**Microsoft-Slalom Regulation Mapping App Overview**

**Contacts:**

Project Owner: Alex Li [alli@microsoft.com](mailto:alli@microsoft.com),

Project Manager: Tom Wagner [tomw@slalom.com](mailto:tomw@slalom.com)

Developer: Matt Kincaid [matt.kincaid@slalom.com](mailto:matt.kincaid@slalom.com)

**Location:**

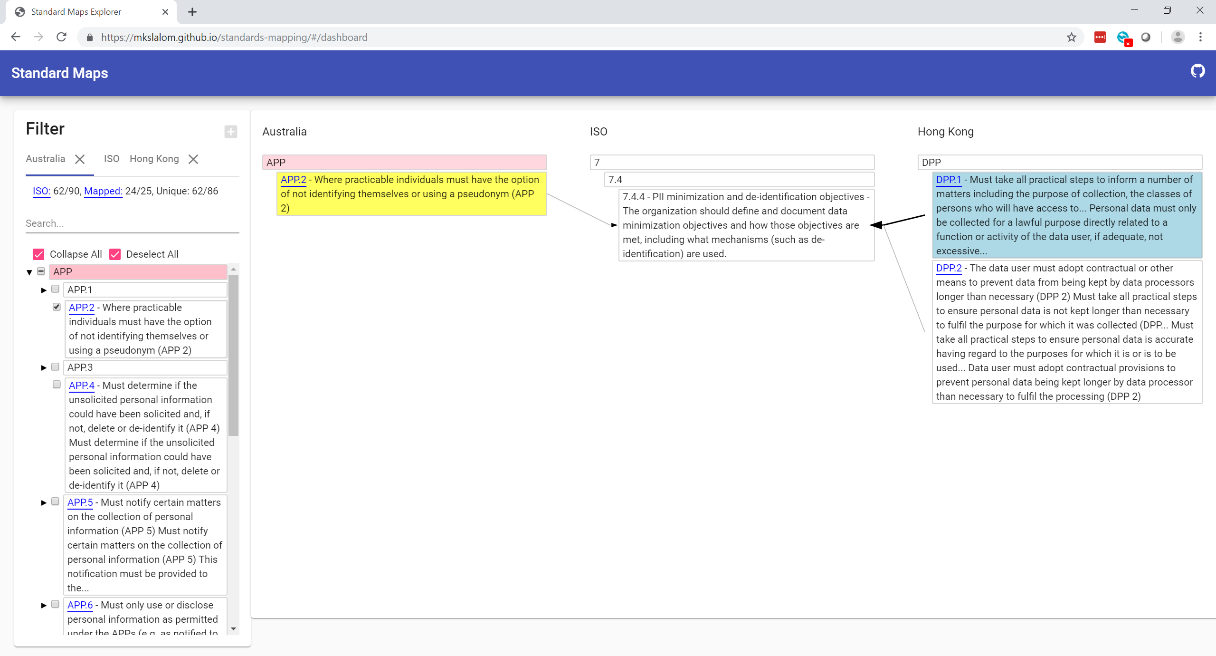
Repo location: <https://github.com/microsoft/data-protection-mapping-project>

Public URL: <https://dataprotectionmapping.z21.web.core.windows.net>

**General overview:**

This app visually compares privacy regulations that have been mapped to the ISO 27552 standard.

The data is managed by Alex at Microsoft CELA and can be imported by modifying the spreadsheet and running an import script.



**App Architecture:**

* The app is a static web app built with Angular, Node.js, and a 3rd party UI libraries.
* The data for the app is hosted as a static file alongside the app.
* There are no active servers. The app is hosted through Github Sites.
* The source code is in a Git repository.

