Simio
Forward Thinking

Using Git in the Simio Forum

Jan 2019 (Dhouck)

Contents

Overview

This API Note describes how to use Git when using those Simio Forum examples that employ Git.

From Wikipedia: "**Git** is a version-control system for tracking changes in computer files and coordinating work on those files among multiple people. It is primarily used for source-code management in software development,[8] but it can be used to keep track of changes in any set of files."

At Simio, we use it for all our source control management, and - starting in 2019 - will be using it as a distribution vehicle for some items posted on the forums, particularly for API projects, such as user extensions.

Why use Git for this?

Some of the problems with simply doing file copy to distribute files in the forum

- Difficult to update

- Impossible to get previous versions

- No history information.

- You must download the entire package to look at individual files

- Often dependencies get lost

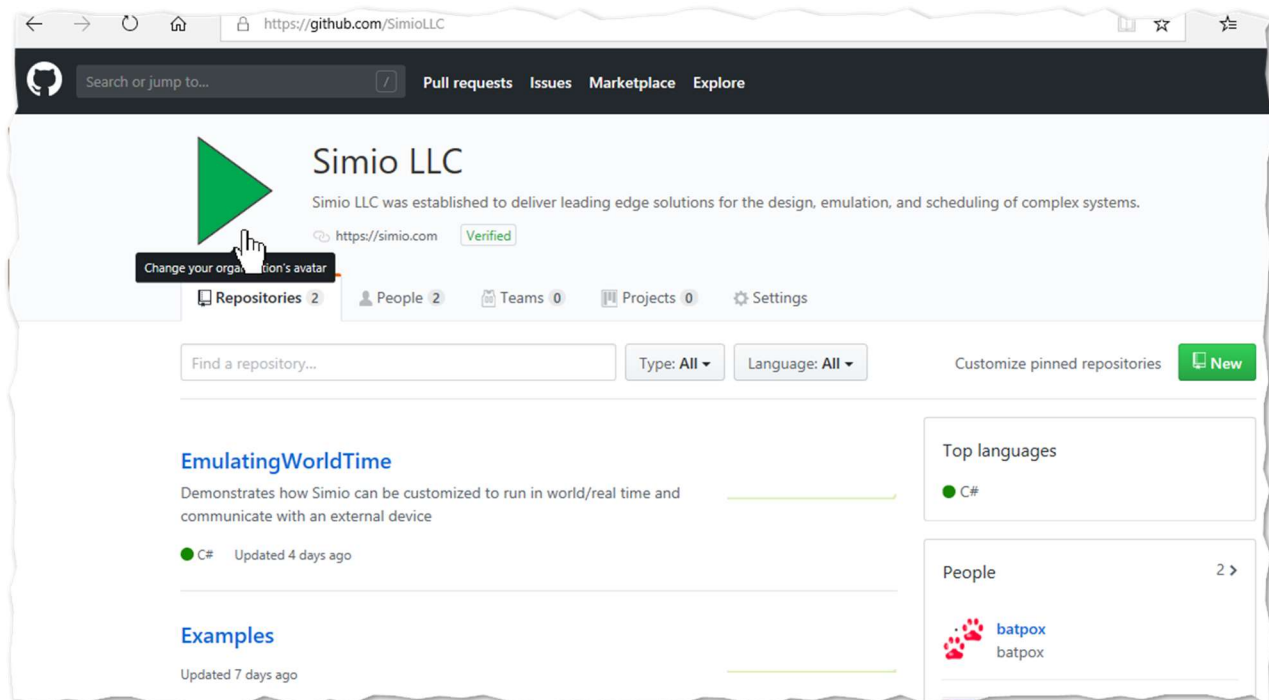Git (with the use of GitHub) will help to solve these issues.

How the Simio Forum uses Git

Simio has a repository on the web site GitHub called SimioLLC. The URL is https://github.com/SimioLLC .

What is GitHub? GitHub is the largest host of source code in the world with 57 million repositories, and – according to Wikipedia: "**GitHub Inc**. is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all of the distributed version control and source code management (SCM) functionality of Git as well as adding its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project."

