GENESYSSOURCE

Debugging Your Genesys Framework App

A Cross-Platform Framework Quick-Start

GENESYSSOURCE
22431 Antonio, Suite B160-843
Rancho Santa Margarita, Ca. 92688
+1.949.544.1900 | GenesysSource.com

See on
GitHub.com

Free on
VisualStudio.com

Contents

Before you begin: Pre-Requisites

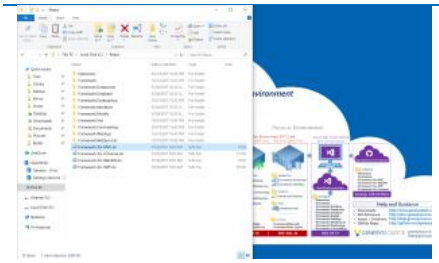
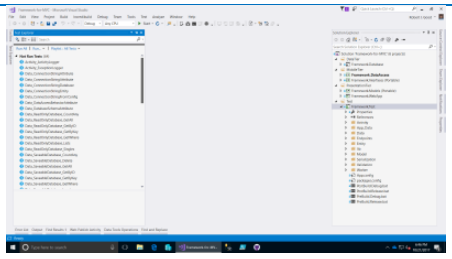
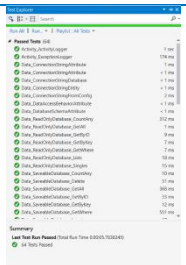
Before beginning, check the pre-requisites. Don't have the pre-req? Click the link below to get it Free.

① Framework Code	② Visual Studio	③ Cloud Dev Environment (Optional)
Genesys Framework source code is downloaded or available, including... ✔ Framework.WebApp: MVC Web App ✔ Framework.Models: x-Platform Models ✔ Framework.DataAccess: EF Data Objects ✔ Framework.Database: SSDT T-SQL DB	Visual Studio 2017 is installed with the following workloads... ✔ ASP.NET and web development ✔ .NET Core cross-platform development ✔ Data storage and processing ✔ .NET Desktop development ✔ Mobile development with .NET ✔ Unified Windows Platform development	The Genesys Cloud Dev Environment includes all Azure infrastructure + code for a working, full-stack, cross-platform Cloud App in MVC, Web API, WPF or Universal. The Cloud Dev Environment includes... ✔ 1 IIS Web Server Azure Virtual Machine ✔ 1 SQL Server Azure Virtual Machine ✔ 1 Visual Studio Azure Virtual Machine ✔ Genesys Framework Source Code ✔ Framework Apps + DB already-running
Don't have it? Get Genesys Framework HERE	Don't have it? Get Visual Studio HERE	Not on Azure or no CDE? Start HERE

1: Pre-requisites for this procedure

How-to Run Test Methods in *Framework.Test*

This procedure describes the *Framework.Test* project and how to run its test methods.

① Open *Framework-for-MVC.sln*	② Open *Test Explorer* Window	③ Click *Run All*
		
1. Open the *Framework-for-MVC.sln* Visual Studio solution file - Default: C:\Repos\Framework-for-MVC.sln	2. Open the test explorer window - Test -> Windows -> Test Explorer	3. Click the Run All link at the top of the window. All test should pass and marked green.

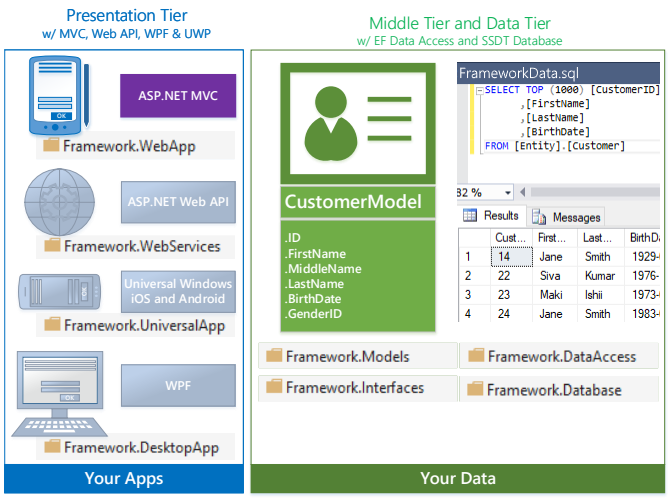
How-to Debug the *Framework.WebApp* Project (MVC)

This procedure outlines debugging the Framework.WebApp (MVC) project through to the underlying Framework.DataAccess (EF) data access object project.

