# UI Design/Development Environment Setup

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## Overview

### About This Document

This document describes the installation of the UI Design/Development environment. It is intended for designers/developers who will be producing rapid prototypes, proofs of concept, and enhancements to user interfaces for testing screen designs and flows in html/javascript/css and preparing code for transition to the production environment, whatever it becomes.

### Basic UI development environment using HTML/CSS/Javascript

#### Purpose

* This is a simple structure made up primarily of CSS HTML and Javascript, using a couple of server benefits to make the design process faster and easier.
* It is designed so that anyone with front end skills can work productively with UIs prior to sending them to developers.
* The purpose of this project, is to insert a basic low-level web application design environment ahead of the development process.

#### Needs and Advantages

**Need**: To iterate and test design with customer/owners independently from development overhead

**Advantage:** Vets concepts, styles and labelling and iterating in a low cost, high availability environment.

**Need:** Simplicity   
**Advantage:** Environment is low bandwidth, self-contained on a single PC and can be managed easily, without high dependence on Development for support/access

**Need:** Communicate designs and interactions to developers  
**Advantage:** Allows designers to provide developers with CSS/HTML in a Semantic/adaptive structure, styles and script libs should be “plug and play”

#### Structural Design

Although the files in the design environment will change and iterate, the basic structure should remain somewhat constant upon implementation.

#### Coding Style/Standards

W3c/CSS 3 / HTML 5 (XHTML 1.0?)/Twitter Bootstrap 3

#### Scope and Boundaries

This code can form the foundation for screens in a live system, but will take a varying level of re-locating/chopping up to map to whatever development platform we land on.

## Tools & Components

### File Directory Structure Description

#### Overview

Understanding the file structure will help you develop pages more easily, and make content more findable by others who work in the system. Every file should use absolute paths, (unless linking to child resources). That way they can be re-purposed throughout the system without having to change paths to dependencies. It is a lower maintenance way to manage linked resources. For an example, navigate to the page URL listed at the bottom of this guide and review its source.

**Each page/screen requires 5-6 includes…**

* Global Nav
* Global Header
* Secondary Nav
* 1 CSS file using cascade
* 1 Global JS file – this includes all the JS required for every page on the site(usually just below the CSS tag)
* 1 Conditional or local JS file (optional) – contains all the conditional JS for the page (usually at the page bottom)

#### JS

##### **DT\_JS** – Our own shared js code

##### **Vendor**- Global JS from vendors like JQuery and Twitter

#### Font

##### **Misc Web Fonts**

##### **Fontawesome**

#### CSS

##### **DT** – Our own CSS

##### **Vendor** – Bootstrap, JQuery etc.

##### **Global.css** – file that collects everything

#### Img

Image files (if)

#### Inc

Include files (some question about the need for this rather than say storing js includes in the js directory and html includes in the pages directory… etc.)

#### Components

##### Each component directory can have its own css/js/img/ whatever in any structure. Consistency with the resources folder is one thing, but I think this can be kept as shallow as possible with a js file, include file, and css file all in one directory, if its that simple.

### ST (State or Project level specific files)

#### Pages

Folder for pages/screens/flows

##### Page specific resources

###### **CSS –** page css

###### **JS–** page js

###### **IMG –** img files (if) – Most image resources can be stored in CSS directly.

#### Resources

State Specific Resources at this level

### Web Components….

#### Apache Server (part of XAMPP)

Provides absolute paths and Server Side includes

#### Adobe Dreamweaver

Design, layout, site management, etc.

#### Windows “Host” file

Lets you name your localhost and test directory without confusing it with other server apps (localhost:8080)

## Installation of your environment

To set up a site, you’ll need Dreamweaver as your working environment, (not that it matters for the files, just the working process). Apache, Virtual Hosts, SSIs and Absolute paths, a host file for efficient working with sites, and a path for local and remote files.

