free)
- [NVDA Remote Access Add-On](#) (Free)
- [TeamViewer](#)
  - [Using TeamViewer to ScreenShare on a BrailleNote Touch Plus](#)
- [Bomgar](#)
- [ConnectWise Control \(Formerly Screen Connect\)](#)
- [Remote Desktop Connection](#) (Windows feature)
- [Linux Remote Desktop](#)
- [GoToMeeting options for Working Remotely](#)
- [The Best Remote Access Software](#)
- There are many others...

# Computing Technology Setup

- It is critical that equipment is setup properly and configured for compatibility with AT prior to training.
  - This is true for remote training or face-to-face training.
  - Setup can be done remotely. For those new or less tech savvy users, recruit help when needed.

# Remote Training Privacy/Security

- Prior to installing remote software, talk to **your** students about how you handle privacy and security when providing remote training
- Students will often have highly confidential information on their computing devices
  - Do not write down or track other people's passwords
- Sometimes it is not possible to avoid asking for passwords
- Recommend that they change their passwords as an added security measure

# Part III:

## Recommended tools and methods for implementing remote instruction for people with vision loss.

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# LogMeIn Rescue + Mobile: Pros

- Once it is setup, it can be setup for quick access without having to go through setup each time (Unattended Access)
- Flexible options to control computing devices
- Can toggle back and forth between student's and instructor's computer
- File transfer and copy/paste
- Works well when connecting to students using a variety of AT software
- For use with Windows, Mac, Android, and iOS
- Can connect to more than one device at a time

# LogMeIn Rescue: Cons

- Not accessible for instructor who uses a screen reader
- [LogMeIn Rescue Pricing](#) (nonprofit discounts)
- Somewhat limited for iOS: can only view screen
- Cannot perform JAWS commands
- There have been some conflicts with some AT software
- Initial setup is needed

# LogMeIn Rescue Technician Console

The screenshot displays the LogMeIn Rescue Technician Console interface. At the top, there's a window title bar for "LogMeIn Rescue Technician Console" with standard minimize, maximize, and close buttons. Below the title bar is a toolbar with icons for "New Session", "Unattended Access", "Play", "Stop", "Refresh", "Share", and "User". On the right side of the toolbar, there are status indicators: "All 1", "Private 1", "Channel 0", "Active 1", and "Monitored 0".

The main area is divided into several sections. On the left, there's a sidebar with a list of sessions. The top session is "Cassandra Ferguson 07:06". Below the session list, there's a vertical log of events: "2:55 PM Switched to P2P", "2:55 PM Waiting for customer permission to remote control desktop.", "2:55 PM Remote Control successfully initiated.", "2:57 PM Waiting for customer permission to activate unattended access.", "2:57 PM Activating unattended access.", "2:57 PM Waiting for customer permission to elevate.", "2:58 PM Unattended access activated." At the bottom of the sidebar, there's a text box with the prompt "Type here and press".

The main workspace shows a remote desktop view of a Windows 10 desktop. The desktop background is a colorful abstract image. A "Settings" window is open, displaying the "Taskbar" settings page. The settings include: "Automatically hide the taskbar in tablet mode" (Off), "Use small taskbar buttons" (Off), "Use Peek to preview the desktop when you move your mouse to the Show desktop button at the end of the taskbar" (Off), "Replace Command Prompt with Windows PowerShell in the menu when I right-click the start button or press Windows key+X" (On), "Show badges on taskbar buttons" (On), "Taskbar location on screen" (Bottom), and "Combine taskbar buttons" (Never). Below the settings, there's a link "How do I customize taskbars?".

At the bottom of the remote desktop, there's a taskbar with various application icons. A tooltip at the bottom center of the screen reads "Move the mouse to this area to send keyboard input to the remote device". The system tray in the bottom right corner shows the time "3:02 PM" and date "6/25/2019".

At the very bottom of the screenshot, there's a status bar with the text "Encryption: ECDHE-RSA-AES256-GCM-SHA384" and a small "Lenovo" logo on the right side.

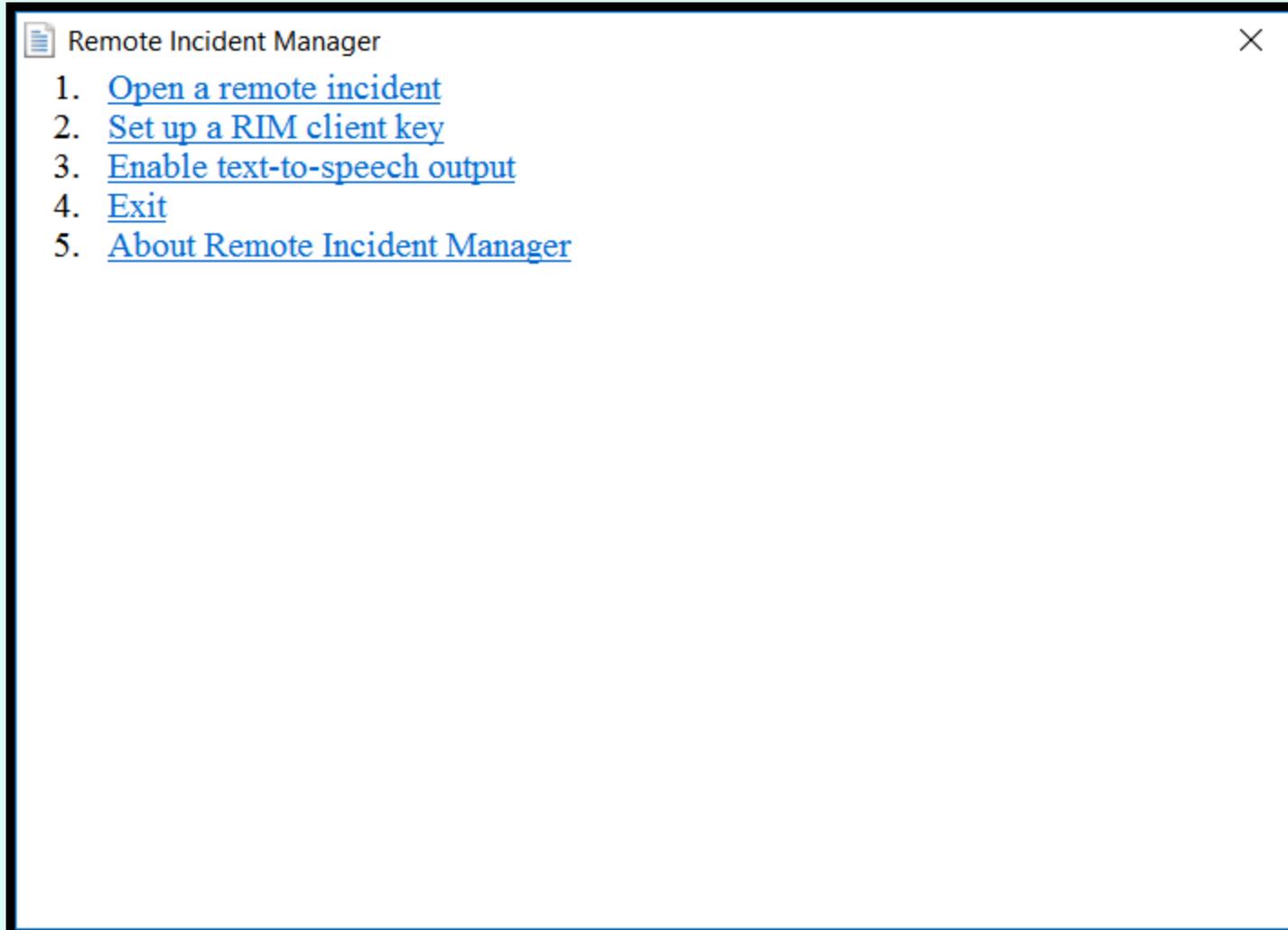
# Remote Incident Manager (RIM): Pros

- Accessible to instructors who are blind or low vision using screen readers and screen magnification software
- Instructor can hear and control assistive technology on student's computer
- Can toggle back and forth between student's computer and instructor's computer
  - This is similar in many remote technology options
- File transfer and copy/paste

