
Excel-Dna Documentation

Release 1

Excel-Dna

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Note: This is not the official documentation, although I would hope to contribute these back to make them official when completed

CHAPTER 1

Guide

Excel-DNA is an independent project to integrate .NET into Excel. With Excel-DNA you can make native (.xll) add-ins for Excel using C#, Visual Basic.NET or F#, providing high-performance user-defined functions (UDFs), custom ribbon interfaces and more. Your entire add-in can be packed into a single .xll file requiring no installation or registration.

CHAPTER 2

More Details

Excel-DNA is developed using .NET, and users have to install the freely available .NET Framework runtime. The integration is by an Excel Add-In (.xll) that exposes .NET code to Excel. The user code can be in text-based (.dna) script files (C#, Visual Basic or F#), or compiled .NET libraries (.dll). Excel-DNA supports both the .NET runtime version 2.0 (which is used by .NET versions 2.0, 3.0 and 3.5) and version 4 (used by all newer versions). Add-ins can target either generation of the runtime, and concurrent loading of both runtime versions into an Excel instance is supported.

Excel versions '97 through 2019 can be targeted with a single add-in. Advanced Excel features are supported, including multi-threaded recalculation (Excel 2007+), registration-free RTD servers (Excel 2002+) and customized Ribbon interfaces (Excel 2007+). There is support for integrated Custom Task Panes (Excel 2007+), offloading UDF computations to a Windows HPC cluster (Excel 2010+), and for the 64-bit versions of (Excel 2010+).

Most managed UDF assemblies developed for Excel Services can be exposed to the Excel client with no modification. (Please contact me if you are interested in this feature.)

Since Excel-DNA uses the Excel C API, porting C/C++ add-in code based on the Excel XLL SDK is very easy. (No more XLOPERs!)

The Excel-DNA Runtime is free for all use, and distributed under a permissive open-source license that also allows commercial use.

Latest Releases

The current version is Excel-DNA 1.0.0, released on 27 April 2019. This release included various bug-fixes and improvements to the NuGet package build integration. The Excel-DNA 1.0.x series will be the final versions with support for older .NET (< 4.0) and Excel (< 2007) releases.

3.1 Installing Excel-Dna

With the package manager console:

```
Install-Package ExcelDna.AddIn
```

Add a basic function:

```
using ExcelDna.Integration;

public static class MyFunctions
{
    [ExcelFunction(Description = "My first .NET function")]
    public static string SayHello(string name)
    {
        return "Hello " + name;
    }
}
```

Compile and run to use it in Excel:

```
=SayHello("World!")
```

3.2 Ribbons

3.3 Quickstart

Create a new controller like this in your project:

```
[ComVisible(true)]
public class RibbonController : ExcelRibbon
{
    public override string GetCustomUI(string RibbonID)
    {
        return @"
<customUI xmlns='http://schemas.microsoft.com/office/2006/01/customui'>
<ribbon>
  <tabs>
    <tab id='tab1' label='My Tab'>
      <group id='group1' label='My Group'>
        <button id='button1' label='My Button' onAction='OnButtonPressed' />
      </group>
    </tab>
  </tabs>
</ribbon>
</customUI>";
    }

    public void OnButtonPressed(IRibbonControl control)
    {
        MessageBox.Show("Hello from control " + control.Id);
    }
}
```

3.4 Help

This is a test

CHAPTER 4

Indices and tables

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- `modindex`
- `search`