# McGraw-Hill Education Accessibility Conformance Report

**Based on VPAT® Version 2.3 (Revised) International Edition – April 2019­­**

## *Name of Product/Version:* SIMnet 2019

## *Report Date:* March 12, 2020

## *Contact Information:* accessibility@mheducation.com

## *Notes:* Prepared by Triad Interactive on behalf of McGraw-Hill Education

## *Evaluation Methods Used:* Views are tested using a combination of automated reporting tools – including Siteimprove Accessibility Checker, Lighthouse Accessibility Audit, Web AIM Evaluation, and the Microsoft Office built-in Accessibility Checker – and manual usability testing with screen readers including JAWS 2020, NVDA 2019, VoiceOver, and ChromeVox.

## *Applicable Standards/Guidelines*

This report covers the degree of conformance for the following accessibility standard/guidelines:

|  |  |
| --- | --- |
| Standard/Guideline | Included In Report |
| [Web Content Accessibility Guidelines 2.0](http://www.w3.org/TR/2008/REC-WCAG20-20081211) | Level A (Yes)  Level AA (Yes)  Level AAA (Yes) |
| [Web Content Accessibility Guidelines 2.1](https://www.w3.org/TR/WCAG21) | Level A (Yes)  Level AA (Yes)  Level AAA (Yes) |
| [Revised Section 508 standards published January 18, 2017 and corrected January 22, 2018](https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines) | (Yes) |
| [EN 301 549 Accessibility requirements suitable for public procurement of ICT products and services in Europe](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf), - V2.1.2 (2018-08) | (Yes) |

## Terms

The terms used in the Conformance Level information are defined as follows:

* **Supports**: The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.
* **Partially Supports**: Some functionality of the product does not meet the criterion.
* **Does Not Support**: The majority of product functionality does not meet the criterion.
* **Not Evaluated**: The product has not been evaluated against the criterion. This can be used only in WCAG 2.0 Level AAA.

## WCAG 2.x Report

Tables 1 and 2 also document conformance with:

* EN 301 549: Chapter 9 - Web, Sections 10.1-10.4 of Chapter 10 - Non-Web documents, and Sections 11.1-11.4 and 11.8.2 of Chapter 11 - Non-Web Software (open and closed functionality), and Sections 12.1.2 and 12.2.4 of Chapter 12 – Documentation
* Revised Section 508: Chapter 5 – 501.1 Scope, 504.2 Content Creation or Editing, and Chapter 6 – 602.3 Electronic Support Documentation.

Note: When reporting on conformance with the WCAG 2.x Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](https://www.w3.org/TR/WCAG20/#conformance-reqs).

### Table 1: Success Criteria, Level A

Notes:

| **Criteria** | | **Conformance Level** | **Remarks and Explanations** | |
| --- | --- | --- | --- | --- |
| [**1.1.1 Non-text Content**](http://www.w3.org/TR/WCAG20/#text-equiv-all) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.1.1 (Web) * 10.1.1.1 (Non-web document) * 11.1.1.1.1 (Open Functionality Software) * 11.1.1.1.2 (Closed Functionality Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet provides accessible text equivalents and/or labels and descriptions for non-text content used to communicate information or interact with the product.  This includes but is not limited to images which are given descriptive alternate text, icon indicators which are replaced by the text equivalent of their meaning when presented to assistive technology, and controls which are provided roles, labels and/or descriptions to indicate their purpose and use. |
| [**1.2.1 Audio-only and Video-only (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.2.1 (Web) * 10.1.2.1 (Non-web document) * 11.1.2.1.1 (Open Functionality Software) * 11.1.2.1.2.1 and 11.1.2.1.2.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet contains no audio-only or video-only media, only ShowMe interactivities which combine both audio and video content. |
| [**1.2.2 Captions (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-captions) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.2.2 (Web) * 10.1.2.2 (Non-web document) * 11.1.2.2 (Open Functionality Software) * 11.1.2.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | The only audible media in SIMnet are the ShowMe interactivities. These provide on screen captions for all audible narration. |
| [**1.2.3 Audio Description or Media Alternative (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.2.3 (Web) * 10.1.2.3 (Non-web document) * 11.1.2.3.1 (Open Functionality Software) * 11.1.2.3.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | ShowMe interactivities, the only multimedia content in SIMnet, all include audio description of on screen examples by way of narration and also include textual captions of audible narration. |
| [**1.3.1 Info and Relationships**](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.3.1 (Web) * 10.1.3.1 (Non-web document) * 11.1.3.1.1 (Open Functionality Software) * 11.1.3.1.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Partially Supports | | Content in SIMnet is structured using a variety of established conventions which include landmarks, roles, heading hierarchy, and code semantics to make the relationships amongst the information presented as clear as possible.  Compatibility:  For NVDA 2019 users some designated landmarks without aria-label attributes are not shown in Elements List.  The 2019 version of JAWS will sometimes not read the inner text of buttons, such as the “Done” button in Testbank exams. This is confirmed fixed in the 2020 version.  Exceptions:  SIMnet 2019 SIMbook pages are currently under review for missing table headers, missing table descriptions, improper landmark usage.  In the original SIMnet Testbank exams, the exam questions are rendered in an area reserved for modals within the aside rather than main landmark. This could lead to initial confusion if a user jumps to the main region with QuickKeys, or selects the “Go to Main Content” link, and finds it empty. |
| [**1.3.2 Meaningful Sequence**](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.3.2 (Web) * 10.1.3.2 (Non-web document) * 11.1.3.2.1 (Open Functionality Software) * 11.1.3.2.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Content within SIMnet is ordered to convey a logical sequence relative to the information presented which corresponds to the focus order on screen and is usually not presented in a different order to assistive technology than it is to a standard interface. In places where the order is changed, it is explicitly to adhere to a meaningful sequence. For example, the login page has a forgot password link and submit button beneath the fieldset. By dialog conventions, the visual placement of the primary control is on the right, but for a non-visioned user the intuitive focus order would be by command priority, so the submit button is focused first.  While stylesheet positioning is used in some cases, it is not required to preserve the meaningful order of content on the page. For pages with non-linear, stylesheet-driven layouts, the additional structure is communicated to non-visioned users with extra headings shown to screen readers. |
| [**1.3.3 Sensory Characteristics**](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding)(Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.3.3 (Web) * 10.1.3.3 (Non-web document) * 11.1.3.3 (Open Functionality Software) * 11.1.3.3 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Visual formatting in SIMnet is primarily used for aesthetic purposes. In cases where it is used to convey meaning, it is either accompanied by other means of communicating the same information or it is replaced entirely with an explicit textual equivalent when presented to assistive technology. |
| [**1.4.1 Use of Color**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.4.1 (Web) * 10.1.4.1 (Non-web document) * 11.1.4.1 (Open Functionality Software) * 11.1.4.1 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Partially Supports | | While color is used in SIMnet to convey meaning, it is never relied upon as the sole means of communicating the information.  Exception:  SIMnet 2019 SIMbook pages are currently under review for text and structural indicators distinguished only by color. |
| [**1.4.2 Audio Control**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.1.4.2 (Web) * 10.1.4.2 (Non-web document) * 11.1.4.2 (Open Functionality Software) * 11.1.4.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet does not include audio-only media. |
| [**2.1.1 Keyboard**](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.1.1 (Web) * 10.2.1.1 (Non-web document) * 11.2.1.1.1 (Open Functionality Software) * 11.2.1.1.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Interactive controls in SIMnet can be accessed and used by keyboards to an equal extent as they are with a mouse.  For SIMnet GuideMe activities that ask the user to right-click a certain control, the standard context menu shortcut can be used by keyboard users. Similarly, for SIMnet GuideMe activities requiring the user double-click or triple-click a control, the standard click commands can be pressed multiple times to register the action. Also, when keyboard input is detected, the default Windows double click delay is slowed by 50% to be more sensitive to the multi-click action.  Compatibility:  In JAWS 2019 with Chrome, using the next link hotkey when focusing the last link on the page will sometimes not respond by cycling back to the first link on the page. This behavior could not be reproduced in JAWS 2020 or any other screen reader.  In JAWS 2019 and 2020 with Firefox, elements with the button role are detected properly and will announce “press space to select” but nonetheless will not always accept clicks. Where SIMnet was affected, additional key handlers were added to work around the issue, but the JAWS/FF bug remains outstanding.  