# Remote Incident Manager (RIM): Cons

- Cost: Initial setup fee plus \$49.95 a month or \$499 a year
  - [RIM and RAM information from Serotek](#)
- Must be installed on student's computer
- Sometimes freezes and needs to be restarted
- Not compatible with User Account Control
- Technical support available, but you have to setup an appointment (automated), **or online**
- Only compatible with Windows

# Remote Incident Manager White Paper from Serotek



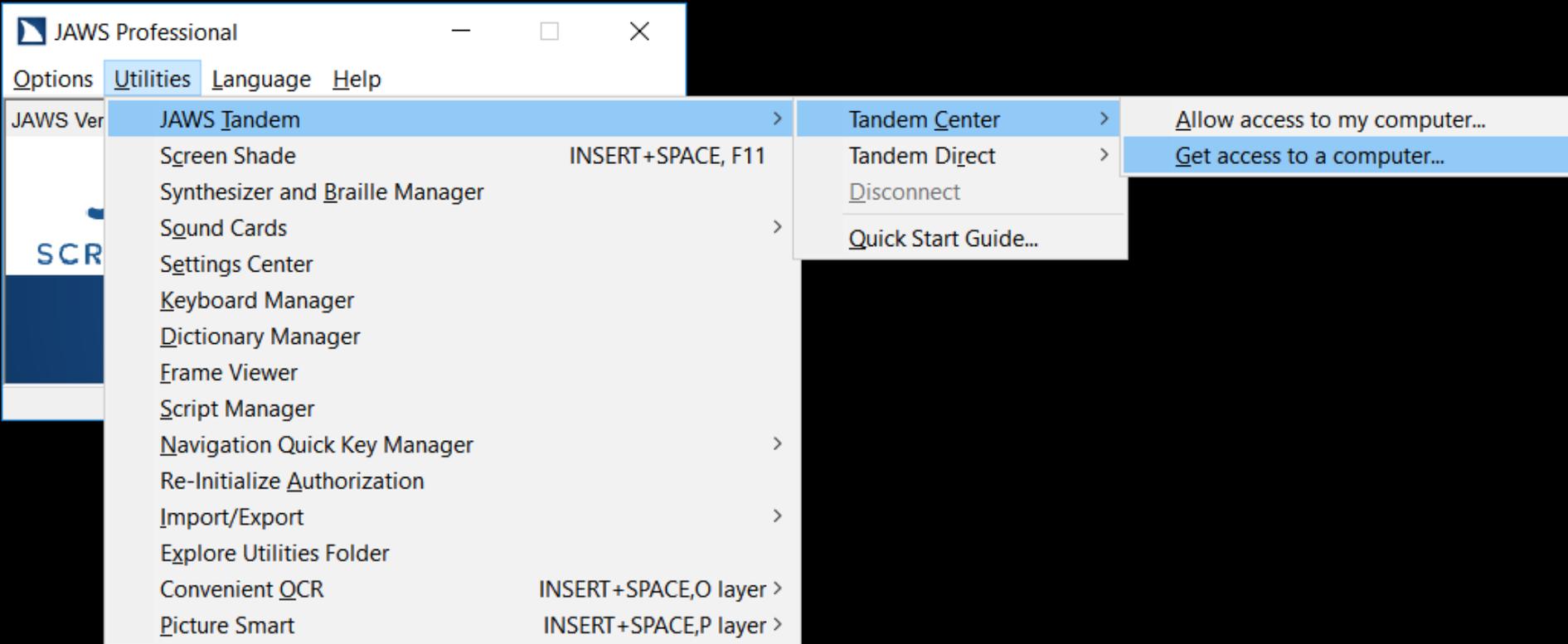
# JAWS Tandem: Pros

- Accessible to instructors who use a screen reader (JAWS).
- Instructor can hear JAWS and perform JAWS commands.
- Full control of student's computer using the mouse or JAWS commands.
- Free solution for JAWS students.
- Can toggle back and forth between student's computer and instructor's computer.
- Remote Clipboard (Can copy and paste text).

# JAWS Tandem: Cons

- JAWS must be installed on student's computer.
  - Many of our students are learning different software and other screen readers.
- Sometimes freezes and needs to be restarted (Must exit processes)
- The instructor's computer must have an active JAWS license.
  - The instructor's license must be the same version or newer than the student's JAWS version.