In the forum posting will be a reference to the GitHub project. For example, here is the top-level SimioLLC GitHub repository:

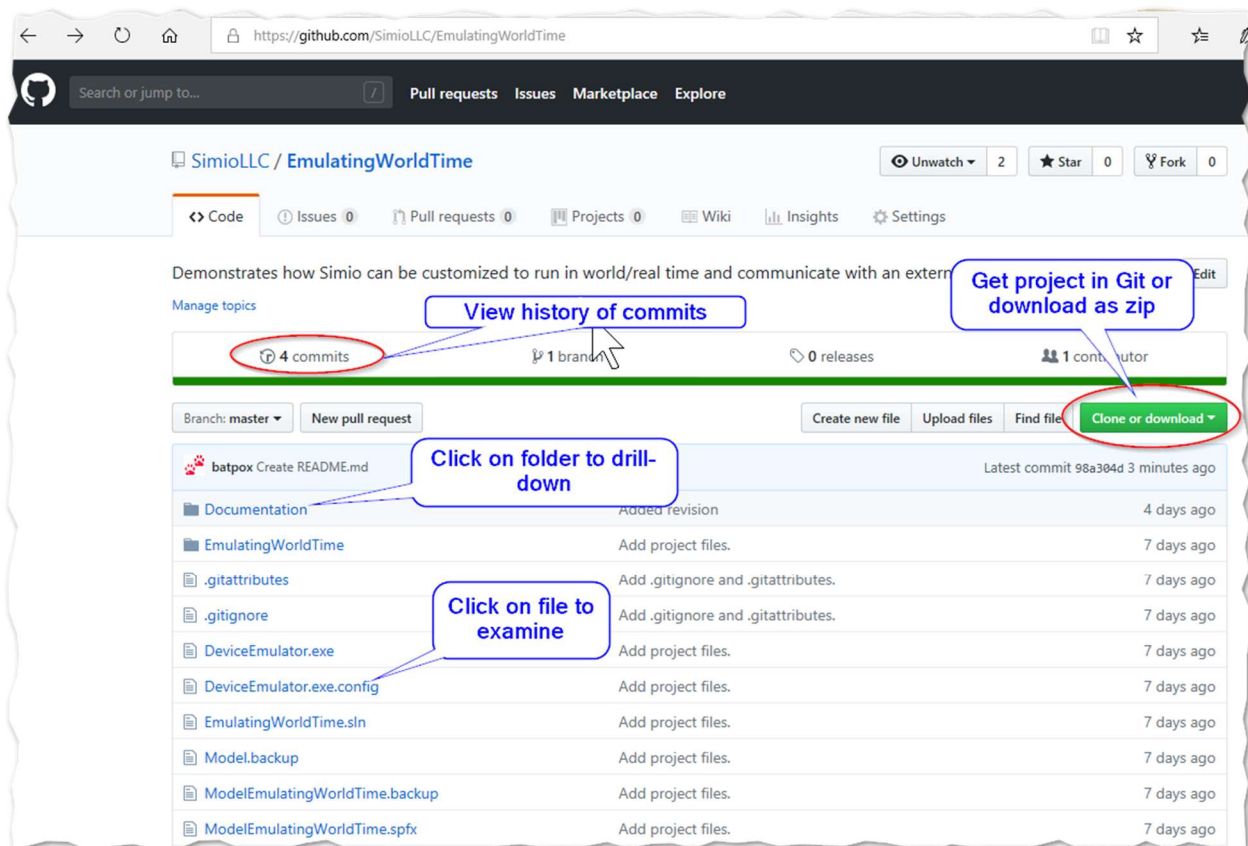![Simio - Forward Thinking]

https://github.com/SimioLLC:

Examining a Project

At the time of writing this document, the SimioLLC repository shows three projects:

1. Simio-Forum-and-GitHub

2. EmulatingWorldTime

3. Examples

As it just happens, the first repository contains documents (including this document), while the second and third are code repositories We'll use these samples to show different ways to access these documents.
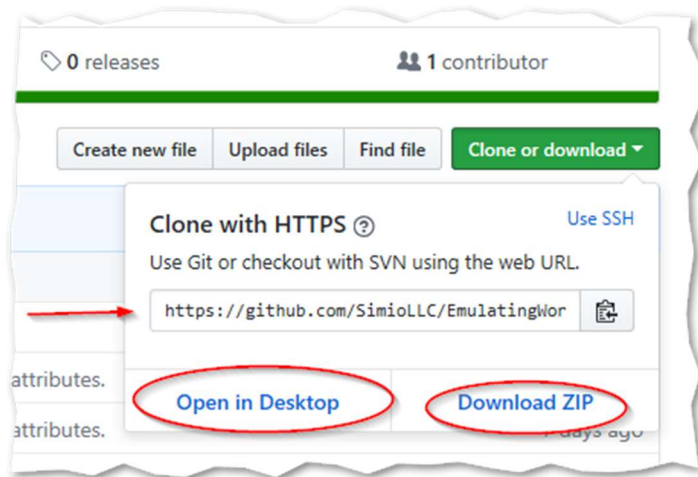
First, we'll look at project based on code, which is a Simio User-Extension. Clicking on EmulatingWorldTime sends us to that project:

We can click on the folders and files directly, and GitHub will allow us to navigate into the folder, or give us a quick look at the contents of the files.