In JAWS 2019 with Chrome, if the user right-clicks on the page (with a physical mouse) then presses the Esc key, JAWS will sometimes not refocus inside the viewport, creating a “frozen” effect that requires either re-clicking inside the viewport to restore focus or refreshing the browser tab. This behavior could not be reproduced in JAWS 2020 or any other screen reader.  In JAWS 2019 and 2020 with Chrome, using the context menu (Shift+F10) hotkey on elements rendered outside or partially outside the viewport may in some cases result in right-clicking system components outside the browser, including the Windows desktop, taskbar, other application windows, etc. This behavior was not reproduced with JAWS in Firefox, IE, or Edge, and is not a problem in NVDA with any browser. Where seen in SIMnet, additional safeguards were added, but this JAWS/Chrome compatibility bug remains outstanding.  In JAWS 2020 with Internet Explorer, mousedown commands sometimes will not fire on elements designated as buttons without a button or input tag name. This was not seen with any other screen reader browser combination. Where instances of the behavior were found, additional handling was added as a workaround, but this JAWS/IE compatibility bug remains outstanding. |
| [**2.1.2 No Keyboard Trap**](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.1.2 (Web) * 10.2.1.2 (Non-web document) * 11.2.1.2 (Open Functionality Software) * 11.2.1.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Keyboard focus boundaries in SIMnet are sometimes manipulated for the sake of conveying a switch of context, such as entering a dialog, however in all scenarios an obvious context exit method is provided in the form of an exit button or list of required actions, often alongside conventional context exiting shortcuts like the Escape key.  Compatibility:  In JAWS 2019 with Chrome, using the next link hotkey when focusing the last link on the page will sometimes not respond by cycling back to the first link on the page. This behavior has not been reproduced in JAWS 2020 or any other screen reader.  In JAWS 2019 with Chrome, if the user right-clicks on the page (with a physical mouse) then presses the Esc key, JAWS will sometimes not refocus inside the viewport, creating a “frozen” effect that requires either re-clicking inside the viewport to restore focus or refreshing the browser tab. This behavior could not be reproduced in JAWS 2020 or any other screen reader. |
| [**2.1.4 Character Key Shortcuts**](https://www.w3.org/TR/WCAG21/#character-key-shortcuts) (Level A 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.2.1.4 (Web) * 10.2.1.4 (Non-web document) * 11.2.1.4.1 (Open Functionality Software) * 11.2.1.4.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet offers no single character key shortcuts in any global context except for the sake of preserving a standardized native component behavior in an alternative context. For example, when inside modal dialogs and menus the Esc key can be used to dismiss the component. Similarly, some interactive components have keypress handlers to allow the use of the Enter and/or Space keys to activate the control’s corresponding command by keyboard with or without assistive technology. |
| [**2.2.1 Timing Adjustable**](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.2.1 (Web) * 10.2.2.1 (Non-web document) * 11.2.2.1 (Open Functionality Software) * 11.2.2.1 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet contains no timing requirements for any content or control in the web application outside of those considered essential, such as time limits imposed by assignment settings.  For SIMnet GuideMe activities requiring the user double-click or triple-click a control, the standard keyboard-based click commands – such as Enter, Space, Control+Option+Space, etc. – can be pressed multiple times to register the action, and when keyboard input is detected, the default Windows double click delay is slowed by 50% to be more sensitive to the multi-click action. |
| [**2.2.2 Pause, Stop, Hide**](http://www.w3.org/TR/WCAG20/#time-limits-pause) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.2.2 (Web) * 10.2.2.2 (Non-web document) * 11.2.2.2 (Open Functionality Software) * 11.2.2.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet contains no blinking or scrolling content. Status indicator alerts, such as loading indicators which update with status text prior to content appearance, are given roles to properly announce the changes to screen readers. |
| [**2.3.1 Three Flashes or Below Threshold**](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.3.1 (Web) * 10.2.3.1 (Non-web document) * 11.2.3.1 (Open Functionality Software) * 11.2.3.1(Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet does not contain blinking or flashing content. User-initiated actions which might create a flashing effect, such as paging too quickly, are programmatically throttled to prevent the effect. |
| [**2.4.1 Bypass Blocks**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.4.1 (Web) * 10.2.4.1 (Non-web document) – Does not apply * 11.2.4.1 (Open Functionality Software) – Does not apply * 11.2.4.1 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) – Does not apply to non-web software * 504.2 (Authoring Tool) * 602.3 (Support Docs) – Does not apply to non-web docs | | Supports | | All pages are provided a “Go to page content” link visible to screen readers which precedes all content on the page and which automatically scrolls to the main landmark region content area when invoked. |
| [**2.4.2 Page Titled**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.4.2 (Web) * 10.2.4.2 (Non-web document) * 11.2.4.2 (Open Functionality Software) - Does not apply * 11.2.4.2 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | All pages in SIMnet are provided descriptive titles indicating their name, purpose and/or location within the content base. |
| [**2.4.3 Focus Order**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.4.3 (Web) * 10.2.4.3 (Non-web document) * 11.2.4.3 (Open Functionality Software) * 11.2.4.3 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Partially Supports | | Focus order in SIMnet reflects the logical order of elements as they appear on screen and how they are presented to assistive technology. In places where focus order is different from visual order, it is specifically to adhere to a meaningful sequence (1.3.2). For example, the login page has a forgot password link and submit button beneath the fieldset. By dialog conventions, the visual placement of the primary control is on the right, but for screen-readers the more intuitive focus order is by command priority, so the submit button in this case is focused first.  For pages with non-linear, stylesheet-driven layouts, the logical order implied by the visual placement of content is consistent with the control focus sequence, and is communicated explicitly to non-visioned users by way of extra headings available to screen readers.  Exceptions:  SIMnet 2019 SIMbook pages are currently under review for elements with a visual order that differs from focus order. |