**UI Components:**

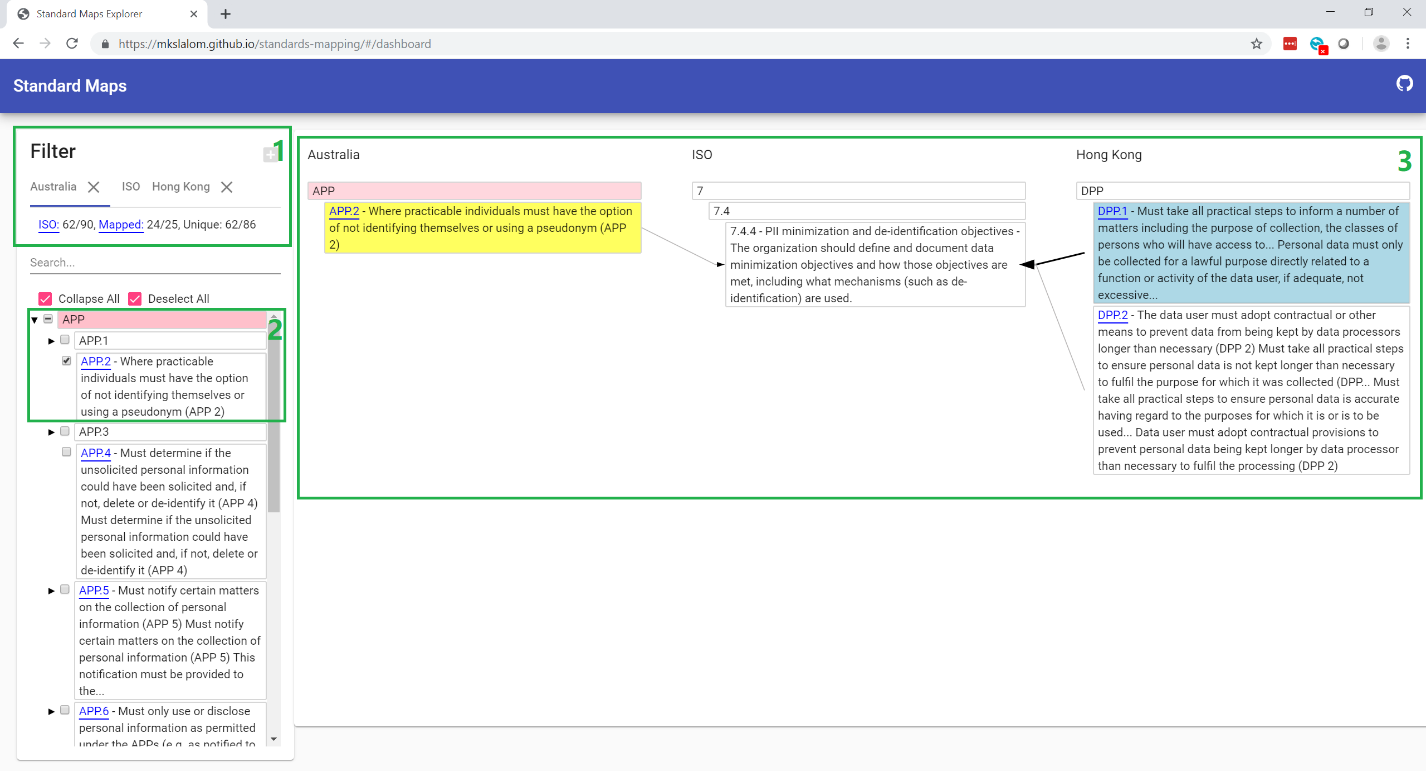
The main mode of operation is:

1. Choose the regulations to compare
2. Filter a regulation to serve as a basis for the comparison
3. Observe how the regulation maps to ISO, and then to a third regulation.

**Example scenario:**

Imagine we want to see how Australia article “APP.2 – *Individuals must have the right to not identify themselves.”* compares to similar regulation in Hong Kong.

1. First add the two regulations: Australia and Hong Kong using the + button.
2. Choose Australia and select App.2 to filter the comparison to just this article.
3. The view displays the relationship of App.2 to the ISO standard, and then to the Hong Kong regulation.