### Create a work directory

Example: C:\DT2\www   
*(the site definition file below will try to do this if you run it from dreamweaver).*

### Setup Dreamweaver

#### Import site definition file

Site file is at: M:\2013 UI\project\dt2\_local.ste – Click that file, select open with “Dreamweaver” and follow the steps that the wizard takes you through. This might partially work if you have a different version of Dreamweaver. It attempts to create directories for you if it doesn’t have them. So don’t create them if you already made the local dirs, otherwise click OK when prompted to let DW create the www and images directories…

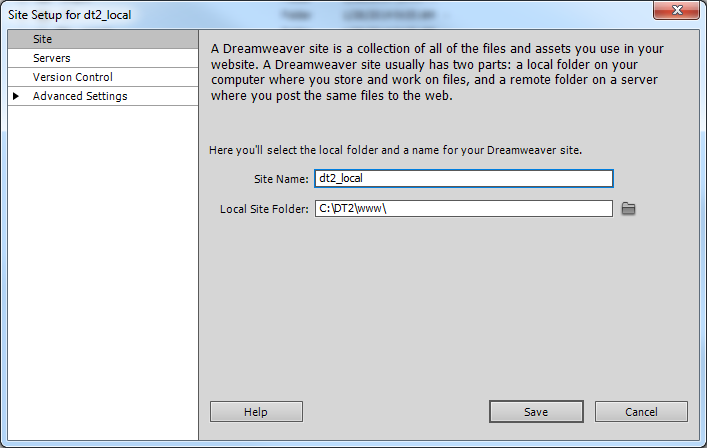
**OR**

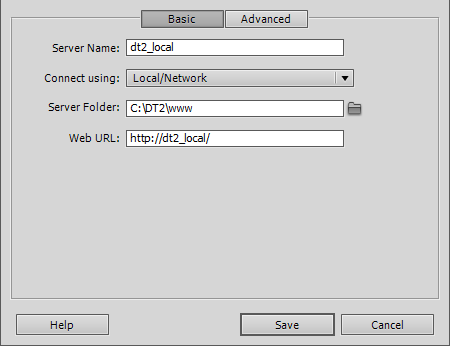
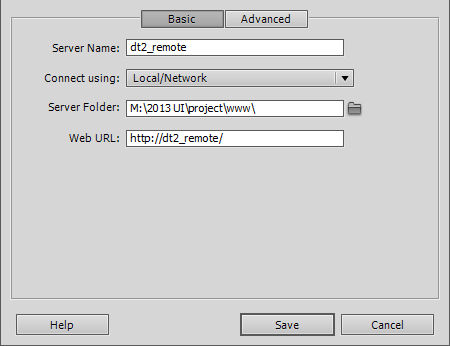
**Copy from the network : M:\2013 UI\project\www to your own computer C:\DT2\www**(**M:** being your mapped drive to the Marketing network drive)

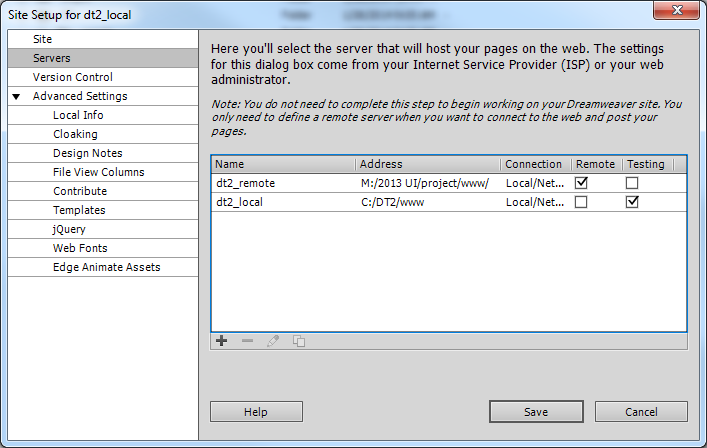
Then set up a new site as shown by the following screens...

