Screen Reader Guide for Students

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IMPORTANT REMINDER: The author of this guide refers to the system as AIM and not as MyDSS. However, both AIM and MyDSS are the same system.

Introduction

This quick start guide is designed to help students who use screen readers navigate the AIM system with ease. Written by an experienced screen reader user for over twenty-five years and a daily AIM user since 2017, this guide was created with the specific training needs of screen reader users in mind. The guide does presume basic skills in using your screen reader, such as launching a web browser, reading commands, and ability to open a webpage.

As of this writing, the two most popular screen readers are JAWS and NVDA. The Screen Reader Quick Start Guide is written for users of these two software packages. If you use a different screen reader and are new to it, you may want to review the training materials associated with that screen reader before consulting this guide. Also, as of this writing, the two most popular web browsers are Mozilla Firefox and Google Chrome. The commands listed in this guide will work in either browser.

Section 1: Overview of Web Browsing Using JAWS or NVDA

This introductory module provides a brief overview of navigating the web. Since AIM is a web-based platform, solid website navigation skills will be essential in having a smooth AIM user experience. If you are already very comfortable navigating websites with a screen reader, you may opt to skip this section. Note that this is not a detailed tutorial on how to customize your web browser or specific web browsing settings in your screen reader. You may wish to consult your screen reader's help documentation for more information on this.

Most of the commands outlined below apply to both NVDA and JAWS. If a command applies to one screen reader but not the other, this will be noted. A key we will use frequently in this guide is the insert key. Both JAWS and NVDA make heavy use of this key to perform specialized commands that relate only to the screen reader. If you are using a laptop, your screen reader may be configured such that the caps lock is used in place of the insert key. If you are unsure whether your screen reader is customized in this way, try some of the commands as outlined below, first with insert and then with caps lock, to see which key combination works.

Exploring a Webpage

When you navigate to a website, such as www.google.com, your screen reader will transition to a mode which allows you to browse webpages. In NVDA, this is called Browse Mode. In JAWS, this mode is called Virtual Cursor Mode. When you first land on a page, the screen reader will either place its cursor at the top of the page or at the start of a form field where you could input information, such as a search field. We are using Google's webpage in this introductory example instead of the AIM webpage because it is a much simpler page with fewer elements to navigate.

You can explore a page's content on a basic level by using the up and down arrow keys to read the text, as well as explore various page elements such as links, headings, tables, and form fields. You can also use the tab key to navigate down, or forward, through the page elements. To navigate up, or backwards through the page elements, hold down shift and press the tab key. Continuing to press tab or shift tab will cycle you through the elements on the page once you have reached the top or bottom of the page. As you proceed through this guide, you will notice that when browsing the web, pressing the shift key along with another navigation key generally moves your screen reader's cursor to the previous element instead of the next element. This will be demonstrated later. Pressing control plus the home key takes you to the top of the page, while control plus the end key takes you to the bottom. Pressing insert plus t will tell you the title of the webpage.

Page Elements

Page elements are features of a webpage which make it easier to navigate. We will review the most common elements found on the AIM website. Links take you to another webpage or another part of the same webpage. Headings organize information and are often tiered at different levels. A heading at level 2 will have more specific information related to the information at heading level 1 above it. Lists group pieces of related information together. Later in this section, we will review how to easily jump to a link, heading, list, and other elements.

Grouping Page Elements

In NVDA, an easy way to organize all of the links and headings on a page is to hit the insert key plus F7. You can then arrow up or down through the list. You can jump to a specific link or heading by pressing its first letter. For example, on the Google homepage, after pressing insert plus F7, you can press g to go to the Gmail link, and then press enter to activate it.

In JAWS, pressing insert plus F7 will create a list of links only. Pressing insert plus F6 generates a list of headings, while insert plus F5 generates a list of form fields, such as edit boxes, combo boxes, radio buttons, and checkboxes. Just as with NVDA, pressing an element's first letter after hitting insert plus F5, F6, or F7 will take you to the element that starts with that letter.

Form Controls

Form controls are elements on a webpage which allow you to enter information. These include edit boxes, buttons, comboboxes, checkboxes, and radio buttons. There are additional types of form controls which are more advanced. These will not be covered here because they are not used by AIM.

Edit Boxes

An edit box allows you to type text. For example, the edit box on Google's homepage is a search field. Depending on how your screen reader is configured, you may need to hit the enter key on an edit box in order for the screen reader to allow you to enter information in that box. Both JAWS and NVDA refer to the mode where you can enter data as Forms Mode. Once you move away from a form, your screen reader will automatically toggle out of Forms Mode and back to Virtual cursor mode for JAWS or Browse mode for NVDA.