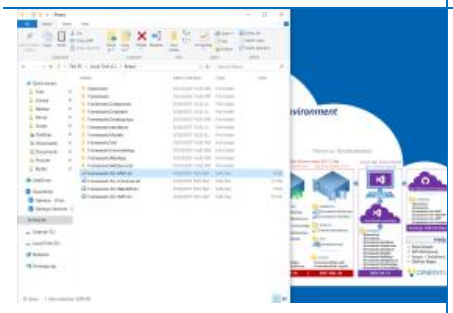
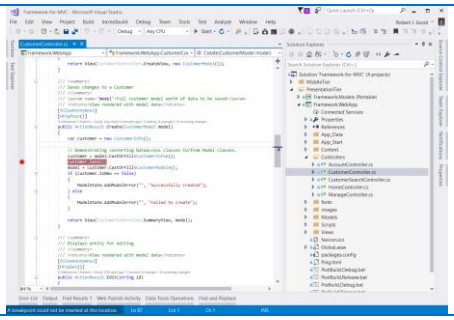
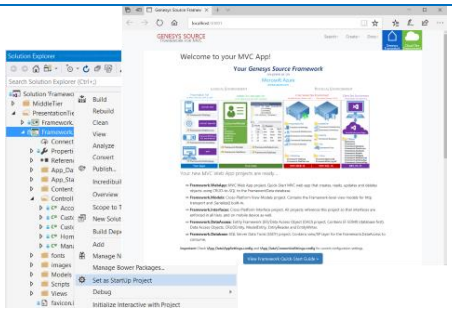
Projects in your Framework for MVC App

A Framework for MVC app includes full-stack projects for CRUD-to-Services and CRUD-to-SQL business objects, including:

Framework-for-MVC.sln	Solution file containing all Framework for MVC projects.
Framework.WebApp	MVC Web App with all CRUD and Search operations for a Customer entity.
Framework.Models	Cross-platform PCL containing bindable screen models for MVC, WPF, UWP, WebForms, WinForms, Xamarin.
Framework.Interfaces	Cross-platform PCL containing interfaces, to ensure all tiers share the same signature.
Framework.DataAccess	Entity Framework data access objects, providing CRUD operations for Customer.
Framework.Database	SSDT database containing all T-SQL for tables, views, stored procs, schemas, users.



To debug your Framework for MVC app, follow the procedures below:

① Open *Framework-for-MVC.sln*	② Set Breakpoint in *CustomerController.cs*	③ Set as StartUp Project and Press *F5 to Run*
		
4. Open the *Framework-for-MVC.sln* Visual Studio solution file	6. Set a breakpoint in the Create() method, on the Save() call `public ActionResult Create(CustomerModel`	7. Right-click *Framework.WebApp* project -> click *Set as StartUp Project*

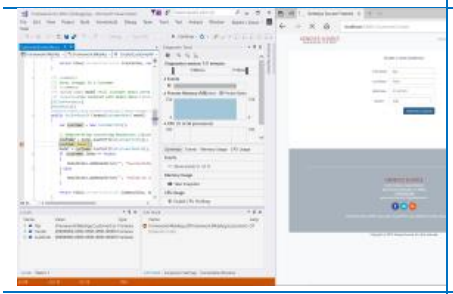
- Default: C:\Repos\Framework-for-MVC.sln