*Note, if you don’t have all of these screens in the dialogs below, (ie. JQuery) that’s fine you probably have an older version of Dreamweaver.*

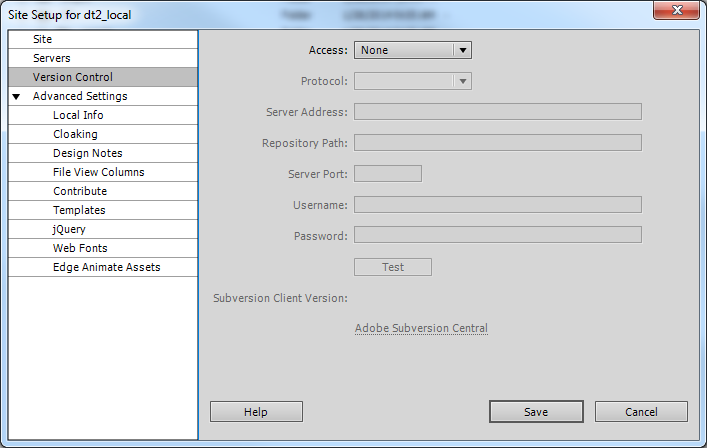
*Just fill out what it does have… When you copy the M directory to local, you can point to the local root and images directory, and I think that’s all you need.*

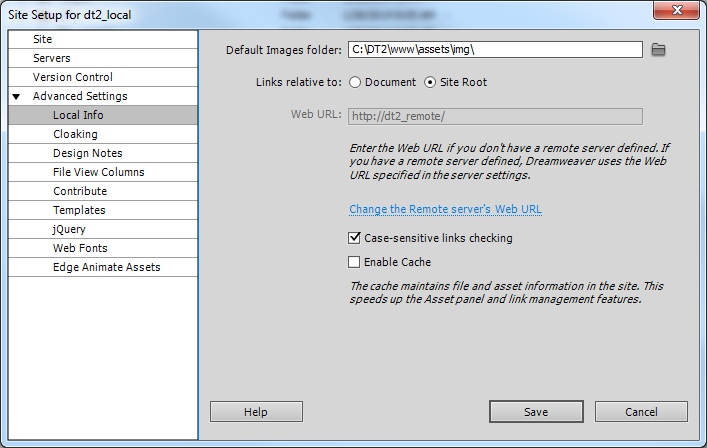




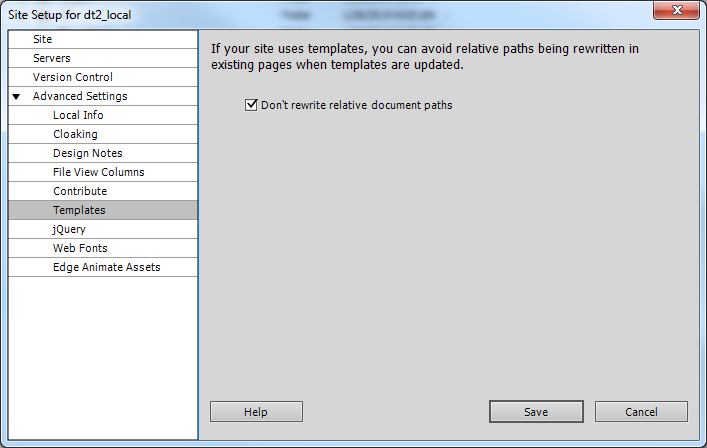


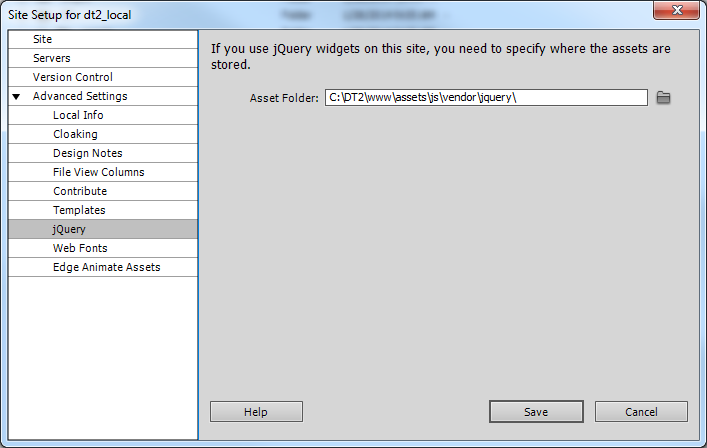
*Basically you want to make sure that dreamweaver is set up not to do any code rewriting, version control, contribute, etc. Down the road we may change this but for now let’s just keep it basic.*

