

IBM Cúram Social Program Management



Cúram Accessibility User Guide

Version 6.0.5

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Version 6.05

Note

Before using this information and the product it supports, read the information in "Notices" on page 17

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This edition applies to IBM Cúram Social Program Management v6.0.5 and to all subsequent releases unless otherwise indicated in new editions.

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Chapter 1. Introduction

1.1 Introduction

Accessibility refers to the inclusive practice of making software usable by people of all abilities and disabilities; including limited vision and restricted mobility. The IBM Cúram Social Program Management application strives to ensure accessibility by adhering to Web Content Accessibility Guidelines 2.0 and Section 508. Accessibility features are provided to aid users with disabilities when navigating through and interacting with the Cúram application. In this guide, these accessibility features will be described.

1.2 Prerequisites

This guide also assumes one or more of the following software applications is used when interacting with the Cúram user interface:

- Internet Explorer 8
- JAWS for Windows 12

1.3 Application User Interface Overview

In this guide, many of the User Interface components in the Cúram application are discussed. The figure below illustrates an overview of the Cúram User Interface in a sample application page. In order to provide the reader with context this sample application page will be referenced elsewhere in the guide.

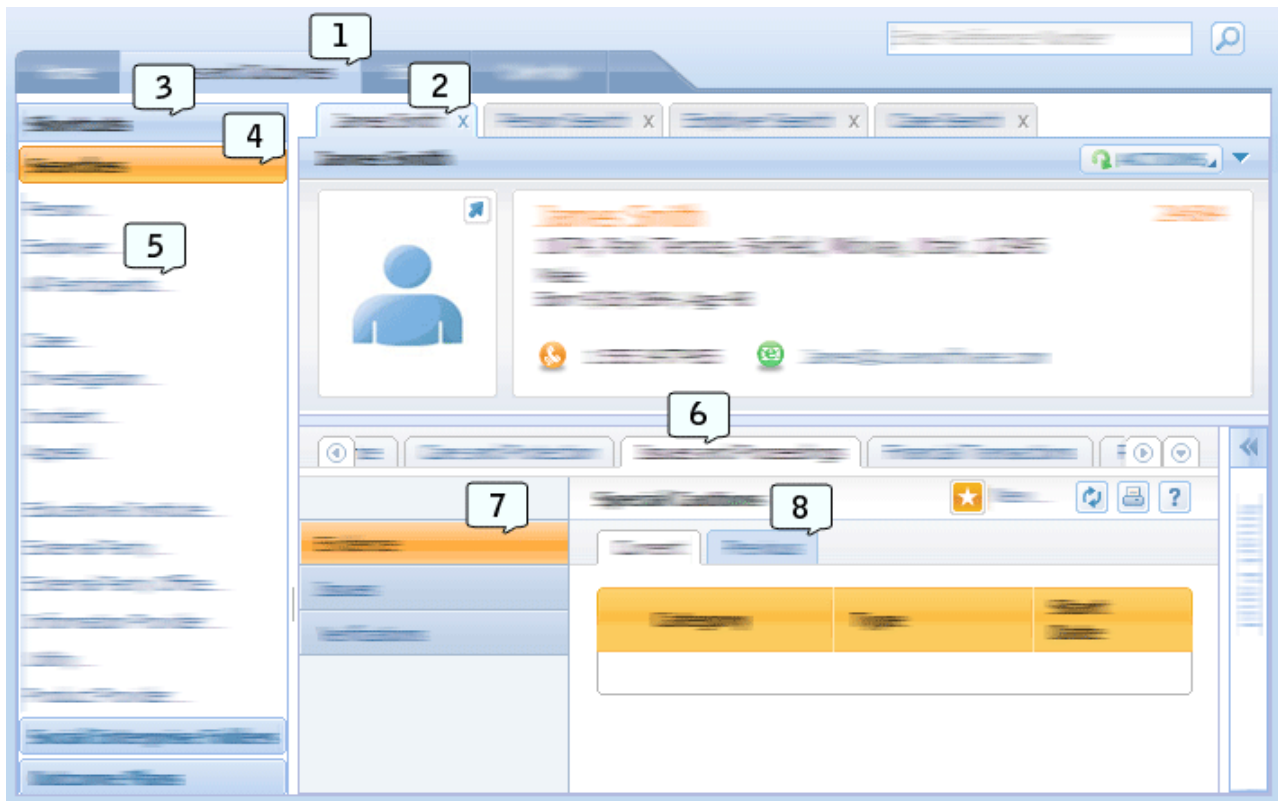


Figure 1. Application User Interface Overview

This table describes the mapping between the numbers and User Interface elements referenced in the figure above.