| [**2.4.4 Link Purpose (In Context)**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.2.4.4 (Web) * 10.2.4.4 (Non-web document) * 11.2.4.4 (Open Functionality Software) * 11.2.4.4 (Closed Software * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | When used in SIMnet, links convey their purpose using roles, labels and, more often than not, the links’ inner text itself.  In addition, while SIMnet is a single page application, using buttons as often as links in its user interface, the roles assigned to these controls correspond to the command’s outcome. Buttons are used where a command will apply a state change without redirect. Links are used where a control causes a navigation event, or a significant shift of focus on the page. |
| [**2.5.1 Pointer Gestures**](https://www.w3.org/TR/WCAG21/#pointer-gestures) (Level A 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.2.5.1 (Web) * 10.2.5.1 (Non-web document) * 11.2.5.1 (Open Functionality Software) * 11.2.5.1 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet offers no pointer gesture-based controls. |
| [**2.5.2 Pointer Cancellation**](https://www.w3.org/TR/WCAG21/#pointer-cancellation) (Level A 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.2.5.2 (Web) * 10.2.5.2 (Non-web document) * 11.2.5.2 (Open Functionality Software) * 11.2.5.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet controls with pointer-based activation can be cancelled after a mouse-down event by moving the pointer away from the control prior to releasing the button. |
| [**2.5.3 Label in Name**](https://www.w3.org/TR/WCAG21/#label-in-name) (Level A 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.2.5.3 (Web) * 10.2.5.3 (Non-web document) * 11.2.5.3 (Open Functionality Software) * 11.2.5.3 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet controls with visible label text incorporate the same value in the accessible control names. In situations where an icon is included, the meaning or alt text for the icon is prepended/appended to the visible text label.  Controls with hidden labels, or labels relegated to mouseovers, are provided names either by inner text shown to screen readers, aria-label attributes, or aria-labelledby companion elements.  Compatibility:  In NVDA 2019 with Firefox, some control groups defined by roles instead of form elements do not accept aria-label, only aria-labelledby pointing to another element. Instances of this in SIMnet appear to be limited and have been addressed wherever found.  In NVDA 2019 with Firefox, some designated landmarks without aria-label attributes are not shown in Elements List but can still be accessed with the landmark navigation hotkeys.  The 2019 version of JAWS with Chrome will sometimes not read the inner text of buttons, such as the “Done” button in Testbank exams. This is confirmed fixed in the 2020 version. |
| [**2.5.4 Motion Actuation**](https://www.w3.org/TR/WCAG21/#motion-actuation) (Level A 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.2.5.4 (Web) * 10.2.5.4 (Non-web document) * 11.2.5.4 (Open Functionality Software) * 11.2.5.4 (Closed Software * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet does not use device motion data. |
| [**3.1.1 Language of Page**](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.3.1.1 (Web) * 10.3.1.1 (Non-web document) * 11.3.1.1.1 (Open Functionality Software) * 11.3.1.1.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | The default language of content in SIMnet is explicitly defined in the meta data of every page. |
| [**3.2.1 On Focus**](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.3.2.1 (Web) * 10.3.2.1 (Non-web document) * 11.3.2.1 (Open Functionality Software) * 11.3.2.1 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet does not use focus or blur events to alter page content or change current context.  In some situations, SIMnet manipulates focus boundaries to convey a change of context, such as when the user has launched a dialog. These contexts always have at least one obvious exit method and do not initiate content or context changes based on focus events. |
| [**3.2.2 On Input**](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.3.2.2 (Web) * 10.3.2.2 (Non-web document) * 11.3.2.2 (Open Functionality Software) * 11.3.2.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Changing the setting or value of interface components in SIMnet does not automatically cause changes of context unless the behavior has been clearly indicated by the control’s description, label, and/or role. |
| [**3.3.1 Error Identification**](http://www.w3.org/TR/WCAG20/#minimize-error-identified) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.3.3.1 (Web) * 10.3.3.1 (Non-web document) * 11.3.3.1.1 (Open Functionality Software) * 11.3.3.1.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Input validation errors in SIMnet are clearly described textually and presented to screen readers as alerts to be read aloud. |
| [**3.3.2 Labels or Instructions**](http://www.w3.org/TR/WCAG20/#minimize-error-cues) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.3.3.2 (Web) * 10.3.3.2 (Non-web document) * 11.3.3.2 (Open Functionality Software) * 11.3.3.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Interactive controls within the SIMnet product are all provided roles, labels and descriptions, as needed, to denote purpose and instruct user as to expected use, entry formats and/or requirements.  Compatibility:  In NVDA 2019 with Firefox, some control groups defined by roles instead of form elements do not accept aria-label, only aria-labelledby pointing to another element. Instances of this issue in SIMnet appear to be limited and have been addressed wherever found.  In NVDA 2019 with Firefox, some designated landmarks without aria-label attributes are not shown in Elements List but can still be accessed with the landmark navigation hotkeys.  The 2019 version of JAWS with Chrome will sometimes not read the inner text of buttons, such as the “Done” button in Testbank exams. This is confirmed fixed in the 2020 version. |
| [**4.1.1 Parsing**](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.4.1.1 (Web) * 10.4.1.1 (Non-web document) * 11.4.1.1.1 (Open Functionality Software) * 11.4.1.1.2 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Most markup in SIMnet has been validated to conform with WCAG guidelines.  This includes non-deprecated tag names, proper tag closure, absence of attribute duplication, unique element IDs, valid nesting, and the like. |
| [**4.1.2 Name, Role, Value**](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv) (Level A)  Also applies to:  EN 301 549 Criteria   * 9.4.1.2 (Web) * 10.4.1.2 (Non-web document) * 11.4.1.2.1 (Open Functionality Software) * 11.4.1.2.2 (Closed Software) – Not required * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | All interactive controls in SIMnet have been provided labels and/or descriptive text, roles and status indicators, such as those needed for menus and dynamic form elements like checkboxes and radio buttons.  Where appropriate, ARIA widgets such as menu popovers, expandable tree menu structures, and tab pane switching mechanisms have been added to make interface interaction more intuitive. Where these assistive technology user experience measures have not been extended, at a minimum the interface has been provided the roles, labels, and/or supportive descriptions necessary to understand and operate with assistive technology. |

