

PDS Consulting Tools Overview

PDS Consulting has a series of tools that help you develop MVC applications for .NET 5 and .NET 6 quickly and easily. This document describes the tools and the requirements for your system to use these tools.

PDSC Framework and Sample MVC Template

In the \PDSC-Framework folder you will find a sample MVC template that is used to create your MVC applications. You use the PDSA Application Creator to copy the application in this folder and re-name all folders, solution, and project files to your new application name.

The sample MVC application is separated into several projects to keep with good N-Tier design.

Project	Description
PDSC.Common	This class library contains common classes that can be used in any application.
PDSCFramework	This is the MVC application into which you will create your views and controllers.
PDSCFramework.Common	This MVC class library project contains classes that are unique for your MVC application.
PDSCFramework.DataLayer	This class library contains the Entity Framework DbContext class. It also contains repository classes for each table in your database.
PDSCFramework.EntityLayer	This class library project contains entity classes to map to each table in your database. It also contains search classes for performing searches.
PDSCFramework.ViewModelLayer	This class library project contains view models for each controller to use to display pages.
PDSCFramework-SQL	This folder contains the appropriate SQL files for the PDSC Framework, and your MVC, applications to work correctly.

PDSC Application Creator

The PDSC Application Creator is a simple tool that copies all the files and folders from the where you installed the PDSC Framework template project to a new folder and name that you specify as shown in Figure 1. It then renames the appropriate files to the new name you specify.

PDSC Framework Application Creator

Use this tool to copy the PDSC Framework template application to your own application

PDSC Framework Project Location: D:\PDSCConsulting\PDSC-Products\PDSCFramework

PDSC Framework Project Name: PDSCFramework

PDSC Framework Project Description: PDSC Framework

New Application Location: D:\Samples\Sample.Project

New Application Name: Sample.Project

New Application Description: Sample Project

Create

Messages

Figure 1: The PDSC Application Creator creates a new MVC application for you.

PDSC Developer Utilities

The PDSC Developer Utilities is a set of tools to help you develop your .NET applications and keep your development environment clean and working as efficient as it can.

Utility	Description
Computer Cleaner	Visual Studio is a great development environment for creating applications quickly. However, it will leave a lot of miscellaneous files all over your hard drive. There are a few locations on your hard drive that you should be checking to see if there are left-over folders or files that you can delete. This utility will help you get rid of all of these left-over files.
Property Builder	This utility allows you to generate Property statements for your C# or Visual Basic classes. There are several templates (similar to the snippets in the Visual Studio editor) that you can choose from. You can also create your own templates to generate any type of property you want.
Project Cleaner	This tool will go through a folder and all sub-folders and delete any \bin and \obj folders. It will also delete any .suo, .webinfo and .user files. You can optionally have it look in .SLN, VBProj, CSProj files and eliminate any references to source control. It will also remove any read-only attributes from the files. This utility is configurable so you can choose what folders and files you wish to delete.
JSON Builder	This utility will allow you to choose a table, view or a SELECT stored procedure and will generate a JSON file of the data in the table or view.
XML Builder	This utility will allow you to choose a table, view or a SELECT stored procedure and will generate an XML file of the data, or an XSD file of the schema of the table or view.

Table 1. List of PDSC Developer Utilities

PDSC Haystack Code Generator

The Haystack Code Generator (Figure 2) creates entity classes, repository classes, view models, controllers and .cshtml files you can drop into the PDSC Framework template for a complete set of search, add, edit, and delete pages for each table in your database.