Table 1. User Interface Elements

Number	User Interface Element Name
1	Application Sections
2	Application Tab
3	Section Shortcut Panel
4	Section Shortcut Category
5	Section Shortcut Menu Item
6	Content Area Navigation Bar
7	Page Group Navigation Bar
8	In Page Navigation Tabs

1.4 Objective

The objective of this guide is to provide information relating to the accessibility features that are available in the Cúram application. This information outlines how a user can avail of these features by providing step by step procedures for each. It is recommended that users with disabilities avail of these accessibility features as doing so enhances the user's experience when interacting with the Cúram application.

1.5 Audience

This guide is intended for caseworker and administrator users of the IBM Cúram Social Program Management application.

1.6 Structure of Document

This document is divided into the following chapters:

- Chapter 2, "Accessibility Features," on page 3 outlines the accessibility features that are available to users in the Cúram application.
- Chapter 3, "Accessible Alternatives," on page 7 outlines the alternative accessibility features that are available to users in the Cúram application.

Chapter 2. Accessibility Features

2.1 Introduction

When navigation through and interacting with the Cúram application it is recommended that users with disabilities avail of the accessibility features that are provided in the Cúram application. In this chapter, these accessibility features are discussed in detail.

2.2 Objective

The objective of this chapter is to provide instructions for users with disabilities that detail how to use the available accessibility features in the Cúram application. The accessibility features outlined are designed for user with restricted movement or low vision who interact with the application using a keyboard and/or screen reader.

2.3 Browser Zoom

About this task

Users with low vision may find it difficult to read content on a web page when displayed in its default size. As a result of this, browsers provide users with the option to increase the browser zoom level for a web page. This means that the text and images on a web page are increased in size allowing users with low vision to read the web content with greater ease.

The following steps outline how to increase the browser zoom level for the Cúram application:

Procedure

1. In the browser's toolbar, select the "Page" menu option.
2. Select the "Zoom" sub option menu.
3. Select the "200%" sub option menu. This will increase the size of the Cúram application by 200%.

What to do next

Note: Cúram supports a browser zoom level of 100% to 200%. Increasing or decreasing the text size using the browser's text size settings is not supported.

2.4 Color Contrast

About this task

Visually impaired users, users with color vision deficiencies and users viewing content on black and white screens must be able to access and understand all information represented on a web page. These users may find it difficult to read content on web pages when certain color combinations are used for images and text.

As a result of this, the Cúram application provides a high color contrast mode user preference. Once this setting is used, all images, text and background colors in Cúram application display in a high color contrast mode. Use the following steps to set this user preference:

Procedure

1. Select the "Preference" link in the application banner.
2. For the "High Contrast Mode" user preference, select "Yes".

3. Select the "Save" button to save this preference.
4. Once the user preference dialog has closed, press F5. This will refresh the page ensuring all elements on the screen are displayed in high contrast mode.

2.5 Landmarks

About this task

The Cúram application uses various WAI-ARIA landmarks. These landmarks divide the application into three areas; Application Banner, Application Search and Application Sections. Refer to User Interface Element 1 of 1.3, "Application User Interface Overview," on page 1 for an example of Application Sections in the application. By using these landmarks a screen reader users can skip to each of these areas easily without needing to traverse over repeated content in the application. This section describes the steps involved to navigate through the application using these landmarks with a screen reader:

Procedure

1. To navigate through the application's landmarks in ascending order press JAWS' landmark keyboard shortcut.
2. To navigate through the application's landmarks in descending order press the SHIFT + JAWS' landmark keyboard shortcut.
3. Each time a landmark is given focus using the above commands the label of the landmark will be read out by JAWS, for example when focus is given to the Application Sections' landmark JAWS will read "Application Sections Main Landmark".

2.6 List Box Form Fields

About this task

Two widgets in the Cúram application contain list box form fields; the Transfer List Widget and the Multiple Selection Widget. A list box form field displays multiple selection options at once to a user allowing the user to make multiple selections. In order to make these multiple selections keyboard and/or screen reader users must use specific keyboard commands. This section describes the steps involved in performing multiple selections using a keyboard and/or screen reader:

Procedure

1. Give focus to the multiple selection form field using the TAB key.
2. Press SHIFT + F8 to turn on multiple selection mode. When in this mode, a dotted line blinks around the form field.
3. Use the UP and DOWN ARROW keys to navigate through the items in the multiple selection.
4. Press the SPACE BAR key to select each highlighted item.
5. Once all required items are selected press SHIFT + F8 to exit multiple selection mode.