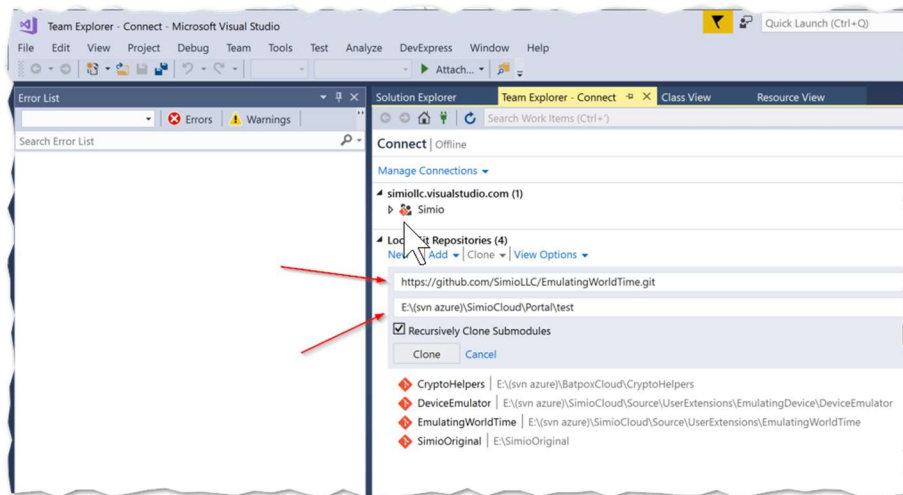Clicking on the green "Clone or download" button presents two options. You can either

1. "Open in Desktop", which means do a Git Clone, or

2. Download the root or "master" as a zip folder

Not that it gives you a URL (the string beginning with https://github... to use for Git or SVN (SVN is another type of document repository).
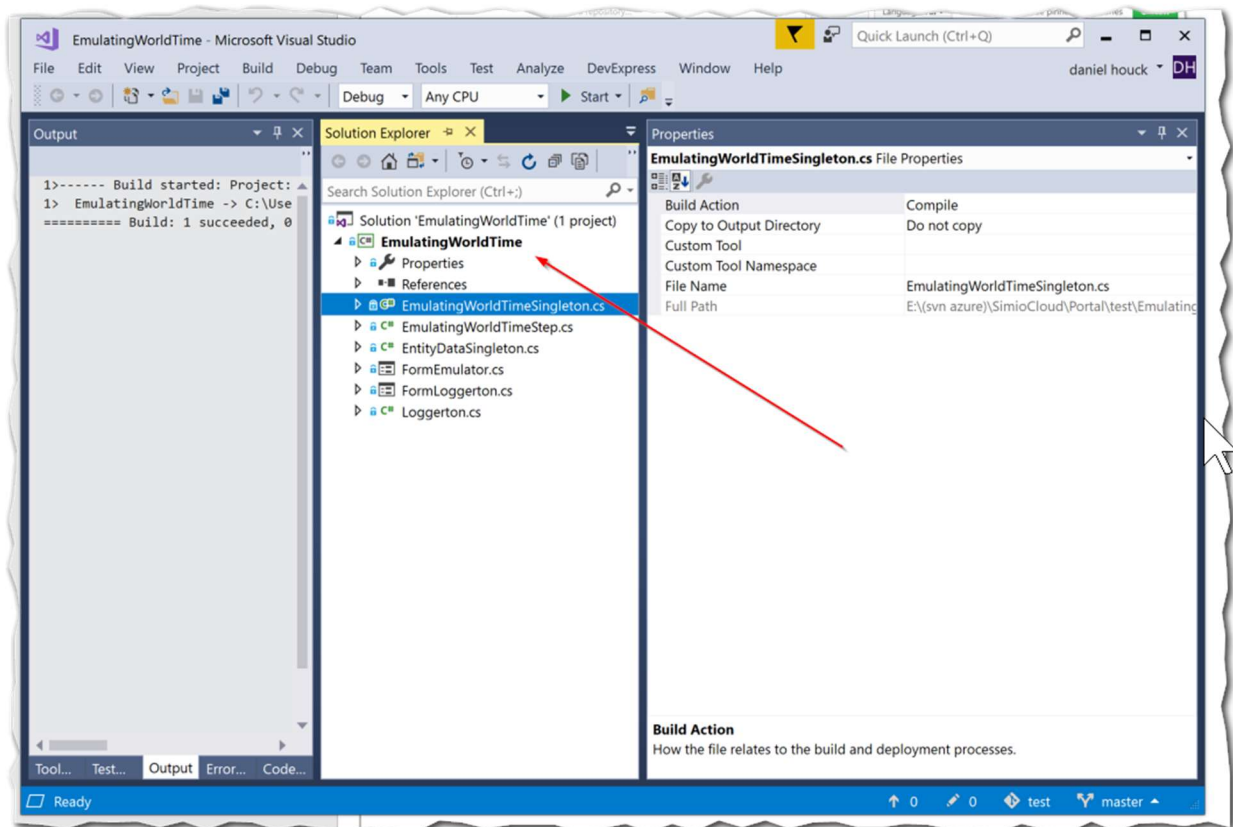
Opening the Project in Visual Studio