# Starting JAWS Tandem

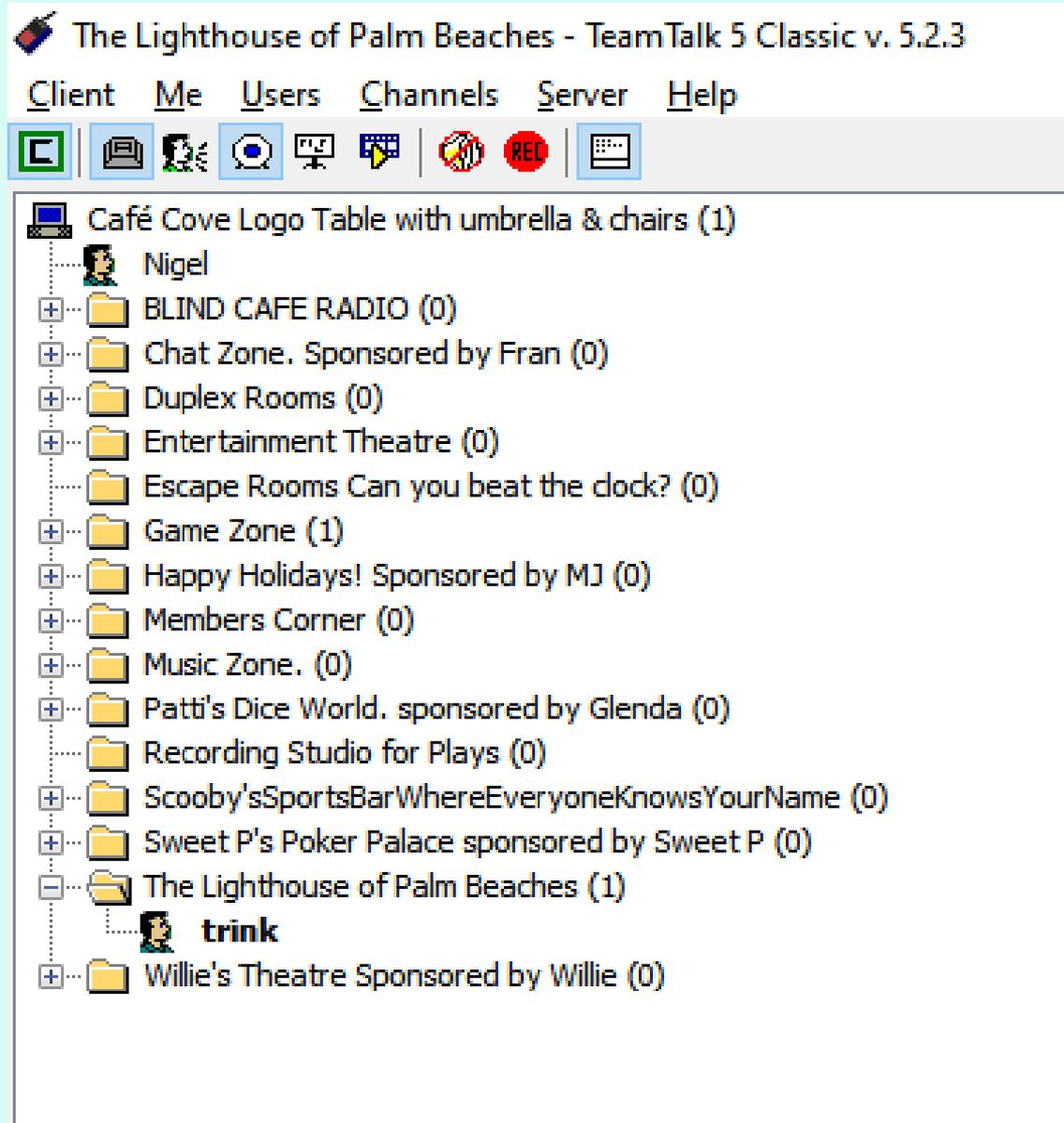


# Chrome Remote Desktop

- Can view Chrome OS computer from Android or Chrome browser that is linked to same Google account.
- Can view and take control of Chrome OS computer (compatible with ChromeVox).
- Can connect to various operating systems within Chrome Browser.
- Available for iOS and Android.

# Blind Café.net

- [Blind Cafe.net](http://BlindCafe.net)
- “Where the Blind Community is inspired and entertained! It’s a great place to learn, laugh, chat and make long lasting friendships.”
  - Uses TeamTalk
  - Contact [MJ@blindcafe.net](mailto:MJ@blindcafe.net)



# How do we use Blind Café for services?

- The Lighthouse for the Blind of the Palm Beaches holds online meetings and events using this tool
  - Boot Up Club (technology club)
    - We also use a Google Group to communicate (free)
  - Book Club
  - “Let’s Talk”
  - We will likely expand options through Blind Café

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## Part I Addendum: Survey re: Remote Training User Preferences



Lighthouse for the Blind  
*of the Palm Beaches*

## Survey for Remote Training Conducted to:

- gain insight into the satisfaction for students with visual impairments who have participated in remote assistive technology training,
- understand perceptions regarding preferences for remote training compared to face-to-face training,
- and to gain a better understanding of how students with visual impairments experience remote training for assistive technology.

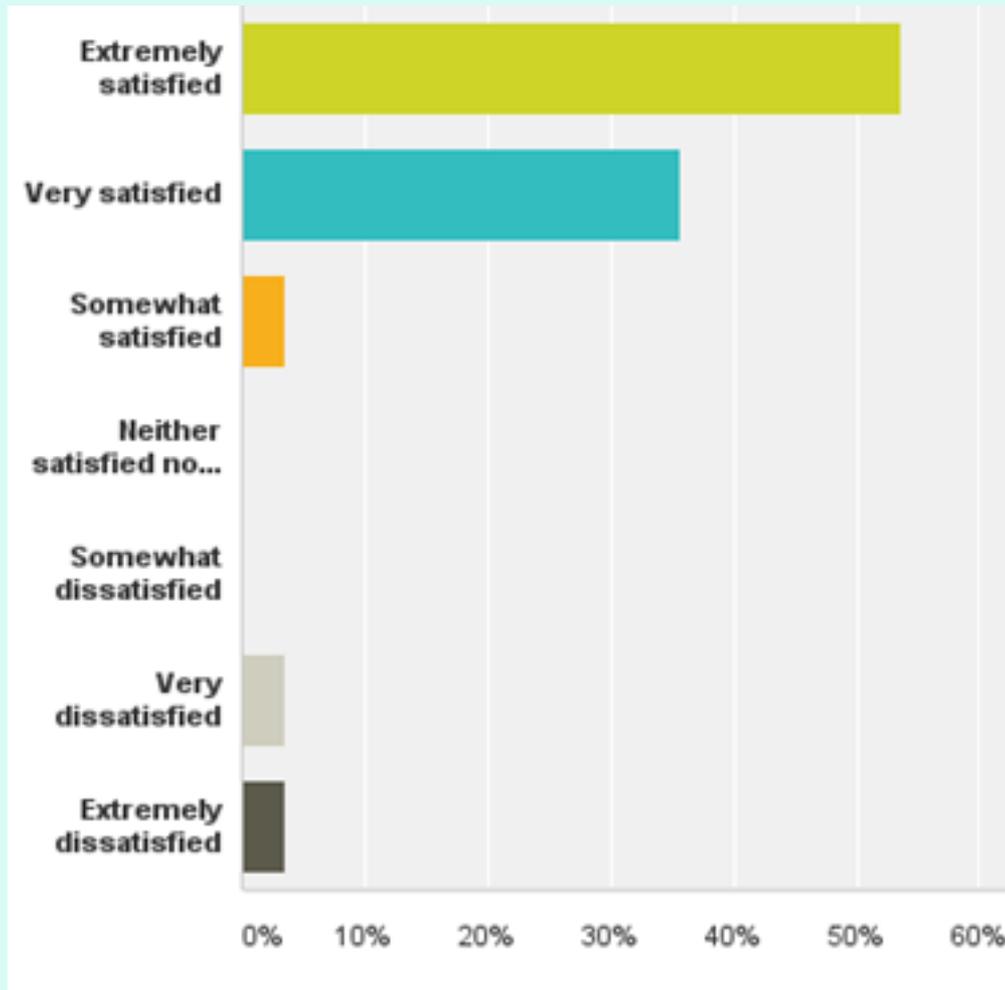
# Survey Closed-Ended Questions

- **A survey was created on SurveyMonkey.com**
  - Approved by administration at Lighthouse for the Blind of the Palm Beaches.
  - Eligibility confirmation and consent questions
  - Closed questions:
    - Demographic questions
    - Type of training received via remote training
    - Instructor
    - Type of technology used during training
    - Satisfaction with remote training
    - Agreement with the statement: “Remote training is as good as face-to-face training for technology instruction?”