2.7 Rich Text Editor

About this task

The Rich Text Editor used in the Cúram application enables users to enter, format and style text. By default focus is given to the text area in the editor allowing users to enter unformatted text information. In order to enter formatted text information a user must gain access to the Rich Text Editor's toolbar. To complete this task using a keyboard and/or screen reader, a user can perform the following steps:

Procedure

1. Give focus to the Rich Text Editor's text area using the TAB key.
2. Press ALT + F10 to give focus to the toolbar.
3. A user can now navigate through the options in the toolbar using the TAB key or the ARROW keys.
4. To select an option in the toolbar a user can press the ENTER key. Following this selection focus is automatically brought back to the text area.
5. To exit the toolbar without making a toolbar selection a user can press the ESC key.

2.8 Section Shortcut Panel

About this task

The Section Shortcut Panel contains a variety of links to allow quick access to common user areas within the Cúram application. These links are grouped within Section Shortcut Categories. Refer to User Interface Element 3 and 4 of 1.3, "Application User Interface Overview," on page 1 for an example of the Section Shortcut Panel and Section Shortcut Categories in the application. Accessibility access features have been integrated into the Section Shortcut Panel to aid keyboard and screen reader users. This section describes the steps involved in navigating and interacting with the Section Shortcut Panel using a screen reader and keyboard:

Procedure

1. Navigate to the expand icon on the Section Shortcut Panel using the TAB key and press ENTER. This will expand the Section Shortcut Panel.
2. Press TAB to give focus to the first Section Shortcut Category. JAWS identifies this elements as a Tab.
3. Press the ENTER key when focus on this category to ensure JAWS is in forms mode.
4. Using the UP and DOWN ARROW key a user can quickly navigate through each Section Shortcut Category in the Section Shortcut Panel.
5. Once focus has been given to the required Section Shortcut Category, the user can press the TAB key access each link within that category.

2.9 Tabs

About this task

The Cúram application is divided into a hierarchy structure with tab navigation at each level; Application Sections, Application Tabs, Content Area Navigation Bar Tabs and In Page Navigation Tabs. Refer to User Interface Element 1, 2, 6 and 8 of 1.3, "Application User Interface Overview," on page 1 for an example of these User Interface components in the application. Accessibility controls have been integrated into these tab navigation elements to aid keyboard and screen readers. This section describes the steps involved in navigating and interacting with these tabs and their content using a screen reader and/or keyboard:

Procedure

1. Give focus to the selected tab in the tab bar using the TAB key. Note the selected tab is the only tab that can be given focus using the TAB key.
2. Once focus is given to this tab, press the ENTER key to ensure the screen reader is in forms mode.
3. Using the ARROW keys a user can navigate through each tab in the tab bar.
4. Once focus has been given to the required tab, the user can press the TAB key to access the content within the selected tab.

Chapter 3. Accessible Alternatives

3.1 Introduction

In the Cúram application there are a number of user interface elements that are inaccessible for keyboard and/or screen reader users. Cúram is committed to providing an accessible application to all users. Therefore, the Cúram application provides accessible alternatives to ensure users with disabilities can access and interact with all content in the application. In this chapter, these accessible alternatives are outlined in detail for screen reader and keyboard users.

3.2 Objective

The objective of this Chapter is to provide instructions to users with disabilities that detail how to use the accessible alternatives available in the Cúram application. The accessibility features outlined are designed for users with restricted movement or low vision who interact with the application using a keyboard and/or screen reader.

3.3 The Calendar

About this task

The Calendar gives users the options to display events using a monthly, weekly or daily view. These views are inaccessible for screen readers. As an accessible alternative users can view calendar events using the Calendar List View. This list view can be accessed by performing the following steps:

Procedure

1. Select the "Calendar" Application Section. By default the "Calendar View" Application Tab will be displayed.
2. Select the "List View" Application Tab.
3. In this view all calendar events are displayed in an accessible table.

3.4 The Cúram Express Rule Editor

Cúram Express Rule Sets, often referred to as CER Rule Sets, contain rules that can be used in a number of ways. A rule set can contain legislative rules that govern the eligibility and entitlement for a related program or some advisory rules to assist a case working to process a clients application.

A CER rule set is stored as XML on the database and is maintained through a number of administration screens in the online application. There is also a Flex based CER editor that is used for periodic maintenance however certain aspects of this editor are not accessible.

