**Installing the FHIR IG Publisher on macOS and Windows: A Step-by-Step Guide**

# Introduction

To generate professional, standards-compliant Implementation Guides (IGs) from your FHIR artifacts, you'll need to install the FHIR IG Publisher. This tool, developed by HL7, transforms FHIR Shorthand (FSH) and other structured definitions into rich, navigable HTML documentation. Below is a comprehensive, platform-specific guide to setting up the IG Publisher on both macOS and Windows.

# Part 1: Prerequisites (for Both Platforms)

Before installing the IG Publisher, we must ensure the following prerequisites are met (covered in this installation guide)

* Java JDK (11 or newer) – Required to run the IG Publisher.
* Node.js – Required for FSH tools like SUSHI and GoFSH.
* SUSHI – FSH to FHIR compiler.
* GoFSH – Optional: FHIR to FSH decompiler.
* VS Code with the FSH extension – Highly recommended for authoring .fsh files.
* Jekyll – Required to build and preview Implementation Guides locally.

# **Installing on macOS**

### Step 1: Install Homebrew

If Homebrew isn't already installed, run the following in your terminal:

/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"

brew update

### Step 2: Install Java JDK

To use the recommended Adoptium (Temurin) JDK:

brew tap homebrew/cask-versions

brew install --cask temurin11

Then, add the JDK path to your shell configuration file (usually ~/.zshrc):

export JAVA\_HOME=$(/usr/libexec/java\_home -v11)

export PATH=$JAVA\_HOME/bin:$PATH

Reload your shell:

source ~/.zshrc

Verify installation:

java -version

### Step 3: Install Node.js

brew install node

### Step 4: Install SUSHI and GoFSH

npm install -g fsh-sushi

npm install -g gofsh

### Step 5: Install VS Code Extension

Install the "FHIR Shorthand" extension from the VS Code Marketplace for syntax highlighting and editing support.

### Step 6: Install the IG Publisher (macOS)

Use the following command to download the latest IG Publisher JAR file:

curl -L https://github.com/HL7/fhir-ig-publisher/releases/latest/download/publisher.jar -o publisher.jar

### Step 7: Install Jekyll (macOS)

Jekyll is needed to build the HTML structure for your IG:

First install Ruby:

brew install ruby

Then install Jekyll:

gem install --user-install bundler Jekyll

Ensure Ruby Gems is added to your PATH (in ~/.zshrc or ~/.bash\_profile):

export PATH=\"$HOME/.gem/ruby/X.X.0/bin:$PATH\"

(Replace X.X.0 with your Ruby version.)

Reload and verify:

source ~/.zshrc

jekyll -v

## **Installing on Windows**

### Step 1: Install Java JDK

Download and install the JDK from either:

* [Oracle JDK](https://www.oracle.com/java/technologies/javase-downloads.html)
* [Adoptium Temurin](https://adoptium.net/)

Install the Windows x64 version. After installation:

1. Set JAVA\_HOME:
   * Go to **System Properties > Environment Variables**
   * Under **System Variables**, click **New**:
     + Name: JAVA\_HOME
     + Value: path to your JDK (e.g., C:\Program Files\Eclipse Adoptium\jdk-11.0.x\_xxx)
2. Update the Path variable:
   * Add %JAVA\_HOME%\bin
3. Open a new command prompt and check:

java -version

### Step 2: Install Node.js

Download and install Node.js from [nodejs.org](https://nodejs.org/).

### Step 3: Install SUSHI and GoFSH

Use a terminal like Command Prompt or PowerShell:

npm install -g fsh-sushi npm install -g gofsh

### Step 4: Install VS Code Extension

Install the FHIR Shorthand extension from the Visual Studio Code Marketplace.

### Step 5: Install the IG Publisher (Windows)

Open a PowerShell window and run:

curl -L https://github.com/HL7/fhir-ig-publisher/releases/latest/download/publisher.jar -o publisher.jar

### Step 6: Install Jekyll (Windows)

Jekyll is a Ruby-based static site generator and requires Ruby to be installed:

1. Download and install Ruby+DevKit from [RubyInstaller for Windows](https://rubyinstaller.org/)
2. During installation, make sure you check the box to add Ruby to your PATH
3. After install, open the Ruby terminal and run:

gem install bundler jekyll

Verify with:

jekyll -v

## **Conclusion**

Once all dependencies are installed and paths configured, you're ready to use the IG Publisher to generate fully rendered FHIR Implementation Guides. Whether you're on macOS or Windows, these tools will enable you to compile, validate, and publish your work in a professional and standards-compliant format.

You’ll be using these tools in upcoming lab exercises to turn your FSH definitions into live IGs you can share or publish to platforms like Simplifier or GitHub Pages.

Be sure to test your setup before class by running:

java -jar publisher.jar -ig .

inside an IG project folder.

Happy publishing!