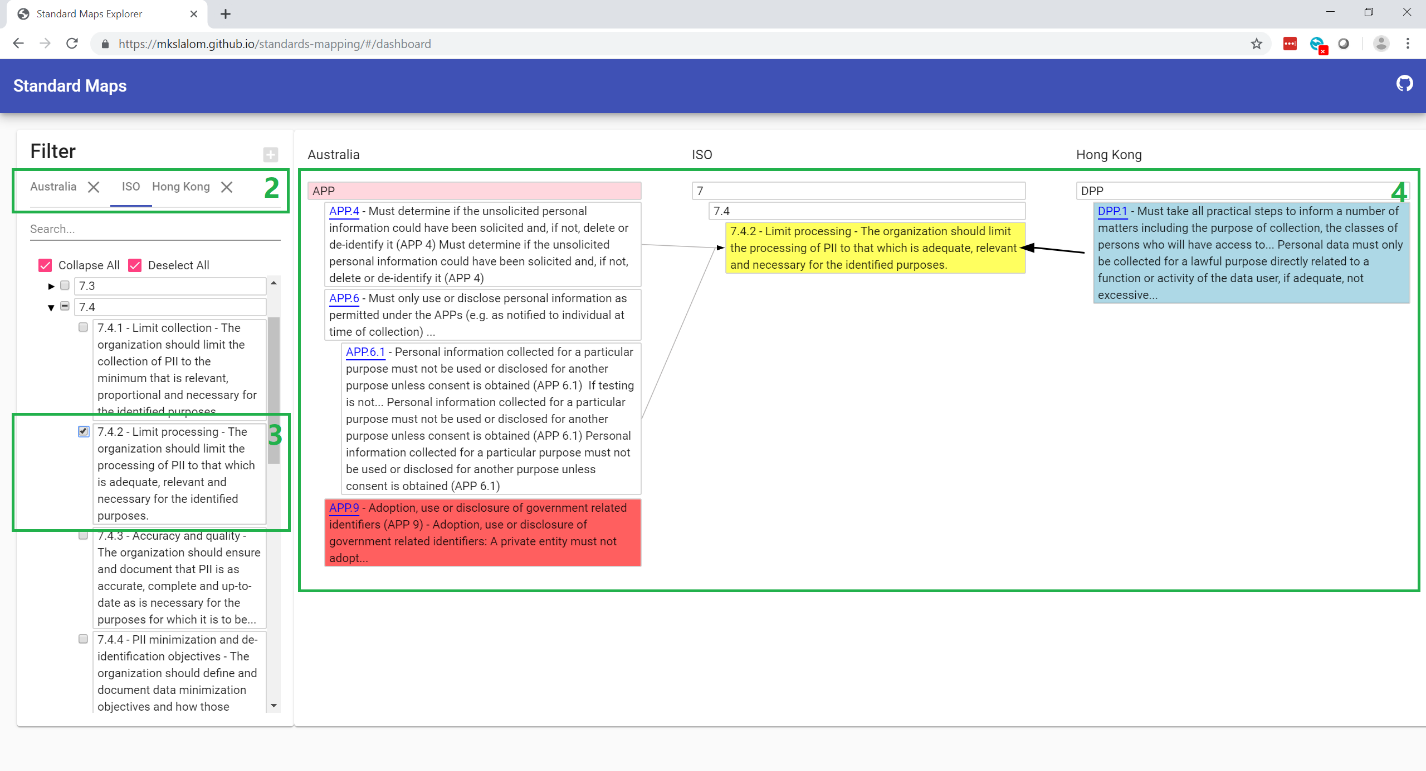
**Coverage Statistics:**

* ISO: Displays how many nodes of the ISO regulation are linked to by the current regulation. Click the ISO coverage link to highlight which nodes of ISO are not covered by the regulation.
* Mapped: Displays how many of the current regulation nodes are linked to the ISO standard. Click the Mapped link to highlight which nodes of the regulation are not mapped. (Red).
* Unique: Displays the redundancy of connections from the current regulation to the ISO standard. You could consider this as the inverse of overlap.

**Tab Control:**

Using the tab control, we can change the perspective of the relationship.

1. We notice App.2 is related to ISO 7.4.2
2. Choose the ISO tab to set it as the basis of comparison.
3. Select ISO section 7.4.2 to show the comparison.
4. Notice that APP.2. and APP.6.1 are both related to ISO 7.4.2

****

**Tree Node Colors:**

* Red: Indicates the regulation node is unmapped. Unmapped nodes will always show because there is a potential that they should be mapped to the current filtered comparison.
* Pink: Indicates a descendent node is unmapped
* Yellow: Indicates the node is currently selected in a filter.
* Light Blue: Highlighted. Highlight nodes to see their connected links.

**Additional UI features:**

* Search: Type text in the search box to find articles of interest.
* Remove regulation: Press the X button on the tab to remove a regulation.
* Highlight nodes and links: Left click a node on the right to highlight it light blue. This will also highlight any links connected to it.

**Datasets:**

There is no live database hosted. The app works of a static dataset and server. There are datasets.

* Private master dataset: A Database.xlsx file with all data including proprietary and copywritten data.
* Cached public data: The app itself runs of a cached subset of public data, stored in the build and repository as a .json file which is easily read by the web app. This dataset is built from the private dataset using the import script.