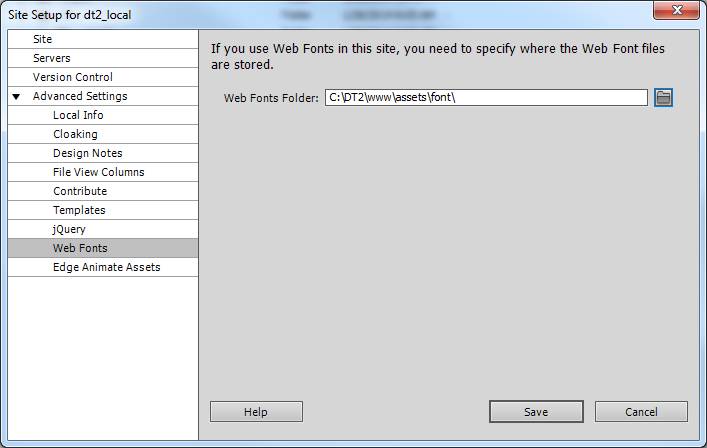




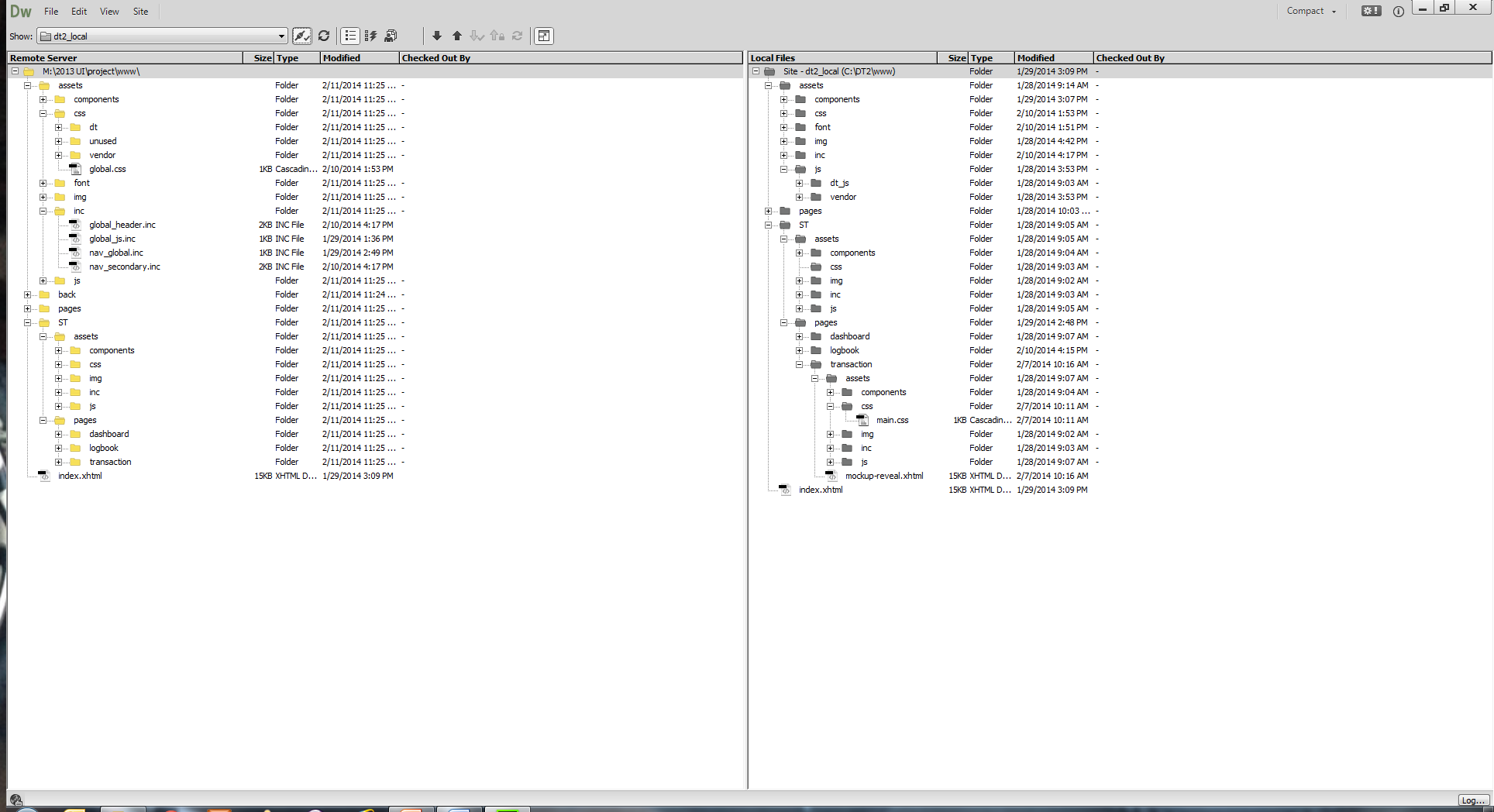
*We will use absolute paths to make it easier to move files around the site without a lot of rewriting…*