Many rule sets are used during the execution of key client application processing, therefore all changes to rules are performed within a development or staging environment where those changes can be tested and approved.

The developer must have knowledge of the structure and definition of a CER rule set that is described in the *Cúram Express Rules Reference Manual*. For development outside of the online application an XML editor is required. As this is a development activity it is expected that the developer has access to the application database and can log into the online application at any time.

3.4.1 Creation of a New Rule Set

About this task

The following sections outlines how a user with disabilities can create a new rule set in the administration application:

Procedure

1. In the administration application, select the "Administration Workspace" Application Section.
2. In the Shortcuts Panel select the "Rules and Evidence" category.
3. Within this category select the "Cúram Express Rule Sets" link. This will open a page that contains a list and an option to create a new rule set.
4. To create a new rule set, select the "New" page action and enter the rule set name, the display name and category. Note that the rule set name is the technical identifier that will be used later to download the rule set.
5. To edit this newly created rule set, open the command prompt and navigate to the <application install directory>/EJBServer folder.
6. Enter "build creole.extractrulesdata -Dcreolerulesetname=<your rule set name> -Dinedit=true" into the command prompt. This will extract the rule set to the <application install directory>/EJBServer/dataextractor/blob folder.
7. The developer should copy this rule set to their custom component and place it into a Creole Rule Sets folder. Using the preferred XML editor, the developer can define the rules according to the guidelines outlined in the Cúram Express Rules Reference Manual.
8. Once complete the developer can validate and upload the rule set by using the command line targets "build creole.validate.rulesets" and "build creole.upload.rulesets" respectively.

3.4.2 Changing Existing Published Rule Sets

About this task

The following sections outlines how a user with disabilities can publish an existing rule set in the administration application:

Procedure

1. In the administration application, select the "Administration Workspace" Application Section.
2. In the Shortcuts Panel select the "Rules and Evidence" category.
3. Within this category select the "Cúram Rule Sets" link. This will open a page that contains a list of existing rule sets. Search for the rule set of interest.
4. To publish this rule set, open the command prompt and navigate to the <application install directory>/EJBServer folder.
5. Enter "build creole.extractrulesdata -Dcreolerulesetname=<your rule set name> -Dinedit=true" into the command prompt. This will extract the rule set to the <application install directory>/EJBServer/dataextractor/blob folder.
6. The developer should copy this rule set to their custom component and place it into a Creole Rule Sets folder. Using the preferred XML editor, the developer can define the rules according to the guidelines outlined in the Cúram Express Rules Reference Manual. Note that any update to annotations should be applied to the properties file as well as the XML file to ensure consistency across the files.
7. Once complete the developer can validate and upload the rule set by using the command line targets "build creole.validate.rulesets" and "build creole.upload.rulesets" respectively.
8. The corresponding properties file(s) can be uploaded via the "Application Resources" link in the Intelligent Evidence Gathering shortcut panel category.
9. On the Application Resources page, select "Property" in the Category drop-down and click "Search".

10. Locate the property file with the same name as the file to upload and select "Edit" from the list row action menu.
11. In the modal, select the "browse" button and locate the properties file to upload. Note: This will override the properties file store for this rule set.

3.5 The Datastore Editor

The Datastore Editor allows users to edit Datastore Schemas. This editor is inaccessible for keyboard and screen reader users. As an accessible alternative Datastore Schemas can be created and modified offline. The following sections outlines how a user with disabilities can create and modify Datastore Schemas in the administration application.

Before beginning, the user must have knowledge of the structure and definition of a Datastore Schemas that is described in the *Working With Cúram Intelligent Evidence Gathering* manual. For development outside of the online application an XML editor is required.

3.5.1 Creation of a New Datastore Schema

About this task

The following sections outlines how a user with disabilities can upload a new Datastore Schema in the administration application:

Procedure

1. Compose an Datastore Schema offline in an XML editor.
2. In the administration application, select the "Administration Workspace" Application Section.
3. In the Section Shortcuts Panel select the "Intelligent Evidence Gathering" category.
4. Within this category select the "Datastore Schema" link. This opens a page that contains a search form and an option to import Datastore Schemas.
5. To import the offline Datastore Schema, select the "Import" page action.
6. This opens a modal dialog that contains a form. Enter the required schema name and ID into the appropriate input fields.
7. Select the Schema browse button. This opens a Windows Explorer dialog allowing the newly created offline Datastore Schema to be selected.
8. Once selected, press the "Save" modal dialog button. This validates the XML in the Datastore Schema. If no validation errors are encountered, the Datastore Schema is uploaded to the online application.

