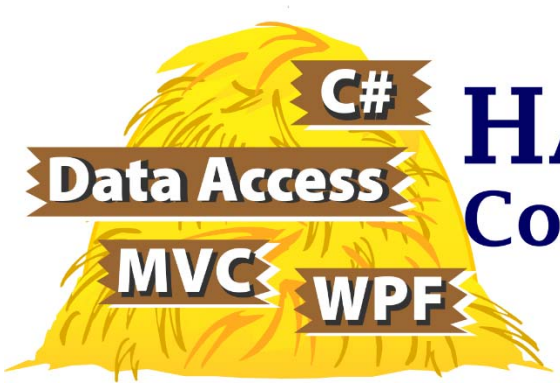

HAYSTACK Code Generator For .NET

By: PDSA, Inc.

User Manual for Data Access Layer

Version 2.x

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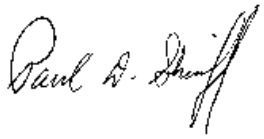
Introduction

Thank you for purchasing Haystack Code Generator for .NET. This tool will help you be more productive when creating your Service Oriented (N-Tier) C# and Angular applications. Like any good product it is never done. We are continually enhancing this product. You can be assured that you will receive all of the upgrades for free for your first year. After that there is a nominal fee that is explained under Support Options in this document. In addition, we would like to ask that if you make any additions, that you send those along to us so we can include them in the next upgrade. We hope you find this tool as useful as we do, and look forward to hearing from you.

Sincerely,



Paul D. Sheriff

President, PDSA, Inc.

Goals of Haystack

By using this product you will create N-Tier (Service Oriented) applications in a fraction of the time it would normally take without using any code generation tools. Look at all the features of this very useful tool:

- Generate code for C# applications
- Generate classes for Tables
    - Generate Select, Search, Insert, Update and Delete statements
    - Use Dynamic SQL and/or Stored Procedures for CRUD logic
    - Generate the stored procedures for CRUD logic for a table
    - Generate Data Annotations for business rules
    - Detect foreign key relationships and generate methods to allow you to select data from these relationships.
- Generate classes for Views
    - Read Only Class for calling the View.
- Generate classes for Stored Procedures
    - Data modification stored procedures
    - Stored procedures that return data but have no input parameters
    - Stored procedures that return data with input parameters
    - Stored procedures that return data with input and output parameters
    - Maps all input and output parameters to properties in class
    - Maps all columns returned to properties in class
    - Automatically fills in the value of output parameters to properties in class
- Generate WPF Add/Edit/Delete User Controls
    - Creates a detail user control that generates a TextBlock and TextBox for each field in the table.
    - Automatically display validation rule errors on bad input
    - If there is a foreign key relationship in the table, then a combo box is generated for the foreign key.

    - Create a ListView user control for displaying records.
    - Bind the ListView to the detail user control
    - A View Model class is generated that is bound to the WPF user control.
    - All data access is called from the ViewModel class.
- Generate Web API Service Classes
    - Get, Put, Post and Delete Methods
- Generate WCF Service Classes
    - Creates Interfaces for Services.
    - Creates Services to call Data Classes
    - Create Response Objects that are returned from services
    - Creates .SVC files to call the Services
- Generate Angular Add/Edit/Delete Pages
    - A bootstrap, Angular CRUD page is generated
    - Communicates via generated Web API methods
    - HTML 5 and Bootstrap
- Generate HTML/jQuery Add/Edit/Delete Pages
    - A bootstrap CRUD page is generated
    - Communicates via generated Web API methods
    - HTML 5 and Bootstrap
- Generate MVC Add/Edit/Delete Pages
    - Generates Controllers for each table
    - Generates View Model that is called from the Controller for all data access and business rule validation
    - Generates Create, Delete, Details, Edit and Index pages

System Requirements

Below are the assumptions about your computing environment.

- You are running Visual Studio 2015 or later
- You are using SQL Server 2008/2012 or later for storing the Haystack meta-data.