*When you’re done, you should have a screen like this when you close the dialogs and click the connect button and maximize button….*



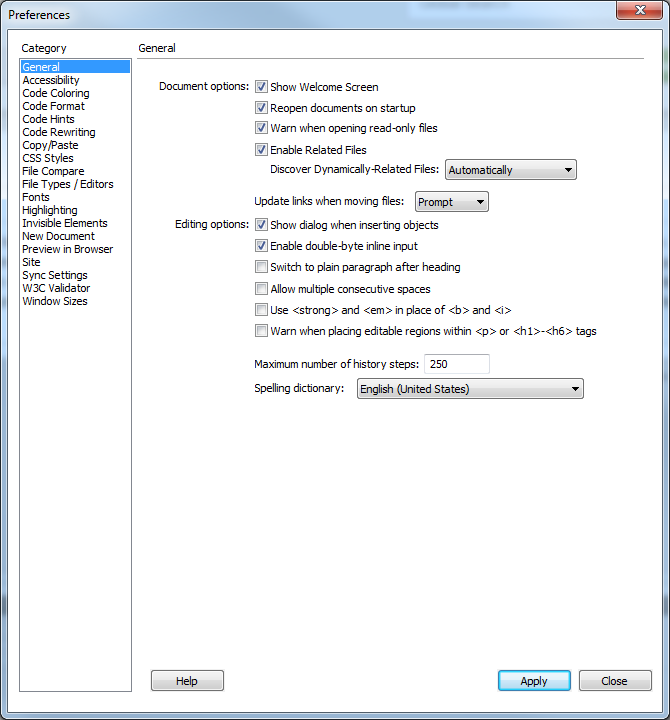
Connect to server

Maximize Icon

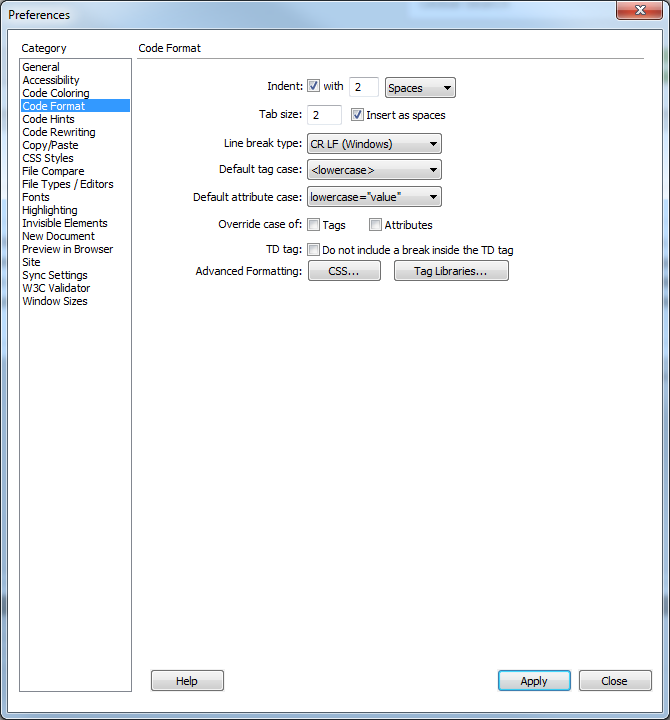
#### Set DW Preferences

Close the site files dialog and open the Preferences window, located under Edit.