### Table 2: Success Criteria, Level AA

Notes:

| **Criteria** | | **Conformance Level** | **Remarks and Explanations** | |
| --- | --- | --- | --- | --- |
| [**1.2.4 Captions (Live)**](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.1.2.4 (Web) * 10.1.2.4 (Non-web document) * 11.1.2.4 (Open Functionality Software) * 11.1.2.4 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet doesn’t include live media content. |
| [**1.2.5 Audio Description (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.1.2.5 (Web) * 10.1.2.5 (Non-web document) * 11.1.2.5 (Open Functionality Software) * 11.1.2.5 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | ShowMe interactivities, the only videos in SIMnet, are audibly described by way of narration, often in greater detail than the visual example. |
| [**1.3.4 Orientation**](https://www.w3.org/TR/WCAG21/#orientation) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.3.4 (Web) * 10.1.3.4 (Non-web document) * 11.1.3.4 (Open Functionality Software) * 11.1.3.4 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Not Evaluated | | SIMnet has not been fully evaluated on mobile devices. |
| [**1.3.5 Identify Input Purpose**](https://www.w3.org/TR/WCAG21/#identify-input-purpose) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.3.5 (Web) * 10.1.3.5 (Non-web document) * 11.1.3.5 (Open Functionality Software) * 11.1.3.5 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet form field inputs and their related descriptions and/or alerts are labeled to identify their purpose. |
| [**1.4.3 Contrast (Minimum)**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.1.4.3 (Web) * 10.1.4.3 (Non-web document) * 11.1.4.3 (Open Functionality Software) * 11.1.4.3 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | For SIMnet 2019’s web application and content we have added a high-contrast theme to SIMnet which enhances contrast of elements which might otherwise not meet the minimum contrast specifications.  To access this setting, the student may login, navigate to the Profile view by clicking on their name in the navigation bar, then click on “Edit user info” – the control is located near the bottom of this view. |
| [**1.4.4 Resize text**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.1.4.4 (Web) * 10.1.4.4 (Non-web document) * 11.1.4.4.1 (Open Functionality Software) * 11.1.4.4.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | SIMnet web application and accompanying electronic document resources have all been tested at native zoom levels up to 200% the default.  In addition, SIMbook and Exam views offer a text-resizing tool which increases on-screen text size by up to 200%. |
| [**1.4.5 Images of Text**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.1.4.5 (Web) * 10.1.4.5 (Non-web document) * 11.1.4.5.1 (Open Functionality Software) * 11.1.4.5.2 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Non-text elements in the SIMnet 2019 web interface and electronic documents are always accompanied by descriptive text or, for the sake of clarity, are hidden and replaced by accessible text equivalents. |
| [**1.4.10 Reflow**](https://www.w3.org/TR/WCAG21/#reflow) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.4.10 (Web) * 10.1.4.10 (Non-web document) * 11.1.4.10.1 (Open Functionality Software) * 11.1.4.10.2 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Partially Supports | | Most SIMnet views remain accessible at up to 300% zoom, however some fixed-position views such as certain menus can escape the viewport by some degree, requiring either mouse scrolling or keyboard control to fully reveal, especially on low-resolution or heavily-scaled displays. |
| [**1.4.11 Non-text Contrast**](https://www.w3.org/TR/WCAG21/#non-text-contrast) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.4.11 (Web) * 10.1.4.11 (Non-web document) * 11.1.4.11 (Open Functionality Software) * 11.1.4.11 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | For SIMnet 2019’s web application and content we have added a high-contrast theme to SIMnet which enhances contrast of user interface components which might otherwise not meet the minimum contrast specifications.  To access this setting, the student may login, navigate to the Profile view by clicking on their name in the navigation bar, then click on “Edit user info” – the control is located near the bottom of this view.  Graphical artifacts not subject to contrast enhancement via the setting above are either purely decorative or have their meaning conveyed in various ways besides color. |
| [**1.4.12 Text Spacing**](https://www.w3.org/TR/WCAG21/#text-spacing) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.4.12 (Web) * 10.1.4.12 (Non-web document) * 11.1.4.12 (Open Functionality Software) * 11.1.4.12 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Partially Supports | | SIMnet content has not been fully evaluated for text spacing, however the core SIMbook views offer fully adjustable line spacing and font sizing. |
| [**1.4.13 Content on Hover or Focus**](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus) (Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.1.4.13 (Web) * 10.1.4.13 (Non-web document) * 11.1.4.13 (Open Functionality Software) * 11.1.4.13 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | SIMnet does not contain controls which cause occluding elements to be rendered over content on hover or focus. |
| [**2.4.5 Multiple Ways**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.2.4.5 (Web) * 10.2.4.5 (Non-web document) – Does not apply * 11.2.4.5 (Open Functionality Software) – Does not apply * 11.2.4.5 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) – Does not apply to non-web software * 504.2 (Authoring Tool) * 602.3 (Support Docs) – Does not apply to non-web docs | | Supports | | SIMnet offers many ways of locating most pages/views in the product, including standard navigation, filterable lists, and search boxes.  Pages/views with only one mode of access are deliberately so, as a step in a process or result of an action. |
| [**2.4.6 Headings and Labels**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.2.4.6 (Web) * 10.2.4.6 (Non-web document) * 11.2.4.6 (Open Functionality Software) * 11.2.4.6 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Partially Supports | | Content in SIMnet uses headings and labels to describe the subject and structure of information.  Valid header nesting is also used where applicable to denote information relationship and hierarchy.  Exception:  SIMnet 2019 SIMbook pages are currently under review for corrections to heading level organization. |
| [**2.4.7 Focus Visible**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.2.4.7 (Web) * 10.2.4.7 (Non-web document) * 11.2.4.7 (Open Functionality Software) * 11.2.4.7 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Focusable elements in SIMnet rely on native browser and Microsoft Office focus indicators.  Additionally, in the web application, with high-contrast mode enabled, focus indicators become even more distinct.  Compatibility:  Some screen reader and browser combinations, such as NVDA 2019 with Firefox and JAWS 2020 with Internet Explorer, override the application stylesheets to substitute their own focus indicators. These screen reader default focus indicators are often thinner, lower contrast, and disconnected from the original control’s dimension, compared to the focus rings provided by SIMnet. |
| [**3.1.2 Language of Parts**](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.3.1.2 (Web) * 10.3.1.2 (Non-web document) * 11.3.1.2 (Open Functionality Software) – Does not apply * 11.3.1.2 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | With the exception of some technical terms, proper nouns, and phrases/words that are defined by immediate context, text content in SIMnet has programmatically determinable language defaults which allow for effective use of native browser and OS translation tools.  Additionally, most of the excepted words and phrases described above are covered by the SIMnet Glossary Terms feature, which allows the user to select words, such as technical terms, to see a definition in context or instead, to look up words in the glossary terms search menu.  Where possible, in both the learning content and platform interface, language in SIMnet has been generalized to use more inclusive phrasing for what might appear on a screen or be presented by an alternative interface such as a screen reader. |
| [**3.2.3 Consistent Navigation**](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.3.2.3 (Web) * 10.3.2.3 (Non-web document) – Does not apply * 11.3.2.3 (Open Functionality Software) – Does not apply * 11.3.2.3 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) – Does not apply to non-web software * 504.2 (Authoring Tool) * 602.3 (Support Docs) – Does not apply to non-web docs | | Supports | | The navigational scheme in SIMnet is consistent throughout the product, either by direct duplication of navigation structure on consecutive pages, or by site map and naming similarities between navigational views.  In addition, SIMnet provides a “skip to main content” link on each page that is visible to screen-readers and focusable using the keyboard.  Navigation regions are marked with landmark designations, are excluded from the main content structure, and contain controls with roles assigned according to the command’s outcome. Buttons are used where a command will apply a state change without redirect, such as a menu or dialog control. Links are used where a control causes a navigation event, or a significant shift of focus on the page. |
| [**3.2.4 Consistent Identification**](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.3.2.4 (Web) * 10.3.2.4 (Non-web document) – Does not apply * 11.3.2.4 (Open Functionality Software) – Does not apply * 11.3.2.4 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) – Does not apply to non-web software * 504.2 (Authoring Tool) * 602.3 (Support Docs) – Does not apply to non-web docs | | Partially Supports | | SIMnet follows a consistent labelling and identification scheme for all interactive and informational elements  Exception:  SIMnet 2019 SIMbook pages are currently under review for corrections to informational element identification. |
| [**3.3.3 Error Suggestion**](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.3.3.3 (Web) * 10.3.3.3 (Non-web document) * 11.3.3.3 (Open Functionality Software) * 11.3.3.3 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | Form fields in SIMnet which require input validation provide accessible feedback prior to value submission as needed. |
| [**3.3.4 Error Prevention (Legal, Financial, Data)**](http://www.w3.org/TR/WCAG20/#minimize-error-reversible) (Level AA)  Also applies to:  EN 301 549 Criteria   * 9.3.3.4 (Web) * 10.3.3.4 (Non-web document) * 11.3.3.4 (Open Functionality Software) * 11.3.3.4 (Closed Software) * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508   * 501 (Web)(Software) * 504.2 (Authoring Tool) * 602.3 (Support Docs) | | Supports | | No legal commitments or financial transactions take place in the SIMnet application or electronic documents. |
| [**4.1.3 Status Messages**](https://www.w3.org/TR/WCAG21/#status-messages)(Level AA 2.1 only)  Also applies to:  EN 301 549 Criteria   * 9.4.1.3 (Web) * 10.4.1.3 (Non-web document) – Does not apply * 11.4.1.3 (Open Functionality Software) – Does not apply * 11.4.1.3 (Closed Software) – Does not apply * 11.8.2 (Authoring Tool) * 12.1.2 (Product Docs) * 12.2.4 (Support Docs)   Revised Section 508 – Does not apply | | Supports | | All SIMnet status messages, notifications, and error alerts, have roles such that screen readers announce them aloud when they appear on screen, including those associated with form validation. |

