Section 508 Compliance Reporting Tool (SCRT)

Author: Customer Experience at DHS

License: MIT License (open source)

Purpose: This document provides overall technical information on SCRT tools.

Audience: Technical individuals who want to contribute to this tool.

Installation & Set up: It can be used by simply downloading and unzipping on your local machine.

Security: This is a standalone application. All test data is stored on your local machine. You can choose to share your test data at your own risk.

Maintainance & Support: DHS/CXD is currently maintaining the SCRT tool but anyone can contribute to improve the Section 508 community.

Repositories:
Github (Anyone can use it.)
Gitlab (Available only for DHS employees.)

Note: We will grant access to the development environment to contributors. Code will be merged after the test team approves it.

Overview of SCRT

SCRT is used to capture Section 508 standard test results. It is a browser-based application that is compatible with all common operating systems and does not require installation. Simply download from repository, extract/unzip and use it. Captured data can be stored on a local machine in JSON file format or HTML file format.

All Section 508 standard test results can be modified based on different organizational and testing needs. All test data can be shared using storage devices as email attachments, and/or printed HTML reports, as needed. SCRT works best with Google Chrome, Microsoft Edge, Safari, and Firefox. It is not compatible with Internet Explorer (IE).

Key Features of SCRT

- Standard JSON files for Section 508 test results are used to load data in SCRT.
- Data can be modified by changing values for correspondinng properties in JSON file to load.
- Product name and version are used as the default file name. Local computer timestamp is stored while saving JSON file.
- Test result form tables are dynamically-generated based on the JSON file you upload and it also provides an option to add remediation details as needed while creating the report.
- Test data can be added or removed easily.
- Tool can be used to create or edit Section 508 test results.
- It generates a WCAG report based test result.
- It provides an option to view result based on selected test result.
- Provides system-generated disability score based on the impacted group.
- There is also an option to score manually.
- It generates accessible test result in HTML format for humans to read easily and as JSON file for editing purposes.
- Test results can be easily shared or stored.

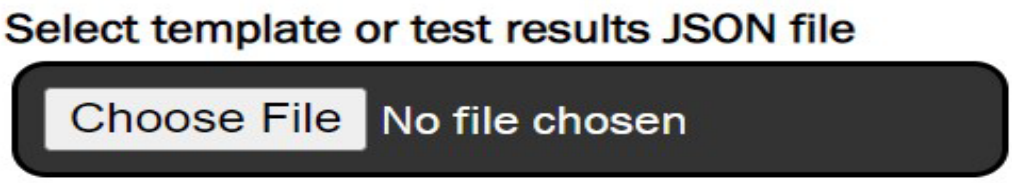
How to Use SCRT

1. After SCRT is downloaded, unzip/extract the files and open index.html (preferred browsers are Microsoft Edge, Google Chrome, Firefox).

2. Select Instructions to view a detailed instruction manual in accessible PDF format.

3. Select **'Create Report'** to create or edit test results.

4. Select and load either the standard template JSON file (TT4 or TT5 JSON file from **'Resources'** folder for the first time) or a valid custom JSON file that you have created or pre-filled for editing.



5. Once you have filled/edited all required fields, you will see the option to save test results.

6. To save file changes, use the keyboard shortcut (Alt+S) or the **'Save'** button located at the bottom of the page.

7. The file will be saved to your local machine (Downloads folder by default) as a JSON file. This can be used for further editing or reporting purposes.

8. Select **'View Report'** to view test results you have saved (with at least one valid test result). This is a read-only page; no edits are allowed. To save as a printer-friendly HTML file, use the keyboard shortcut (Alt+S) or **'Save'** button located at the bottom of the page.

9. You should save test results in both JSON (for editing) and HTML format (user-friendly) for future reference.

Technical Overview

Front end language: HTML, CSS, JavaScript, AngularJS, jQuery, Bootstraps

Data Structure: Array, Objects

Data type: JSON

System Architecture

SCRT is using Model View Controller (MVC)

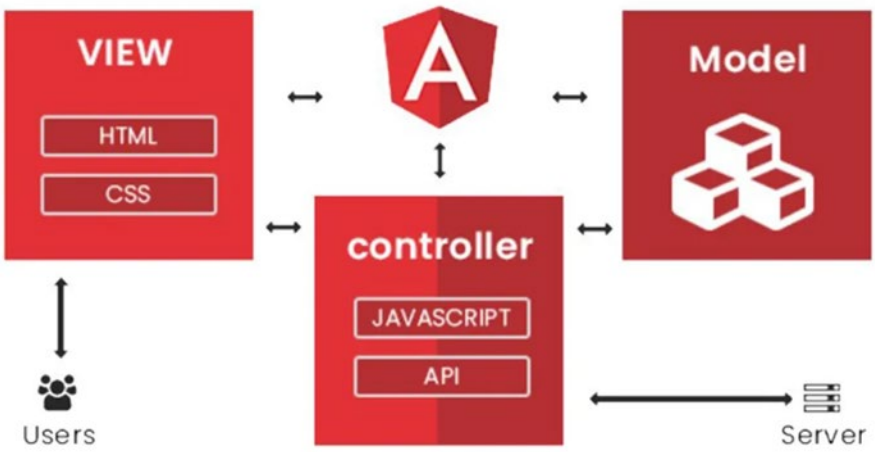
AngularJS is JavaScript framework used for building dynamic page web applications. It works well with the Model-View-Controller (MVC) architecture, which helps in separating concerns and organizing code in a more manageable way. Here's a brief overview of how AngularJS

integrates with the MVC architecture:

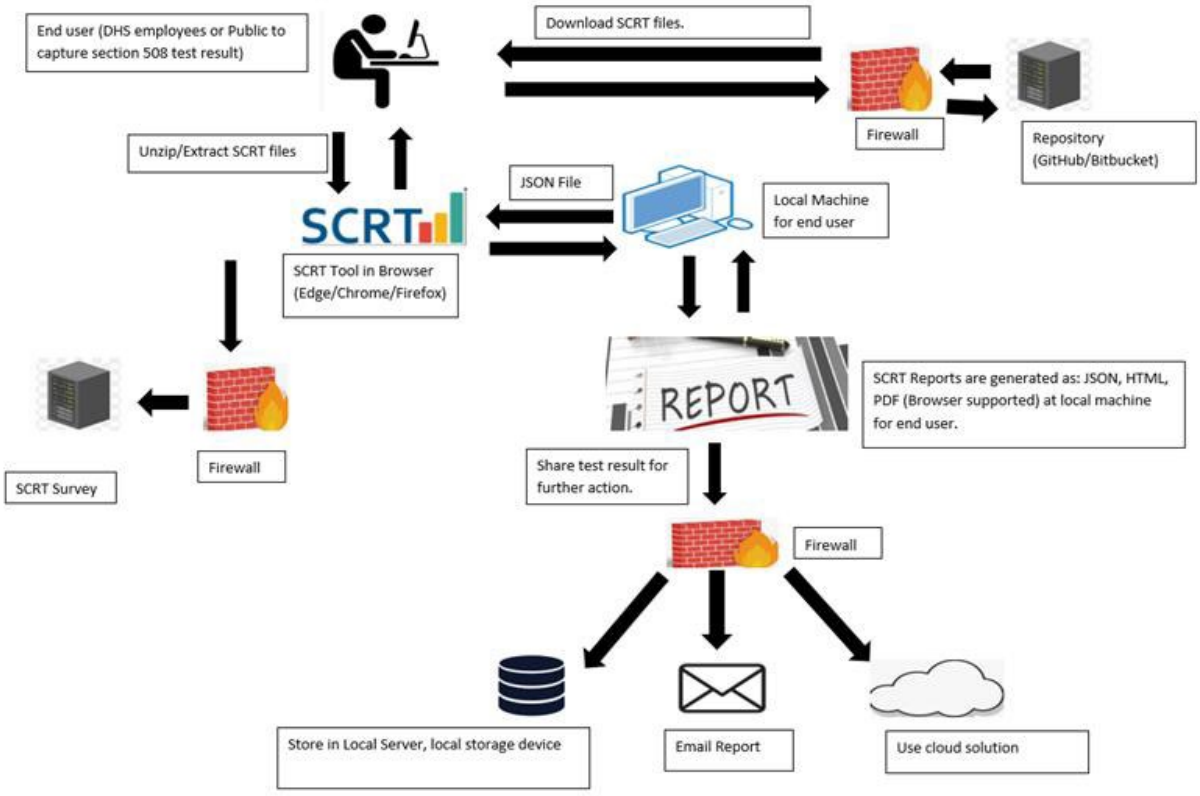
1. **Model**: The model represents the data and the business logic of the application. In AngularJS, models are typically plain JavaScript objects. They can be created and manipulated using AngularJS services and factories.

2. **View**: The view is responsible for displaying the data to the user. In AngularJS, views are typically HTML templates with AngularJS directives and expressions. The view binds to the model using AngularJS's two-way data binding, which ensures that any changes in the model are automatically reflected in the view and vice versa.

3. **Controller**: The controller acts as an intermediary between the model and the view. It processes user inputs, interacts with the model, and updates the view accordingly.



SCRT System Overview



JSON File

Introduction to JSON

JavaScript Object Notation (JSON) is a standard text-based format representing structured data based on JavaScript object syntax. SCRT uses the JSON file to populate Baseline elements and transmit data in web applications, such as sending data from SCRT to display Application Test Results in HTML format. Users can modify the JSON files to create their own personal test results template. Test conditions can be modified in the local JSON file based on different user's needs.

How to Manipulate the JSON File

1. Open a **'SuccessCriteriaTT5.1.3.JSON'** file inside **'Resources'** folder.

2. Go to the section of JSON file to be modified.

3. Only update the values (one in green) for different properties.
   DO NOT modify the property name.

4. Copy, modify or delete sections as needed.

"Criteria":

"CrtID": "2.2.2, Conf. Req 5",
"Guideline": "Level A",
"Test": "2 Autoplay/update",
"TestName": "2.2.2-Blinking-moving-scrolling",
"TestID": "2.B",
"TestCondition": "The user can pause, stop, or hide moving, blinking, or scrolling content.",
"OptMenu1": "menu2",
"DisabilityImpact":" 'With Limited Vision', 'With Limited Language, Cognitive, and Learning Abilities'"

Sample JSON file with property (yellow) and value (green) attribute highlighted.

How to Update Test Conditions

If following test processes other than Trusted Tester, change test conditions in the 'SuccessCriteria.json' file as needed by updating the values for properties. To do so, replace "CrtID":"2.2.2" test condition value with a different test condition or process using for the Criteria ID property.

Updating Dropdown Menu Option

Different test conditions have different dropdown menu options. Please use this reference to update “OptMenu1” property accordingly:

- Menu1: ‘Does Not Apply’ & ‘Not Tested’
- Menu2: ‘Pass’, ‘Fail’ & ‘Does Not Apply’
- Menu3: ‘Pass’ & ‘Does Not Apply’
- Menu4: ‘Does Not Apply’
- Menu5: ‘Pass’ & ‘Fail’