Buttons

Buttons are just what they sound like – Form controls which cause the website to perform a particular function when you press enter on them. There is a Search button on Google's homepage. Unlike with edit boxes, you do not need to be in Forms Mode to activate a button.

Exercise 1.1: Performing a Google Search Using an Edit Box and Button

Navigate to Google's search page by pressing control plus l and then typing in www.google.com. Locate the edit box, which is the search field on the page by using the up and down arrow keys or the tab and shift tab keys. If your screen reader makes a noise such as a click or pop, it is set to automatically enter Forms Mode when you move your screen reader's cursor over a form field. If you do not hear a click or a pop, your screen reader may be set to enter Forms Mode manually. To enter Forms Mode manually, hit enter on a form field, such as the edit box on Google's homepage. Then type in a search string and hit the tab key until you hear "Google Search Button." Press enter on that button to have Google perform the search. Then use the arrow keys or hit insert plus F7 to explore the search results' links. You can of course hit enter on any link, and your browser will open that link's corresponding page.

Comboboxes

Comboboxes are lists of options to choose from. For example, when ordering a product online, the product's webpage will often use a combobox of choices ranging from 1 on up for you to indicate the quantity of that item you would like to order. You will need to be in Forms Mode to activate a combobox. Once in Forms Mode, use the up and down arrow keys to make your choice in the combobox.

Exercise 1.2: Searching on Amazon Using a Combobox

Navigate to www.amazon.com. Explore the webpage using the arrow keys until you find the combobox which gives you a choice of which department to search in. If your screen reader does not automatically place you in Forms Mode, press enter on the combobox and then use the down arrow key to choose any department. Then press tab until you hear your screen reader announce that you are in a search field. Type something to search for and then press tab until the screen reader says "go button." Note that since Amazon frequently updates their website, you may hear slightly different wording when your screen reader announces the various form fields. When your browser pulls up the page of search results, use the arrow or tab keys or, better yet, press insert plus F7 to take you through the search results.

Checkboxes

Checkboxes are form elements which allow you to choose one or more options at a time. You can think of them as lists of choices where you are able to place a checkmark by as many items on the list as you would like. To check or uncheck a checkbox, press the spacebar on it. Your screen reader will indicate that the box is checked or unchecked. Just like with buttons, you can activate a checkbox even when not in Forms Mode

Radio Buttons

Unlike checkboxes, radio buttons only allow you to choose one item from a list of choices. Sometimes radio buttons are used instead of comboboxes. You can think of radio buttons as choosing a station on a radio. You can only listen to one station at a time. When in Forms Mode, use your up or down arrow key to choose which radio button you would like.

Exercise 1.3: Ordering pizza using Radio Buttons and Checkboxes

Navigate to https://www.dyn-web.com/tutorials/forms/examples/pizza.php. You may find it easiest to copy and paste this web address into your browser's address bar.

This page gives an example of a pizza order form, showing how radio buttons and checkboxes work. Explore the page using the arrow keys. Hit enter on any size pizza from the radio button options given, to select the size you would like. This will place you in Forms Mode. You can then change your choice, selecting a different radio button by using the up and down arrow keys. Then practice using the checkboxes to pick the types of toppings you would like. You can hit the escape key to get out of Forms Mode, and you will still be able to toggle the checkboxes as checked or unchecked using the spacebar. Sadly, this website is only a demo and doesn't allow you to order a real pizza.

Tables

A very common way that websites organize information is using tables. While tables are not always built in a way that works well with screen readers, the tables in AIM are carefully

designed to be accessible and are a frequent method for displaying data. Once in a table, you will need to hold down the control and alt keys together to navigate the table. With control and alt held down, press down arrow to move down within the current column, up arrow to move up in that same column, right arrow to move right to a different column within the current row, and left arrow to move left within the current row. You will get a chance to practice navigating a table in the section below.

Navigation quick keys

Now that you are familiar with various types of page and form elements, there is a very easy, one-key way to jump to the next occurrence of a specific type of element on a page. Pressing shift plus that same key moves to the previous occurrence of that type of element. This is a very efficient way to navigate the AIM site. Navigation quick keys will be referred to frequently in the remaining sections of this guide.

The list of navigation quick keys below is organized in a table. Use your table navigation skills that you just learned to navigate this table.