In this section, we'll use this the Clone ("Open in Desktop") option to open the project in VS (Visual Studio 2017). Start VS and create new project and then go to Team Explorer.
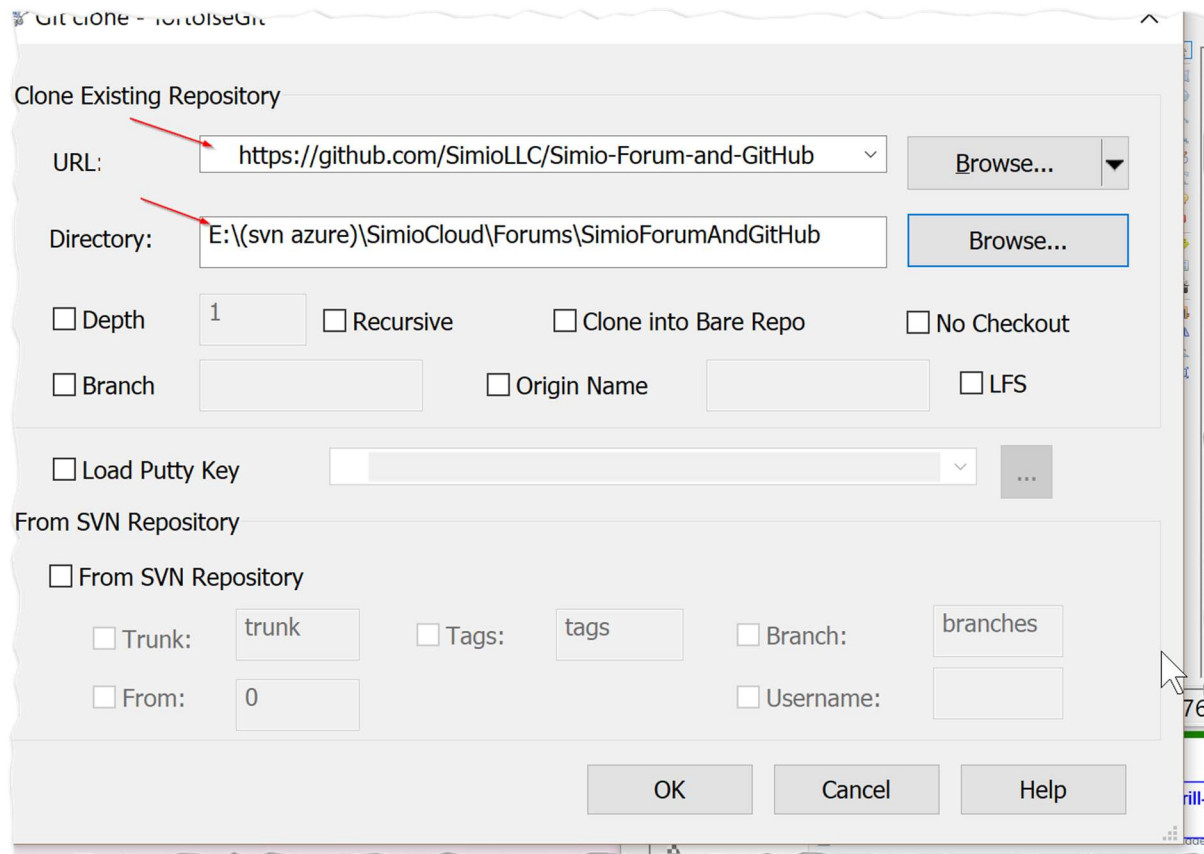
Take the URL that you copied from GitHub and paste it into the upper box, and then select a location on your desktop for the lower box. And then press the "Clone" button.

Within a few seconds you should see your project in a build-able state.

Opening the Project in Some Other Git-Enabled App

On my computer, I have the free Tortoise Git application, so when I made a this document I used it to create a git repository on my local drive.??

Other Topics

Git References