

Screen Reader Overview

Johan Rempel

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CREATING THE NEXT®

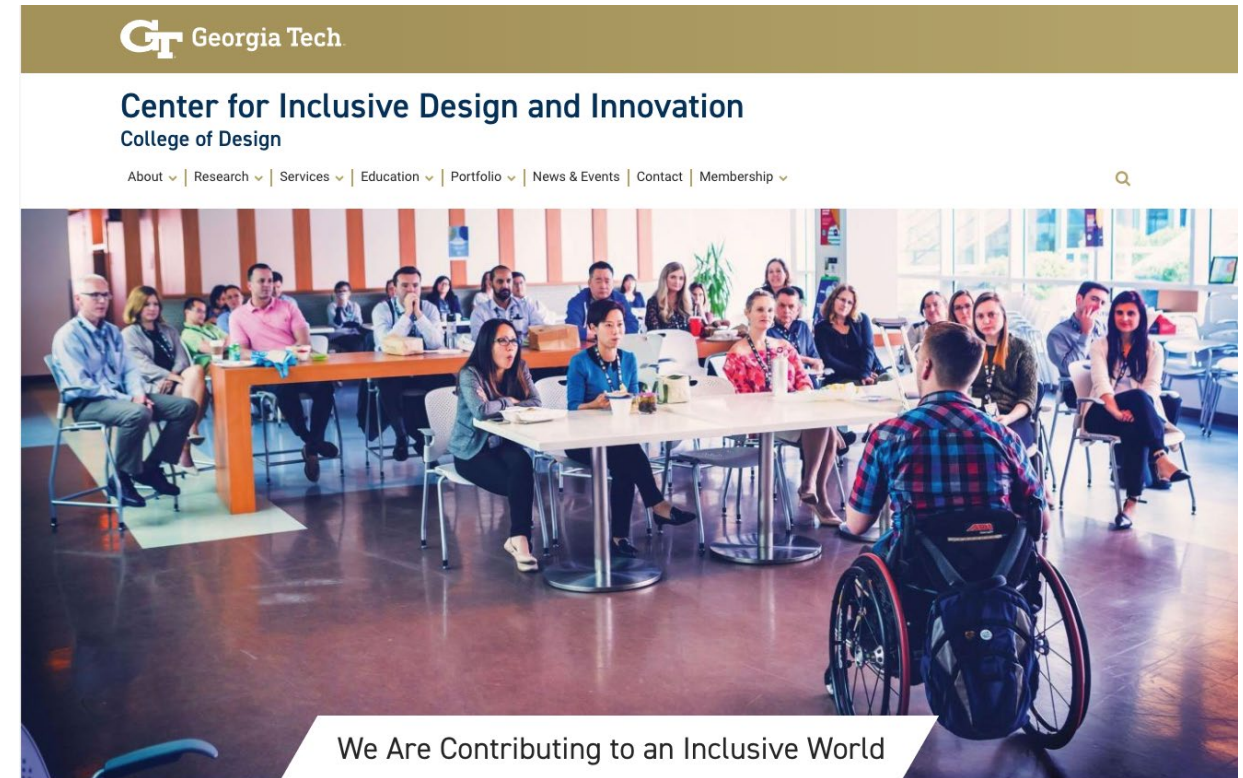
Live Captions Provided

Two Options:

1. Access StreamText link available in the “Chat” (“Chat” control in Zoom toolbar)
2. Access the “Closed Captions” option (“Closed Captions” control with “CC” above it in Zoom toolbar)



- Research (disability-related)
- Accessibility Consulting – ICT and UX
- Braille Services
- Captioning and Described Audio Services
- Professional E-Text Producers
- Certified Assistive Technology Team
 - Tools for Life is celebrating 30 years of service in 2021!



