Sitecore Ignition Documentation

Release beta-0.98

Sitecore Ignition

August 03, 2016

Contents

Ignition is an open source development accelerator designed by the team at Perficient and released to the Sitecore community as a quick-start tool for beginning Sitecore projects. It has two primary components: the Sitecore Information Architecture piece and the .NET MVC Solution. All along the way, the team has set things up so that we're using best practices for Sitecore development as well as good development practices and patterns. We embrace SOLID, and our code is designed to enable you, the consumer, to quickly extend, add onto, and test your own code.

Please note that Ignition is in beta and may still be a bit rough around the edges. We are diligently adding new features and polish to the project and we happily accept your thoughts, feature requests, and pull requests.

CHAPTER 1

Contents

1.1 Setup

Information regarding setting up the Ignition framework is provided through the README file associated with the Sitecore Ignition GitHub repository accessible through this link.

Please continue to use the above link for any update to the installation process concerning the Ignition framework.

1.2 Deploy Project

1.3 Solution Overview

1.3.1 Ignition Solutions

Ignition.sln

Ignition.Tds.sln

1.3.2 Ignition.Core Project

Adding Additional Fields Definitions

Creating Your Page Structure

1.3.3 Ignition.Data Project

Global Data Structures

Setting up the Search Page Class Structure

1.3.4 Ignition.Infrastructure Project

Setting up Sitecore Computed Fields

Setting up a Token Helper

1.3.5 Ignition.Sc Project

Components Folder Structure

Creating the Models Interface to Map to a Sitecore Template

Creating the ViewModel for a Component

Using the BaseViewModel

Using the ViewPath Property

Creating a Custom ViewModel

Re-Using the ViewModel

For most situations when the view path for a component is specified in code, it is either implied by its folder location coinciding with its controller call or directly referenced in the view model used by the view. However, it is sometimes preferable to make a view model as re-useable as possible by multiple Sitecore component views in MVC using the ignition framework. The view path can be set dynamically through an agent as part of the controller call so that a view model can be used by multiple separate views representing different Sitecore components.

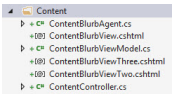
Does that mean that a re-used view model requires the agent to change the view path as part of the controller action result? No, as long as (a) the folder containing the controller file matches the controller cs file appendix and (b) the action result method names match the name of the views. Then the View method call would just accept the view model and the file names and folder structure associated with the controller and views would take it from there. As an example, what is shown below are three different controller/view calls which use the same view model *ContentBlurbViewModel*. Note that each View call is using the same agent (ContentBlurbAgent) to help populate the ContentBlurbViewModel but each view call can use a different agent if the process used to populate that view model has to be distinct for each view call.

```
public ActionResult ContentBlurbView()
{
    return View<ContentBlurbAgent, ContentBlurbViewModel>();
}

public ActionResult ContentBlurbViewTwo()
{
    return View<ContentBlurbAgent, ContentBlurbViewModel>();
}

public ActionResult ContentBlurbViewThree()
{
    return View<ContentBlurbAgent, ContentBlurbViewModel>();
}
```

In each case, the view path is not set dynamically in code because the view file name exactly matches the action result controller call and can be found in the root of the Content folder which also contains the ContentController cs file as shown below in the folder structure image. So in this sense, the structure directly supports how the views can be accessed without requiring additional code.



However, if there is a need to structure the location of the view files in a different way or if the view name happens not to match the name of the action result in the controller calling it, then setting the view path dynamically in code so the view model can be re-used does become necessary. The rest of the discussion of this blog will involve a situation where we are not assuming the view names or file locations and the action results which reference them actually match.