**Data Structure:**

The Database.xlsx document has the following structure:

* Sheets – Each country or regulation is stored in its own sheet. The name of the sheet is what will show on the tab in the app.

It is expected that the change list will be the first sheet, and ISO 25572 regulation will be the second sheet.

* Columns:
  + id: A unique id for the article. These will be normalized into “dot” (.) delimited. Ex: A.1.b
  + section: The title of the article. This often includes the id and a short description.
  + body: The long description of the article, including implementation guidance.
  + hyperlink: A URL starting with “http” that points to the text in the regulation.
  + isolinks: Semicolon delimited list of ISO section ids.
* Id column structure:
  1. When imported, ids will be normalized to be dot delimited. Ex: A.1.b. They will be aggregated into a tree structure based on such that “1” would be a child of “A”, and “b” would be a child of “1”.

Example snippet from the Australia regulation sheet in Database.xlsx:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **section** | **body** | **hyperlink** | **isolinks** |
| APP | APP |  |  |  |
| APP.1 | APP.1 |  |  |  |
| APP.1.2 | APP.1.2 | Must take reasonable steps to implement practices, procedures and systems to ensure compliance with the APPs (APP 1.2) | https://www.legislation.gov.au/Details/C2018C00034/Html/Text#\_Toc506801611 | 5.2.3.a;5.2.4;5.4.1.3;6.2;6.4;6.5.2.1;6.11.2.5;6.13.1.1;6.15.1.3;6.15.2.1;6.15.2.3;7.2.5;7.3.1 |
| APP.1.4 | APP.1.4 | A privacy policy must contain the kinds of personal information collected and held, how and for what purposes it is collected, held, used and disclosed... | https://www.legislation.gov.au/Details/C2018C00034/Html/Text#\_Toc506801611 | 6.3 |
| APP.1.4.c | APP.1.4.c | Privacy policy must include purposes for which the entity collects, holds and uses personal information (APP 1.4(c)) | https://www.legislation.gov.au/Details/C2018C00034/Html/Text#\_Toc506801611 | 7.2.1 |

**Updating the data in the system.**

1. Check-out the data repository containing the Database.xlsx.
   1. *git clone* <https://github.com/microsoft/data-protection-mapping-project>
2. Modify the data in the master dataset spreadsheet .xlsx.
3. Publish the changed xlsx back to the repository.
   1. *git add .*
   2. *git commit -m “XLSX change notes here”*
   3. *git push*
4. The automated build pipeline will import the data from the xlsx for public hosting.
5. Optional: To preview your changes locally, run the import script to convert the master dataset into the public dataset.
   1. *npm run import*

**Building the app (CI/CD, Production Preview):**

Building the app requires Node and all the dev dependencies to be installed through Npm.

1. Check-out the app repository.
   1. *git clone* <https://github.com/microsoft/data-protection-mapping-project>
2. Navigate to the clone.
   1. *cd data-protection-mapping-project*
3. Install dependencies.
   1. *npm ci*
4. Build the app.
   1. *npm run build*

**Self-hosting the app (Local Preview):**

Self-hosting is useful when developing the app or when previewing changes to the data. To self-host:

1. Check-out the app repository.
   1. *git clone* <https://github.com/microsoft/data-protection-mapping-project>
2. Navigate to the clone.
   1. *cd data-protection-mapping-project*
3. Install dependencies.
   1. *npm install*
4. Start the self-host server.
   1. *ng serve*
5. Navigate a web browser to the following URL.
   1. *localhost:4200*

**Remaining work/active bugs:**

* UI does not touch bottom of screen.
* Filter not auto scrolling into view.
* In chrome, scroll wheel lags view, but scroll bar does not.
* ~~Move to final home - Microsoft.github.com or Devops account.~~
* Performance.
  + Filtering.
  + Searching.
* Graph should only update on selection change.
  + This would require us to override the default behavior of the tree control which has lots of bugs.
  + It should make filtering faster.
* If there is a longer, but fuzzier match (parties), it takes precedence. Maybe multiply it by score? keep highest scoring? Try searching "meet" in ISO.

**Out of scope features:**

* Alluvial, enhanced graphical trees.
* Sort trees by links (untangle).
* Convert current view to filter selection.
* Note: Slalom has developed some of these “enhanced graphics and performance” features with another Microsoft project (CSS), it might be worth porting them over.