### Table 3: Success Criteria, Level AAA

Notes:

| **Criteria** | | **Conformance Level** | **Remarks and Explanations** | |
| --- | --- | --- | --- | --- |
| [**1.2.6 Sign Language (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-sign) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Does Not Support | |  |
| [**1.2.7 Extended Audio Description (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-extended-ad) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Does Not Support | |  |
| [**1.2.8 Media Alternative (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-text-doc) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | No time-based pre-recorded media presented in SIMnet. |
| [**1.2.9 Audio-only (Live)**](http://www.w3.org/TR/WCAG20/#media-equiv-live-audio-only) (Level AAA)  Also applies to:  EN 301 549 Criteria– Does not apply  Revised Section 508 – Does not apply | | Supports | | No live media presented in SIMnet. |
| [**1.3.6 Identify Purpose**](https://www.w3.org/TR/WCAG21/#identify-purpose) (Level AAA 2.1 only)  Also applies to:  EN 301 549 Criteria– Does not apply  Revised Section 508 – Does not apply | | Partially Supports | | The purpose of user interface components, icons, and regions in SIMnet are primarily identified using aria-landmarks and roles, however not all regions have been evaluated across all content. |
| [**1.4.6 Contrast Enhanced**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast7) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | For SIMnet 2019’s web application and content we have added a high-contrast theme to SIMnet which enhances contrast of elements which might otherwise not meet the minimum contrast specifications.  To access this setting, the student may login, navigate to the Profile view by clicking on their name in the navigation bar, then click on “Edit user info” – the control is located near the bottom of this view. |
| [**1.4.7 Low or No Background Audio**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-noaudio) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | Videos in SIMnet do not contain any background audio. |
| [**1.4.8 Visual Presentation**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-visual-presentation) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Does Not Support | | While the majority of text blocks in SIMnet fulfill these 5 requirements, these style guides were not enforced when the content was originally created.  In the next version of SIMnet, we plan to incorporate these rules into our page style guides. |
| [**1.4.9 Images of Text (No Exception) Control**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-images) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet includes no images of text except for logotypes, decorations, and presentations where text is essential to the information conveyed.  The most prominent examples of the latter are screenshots of desktop software which are necessary for teaching visioned students and are always described by alternative text. |
| [**2.1.3 Keyboard (No Exception)**](http://www.w3.org/TR/WCAG20/#keyboard-operation-all-funcs) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | All functionality and content in SIMnet is operable via the keyboard interface and do not require timings for keystrokes. |
| [**2.2.3 No Timing**](http://www.w3.org/TR/WCAG20/#time-limits-no-exceptions) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet contains no timing requirements for any control in the web application outside of those considered essential (e.g. imposed by assignment settings, such as a test bank exam with a time limit of 60 minutes). |
| [**2.2.4 Interruptions**](http://www.w3.org/TR/WCAG20/#time-limits-postponed) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | The only interruptions imposed on users in SIMnet are dismissible alerts, notifications, and essential error dialogs.  If one of these dialogs is not immediately dismissible, it is because the user must not continue without a change taking place (e.g. internet connection errors or exam-in-progress indicators which block content to prevent cheating). |
| [**2.2.5 Re-authenticating**](http://www.w3.org/TR/WCAG20/#time-limits-server-timeout) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | After authentication expiration, users can continue some activities in SIMnet without data loss but will require re-authentication for certain actions, such as saving answers or accessing restricted content. |
| [**2.2.6 Timeouts**](https://www.w3.org/TR/WCAG21/#timeouts) (Level AAA 2.1 only)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | User data in SIMnet is synchronized in real time, such that nontrivial session data is restored upon re-authentication. The only exceptions to this are due to instructor-imposed assignment constraints, such as exam due dates. |
| [**2.3.2 Three Flashes**](http://www.w3.org/TR/WCAG20/#seizure-three-times) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet includes no flashing content. |
| [**2.3.3 Animation from Interactions**](https://www.w3.org/TR/WCAG21/#animation-from-interactions) (Level AAA 2.1 only)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Partially Supports | | While the majority of interactions in SIMnet have no corresponding animation beyond those provided natively by the browser or operating system, there are certain commands precipitating animations.  For example, modal dialogs have a fade-in and fade-out animation. Similarly, certain expandable regions and menus have open and close animations. Certain GuideMe interactivities feature action playback animations, and number of views have animated graphics to indicate loading progress, such as spinner icons. |
| [**2.4.8 Location**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-location) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | Location within the SIMnet application is always indicated by several components on-screen, including but not limited to page titles, headings, active nav indicators, and breadcrumbs. |
| [**2.4.9 Link Purpose (Link Only)**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-link) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | In SIMnet, links which do not indicate their purpose contextually include additional label and/or role information to designate their purpose. |
| [**2.4.10 Section Headings**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-headings) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Partially Supports | | Content in SIMnet uses headings to structure and organize content, and to define relationships and hierarchies of information.  Exception:  SIMnet 2019 SIMbook pages are currently under review for heading level organization. |
| [**2.5.5 Target Size**](https://www.w3.org/TR/WCAG21/#target-size) (Level AAA 2.1 only)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Does Not Support | | Many interactable SIMnet controls have either horizontal or vertical dimensions that are less than 44 pixels. |
| [**2.5.6 Concurrent Input Mechanisms**](https://www.w3.org/TR/WCAG21/#concurrent-input-mechanisms) (Level AAA 2.1 only)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet content does not restrict use of inputs except when essential for avoiding an invalid or confusing application state. |
| [**3.1.3 Unusual Words**](http://www.w3.org/TR/WCAG20/#meaning-idioms) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet includes a Glossary Terms module to supplement where unusual, proprietary, or abbreviated terms may appear.  It is accessible either by a search mechanism or in-lined contextual links within the body content itself. |
| [**3.1.4 Abbreviations**](http://www.w3.org/TR/WCAG20/#meaning-located) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet includes a Glossary Terms module to supplement where unusual, proprietary, or abbreviated terms may appear.  It is accessible either by a search mechanism or in-lined contextual links within the body content itself. |
| [**3.1.5 Reading Level**](http://www.w3.org/TR/WCAG20/#meaning-supplements) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Not Evaluated | | SIMnet content has not yet been fully reviewed for reading level requirements. |
| [**3.1.6 Pronunciation**](http://www.w3.org/TR/WCAG20/#meaning-pronunciation) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Does Not Support | | SIMnet glossary terms do not yet include pronunciation supplemental info. |
| [**3.2.5 Change on Request**](http://www.w3.org/TR/WCAG20/#consistent-behavior-no-extreme-changes-context) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | Context changes (primarily page, view, dialog, and menu initialization) are fully controlled by the SIMnet user unless static component behavior is essential to use of the product (e.g. error alerts which require a choice to be made to continue in a valid state). |
| [**3.3.5 Help**](http://www.w3.org/TR/WCAG20/#minimize-error-context-help) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet provides a help module for all major views and contexts. For more granular support, external documentation is provided. |
| [**3.3.6 Error Prevention (All)**](http://www.w3.org/TR/WCAG20/#minimize-error-reversible-all) (Level AAA)  Also applies to:  EN 301 549 Criteria – Does not apply  Revised Section 508 – Does not apply | | Supports | | SIMnet doesn’t include financial transactions or legal commitments within the application. |

## Revised Section 508 Report

Notes:

### Chapter 3: [Functional Performance Criteria](https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#302-functional-performance-criteria) (FPC)