# Open-Ended Qualitative Questions

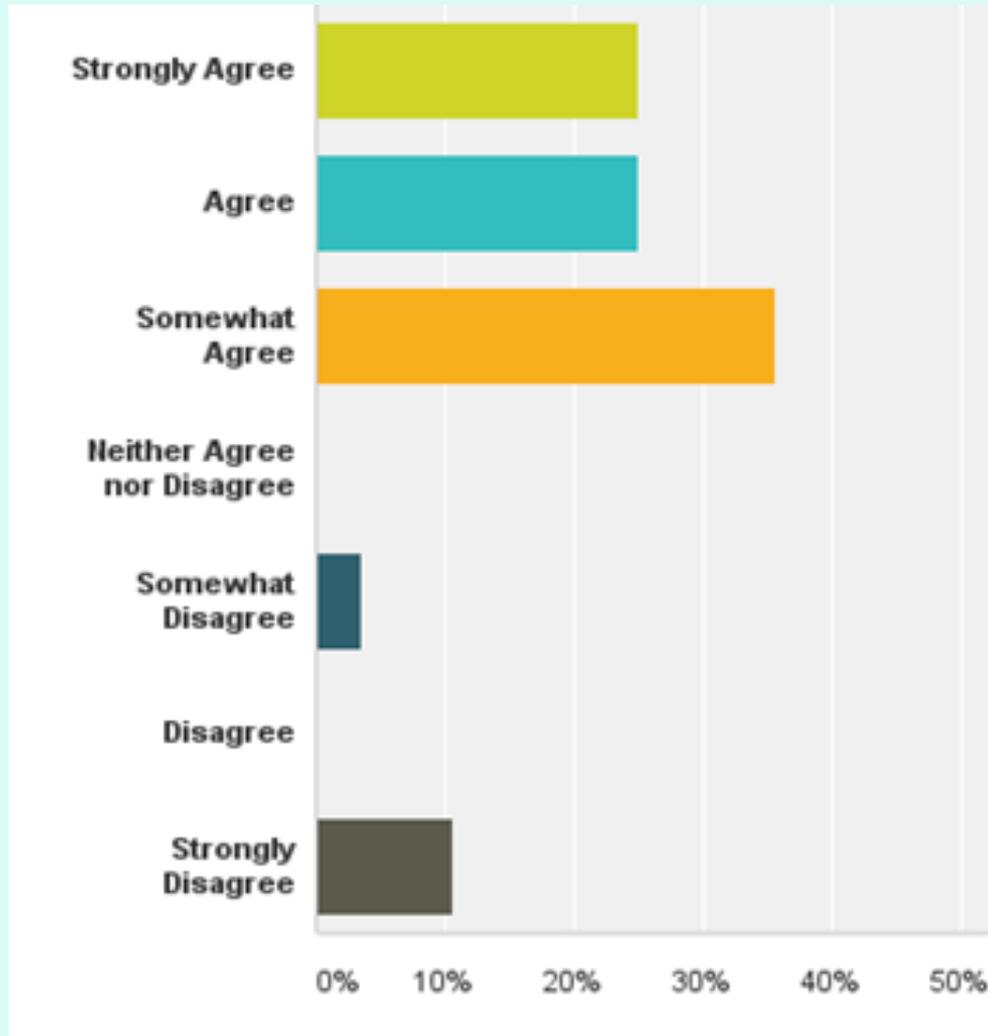
- Please describe your experiences with remote technology training.
- Do you have any suggestions on how we can improve remote training in the future?
- How did the experience of remote training compare to face-to-face training?
- Do you have any other comments, questions, or concerns?

# Satisfaction with Remote Training



- Extremely satisfied 53.6% (15 participants)
- Very satisfied 35.7% (10 participants)
- Somewhat satisfied 3.65% (1 participant)
- Very dissatisfied 3.6% (1 participant)
- Extremely dissatisfied 3.6% (1 Participant)
- All 28 answered

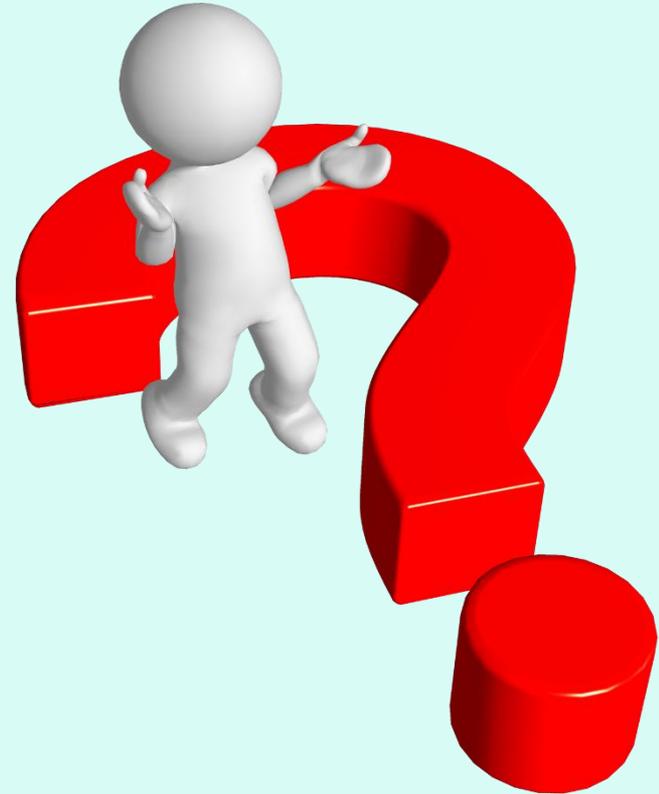
# Remote training is as good as face-to-face training for technology instruction.



- Strongly agree 25% (7 participants)
- Agree 25% (7 participants)
- Somewhat agree 35.7% (10 participants)
- Neither agree nor disagree 0% (0 participants)
- Somewhat disagree 3.6% (1 participant)
- Disagree 0% (0 participants)
- Strongly disagree 10.7% (3 participants)
- 28 answered

Thank you for joining us today!

Questions?



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**Dr. Rachael Sessler Trinkowsky**  
**Ph.D., CRC, CATIS**

**More Resources for You**

# Google Hangouts Meet & Google Classroom

- [Hangouts Meet Accessibility](#)
  - Captioning, AT Compatibility, Keyboard Shortcut information, online tutorials, and more.
  - [G Suite for Non-Profits](#)
  - [G Suite for Government](#)
  - [G Suite for Education Options](#)
- [G Suite: Helping businesses and schools stay connected in response to Coronavirus](#)
- [Sign up for Basic G Suite 14-day trial](#)
- [Screen Reader with Google Classroom](#)

# Resources for O&M Instructors, Educators, TVIs, and Others

- [Remote Orientation and Mobility Ideas Shared Google Doc \(Chris Tabb and others\)](#)
- [Free webinars and resources from the Online Learning Consortium: How to Survive Your \(Hurried\) Switch to Online Delivery Using UDL](#)
- [Preparing for Virtual Instruction from Perkins eLearning](#)
- [Hadley.edu online courses and webinars for professionals, families, and people with vision loss](#)

# Accessibility for Learning Management Systems (LMSs): Start with Accessible Tools!

- [VoiceThread and VoiceThread Universal Accessibility Information](#) (Not an LMS, but can be used within various options.)
- [Accessibility within Canvas](#)
- [Canvas Accessibility Report from WebAIM](#)
- [Accessible Features in Blackboard Learn](#)
- [Moodle Accessibility](#)
- [Desire2Learn Accessibility](#) (Brightspace)
  - [Changing from classroom to online courses during the COVID-19 virus outbreak](#)