View File Path Referenced through its Agent

The view path associated with a controller call used in the Ignition framework can be set dynamically by the developer. This would allow the same view model to be used by many different views using variations of the View method call regardless of the folder structure of the Ignition framework implementation. An example of this call is shown below.

```
public ActionResult HeroSelector()
{

    return View<HeroSelectorAgent, HeroSelectorViewModel>();

}
```

If a developer plans to re-use a view model and vary the view path, it will become necessary to create a view agent (please note the *HeroSelectorAgent* reference in the above example). The agent is necessary because the view file path must be set which we will use the agent to perform. Setting the view path on some level should be handled by the agent. This agent must contains a PopulateMethod method which handles any logic which aids in populating the view model used for the view including where to find the view. An example of the code used within the Populate method to set the view path is shown below. The *IgnitionConstants.Hero.HeroSelectorView* constant references the view path. It is encouraged to have constants defined in a constants cs file like IgnitionConstants.cs and then referenced in those files which needs access to those constants as shown.

```
public override void PopulateModel()
{
    ViewModel.ViewPath = IgnitionConstants.Hero.HeroSelectorView;
}
```

That is it. With what you read you can now re-use view models with different views effectively as a part of developing re-usable content in Sitecore during component development.

Creating the View for a Component

Ensuring the View Supports the Experience Editor

Creating an Experience Editor View

Creating an Agent for a Component

Implementing PopulateModel

Accessing the Component's Datasource

Setting up and Accessing Rendering Parameters

Creating the Rendering Parameter Template

Coding the Rendering Parameters Interface

Accessing the Rendering Parameter in Code

Accessing the Agent Parameters

Performing Searches Against Sitecore Items in Code

Other uses for Constants.cs

The Ignition framework has as a standard for using a constants file as opposed to having constants randomly assigned to variables throughout the application. When a new Ignition project is created, an IgnitionConstants.cs file is added to the Ignition.Sc project within the Presentation folder of the Ignition solution.

Example of the type of constants oriented information which can be stored in the IgnitionConstants.cs file include

- Placeholder Names
- Folder Names
- Item Names
- Tag Names
- Item GUIDs (when needed)
- View Paths (when needed)

This is not an exhaustive list of string options for constants but keeping these constants in one file makes it easier to re-use and to update this information through-out the application when necessary.

Code Structure of IgnitionConstants.cs File

The code structure used to define these constants appear like the following…

```
namespace Ignition.Sc
{
    public struct IgnitionConstants
    {
        public struct Placeholders
        {
            public struct Layout
            {
                public const string LayoutContent = "layoutContent";
                public const string LayoutHead = "layoutHead";
            }

            public struct Content
            {
                public const string BlurbList = "blurb";
            }
        }

        public struct News
        {
            public const string NewsDetailBranchId = "{4713D2A4-6E63-4FDB-B463-6C6DA154725E}";
            public const string InTheNewsDetailBranchId = "{4CB843CE-3868-4CAE-B86F-DBDA7217E4A4}";
            public const string InTheNewsTypeTag = "InTheNews";
        }

        public struct CardTagType
        {
            public const string ContentType = "Content";
            public const string TaxonomyTag = "Tag";
        }
    }
}
```

Within the IgnitionConstants class, a bunch of C# structs are used to define the level of constants needed to support the application. An example of this reference is shown below.

```
using Ignition.Core.Mvc;

namespace Ignition.Sc.Components.Content
{
    public class ContentBlurbListViewAgent : Agent<ContentBlurbListViewModel>
    {
        public override void PopulateModel()
        {
            ViewModel.CurrentTag = IgnitionConstants.CardTagType.ContentType;
        }
    }
}
```

In this example, the current tag property of the view model is set by pulling a constant from the IgnitionConstants.cs file used to manage those constants where this value is defined.

Creating the Controller for a Component

Using the View<> Method

Using Only a ViewModel

Using a ViewModel and Agent

Explicit View Location

1.3.6 Ignition.Root Project

Sitecore Configuration

1.3.7 Ignition.Tests Project

1.4 Sitecore Structure Mapping to Ignition

1.5 Ignition and Sitecore Powershell Extensions

CHAPTER 2

Contribute

- Source Code: github.com/sitecoreignition/SitecoreIgnition
- Issue Tracker: github.com/sitecoreignition/SitecoreIgnition/issues

CHAPTER 3

Indices and Tables

- genindex
- modindex
- search

3.1 Authors

- Jon Upchurch (Solution Architect and Lead Developer)
- Corey Smith (Architect and Developer)

CHAPTER 4

Copyright and License