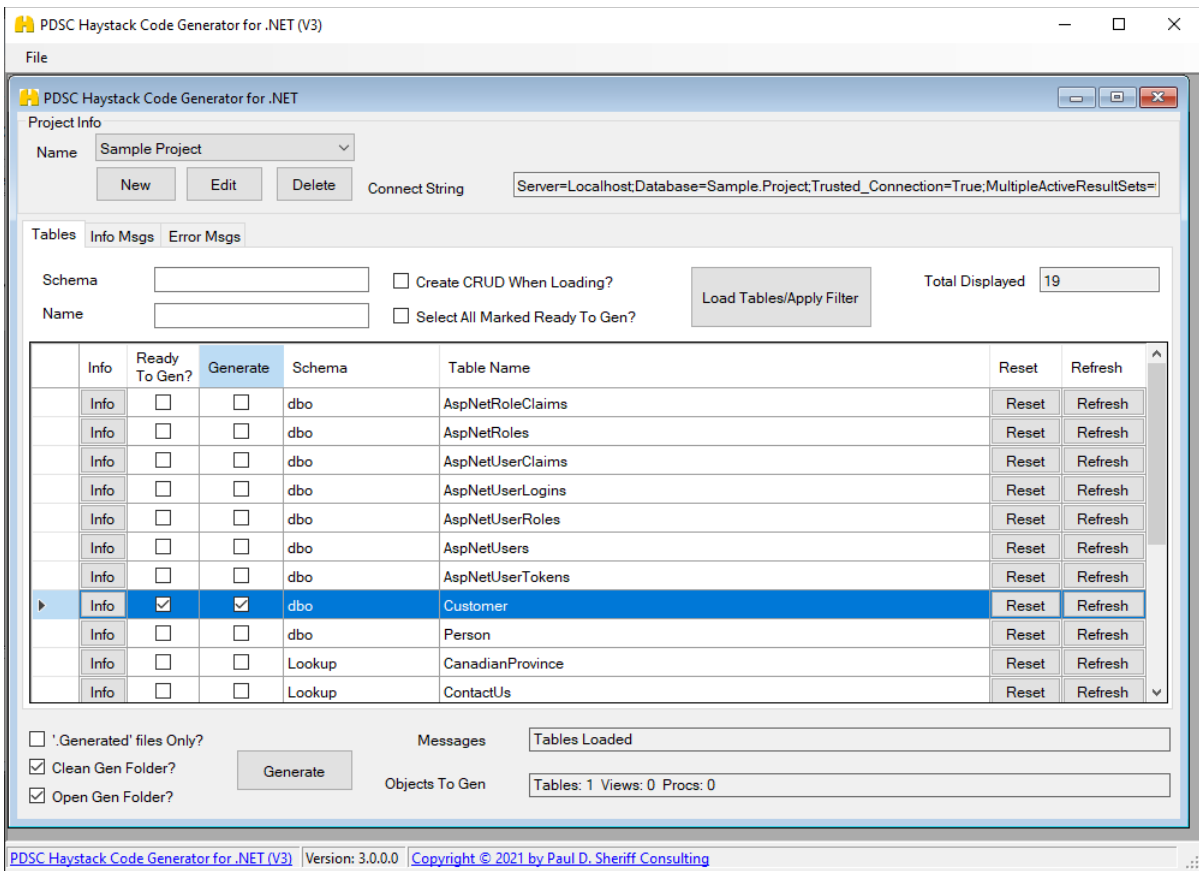


Figure 2: The Haystack code generator creates CRUD logic for MVC applications

System Requirements

Below are the assumptions about your computing environment.

- You are running Visual Studio 2019 or later
- You are using SQL Server 2019 or later for storing the Haystack meta-data.
- You are using SQL Server 2019 or later to generate classes from.
- You are running Windows 10 or later.

Supported Databases

You may generate data classes for tables from SQL Server 2019 and higher.

Your Knowledge

The PDS Consulting Tools help you create N-Tier data classes and standard add, edit, delete pages for MVC. The use of these classes does assume a good knowledge of .NET. The following are some of the assumptions we make about your knowledge:

- You have a good understanding of C#
- You have a good understanding of one of the technologies you are generating for:
 - Entity Framework
 - MVC
- You understand Object Oriented Programming principles
- You know how to use a relational database