- You are using SQL Server 2008 or later to generate classes from.
- You are running Windows 7 or later.
- To run our trial version of Haystack, you must have an internet connection.

Supported Databases

You may generate data classes for tables, views, and stored procedures from the following databases:

- SQL Server 2008 and higher

Your Knowledge

Haystack helps you create N-Tier data classes and standard add, edit, delete forms. The use of these classes does assume a fairly good knowledge of .NET. The following are some of the assumptions we will 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:
  - Web API
  - Angular
  - HTML5/jQuery
  - MVC
  - WCF Web Services
- You understand Object Oriented Programming principles
- You know how to use a relational database
- It is highly recommended that you read the chapters in this manual thoroughly.

If you unfamiliar with the above concepts, you might also purchase some mentoring services from PDSA, Inc. (www.pdsa.com).

Installation of Haystack

See Chapter 2 for full installation instructions.

Using Haystack Generated Code

Haystack generates generic .NET code that can be used in any version of .NET from 4.52 and later. The generated code relies on a few things in order to work.

1. Some PDSA .dlls need to be added to your Visual Studio project
2. A reference to System.Linq.Dynamic.dll (included in Haystack)
3. Configuration entries need to be added to your Web.Config or App.Config file in your Visual Studio project.
4. To distribute your .NET application you will need to create a runtime license from Haystack. A runtime license can only be generated from a purchased copy of Haystack, not the trial version.

Technical Support

Because of the complexity of software development, PDSA, Inc. does not provide free technical support related to the use of the generated source code in your applications, nor the creation of custom templates. Technical support is available for how to use Haystack, program bugs in Haystack, the sample source code, and the DLLs that are a part of this product and the accompanying documentation.

TIP:	It is strongly recommended that you read the owners' manual thoroughly before reaching out to our tech support team.

Custom Templates

If you would like help designing custom templates for your particular situation, please contact us via email or phone. We are available to help you accomplish this task. PDSA, Inc. charges $200/hour billed in 15 minute increments for the creation of custom templates for Haystack.

PDSA DLLs

Several PDSA DLLs are supplied for use with Haystack generated code. In the demo version of Haystack, these DLLs can only be run from within the Visual Studio environment. When you purchase the full version of Haystack you will be able to distribute these DLLs for use in a stand-alone EXE version of your application.

NOTE: PDSA does not supply the source code for these DLLs with Haystack. Source code can be purchased for an additional fee. Please contact PDSA for more information.

Fee based support

Fee-based technical support for C#, Visual Basic, SQL Server, WPF, Angular, HTML5, jQuery, MVC and Web Forms questions is available via telephone or email. PDSA, Inc. charges $200/hour billed in 15 minute increments for this type of support (fees subject to change without notice). If we don't answer your question, then you don't pay.

Payment Options

You can pre-pay by check or money order, and we accept Visa and MasterCard. Please have the following ready when you call with a credit card:

- Credit Card Number
- Name on Card
- Expiration Date
- Address of where you receive the bill for this credit card

Support Options

The following support options are available to registered users of Haystack. This technical support is only available on the Haystack product itself.

- Send us an email with your support question to Support@pdsa.com.
- Fax us your question at (714) 734-9793.
- You can mail us a letter at 17852 17th Street, Suite 250, Tustin CA, 92780.
- You can telephone us at (714) 734-9792. You will receive 5 free support calls. After that you must pay our normal tech support fees as published on our web site.

Support Policy

The following options are available to you for support on Haystack for the first year.

- Automatic notification of upgrades and bug fixes
- 5 free phone calls
- Unlimited email on issues related to this product

Your first year's support on Haystack is included in the purchase price. For each year after we charge 20% of the retail price of the product.

NOTE: Major releases of Haystack are subject to an additional upgrade charge.

License Agreement

PLEASE READ THE EULA.RTF or EULA.TXT file in the installation folder of Haystack for our complete License Agreement.

Acknowledgements

Thanks to all the employees of PDSA, Inc for their help in developing this product.