Element	Quick Key
Next radio button	a
Next button	b
Next combobox	C
Next edit box	E
Next form field of any type	F
Next heading at any level	H
Next heading at level 1	1
Next heading at level 2	2
Next heading at level 3	3
Next list item	I
Next list	l

Next table	t
Next checkbox	x

Quickly finding text

Sometimes, you may be looking for something on a webpage, but you don't know what type of page element it is. Or perhaps what you're looking for is simply a piece of text. For example, suppose you do a Google search for the phrase "best screen reader," and you want to find out if the screen reader you use comes up in the search results. You can use the Find command to locate a particular piece of text, like NVDA or JAWS, and the screen reader will then place its cursor on that text if it can be found anywhere on the current webpage.

Using JAWS, this command is probably familiar, control plus f. In NVDA, you will need to use insert plus control plus f. Then type in the search string you're looking for and press enter. You may find that this saves you a bundle of time once you get to know a website well and know what you are looking for. Your sighted peers may be spending a lot of time scrolling down the page to look for the text. Meanwhile, you are able to find it in only the amount of time it takes you to type in a search string and press enter.

Conclusion

This concludes the basic webpage navigation part of the tutorial. Your screen reader's help documentation has much more detailed information, which you are encouraged to review if you are new to web browsing and want to learn more. But the basic skills covered above will get you started in using AIM. Once you are comfortable with the exercises in this section, you are ready to move on to the next section, Navigating AIM.

Section 2: Navigating AIM

Now that you are familiar with web browsing basics, let's apply what you've learned to navigating AIM's site specifically. This section gives an overview of how the site is laid out, some common elements on each page, and some tips and tricks that will help you navigate the site with ease, no matter what page you are on.

First Things First

To get started, open the login URL on your school's disability services website. This will be different for each school. Complete the login process so that you are signed in. This will take you to the My Dashboard page, which is your jumping-off point for all AIM tasks.

Each school has customized AIM to meet their specific needs. So, this guide will focus on a general overview of how AIM pages are laid out and give suggestions for how to navigate the site.

Note that the items on each page are described in the order in which you would encounter them as a screen reader user. While sighted users experience a webpage by seeing content on the left and right sides of the screen, screen reader users experience the content on webpages as one long column of information. Generally, screen reader users do not find it very helpful to be told that something is on the left or right side of the page, since we have no way of discerning whether our cursor is on the left or the right. So, we will avoid describing the location of the items on the AIM site by referencing which side of the page they are on.

AIM Layout

The developers of the AIM system have worked hard to make sure that information on the site is organized by headings, lists, and tables. Whichever AIM page you are on, it is very likely that pressing h for heading one or more times will quickly move you to the information you are looking for on that page, with the heading telling you what information can be found in that part of the page. Pressing l for list will always take you to a group of links or pieces of information organized in a list format, such as a list of your accommodations for a course. And pressing t for table will always jump you to any information that may be formatted as a table, such as a list of e-mails sent to you via the AIM system.

My Dashboard

The title on the My Dashboard page is Overview, plus the AIM version number, such as DSV4-LionHead. If you're not sure where you are, you can press insert plus t, and your screen reader will read the page title.

Top of the Page

The very first link is a Skip to Main Content link. Hit enter on this link to skip all of the standard links at the top of the page. Below that, you will find additional links to skip various amounts of standard information. Below this, you will see a welcome message

Below the welcome message, you will find a list of four links – My Profile, My Mailbox (Sent E-Mails), My Accommodations, and Sign Out. These are organized in a list, which you can easily get to from the top of the page by pressing l for list.

My Profile is the first item in the list of four links, and pressing enter on this link will place you in a set of fields where you can edit some information, such as your address and phone number. You will not be able to edit all of the information, such as your name. Press f for form field to see what items you can edit. If you make any changes, press b for button to go

to the Update My Profile button, and press enter. If no changes are needed, hit B again to find the Back to My Dashboard button and press enter.

Back on the My Dashboard page, the second of the four links is My Mailbox (Sent Emails). This will show you a list of all emails sent to you through the AIM system. Emails are organized in a table, which you can jump to by pressing T for table. The table has three columns – Email Subject, Date Sent, and View. The view column includes links to view individual emails from the list. Remember to use control plus shift plus any of the arrow keys to navigate the table.

The third item in the list of four links is My Accommodations. Pressing enter here will display information about accommodations you have requested for the current term, if any. You can easily move around on this screen by pressing h for heading, and then using the down arrow key to review information under each heading. Take a few moments to explore how this page is laid out.