Notes:

| **Criteria** | **Conformance Level** | **Remarks and Explanations** |
| --- | --- | --- |
| 302.1Without Vision | Supports | Mainstream screen readers like JAWS, NVDA, and VoiceOver, have been tested with SIMnet content and are supported. |
| 302.2 With Limited Vision | Supports | SIMnet content supports enhanced contrast throughout the application using the high-contrast toggle in the user settings.  To access this setting, the student may login, navigate to the Profile view by clicking on their name in the navigation bar, then click on “Edit user info” – the control is located near the bottom of this view.  In addition, the SIMnet web application and accompanying electronic document resources have all been tested at native zoom levels up to 200% the default.  SIMbook and Exam views offer a text-resizing tool which increases on-screen text size by up to 200%, and SIMbook views offer line spacing adjustment as well. |
| 302.3Without Perception of Color | Supports | While color is used in SIMnet to convey meaning, it is never relied upon as the sole means of communicating the information. |
| 302.4Without Hearing | Supports | The only audible media in SIMnet are the ShowMe interactivities. These provide on screen captions and visual demonstrations for all audible narration. |
| 302.5With Limited Hearing | Supports | The only audible media in SIMnet are the ShowMe interactivities. These provide on screen captions and visual demonstrations for all audible narration. |
| 302.6Without Speech | Supports | SIMnet does not accept speech input. |
| 302.7With Limited Manipulation | Supports | SIMnet does not require complex inputs via the keyboard or mouse which entail multiple action timing or fine motor control. |
| 302.8With Limited Reach and Strength | Supports | No SIMnet controls require reach or strength beyond traditional operation of a personal computer. |
| 302.9With Limited Language, Cognitive, and Learning Abilities | Supports | SIMnet contains neither multimedia content that plays automatically nor any flashing or blinking content. Assignment multipliers and best practice documentation are made available to instructors for students requiring further assistance. |

### Chapter 6: [Support Documentation and Services](https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#601-general)

Notes:

| **Criteria** | **Conformance Level** | **Remarks and Explanations** |
| --- | --- | --- |
| ***601.1 Scope*** | Heading cell – no response required | Heading cell – no response required |
| [***602 Support Documentation***](https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#602-support-documentation) | Heading cell – no response required | Heading cell – no response required |
| 602.2 Accessibility and Compatibility Features | Supports | Accessibility compatibility, features, and best practice documentation for SIMnet instructors and students is offered via SIMnet support, linked in the footer of the Course Manager and Student Portal. |
| 602.3 Electronic Support Documentation | See [WCAG 2.x](#_WCAG_2.x_Report) section | See information in WCAG 2.x section |
| 602.4 Alternate Formats for Non-Electronic Support Documentation | Supports | All SIMnet documentation and support services are made available electronically. |
| [***603 Support Services***](https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#603-support-services) | Heading cell – no response required | Heading cell – no response required |
| 603.2 Information on Accessibility and Compatibility Features | Supports | SIMnet support, linked in the footer of the Course Manager and Student Portal, and on the McGraw-Hill Higher Education support page, offers additional information for accessibility and compatibility feature support. |
| 603.3 Accommodation of Communication Needs | Supports | Technical support services are offered via links in the footer of the Course Manager and Student Portal, and on the McGraw-Hill Higher Education support page. |

## EN 301 549 Report

Notes:

### Chapter 4: [Functional Performance Statements](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=17) (FPS)

Notes:

| **Criteria** | | **Conformance Level** | | **Remarks and Explanations** |
| --- | --- | --- | --- | --- |
| **4.2.1 Usage without vision** | Supports | | SIMnet is designed with assistive technology, such as screen readers, in mind. All pertinent component identities and states are conveyed according to web standards. | |
| **4.2.2 Usage with limited vision** | Supports | | SIMnet supports enhanced contrast, magnification using operating system resolution/scaling, browser zoom, and font size and spacing settings in the application itself. | |
| **4.2.3 Usage without perception of colour** | Supports | | Color used in the graphical design of the application which conveys meaning in some way, such as hyperlinks or a particular color being associated with an assignment type, is always communicated multi-modally, using explicit labels, icons, and/or contextual descriptions. | |
| **4.2.4 Usage without hearing** | Supports | | SIMnet ShowMe Interactivities are the only place where audio is played, and these are accompanied by verbose text captions. | |
| **4.2.5 Usage with limited hearing** | Supports | | SIMnet ShowMe Interactivities are the only place where audio is played, and these are accompanied by verbose text captions. | |
| **4.2.6 Usage without vocal capability** | Supports | | SIMnet does not require vocal inputs. | |
| **4.2.7 Usage with limited manipulation or strength** | Supports | | SIMnet can be used with just a keyboard. | |
| **4.2.8 Usage with limited reach** | Supports | | SIMnet supports keyboard navigation and does not require simultaneous actions or fine motor skills. | |
| **4.2.9 Minimize photosensitive seizure triggers** | Supports | | SIMnet contains no flashing or blinking content. | |
| **4.2.10 Usage with limited cognition** | Partially Supports | | SIMnet is designed with logical focus order which reflects on screen order and is designed to be intuitive and consistent.  ShowMe interactivities do not yet allow speed adjustment. | |
| **4.2.11 Privacy** | Supports | | SIMnet supports the use of headphones, and adheres to web standards such that especially sensitive data like passwords are never read aloud by assistive technology. | |

### Chapter [5: Generic Requirements](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=20)

Notes: As a web application, SIMnet adheres to web accessibility standards and is not subject to closed functionality criteria.

### Chapter [6: ICT with Two-Way Voice Communication](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=27)

Notes: Two-way voice communication is not a feature offered by SIMnet.

### Chapter [7: ICT with Video Capabilities](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=30)

Notes:

| **Criteria** | **Conformance Level** | **Remarks and Explanations** | |
| --- | --- | --- | --- |
| ***7.1 Caption processing technology*** | Heading cell – no response required | Heading cell – no response required |
| 7.1.1 Captioning playback | Supports | The ShowMe audio with animated HTML includes captions. |
| 7.1.2 Captioning synchronization | Supports | SIMnet ShowMe captions are synchronized with on screen animation. |
| 7.1.3 Preservation of captioning | Does Not Support |  |
| 7.2.1 Audio description playback | Supports | SIMnet ShowMe audio and captions describe exactly what is happening on screen. |
| 7.2.2 Audio description synchronization | Supports | SIMnet ShowMe audio and captions are synchronized to on-screen animation. |
| 7.2.3 Preservation of audio description | Does Not Support |  |
| 7.3 User controls for captions and audio description | Partially Supports | SIMnet ShowMe captions and description can be adjusted for size only. |

### Chapter [8: Hardware](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=32)

Notes: As a web application, SIMnet has minimal hardware requirements.

### Chapter [9: Web](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=40) *(see* [*WCAG 2.x section*](#_WCAG_2.x_Report)*)*

Notes:

### Chapter [10: Non-Web Software](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf" \l "page=47)

Notes: SIMnet does not include a non-web user interface.

