



**Add your Dynamo  
Scripts to a Toolbar**  
No Python/C# Required!

# Thanks for making me aware!



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– BIM Manager –



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# Making Revit Toolbars

C++ Deployable  
*Or*  
Pyrevit



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# C++ Deployable

Must learn C,  
Revit API

It's hard!

```
private static void func8YVJMH5AR86A52(string[] code)
{
    CompilerParameters compilerParameters = new CompilerParameters();
    string currentDirectory = Directory.GetCurrentDirectory();
    compilerParameters.GenerateInMemory = true;
    compilerParameters.TreatWarningsAsErrors = false;
    compilerParameters.GenerateExecutable = false;
    compilerParameters.CompilerOptions = "/optimize";
    string[] value = new string[]
    {
        "System.dll",
        "System.Core.dll",
        "mscorlib.dll"
    };
    compilerParameters.ReferencedAssemblies.AddRange(value);
    CSharpCodeProvider cSharpCodeProvider = new CSharpCodeProvider();
    CompilerResults compilerResults = cSharpCodeProvider.CompileAssemblyFromSource(compilerParameters,
        code);
    if (compilerResults.Errors.HasErrors)
    {
        string text = "Compile error: ";
        foreach (CompilerError compilerError in compilerResults.Errors)
        {
            text = text + "\n" + compilerError.ToString();
        }
        throw new Exception(text);
    }
    Module module = compilerResults.CompiledAssembly.GetModules()[0];
    Type type = null;
    MethodInfo methodInfo = null;
    if (module != null)
    {
        type = module.GetType("n96I4AJ3EYNVO71FC.Program");
    }
    if (type != null)
    {
        methodInfo = type.GetMethod("Main");
    }
    if (methodInfo != null)
    {
        methodInfo.Invoke(null, null);
    }
}
```



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# PyRevit

Must know **Python**,  
Write script entirely  
in **Python**

It's a bit easier...  
But it's still hard!



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# Benefits

Deployment

Portability

Execution Speed



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# The Main Con

Most of us don't have time to  
learn three languages

We've already learnt **Dynamo!!!**



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# Another Con

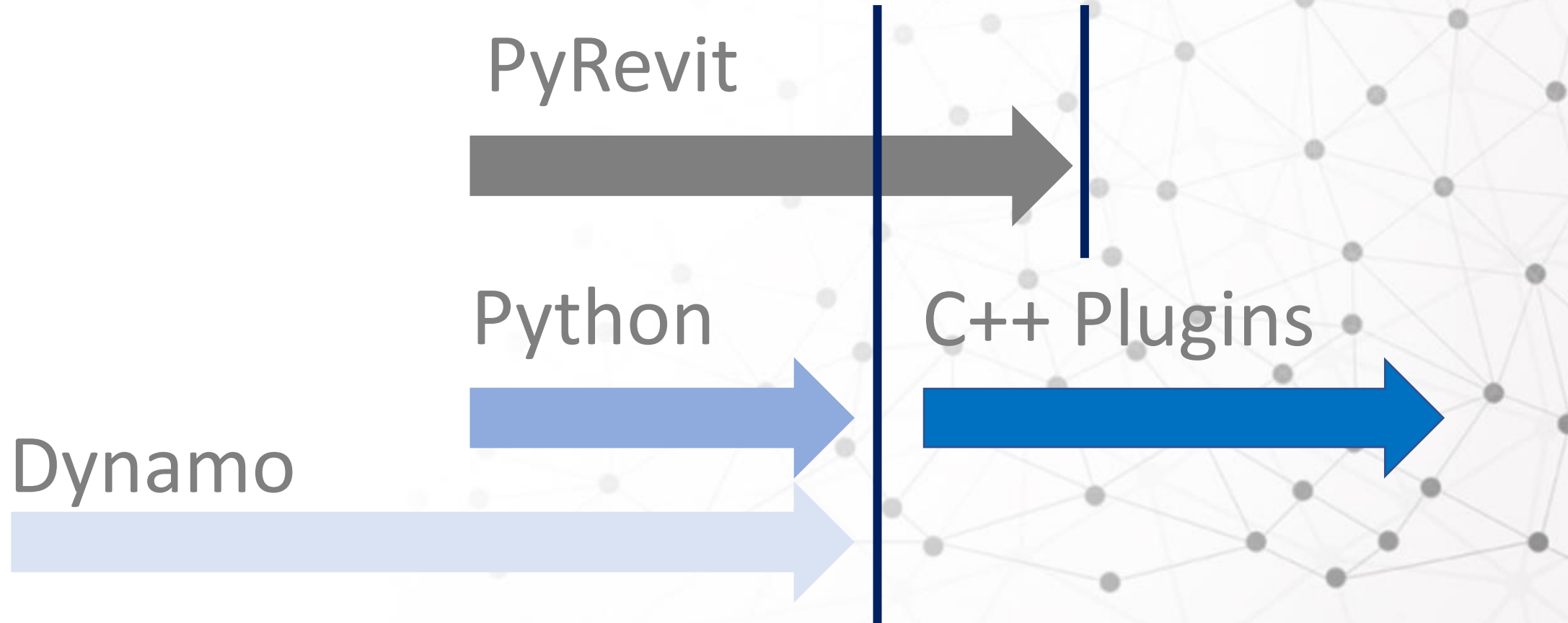
PyRevit and C rely on us  
abandoning **custom nodes**

