Trifolia-on-FHIR

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**Introduction**

**Welcome**

Trifolia-on-FHIR is an editor for FHIR resources that uses a FHIR server natively as its back-end. All STU3-compliant FHIR servers work with Trifolia-on-FHIR.

### Core Features

* Edit conformance resource types:
  + ImplementationGuide
  + StructureDefinition
  + ValueSet
  + CodeSystem
  + CapabilityStatement
  + OperationDefinition
  + Questionnaire
* Import and view any other resource in FHIR specification (such as Patient, Observation, MedicationStatement, etc.)
* Validate with the "Validation" tab on every resource editing screen, which uses [FHIR.js.](https://github.com/lantanagroup/fhir.js)
* Export:
  + Implementation Guides and associated resources
  + Bundles
  + FHIR IG Publisher packages
* Import any resource or transaction bundle.

**What's new**

**Logging in**

Click the "Login" button in the top-right of the screen. You will be re-directed to the identity provider configured for use in Trifolia-on-FHIR (ToF). If you do not already have an account, you may register for one at this time. Once you have registered or logged in with the identity provider you will be redirected back to ToF.

If this is your first time logging into ToF, you will be prompted to create a Practitioner resource that can be used by ToF to identify you as the author of resources and associate your Practitioner with audit records when changing resources. If ToF is configured with multiple FHIR servers, you may be prompted to create a new Practitioner resource when you select a different FHIR server.

After your Practitioner resource has been created on the FHIR server selected, login is complete, and your name should be displayed in the top-right corner of ToF. You may click on your name to further edit the Practitioner resource associated with your account on the selected FHIR server.

**Navigating**

The main navigation bar is located at the top of the screen. Some menu items are hidden until you have logged in.

* Home - This is the first screen shown after logging it. It contains high level information on ToF.
* Browse/Edit - Search, select, delete and create new resources depending on the resource type selected in the sub-menu.
  + Implementation Guides
  + Profiles
  + Capability Statements
  + Operation Definitions
  + Value Sets
  + Code Systems
  + Questionnaires
* Export - Export implementation guides from ToF in various formats
* Import - Imports resources from other locations into ToF

On the right-side of the navigation menu:

* Drop-down to select a FHIR server
* Edit Practitioner/profile (menu item shows your name when logged in) - This allows you to make changes to the Practitioner resource associated with your account.
* Logout - Logs your account out of ToF
* Open from computer - Shown as an "upload" icon. This allows you to open a resource directly from your computer (either an XML file or JSON file) and edit the resource in ToF without saving the resource to the FHIR server. When saving, the browser prompts you to re-download the updated resource as an XML or JSON file (depending on what format you opened it as).
* Help - Shown as a question-mark icon. The button opens this help documentation in a new window.

## FHIR Versions

Depending on the FHIR server selected, and the version that the FHIR server selected supports, the screens for editing the resources may look different. This is because of the differences (for example) between STU3 and R4. The changes between STU3 and R4 resources *are* reflected in the screens. For example, in STU3 ImplementationGuide has "packages" with "resources" inside each package. In R4, ImplementationGuide has "resources" parallel to "packages", and each resource instead *references* a package.

**Process**

The work-flow for authoring an implementation guide in ToF is as follows:

1. Create an Implementation Guide
2. Create Profiles (StructureDefinition resources)
   1. Create other resources (such as OperationDefinition, CapabilityStatement, ValueSet and CodeSystem) as needed for the profiles and implementation guide
   2. Create samples of the profiles manually and import into ToF
3. Associate profiles, other conformance resources, and samples with the Implementation Guide
4. Export Implementation Guide using FHIR IG Publisher
   1. The results of the export via the FHIR IG publisher can be viewed from the "Browse Implementation Guides" screen
   2. The results include a Q/A tab that shows any errors the FHIR IG Publisher found during publication. Errors should be fixed where possible, and the export with FHIR IG publisher should be re-executed.
   3. When satisfied with the export results, the exported package may be downloaded an uploaded to the appropriate GitHub repository for the Implementation Guide project.

**Guidelines and best practices**

## Implementation Guide

* The URL of the implementation guide must be in the format of http[s]://xxx.yyy/zzz/aaa/ImplementationGuide/my-ig-id. For example: http://myproject.com/someRoot/ImplementationGuide/myproject-ig
* The "id" of the implementation guide must align with the URL of the implementation guide. For example: If the URL of your implementation guide is http://myproject.com/someRoot/ImplementationGuide/myproject-ig, the id must be "myproject-ig". To ensure this, you may use the "Change this resource's ID" button on the "Browse Implementation Guide" screen.
* The implementation guide should have a description. The description of the implementation guide is displayed on the main screen of the FHIR IG Publisher export.
* Any contacts listed in the implementation guide are shown as authors in the FHIR IG Publisher export.
* Only resources referenced directly within the implementation guide resource are exported; make sure all resources used by your implementation guide are referenced within the implementation guide resource, or they will not be included in the export.

## All Resources

* All resources used within an implementation guide must have a similarly formatted URL. Based on the example above, if your implementation guide's URL is http://myproject.com/someRoot/ImplementationGuide/myproject-ig then all of the profiles (StructureDefinition resources) within the implementation guide must have a URL that starts with http://myproject.com/someRoot/StructureDefinition/.

**System requirements**

## Requirements to use Trifolia-on-FHIR

* A modern browser, such as Chrome, Firefox, Internet Explorer or Safari

## Requirements to host your own installation

* Can be run on Windows *or* Linux
* FHIR Server (STU3 or R4)
  + Must support creating resources via a PUT with an ID
  + Must support the $validate operation

**Getting help**

This help documentation is available in several different formats:

* CHM
* DOCX
* PDF
* EPub

**Glossary**

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| ToF | Trifolia-on-FHIR |
| FHIR | Fast Healthcare Interoperability Resources |
| VSAC | Value Set Authority Center |