# Free Educational Resources for TVIs, Parents, and Students

- [Accessibyte Stay-Safe free offers](#)
- [ObjectiveEd has made Distance tools free for students and teachers](#)
- [Beanstalk.co has made some classes free for children 1.5 to 6 \(Through Zoom\)](#)
- [Coursera Resources: Find Support During the COVID-19 Pandemic](#)

# Zoom Helpful Links

- [Free audiobook, “Meet Me Accessibly – A Guide to Zoom Cloud Meetings from a Blindness Perspective” \(Jonathan Mosen\)](#)
- [Connecting using a BrailleNote Touch Plus for Zoom meetings](#)
- [Keyboard Shortcuts for Zoom](#)
- [Zoom Accessibility FAQ](#)
- [Zoom Conferencing Platform Keyboard Commands from Vispero \(PDF\)](#)

# Free Technical Support Resources

- [Freedom Scientific and other Vispero products](#): 727-803-8600 ([Aira Support for Vispero Products](#))
- [Microsoft Disability Answer Desk](#): 1-800-936-5900 (Chat, [Be My Eyes](#), ASL)
- [Apple Accessibility](#) Hotline: 877-204-3930
- [Humanware](#): 800-722-3393
- Reach out to other manufacturers and refer to their websites for resources

# Contact

- **Rachael Sessler Trinkowsky, Ph.D., CRC, CATIS**
  - [r.sesslertrinkowsky@umb.edu](mailto:r.sesslertrinkowsky@umb.edu)
  - [trink@lighthousepalmbeaches.org](mailto:trink@lighthousepalmbeaches.org)

# References

Piper, A. M., Brewer, R., & Cornejo, R. (2017). Technology learning and use among older adults with late-life vision impairments. *Universal Access in the Information Society*, 16(3), 699-711. doi: 10.1007/s10209-016-0500-1

# Participants and Recruitment (Lighthouse Remote Training Survey)

- 63 invitations were sent out via email or phone call
- Participants were invited to complete the survey online or over the phone
- 32 surveys submitted on SurveyMonkey.com
  - 50.8% Response rate
- 4 surveys only had eligibility questions
  - These were omitted from the results.

# Demographic Data

- Gender
  - 60% Female and 40% Male (3 participants did not report)
- County of residence during remote training
  - 5 counties (one additional county was included)
- Employment status
  - Majority of participants were retired.
- Age (26 out of 28 participants reported their age)
  - Age Range = 19 to 94
  - Median Age = 64.5
  - Age Mode = 68 (23.1%)
  - Mean Age = 60.2

# County of Residence During Training

- Palm Beach County 50% (14 participants)
- Martin County 17.9% (5 participants)
- St. Lucie County 10.7% (3 participants)
- Indian River County 14.3% (4 participants)
- Okeechobee County 0% (0 Participants)
- Broward County 3.6% (1 Participant)
- 27 out of 28 answered

# Employment Status of Participants

- Retired 35.7% (10 Participants)
- Employed Full-Time 7.1% (2 participants)
- Employed Part-Time 14.3% (4 participants)
- Not employed, looking for work 3.6% (1 participant)
- Not employed, not looking for work 21.4% (6 participants)
- Full-time Student 10.7% (3 Participants)
- 26 out of 28 answered

# Applications for Remote Training from Survey

- Keyboarding (Typing) Instruction (9 Participants)
- Magnification Software (8 Participants)
- Screen Reading Software (13 Participants)
- Apple Computer (1 Participant)
- Android or iOS Phone or Tablet (6 Participants)
- Other Training:
  - BrailleNote (2 Participants)
  - Victor Reader Stream (1 Participant)
  - Dolphin Guide or CDesk (1 Participant)
  - Accessible OCR Software (1 Participant)

# Two or More Types of Training Received Remotely

- 12 Participants had training in 2 or more categories
- 4 Participants had training in 3 or more categories

# Instructors

- Instructor 1 (14 Participants)
- Instructor 2 (7 Participants)
- Instructor 3 (7 Participants)
- One participant worked with 2 different instructors remotely

# Technology Used as Reported from the Remote Training Survey

- [LogMeIn Rescue](#) (6 Participants)
- [Remote Incident Manager](#) (RIM) (8 Participants)
- [JAWS Tandem](#) (8 Participants)
- Skype (3 Participants)
- Phone (14 Participants)
- Unknown
  - 2 Participants did not know what technology was used during remote training.
- Likely that some participants were not aware of all the technology being used

# RIM Manage Host Group

## **Manage Host Group: Rachael Trinkowsky**

**Type of remote access:** incidents

**Total client seats:** 1

**Used client seats:** 1

**Unused client seats:** 0

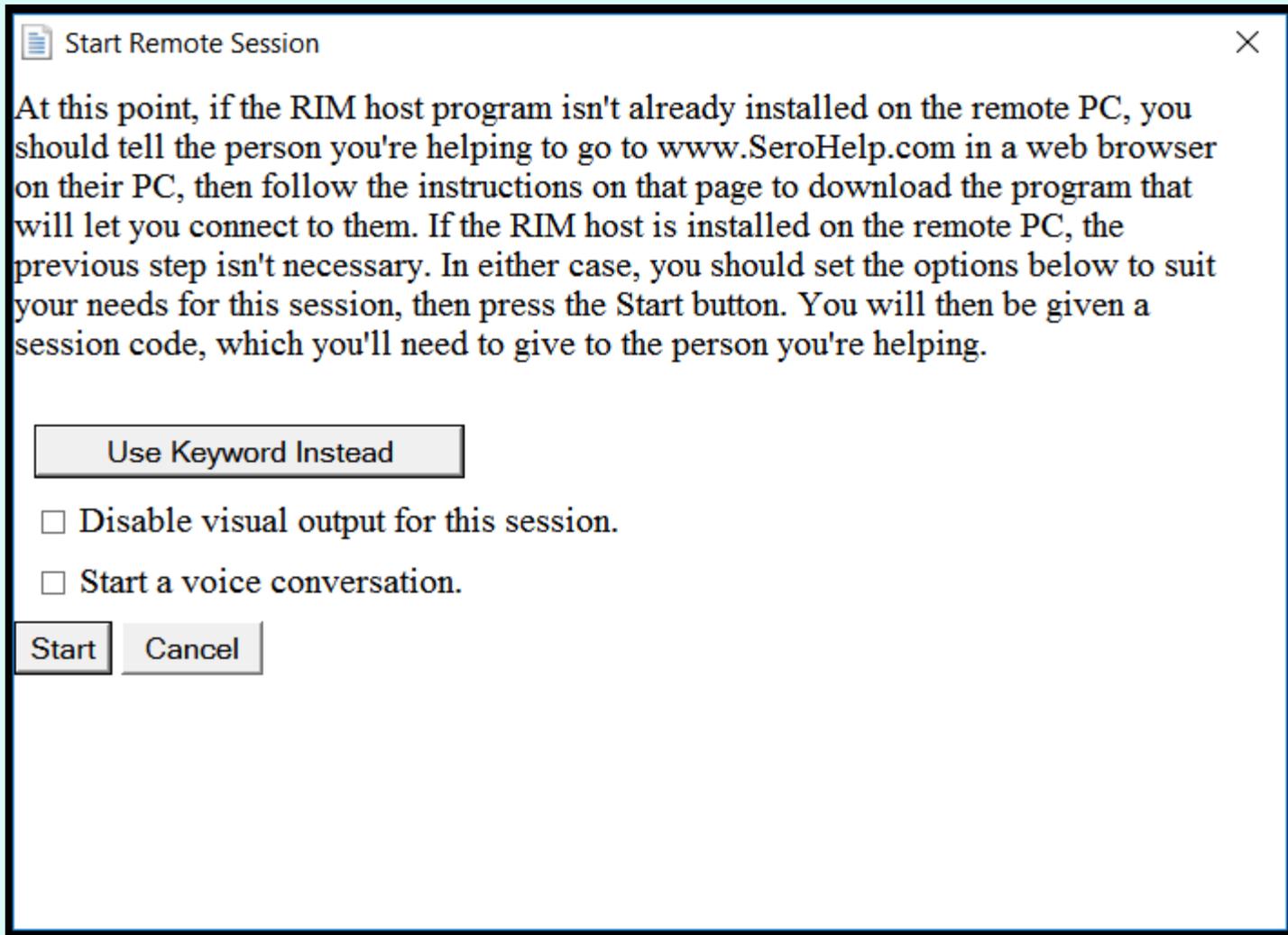
- [View incidents](#)
- [Create a sub-group](#)
- [Manage client users in this group](#)
- [Download host software](#)
- [Email a host installation link to end-users](#)
- [Add a client user or host group manager](#)
- [Manage this group's managers](#)