We must do it all ourselves





# Learning Process

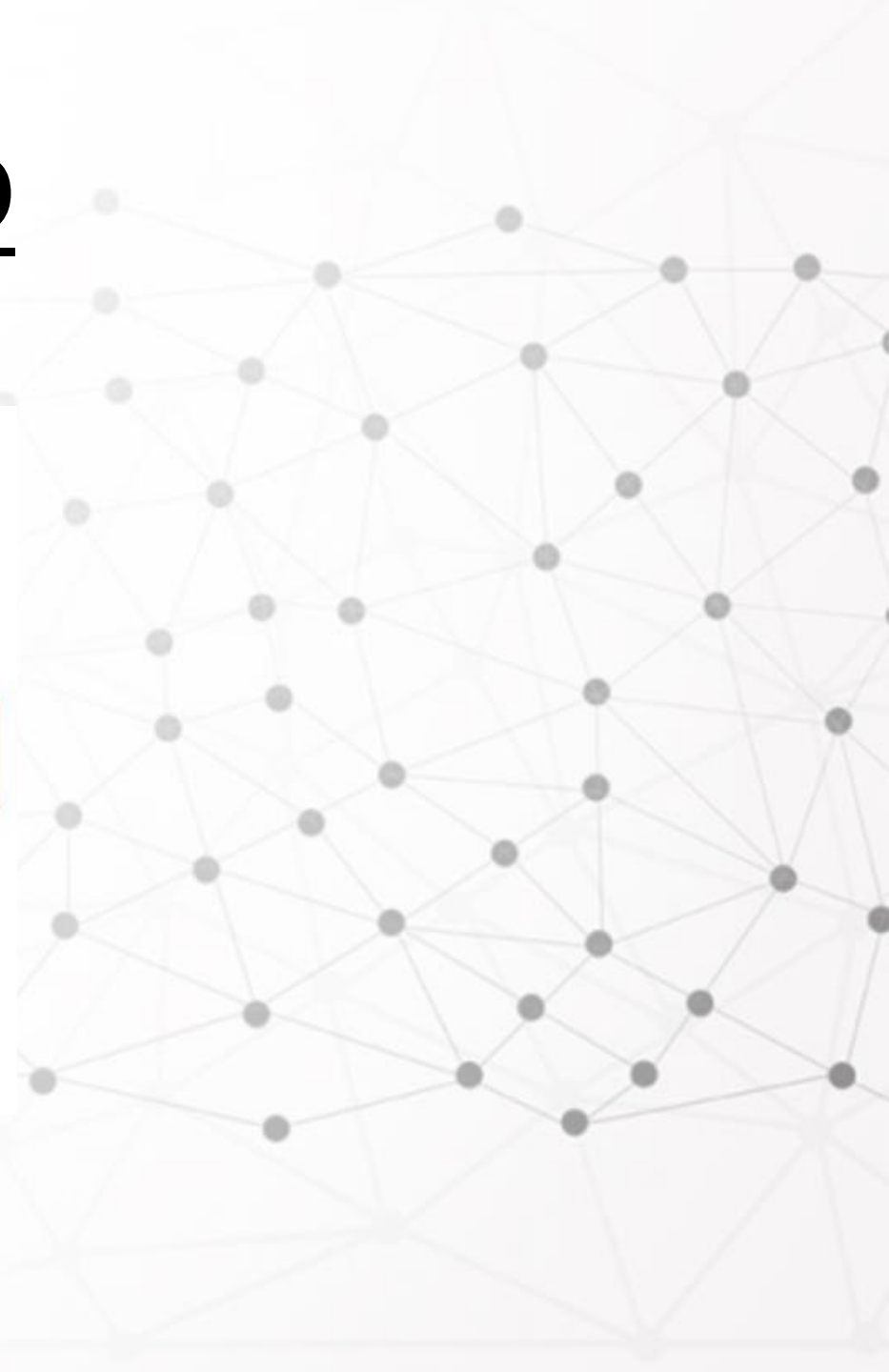


# Learning Process

## How about this...



# How? Dyno



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# What is Dyno?

<http://prorubim.com/en/tools/dyno/>

**Free!!!**

Revit 2017-2019

Tested in Dynamo 1.2, 1.3, 2.0



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# What is Dyno?



