Hello, my name is John Paul Harris and I am the Wyoming AIM Clearinghouse project coordinator at the Wyoming Institute for Disabilities. I work with individuals and educators across the state of Wyoming to enhance the accessibility of devices, services, and education curriculum. Today, we are going to talk about the accessibility features of Microsoft Windows 7 and 8. I want you to know about these accessibility features and how to use with accessible instructional materials.

Let’s get started.

This training module will go-over how to use the following features from Windows 7 or 8:

1. Onscreen keyboard
2. High Contrast
3. Large Text
4. Magnifier
5. Speech Recognition

I will discuss how to use these features to support students with print disabilities and how to integrate the use of these features with accessible instructional materials, such as large print, digital text, DAISY audio, and refreshable braille displays.

In this training module participants will be able to identify the accessibility features in Windows 7 and 8, match Windows accessibility features to be used with the different types of accessible instructional materials, and be able to identify additional resources.

I will be using Windows 7 for this demonstration and later in the training module I will cover Windows 8. I understand that different districts have different resources, and if you have any questions, please call me at the Wyoming Institute for Disabilities.

Let’s review Window’s Ease of Access. Ease of Access is where you will find most of these accessibility tools.

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To find the Ease of Access Center on Windows 7, go to the Start Button at the bottom left of the screen and select Control Panel from the right side menu. You will see a window with many items listed. Make sure you have the "View by:" set to the category option in the top right of the window. Select **Ease of Access** and then select **Ease of Access Center**.

The Ease of Access Center is a great starting point to learn more about Windows accessibility features.
From the Ease of Access Center we can start the On-screen keyboard, Narrator, and Magnifier features.

The on-screen keyboard can be used with students with physical disabilities and those who have minimum finger dexterity. The student can use a pointing device, head tracker, touchpad, or switch to type using the onscreen keyboard.

I have an example document that I will use to demonstrate the onscreen keyboard. I have set the onscreen keyboard to type keys that I dwell on with the cursor. This can be beneficial for students who may have difficulty using the mouse or touchpad to perform a click.

__ONSCREEN KEYBOARD

Also, notice the built-in word prediction feature of the onscreen keyboard. It is a basic word prediction application, but it can benefit those students who have never used word prediction and might actually benefit from such a feature.

Next, we will review the High Contrast screen color feature available from Ease of Access. High Contrast screen colors are useful for students with a visual impairment. It can be used with a large font size or the Magnifier tool to make the screen more readable.

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From the Ease of Access menu I will select **Optimize visual display**. You can see I already have the High Contrast tool enabled. To Turn on or off, I will use the keyboard shortcut sequence of left ALT + left SHIFT + PRINT SCREEN.

Next, I will demonstrate the Magnifier tool. The Magnifier tool is a very usable tool. Magnifier has multiple user settings for increased student usability. Also, the Magnifier tool is free! I mention this, because other screen magnification software can cost hundred’s of dollars to purchase. The Magnifier tool is useful for educators and IEP team members needing to assess the student’s use and need for screen magnification. Try this option before the school district purchases expensive screen magnification software.

In settings where students will use a hard copy textbook or workbook, the Wyoming Institute for Disabilities can provide accessible instructional materials to allow for access to the instructional material.

Accessible instructional materials can be provided in a digital text format, such as a Word document or PDF, and can be displayed with an increased font size or viewed with the Magnifier tool on a computer screen or mobile Windows device.

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Next, I will demonstrate the Large Text feature. The Large Text feature is useful for students who need a minimal increase in screen text, icons, and buttons. There is a limited range of increased font size, up to 150%, and for additional aid a student should use the Magnifier tool.
I will go to the Start button and select the Control Panel from the right-side menu. From the Control Panel I will select **Appearance and Personalization**. Then, I will select **Make text and other items larger or smaller**. You can see I already have the highest setting available, 125%, selected for my laptop. Depending on your computer's screen resolution, it might be possible to increase to 150%. I personally use this feature so that I can more easily read documents, web pages, and identify icons on the screen.

You may have noticed the Narrator tool in the Ease of Access Center. Narrator provides basic screen reading capabilities that allow you to use Windows when you don't have a more full-featured screen reader. Narrator is not designed to read content in all programs, including Microsoft Office applications. For this reason, I do not recommend the use of Narrator in any setting. Instead, I recommend the free screen-reader software NVDA. NVDA stands for non visual desktop access and it is a full-featured screen reader application. NVDA is a good tool for students who are just beginning to use screenreader software and for educators needing to assess the usefulness of screenreader software with a student.

Let's review the tools we have used so far. High Contrast, Magnifier, and Large Text.

Next, I will demonstrate the Speech Recognition tool. The Speech Recognition tool is useful for students who have limited upper body mobility, limited finger dexterity, and those students who find using the keyboard frustrating, possibly a student with a visual impairment who is not yet familiar with the keyboard.

We will go back to the Ease of Access option in the Control Panel to locate the Speech Recognition tool.

First, I will setup my microphone. It is important to use a high quality, USB microphone with Speech Recognition. A USB microphone provides a clean digital signal to the speech recognition application. I am using a $45 dollar headset from Cyber Acoustics. It is a device I have used effectively in the past and with many clients.

When I have the microphone plugged in, I will select **Set up a microphone** from Ease of Access. When you first use the Speech Recognition application, you will asked to complete a tutorial. During this tutorial, the Speech Recognition application learns to recognize your voice and creates a voice profile. The tutorial takes about 40 minutes, but I would recommend you complete this tutorial, before you use the Speech Recognition application.

Options for braille. Windows can be used with refresheable braille displays. With a refresheable braille display a student can interact with text documents, online resources, email, and many more applications.
Finding the right braille display for a student is an involved process and there are many vendors and manufacturers of braille displays. Many companies will let you demo their braille display products for 30 or 60 days. Finding a correct match is important: the student will need to be comfortable with the device for many years to come. Contact WIND for help and additional resources regarding refreshable braille displays.

Recap.

I want to quickly demonstrate some of the same accessibility features on the Windows 8 operating system. I will be using a Windows 8 Surface Pro for this demonstration.

Windows 8 is very similar to Windows 7, with the exception of Windows 8’s new Start screen, previously call the Metro UI. The Start screen replaced the start button that we are so familiar with. In previous versions of Windows, I could press the Windows key to open the start menu. On Windows 8 I can still press the Windows button to access the start screen. I will begin typing “control panel” and the control panel item will appear on the screen. Since Windows 8 Surface Pro is a touch screen I can select items with my finger. I will not be using a mouse

From the Control Panel I will select Ease of Access and then Ease of Access Center. The same tools are available as those from Windows 7. The Magnifier and Narrator have been optimized for a touch screen. I would like to demo the Magnifier tool.

The Speech Recognition, High Contrast, and Large Text features are the same as those in Windows 7 and work identically to our previous demonstrations.

Here are links to additional resources.

My name is John Paul Harris and you can contact at j-h-a-r-r-i-4-2-@-u-w-y-o-.e-d-u or call me at 307-766-5770. Thank you for joining us for this presentation on Windows Accessibility features.