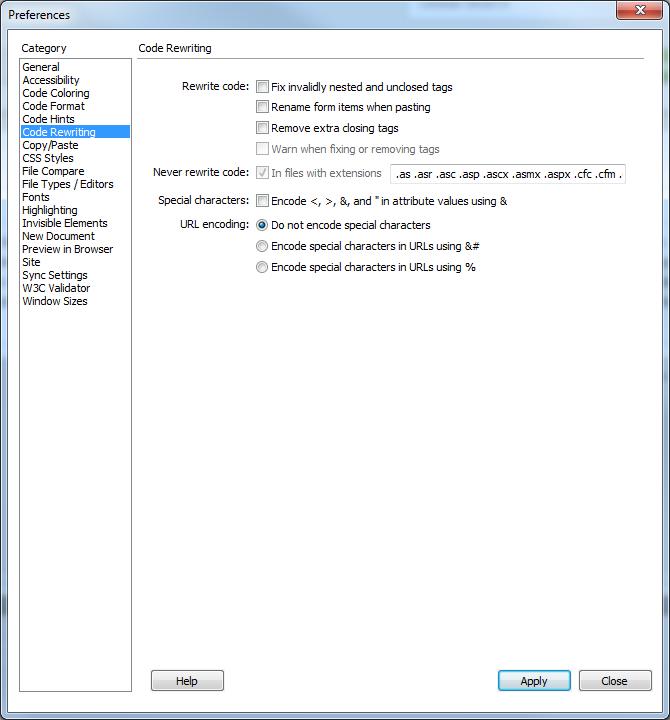
1. Bump up your undos to a healthy number (I like 250)…



1. Try to match DEV code formatting standards. This will automatically do it when you use Commands > Format



*I don’t like DW to rewrite my code…*

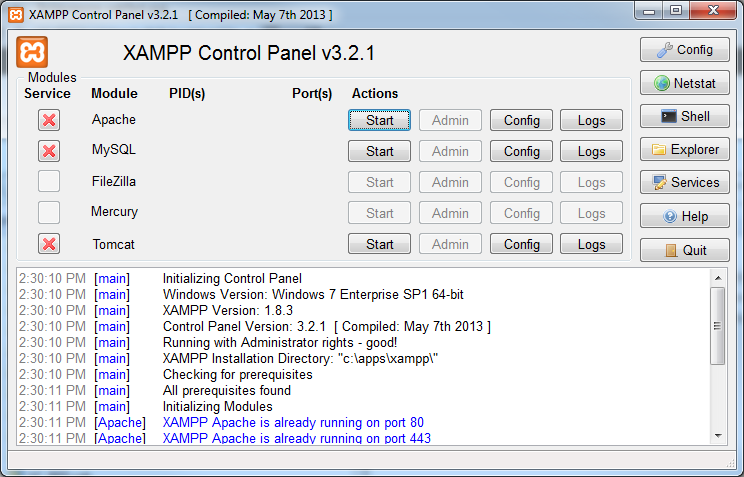


You can explore other settings, just stay away from contribute, versioning, and try to avoid all options for code rewriting.

etc. It generates painful files, or will end up being too helpful…

### Install Xamp (If you don’t have Apache)

1. Go to M:\2013 UI\tools and copy the xamp win installer
2. Run it on your machine. Accept defaults. All you really need is Apache
3. Fire it up, you should see this…



Click start. Apache should fire. The name Apache will highlight green if its running.

#### Configure HTTPD.conf file to allow includes and find your web project

Click Config > Apache (httpd.conf)

Run “Find and look for </Directory>

Below that line, insert the following:

############# DT web server vhosts (vhost file in xampp)

##### DT 2 Local

<Directory "c:/dt2/www">

Options All

AllowOverride All

Require all granted

</Directory>

##### DT2 Remote

<Directory "M:\2013 UI\project\www">

Options All

AllowOverride All

Require all granted

</Directory>

The first one will point to your local server, so if you don’t have the same path I do, change that to your path…

#### Change the suffix to be able to use XHTML files as the default file. Find the line below that looks like this….

<IfModule dir\_module>

DirectoryIndex index.php index.html index.htm

Add **index.xhtml** text to the list so it can find your default index file as named by ERT

*This is the suffix that the JSF devs use, so it makes us closer to them….*

#### Configure XAMP to allow Includes…. (If you specify XHTML, then you can even nest includes).

**Find this section of your httpd.conf….**

# Filters allow you to process content before it is sent to the client.

#

# To parse .shtml files for server-side includes (SSI):

# (You will also need to add "Includes" to the "Options" directive.)

#

#AddType text/html .shtml

#AddOutputFilter INCLUDES .shtml

Copy and then past and change

AddType text/html .xhtml

AddOutputFilter INCLUDES .xhtml

</IfModule>

Since I don’t use shtml files, I comment these out.