5. Navigate to and open Framework.WebApp\Controllers\CustomerController

```
...
  customer.Save();
```

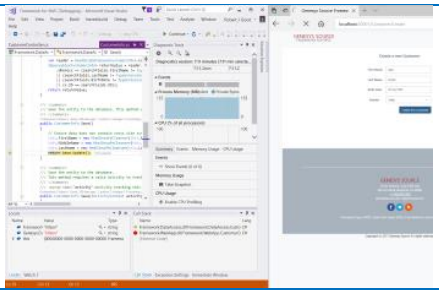
8. Press *F5* or ▶ to run
   - Should run this Url: http://localhost:30001/
9. Home/Index.cshtml should display

④ Create a Customer and hit breakpoint



10. Click *Create* menu link at top of page
11. Enter *Name*, *Birth Date* and *Gender*
12. Click *Save* to hit breakpoint

⑤ Step-in to *CustomerInfo.cs*



13. Press F11 to step-in *CustomerInfo.cs*

```
customer.Save();
```

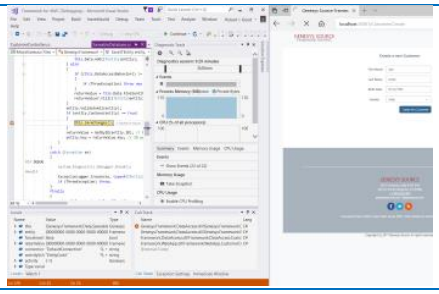
14. Press F10 to step-over to

```
return base.Update();
```

15. Press F11 to step-in *CrudEntity.cs*
16. Press F10 to step-over to

```
returnValue = db.Save(this.ToEntity
```

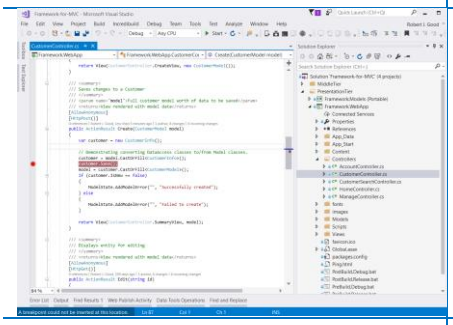
⑥ Step-in to EF Call in *SaveableDatabase.cs*



17. Press F11 to step-in *SaveableDatabase.cs*.
    - *SaveableDatabase* and *ReadOnlyDatabase* are the 2 wrappers for Entity Framework calls
    - *SaveChanges()* commits changes to EF.

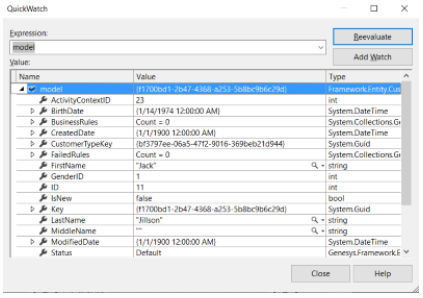
```
entity.ValidateAll(entity);
if (entity.CanSave(entity) == true)
  this.SaveChanges();
```

⑦ Step back to *CustomerController.cs*



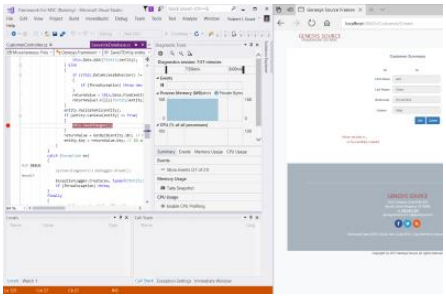
18. Press *F10* to step-over to the caller in *CustomerController.cs* to the *Create()* method.

⑧ See Customer data before returning to View



19. Pause execution on the following line and hit *F9* to *Quick-Watch*

⑨ Continue execution to see Customer Create success



20. Press *F5* to continue execution and see the Customer Create operation success

Getting Help

Have a question? Have a problem? Contact us anytime...

Contact Genesys Source	Help and Guidance	On Social
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