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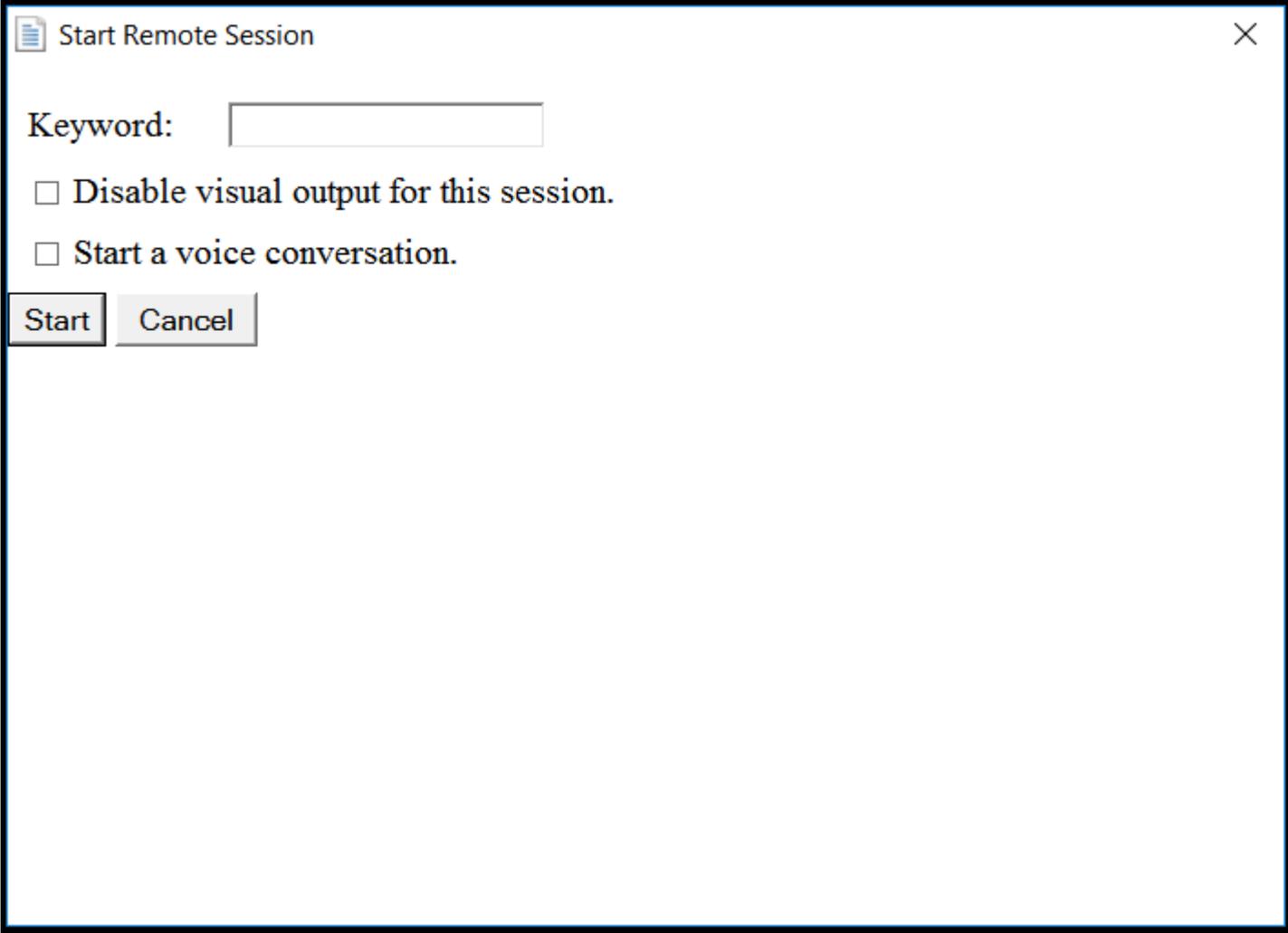
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Version 2.1.74