Goals for Today's Presentation

1. Description of overlapping needs of people with disabilities
2. Overview of common screen magnification applications
3. Overview of common screen readers
4. Provide real-time demonstration of assistive technology
5. Sharing of resources related to AT



Testing for Accessibility: A Hybrid of Automated and Manual Testing

How People with Disabilities Use the Web

- Visual
- Auditory
- Mobility
- Cognitive and Neurological
- Speech



ClaroRead



Text-to-Speech

Visual Highlighting

Read back any on-screen text and program commands

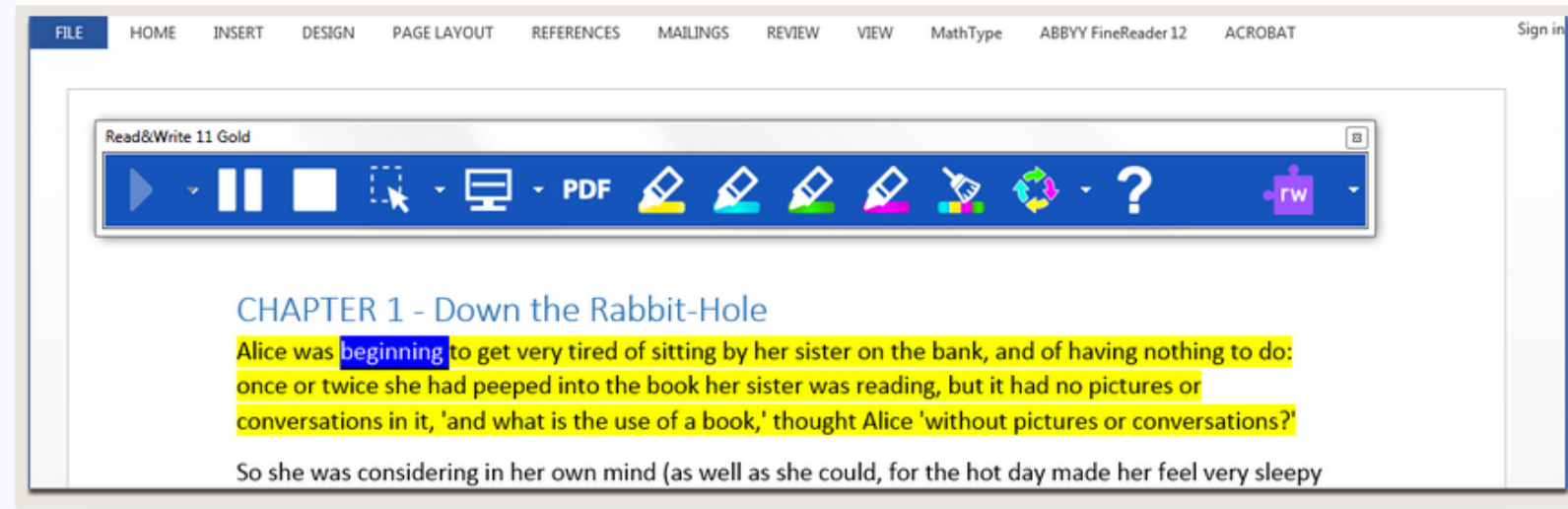
High Quality Screen Reader

Keyboard Echo

Save to Audio

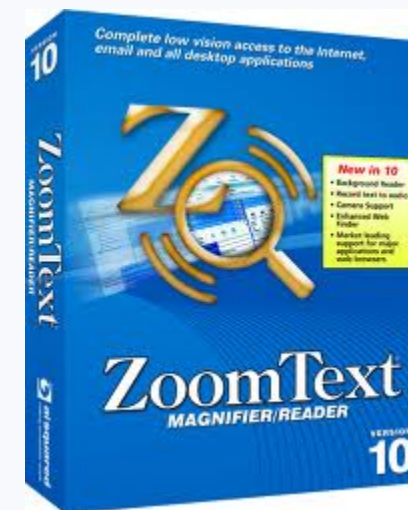
Read & Write Gold

- Text-to-Speech software
- Reads Word, PDF files and web pages as long as they're accessible
- Text Highlighting
- Allows for creation of audio version
- Provides customizable toolbars



Screen Magnification Programs

- MAGic
- ZoomText
- Windows Magnifier
- Mac Zoom
- Zoom and Magnifier (iOS & Android)