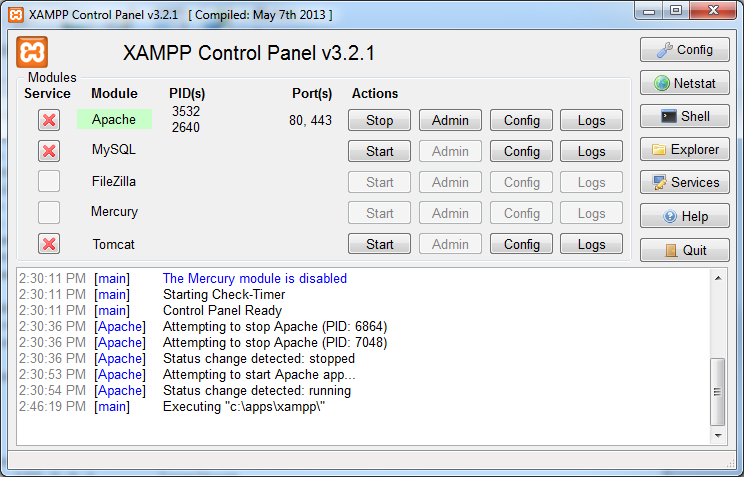
#AddType text/html .shtml

#AddOutputFilter INCLUDES .shtml

Save it and close that file.

#### Configure Virtual Server file in XAMP to point to your dev directory

1. Click Explorer from the XAMPP buttons on the right.



1. Navigate to: C:\apps\xampp\apache\conf\extra (note: C:\apps\xampp\ is where my apache is located, your machine install may differ)
2. Open **httpd-vhosts.conf**
3. Add the following lines to the bottom of the file. This gives the server permission to view your web files

<VirtualHost \*:80>

DocumentRoot "C:/DT2/www"

ServerName dt2\_local

</VirtualHost>

<VirtualHost \*:80>

DocumentRoot " M:\2013 UI\project\www"

ServerName dt2\_remote

</VirtualHost>

1. Check the paths and make sure they’re the same as your install
2. Save as text-only.

#### Configure Hosts file in windows

Open this file: C:\Windows\System32\drivers\etc\hosts

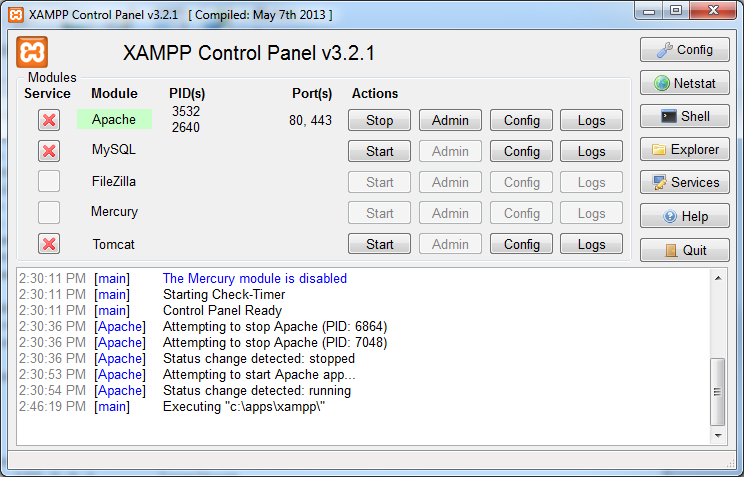
127.0.0.1 localhost

127.0.0.1 dt2\_local

127.0.0.1 dt2\_remote

Save and close this file….   
*I save a shortcut to my desktop for future edits…*

**Stop and Start Apache….**



Paste this into your browser : http://dt2\_local/ST/pages/logbook/index.html

Should go to this page…