# RIM Start Remote Session Dialog



# RIM Start Remote Session Keyword



Start Remote Session

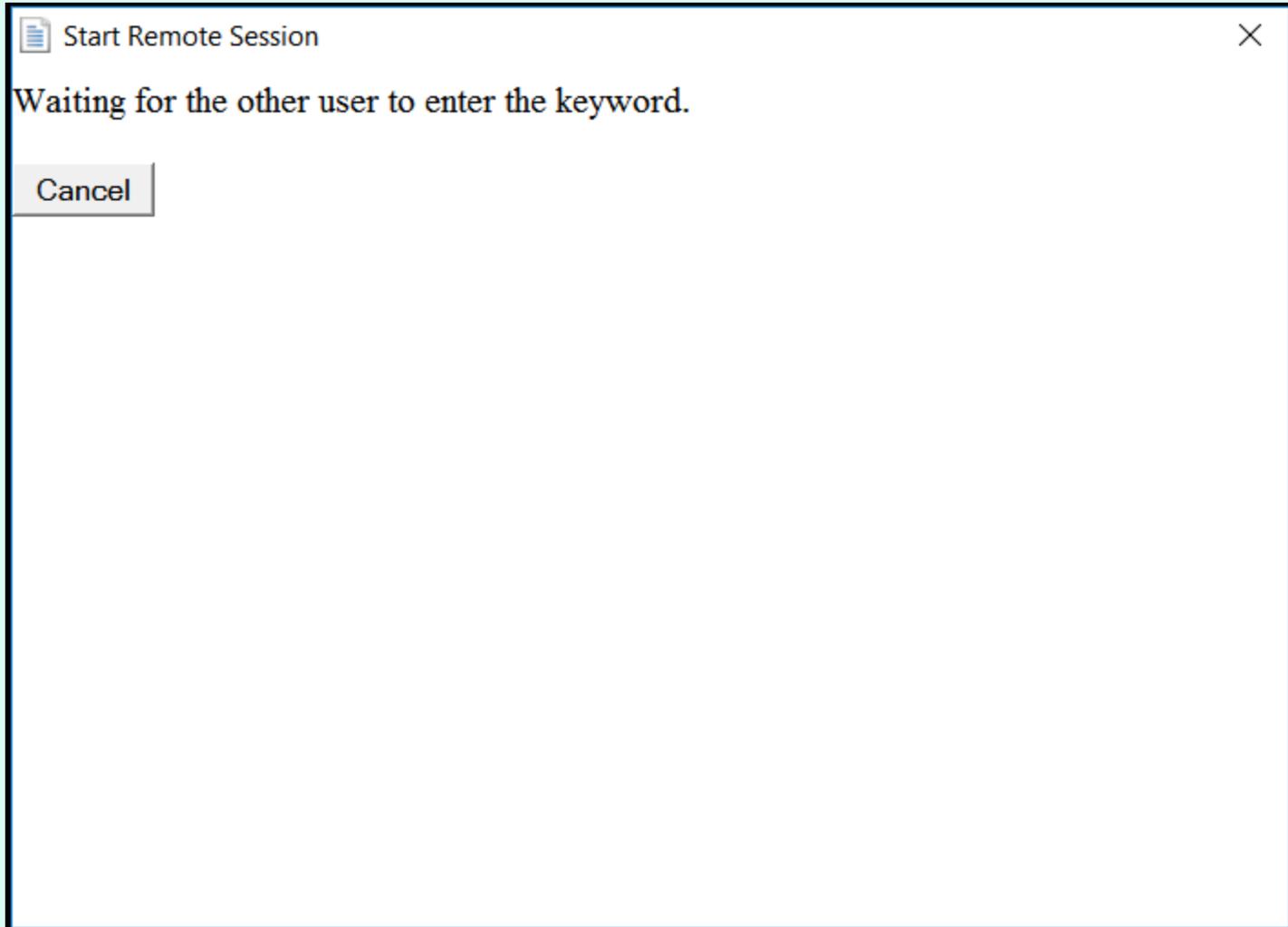
Keyword:

Disable visual output for this session.

Start a voice conversation.

Start Cancel

# RIM Waiting for user to enter keyword



# User Starts RIM

- To start RIM once it is installed on a user's computer, the command is Control and Shift with Backspace.

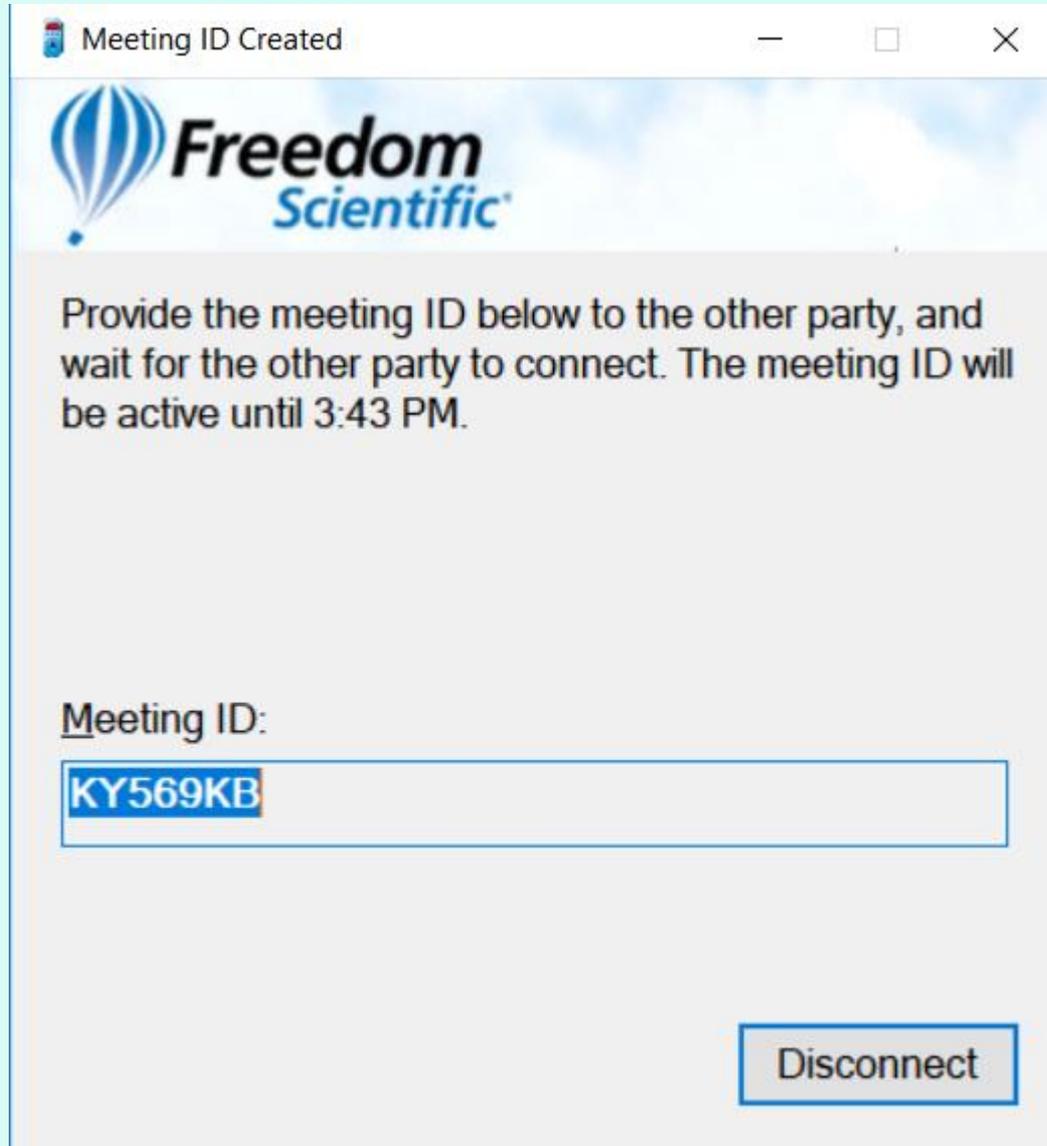
# Using Remote Incident Manager

- To open the menu while connected to a remote computer, use Shift with Caps Lock and Escape.
- [Getting Started with Remote Incident Manager](#)

# JAWS Tandem Initial Dialog Box



# Meeting ID Created for JAWS Tandem



Meeting ID Created

 **Freedom**  
Scientific

Provide the meeting ID below to the other party, and wait for the other party to connect. The meeting ID will be active until 3:43 PM.