3.5.2 Modifying Existing Datastore Schemas

About this task

The following sections outlines the how a user with disabilities can modify an existing Datastore Schema in the administration application:

Procedure

1. In the administration application, select the "Administration Workspace" Application Section.
2. In the Section Shortcuts Panel select the "Intelligent Evidence Gathering" category.
3. Within this category select the "Datastore Schema" link. This opens a page that contains a search form.
4. Using the search form, search for the appropriate Datastore Schema and select the corresponding list action button. Select the "Download" option. This allows a user to save an offline copy of the selected Datastore Schema.
5. Modify the downloaded Datastore Schema script in an XML Editor.

6. Once complete, import this schema by selecting the "Import" page action.
7. This opens a modal dialog that contains a form. Enter the name and ID of the original Datastore Schema into the appropriate input field.
8. Tick the check box labeled "Overwrite".
9. Select the Schema browse button. This opens a Windows Explorer dialog allowing the modified offline Datastore Schema to be selected.
10. Once selected, press the "Save" modal dialog button. This validates the XML in the Datastore Schema. If no validation errors are encountered, the Datastore Schema overwrites the preexisting Datastore Schema in the online application.

3.6 The Intelligent Evidence Gathering Editor

The Intelligent Evidence Gathering Editor, often referred to as the IEG Editor, allows users to edit and validate IEG scripts. This editor is inaccessible for keyboard and screen reader users. As an accessible alternative IEG scripts can be created and modified offline. The following sections outlines how a user with disabilities can create and modify IEG scripts in the administration application.

Before beginning, the user must have knowledge of the structure and definition of a IEG Script that is described in the *Working With Cúram Intelligent Evidence Gathering* manual. For development outside of the online application an XML editor is required.

3.6.1 Creation of a New IEG Script

About this task

The following sections outlines how a user with disabilities can upload and validate a new IEG script in the administration application:

Procedure

1. Compose an IEG Script offline in an XML editor.
2. In the administration application, select the "Administration Workspace" Application Section.
3. In the Section Shortcuts Panel select the "Intelligent Evidence Gathering" category.
4. Within this category select the "Scripts" link. This opens a page that contains a search form and an option to import IEG Scripts.
5. To import the offline IEG Script, select the "Import" page action.
6. This opens a modal dialog that contains a form. Enter the required IEG script name into the appropriate input field.
7. Select the IEG script browse button. This opens a Windows Explorer dialog allowing the newly created offline IEG script to be selected.
8. Once selected, press the "Save" modal dialog button. This validates the XML in the IEG script. If no validation errors are encountered, the IEG script is uploaded to the online application.
9. Once the modal has closed, search for the newly uploaded IEG script in the search form provided. The search results display in the list below the search form.
10. Find the IEG script in question in the list and select the corresponding list action button. Select the "Validate" option. This opens a modal dialog that prompts the user to select the Datastore Schema that corresponds to the IEG script.
11. Once a schema is selected, press the "Validate" modal button. This validates the IEG script. Any validation errors encountered are displayed in the open modal dialog.
12. The corresponding properties file(s) can be uploaded via the "Application Resources" link in the Intelligent Evidence Gathering shortcut panel category.
13. On the Application Resources page, select the "Add Resource" page action.

14. This opens a modal dialog that contains a form. Fill in the appropriate details for the required property resource.
15. Select the content browse button. This opens a Windows Explorer dialog allowing a new property file to be selected.
16. Select the "Save" modal button. This will add the resource to the online application.

3.6.2 Modifying Existing IEG Scripts

About this task

The following sections outlines the how a user with disabilities can modify and validate an existing IEG script in the administration application:

Procedure

1. In the administration application, select the "Administration Workspace" Application Section.
2. In the Section Shortcuts Panel select the "Intelligent Evidence Gathering" category.
3. Within this category select the "Scripts" link. This opens a page that contains a search form.
4. Using the search form, search for the appropriate IEG script and select the corresponding list action button. Select the "Download" option. This allows a user to save an offline copy of the selected IEG script.
5. Modify the downloaded IEG script in an XML Editor.
6. Once complete, import this script by selecting the "Import" page action.
7. This opens a modal dialog that contains a form. Enter the name of the original IEG script into the appropriate input field.
8. Tick the check box labeled "Overwrite".
9. Select the IEG script browse button. This opens a Windows Explorer dialog allowing the modified offline IEG script to be selected.
10. Once selected, press the "Save" modal dialog button. This validates the XML in the IEG script. If no validation errors are encountered, the IEG script overwrites the preexisting IEG script in the online application.
11. Once the modal has closed, search for the newly uploaded IEG script in the search form provided. The search results display in the list below the search form.
12. Find the IEG script in question in the list and select the corresponding list action button. Select the "Validate" option. This opens a modal dialog that prompts the user to select the Datastore Schema that corresponds to the IEG script.
13. Once a schema is selected, press the "Validate" modal button. This validates the IEG script. Any validation errors encountered are displayed in the open modal dialog.