Commonly Used Screen Readers

Common Screen Readers
Used on Desktop/Laptop

- JAWS
- NVDA
- VoiceOver for the Mac

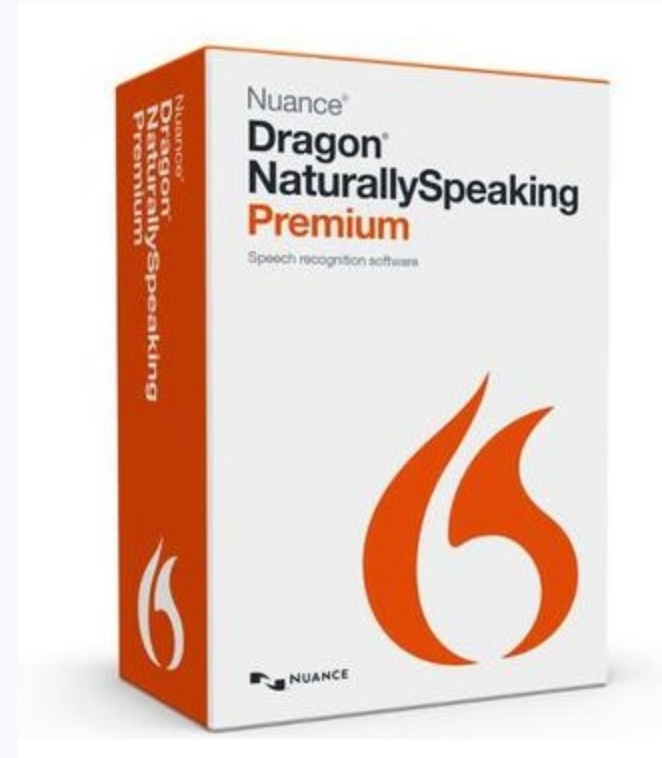


Speech Recognition Software

Turn spoken words into text

Connect with the timing of your thoughts

Dictation speed 70 to 100 words per minute



Document Accessibility

Live Demonstration

Where Do I Start???

- A wide array of AT Products
- Lack of experience using AT
- So many browsers, operating systems and devices



Step Away from the Mouse!

- Keyboard Accessibility Covers a Multitude of Sins
- Tab and Reading Order
- Visual Focus
- Interactive Form Controls
- Keyboard-Triggered Event Handlers



Why Test with Screen Readers?

- Critical Stops Abound for Inaccessible Sites
- Accessibility for Screen Readers = Accessibility for Many
Other AT Solutions
- Liability and Powerful Advocacy Groups

NVDA: Pros and Cons

Pros:

- FREE!!! – Open Source
- Lightweight: fewer system resources used
- Frequent Updates: Quarterly

Cons:

- Lack of technical support
- Lacks compatibility with 3rd party applications
- Less frequently used in education and workplace than paid screen readers
- Poor quality synthesizer by default

Pros

- Largest market share
- Excellent Technical Support
- Extensive scripts developed for 3rd party applications

Cons

- Expensive
- Tries to fill in “Accessibility Gaps” – Problematic for testing
- Lack of portability/versatility with installation