Meeting ID:

**KY569KB**

Disconnect

# Allow Access JAWS Tandem Dialog



Allow Access To My Computer

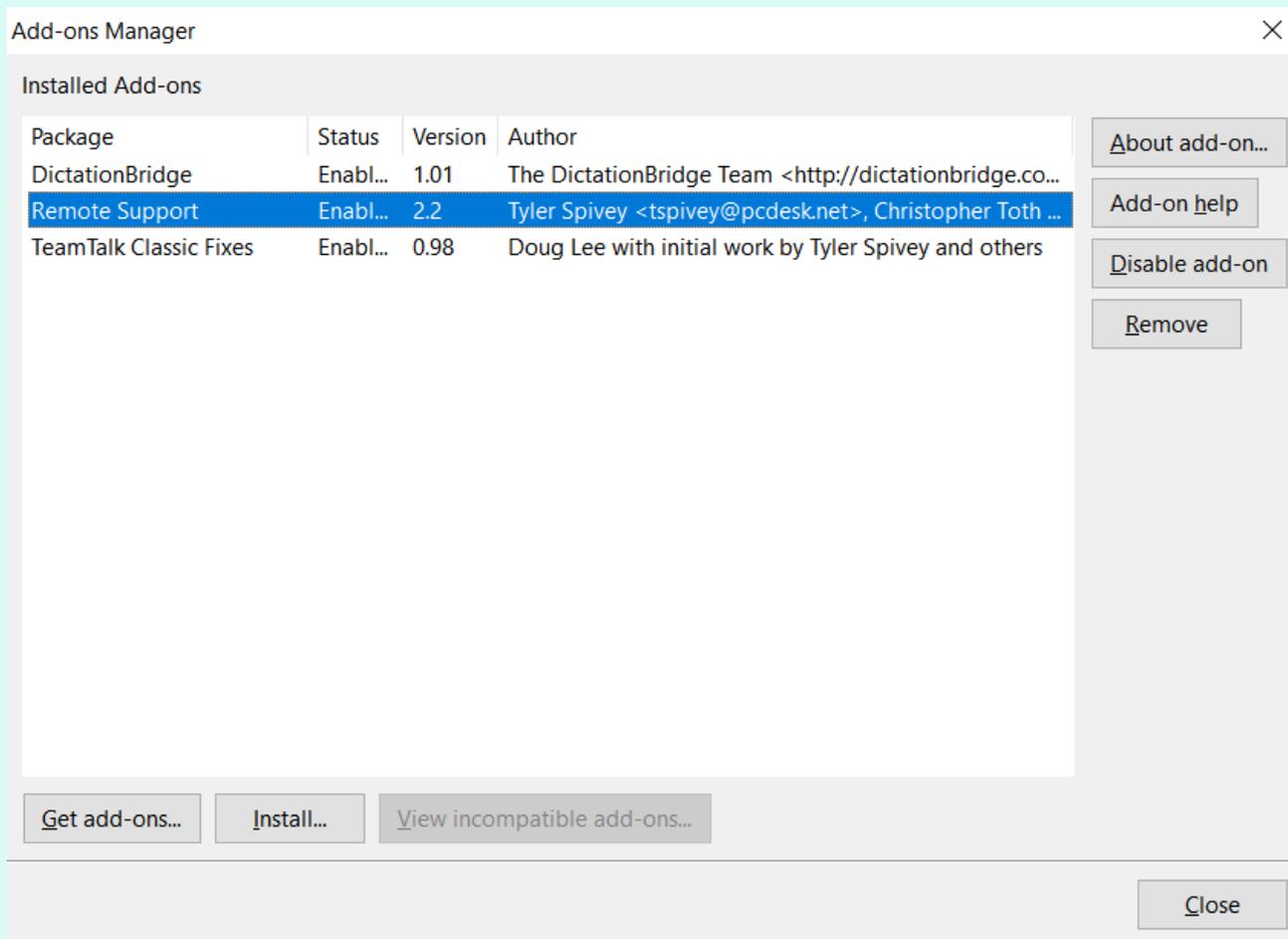
 **Freedom**  
Scientific

Welcome to Tandem. Enter the meeting ID given to you by the person who will be accessing your PC.

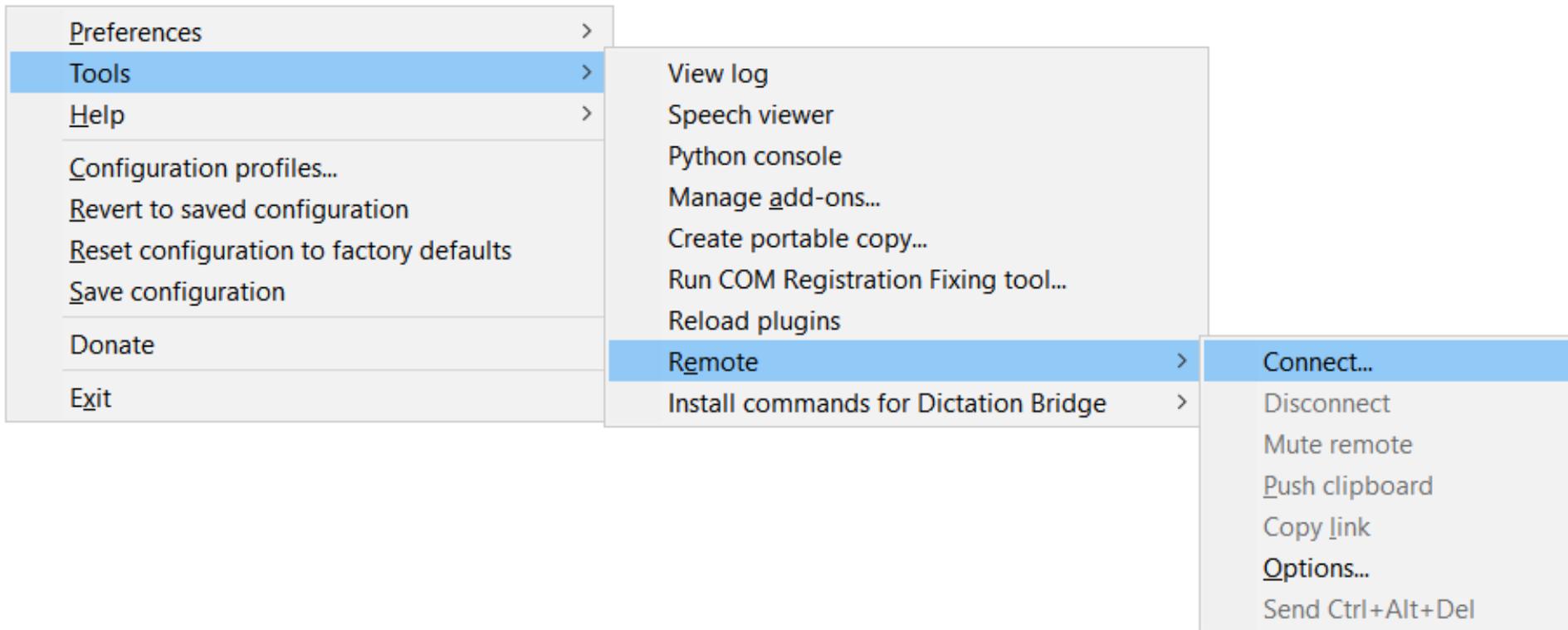
Meeting ID:

# NVDA Remote Documentation and NVDA Add-ons Manager

- [NVDA Remote Add-on Documentation](#)



# NVDA Remote Menu



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