3.7 Context Panel

To facilitate users with low vision, the Cúram application is designed to correctly resize when the browser zoom setting is increased to 200%. However, in some cases there is not enough available space to display all navigation items on the screen at one time. This section describes the steps involved in using the accessible alternative when this scenario presents itself.

About this task

When viewing the application in smaller resolutions with a browser zoom level of 200%, the content in the context panel can push the navigation bar tabs off the screen. As an accessible alternative users can perform the following actions:

Procedure

1. Navigate to the context panel toggle button.
2. Select the context panel toggle button. This will cause the context panel to collapse and allow the user to easily access the navigation bar tabs.

3.8 New Outcome Plan Creation

About this task

In the IBM Cúram Outcome Management application, the New Outcome Plan Creation screens are inaccessible for keyboard and screen reader users when viewed in the default enhanced mode. As an accessible alternative the New Outcome Plan Creation screens can be viewed in a non-enhanced mode that is accessible to all users. To view these accessible screens a user can perform the following steps:

Procedure

1. In the IBM Cúram Outcome Management application, select the "Preference" link in the application banner.
2. For the "Enhanced Outcome Plan Creation" user preference, select "No".
3. Select the "Save" button to save this preference.
4. Following this, open the New Outcome Plan Creation screens. The screen will open in the non-enhanced mode and will be fully accessible.

3.9 Modals

About this task

The Cúram application uses modal dialogs to enable users to execute an action (e.g. New, Edit and Delete) for a given Application Tab. As focus is not given to these modals automatically when using a screen reader, users must perform a specific keyboard sequence to give focus to the opened modal:

Procedure

1. When the user opens a modal, the screen reader announces the modal and reads out the its title.
2. Press SHIFT + M to bring focus to the modal.
3. Navigate through the modal as normal using TAB or ARROW keys.
4. If at any point focus is lost from the modal, Press SHIFT + M to return focus to the modal.

3.10 Search Paginated Lists

About this task

Paginated lists in the Cúram application are designed to display a specific number of list rows at one time. Controls displayed at the bottom of the list can be used to traverse through all the list rows. When these paginated lists are used on search pages with a screen reader, the screen reader's screen view is not updated following each search query. As an accessible alternative screen reader users can use a sequence of keyboard commands to access the data in these paginated lists correctly:

Procedure

1. Enter in search criteria into the available search form fields.
2. Navigate to the "Search" form button and press ENTER. This will submit the search query.
3. The browser will update the screen with the search results displayed. Press INSERT + ESC to update the screen reader's view of the screen.

4. Navigate to the paginated list that contains the search results using standard JAWS commands. All information within this list will be up to date and correct.

Appendix. Glossary

Screen Reader

Screen readers are a form of assistive technology (AT) potentially useful to people who are blind, visually impaired, illiterate or learning disabled. The screen reader transforms content being display on a computer screen into a text-to-speech output.

Screen Reader user

User who uses a screen reader to navigate and interact with the application. Screen reader user are often blind or visually impaired.

Keyboard User

User who uses a keyboard alone to navigate and interact with the application. Keyboard users often have physical mobility restrictions.

Browser zooming

With the use of a web browser, the zoom level in which the application is being viewed can be increased or decreased. Increasing the zoom level allows any text or images on a web page to appear larger. This zooming feature is used by users with visual impairments. The Cúram application supports a maximum browser zoom level 200%.

Web Content Accessibility Guidelines (WCAG)

Web Content Accessibility Guidelines covers a wide range of recommendations for making Web content more accessible. Following these guidelines ensure web content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photo sensitivity and combinations of these.

Section 508

The legislation referred to as "Section 508" is an amendment to the Workforce Rehabilitation Act of 1973, USA. Section 508 requires that electronic and information technology that is developed by or purchased by the Federal Agencies be accessible by people with disabilities.

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