Back on the My Dashboard page, the fourth item in the list of four links is a link to sign out. For data security reasons, we recommend that you always click this link when you are finished with an AIM session. Note that AIM will generally log you out after fifteen minutes of inactivity.

Beyond the four main links of My Profile, My Mailbox (Sent E-Mails), My Accommodations, and Sign Out, the contents of the My Dashboard page will start to vary from school to school. But here is a list of some things you may be able to do on this page, depending on how your school uses AIM

- o Review any announcements or to-do list items that your disability services office would like you to be aware of

- o Request accommodations or update an existing accommodation request

- o Review previously-requested accommodations

- o See the status of faculty notifications about your accommodations

- o Upload documentation

- o Manage specific accommodations you may be approved to receive, such as alternative testing, notetaking, or borrowing of equipment

- o View agreements you have signed through AIM

- o Access your disability services office's contact information

Section 3: Requesting Accommodations

While every school's processes and procedures are a little different, at most schools, it is each student's responsibility to request accommodations from their instructors for individual courses. This section will show you how to do this via the AIM system.

Step 1: Select Classes

If you have not yet requested accommodations for your courses this term, you will see one or more checkboxes on the My Dashboard page. Quickly find these by pressing x for checkbox. Each checkbox corresponds to a course you are currently enrolled in. In this first step, select the course(s) for which you would like to use some or all of your accommodations by pressing the spacebar to check each checkbox. On the next page, you will be selecting which accommodations you would like to use for each course. But in this first step, you are simply selecting the courses.

Depending on the courses you are taking and the accommodations approved for you by your disability services office, you may opt not to request accommodations for all courses. For example, suppose one of your classes is an independent study, and you do not plan to use any accommodations for that course. Simply leave that box unchecked.

When you have finished selecting all the courses for which you would like to use your accommodations, navigate to the button labeled "Step 2 Continue to Customize Your Accommodations, by pressing b for button, and then press enter.

Step 2: Customize Your Accommodations

On this next page, you will again be selecting checkboxes. But this time, each checkbox corresponds to a specific accommodation for a particular course.

Each of the courses you selected on the previous page will now have its own heading. The headings are labeled Accommodation Request Information For course (12345), where 12345 is the course registration number.

Below the heading for each course, you will see a series of checkboxes for specific accommodations. Press the spacebar to check the box by each accommodation you would like to use. You may wish to use some accommodations for some courses but not for other courses, and this screen allows you to customize them in this way.

Note: AIM groups all testing-related accommodations into one category, called Alternative Testing. This means you will not see the individual testing accommodations you are approved for. For example, let us suppose that you are approved for 50% additional time on exams, exams printed in braille, and use of a scribe. You will not see these individual accommodations listed. If you check the checkbox called Alternative Testing, you will be

requesting all of those testing-related accommodations. Don't worry – You will only be requesting the specific Alternative Testing accommodations that are approved for you.

You may see a checkbox that says "Click here if you have entered a wrong CRN." CRN stands for course registration number, and you can ignore this checkbox unless the classes you see on this page are not your correct courses.

Make sure to review all of the headings on this page to be sure that you request accommodations for all courses where you wish to use them. Once you are satisfied that all boxes have been checked to your liking, locate the button called Submit Your Accommodation Requests, by pressing b.

Each school may handle the notification process a bit differently at this point. For some schools, once you hit the Submit Your Accommodation Requests button, an email will automatically be sent to your instructors, letting them know which accommodations you are requesting for their course. At other schools, disability services staff may need to approve accommodation requests for each course individually. And at some schools, students are instructed to print and hand deliver the faculty notification letters. If you are unsure of the procedure at your particular school, contact your disability services office.

Once you have hit the Submit Accommodation Requests button, you will be placed back on the My Dashboard screen, and you can now see the status of each of your accommodation requests. Do this by locating the heading entitled Accommodation Request Information for Course (12345), where 12345 is the number for that specific course. Use the down arrow key to review this information. You will see links to cancel or modify your accommodation request for each course, as well as the course's accommodations' approval status. If your school requires that disability services staff approve some or all accommodation requests individually, you can use this screen to check to see whether your requests have been approved yet.

Conclusion

We hope you have found this guide useful in becoming comfortable with using AIM to request and manage accommodations. If you have further questions about how to accomplish particular tasks, we encourage you to contact your school's disability services office. You may also find it helpful to reference your screen reader's help system or online documentation.

AIM staff are always interested in hearing feedback. If you have suggestions on how we could improve this Screen Reader Quick Start guide or the AIM interface, please contact us at support@accessiblelearning.com to let us know.