Web Accessibility

Live Demonstration

Browsing the Browsers

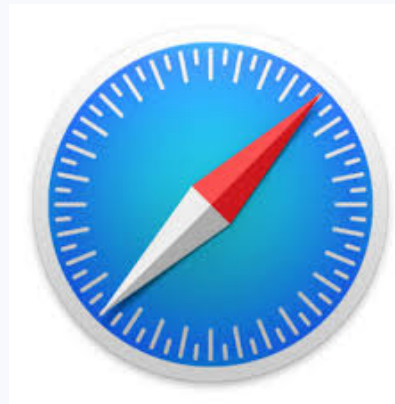
JAWS

- Windows Edge
- Firefox
- Chrome



NVDA

- Windows Edge
- Firefox
- Chrome



VoiceOver

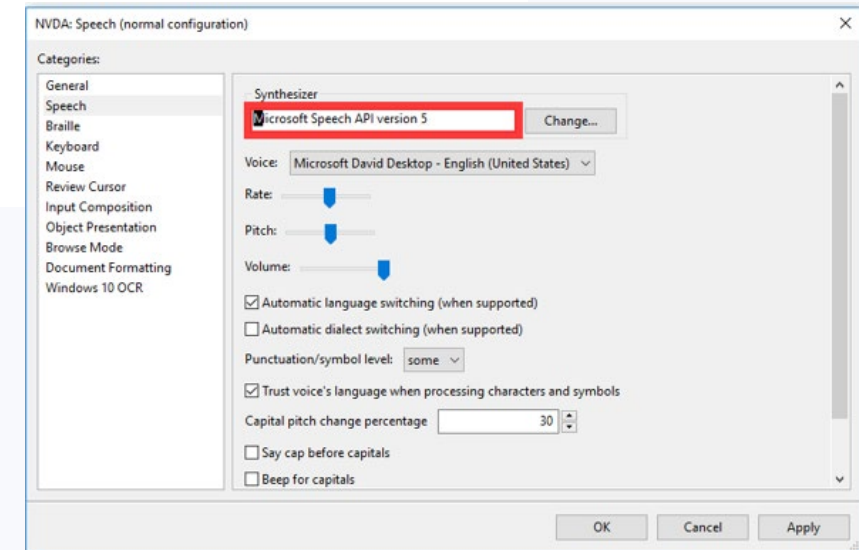
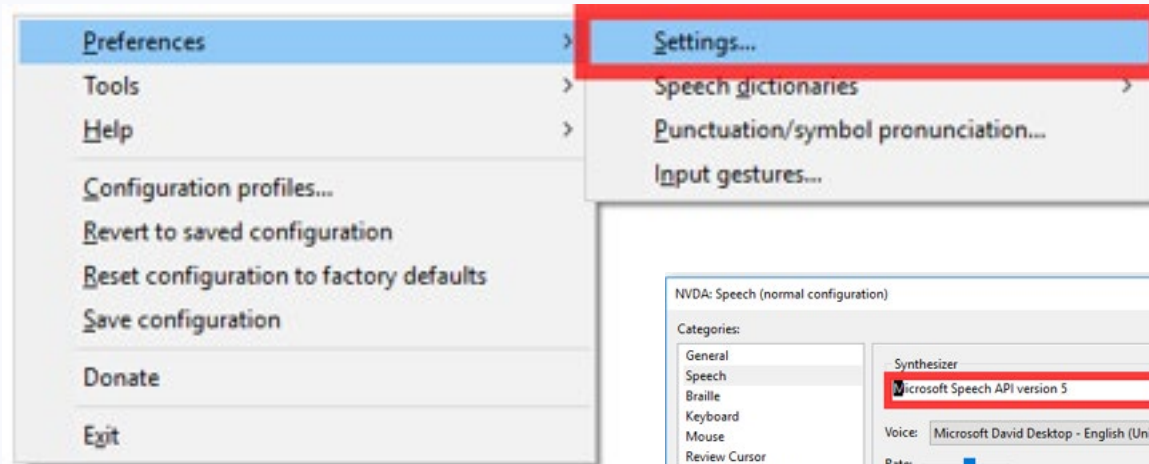
- Safari



Changing NVDA Synthesizer

Change Default Synthesizer:

1. Select Preferences from Menu
2. Select Settings...
3. Select "Speech"
4. Select "Microsoft Speech API version 5"



NVDA Shortcuts

Move forwards through every page element: 'Down arrow'

Move backwards through every page element: 'Up arrow'

Navigate forwards through headings: 'H'

Navigate backwards through headings: 'H + SHIFT'

Navigate forwards through links: 'TAB'

Navigate backwards through links: 'TAB + SHIFT'

To activate a link: 'Enter'

To activate a button: 'Enter or Space bar'

Navigate forwards through landmarks: 'D'

Navigate backwards through landmarks: 'D + SHIFT'

Stop NVDA talking: 'CTRL'

Toggle Screen Layout mode on/off: 'NVDA + V'

JAWS Shortcuts

Move forwards through every page element: 'Down arrow'

Move backwards through every page element: 'Up arrow'

Navigate forwards through headings: 'H'

Navigate backwards through headings: 'H + SHIFT'

Navigate forwards through links: 'TAB'

Navigate backwards through links: 'TAB + SHIFT'

To activate a link: 'Enter'

To activate a button: 'Enter or Space bar'

Navigate forwards through regions (ARIA, HTML and landmarks): R

Navigate backwards through landmarks: SHIFT + R

Stop JAWS talking: 'CTRL'

Forms Mode on: 'Enter'

Forms Mode Off: 'Escape'

Resources

Download NVDA:

<https://www.nvaccess.org/download/>

Learn NVDA Tutorial by American Foundation for the Blind:

<https://www.afb.org/blindness-and-low-vision/using-technology/assistive-technology-videos/learn-nvda>

Surf's Up Tutorial for JAWS:

https://www.freedomscientific.com/SurfsUp/_Surfs_Up_Start_Here.htm

Download JAWS:

<https://support.freedomscientific.com/Downloads/JAWS>

W3C-WAI Perspective Videos:

<https://www.w3.org/WAI/perspective-videos/>

Questions???