### Chapter [11: Software](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=57)

Notes:

| **Criteria** | **Conformance Level** | **Remarks and Explanations** | |
| --- | --- | --- | --- |
| ***11.0 General*** | Heading cell – no response required | Heading cell – no response required |
| 11.1.1.1 through 11.4.1.3 | See [WCAG 2.x](#WCAG) section | See information in WCAG 2.x section | |
| ***11.5 Interoperability with assistive technology*** | Heading cell – no response required | Heading cell – no response required | |
| ***11.5.1 Closed functionality (informative)*** | Heading cell – no response required | Heading cell – no response required | |
| ***11.5.2 Accessibility services*** | Heading cell – no response required | Heading cell – no response required | |
| ***11.5.2.1 Platform accessibility service support for software that provides a user interface*** | See 11.5.2.5 through 11.5.2.17 | See information in 11.5.2.5 through 11.5.2.17 | |
| ***11.5.2.2 Platform accessibility service support for assistive technologies*** | See 11.5.2.5 through 11.5.2.17 | See information in 11.5.2.5 through 11.5.2.17 | |
| 11.5.2.3 Use of accessibility services | Supports | SIMnet uses documented platform accessibility services. | |
| 11.5.2.4 Assistive technology | Supports | SIMnet is not assistive technology. | |
| 11.5.2.5 Object information | Supports | Controls and objects in SIMnet are labeled according to identity, role, description, and state. | |
| 11.5.2.6 Row, column, and headers | Partially Supports | SIMnet uses standard web tables and WCAG standards for table element descriptions and navigation.  Exception:  SIMnet SIMnet 2019 SIMbook pages are currently in review for tables missing headers. | |
| 11.5.2.7 Values | Supports | SImnet uses standard ARIA attributes and semantic HTML. | |
| 11.5.2.8 Label relationships | Partially Supports | Using ARIA attributes and semantic HTML, SIMnet establishes relationships between all associated controls.  Exception:  SIMnet SIMnet 2019 SIMbook pages are currently in review for invalid aria attribute references. | |
| 11.5.2.9 Parent-child relationships | Supports | Hierarchical relationships in the SIMnet interface are denoted semantically with standard HTML. | |
| 11.5.2.10 Text | Supports | All text in SIMnet is programmatically determinable to the browser and assistive technology. | |
| 11.5.2.11 List of available actions | Supports | SIMnet offers available actions via standard HTML and ARIA attributes, for various component design types. | |
| 11.5.2.12 Execution of available actions | Not Evaluated |  | |
| 11.5.2.13 Tracking of focus and selection attributes | Supports | SIMnet only controls focus in cases where bounding context is important, such as in dialogs. | |
| 11.5.2.14 Modification of focus and selection attributes | Supports | SIMnet allows focus and selection to be manipulated by assistive technology. | |
| 11.5.2.15 Change notification | Supports | Inside the SIMnet application, contextual changes, along with loading status, are reported as they occur. | |
| 11.5.2.16 Modifications of states and properties | Supports | All SIMnet settings and states are accessible via assistive technologies. | |
| 11.5.2.17 Modifications of values and text | Supports | SIMnet allows programmatic user input, including via assistive technologies. | |
| ***11.6 Documented accessibility usage*** | Heading cell – no response required | Heading cell – no response required | |
| 11.6.1 User control of accessibility features | Partially Supports | SIMnet is designed to be relatively responsive to user control of accessibility features, however there are known compatibility issues:   * High scale/zoom in either OS or browser settings can result in a viewport that is effectively too small for certain components to properly fit on screen. * Browser or OS-controlled high-contrast and dark modes are not fully tested for compatibility across the application. SIMnet offers an in-app high contrast mode in the user settings, but currently no photosensitivity dark mode. | |
| 11.6.2 No disruption of accessibility features | Supports | SIMnet does not disrupt documented platform accessibility features. | |
| 11.7 User preferences | Does Not Support |  | |
| ***11.8 Authoring tools*** | Heading cell – no response required | Heading cell – no response required | |
| ***11.8.1 Content technology*** | Heading cell – no response required | Heading cell – no response required | |
| 11.8.2 Accessible content creation (if not authoring tool, enter “not applicable”) | See [WCAG 2.x](#_WCAG_2.x_Report) section | See information in WCAG 2.x section | |
| 11.8.3 Preservation of accessibility information in transformations | Supports | SIMnet does not yet include content authoring tools. | |
| 11.8.4 Repair assistance | Supports | SIMnet does not yet include content authoring tools. | |
| 11.8.5 Templates | Supports | SIMnet does not yet include content authoring tools. | |

### Chapter [12: Documentation and Support Services](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf" \l "page=76)

Notes:

| **Criteria** | **Conformance Level** | **Remarks and Explanations** |
| --- | --- | --- |
| ***12.1 Product documentation*** | Heading cell – no response required | Heading cell – no response required |
| 12.1.1 Accessibility and compatibility features | Supports | SIMnet offers best practice documentation for instructors and students using accessibility and compatibility features. |
| 12.1.2 Accessible documentation | See [WCAG 2.x](#_WCAG_2.x_Report) section | See information in WCAG 2.x section |
| ***12.2 Support Services*** | Heading cell – no response required | Heading cell – no response required |
| 12.2.2 Information on accessibility and compatibility features | Supports | SIMnet offers support for all aspects of the product, including accessibility and compatibility features. |
| 12.2.3 Effective communication | Partially Supports | Currently SIMnet support is equipped to accommodate a diverse set of communication needs directly but is still reviewing the possibility of engaging external referral point vendors. |
| 12.2.4 Accessible documentation | See [WCAG 2.x](#_WCAG_2.x_Report) section | See information in WCAG 2.x section |

### Chapter [13: ICT Providing Relay or Emergency Service Access](https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf#page=78)

Notes: SIMnet is not a user communications platform and has no relay services.

## 

## Legal Disclaimer – McGraw-Hill Education

*These results reflect the McGraw-Hill Education SIMnet platform’s student experience. The Course Manager used by instructors and account administrators has not been evaluated for accessibility.*

*Inherently inaccessible learning objects have likewise been excluded in the accessibility review and are not included in this document, namely the simulation itself, used in certain exams and LetMeTry interactivities.*

*The core reason for the above is that accessibility standards, along with technical restrictions for assistive technology, differ between web and desktop software.*

*Since these learning objects are designed to represent desktop software interfaces, if they cannot do so accurately for an interface presented by assistive technology, they do not fulfill their purpose, even if they are fully conformant with web accessibility standards.*

*To allow for assisted completion of assignments that include inherently inaccessible learning objects, McGraw-Hill Education provides best practice documentation.*