## ORGANISE AND GROUP

Organise Dynamo workspaces and place them on server or any local folder



## MAKE PRESETS FOR WORKSPACES

Any workspace may have several initial node values (presets) for different using cases



## RUN IN ONE CLICK

Just double click on preset line in Dyno browser and it will be evaluated without opening Dynamo main window



## WATCH RESULTS

Dyno shows end and/or intermediate evaluation results from "Watch" nodes



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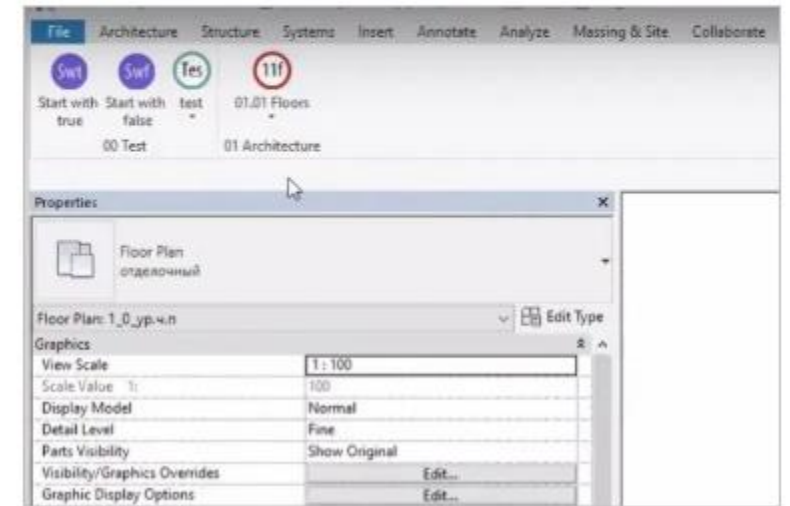
# What is Dyno?

## 5 Place scripts in the tool ribbons

Scripts and presets can be launched using only one click not only from the browser window but you can place them right onto ribbon tabs.

You can group them in different tabs. The buttons within one tab arrange themselves and generate icons.

You can also make hotkey combinations for the buttons.

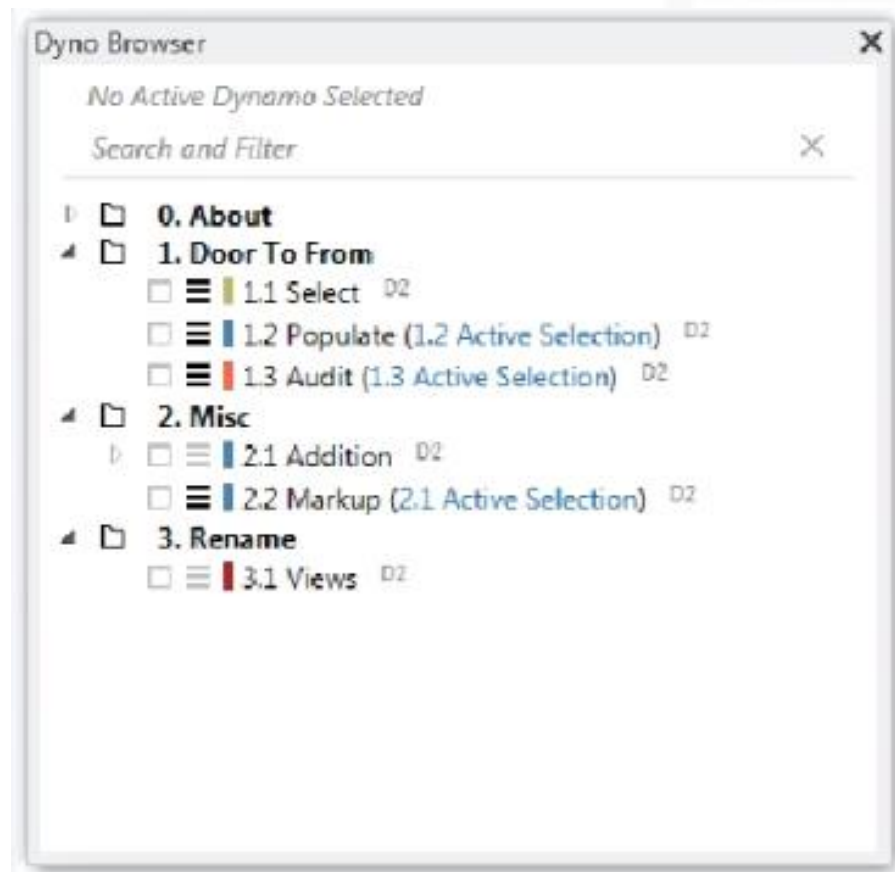


### ▶ 4.1 ADDING SCRIPTS AS BUTTONS ON REVIT RIBBON



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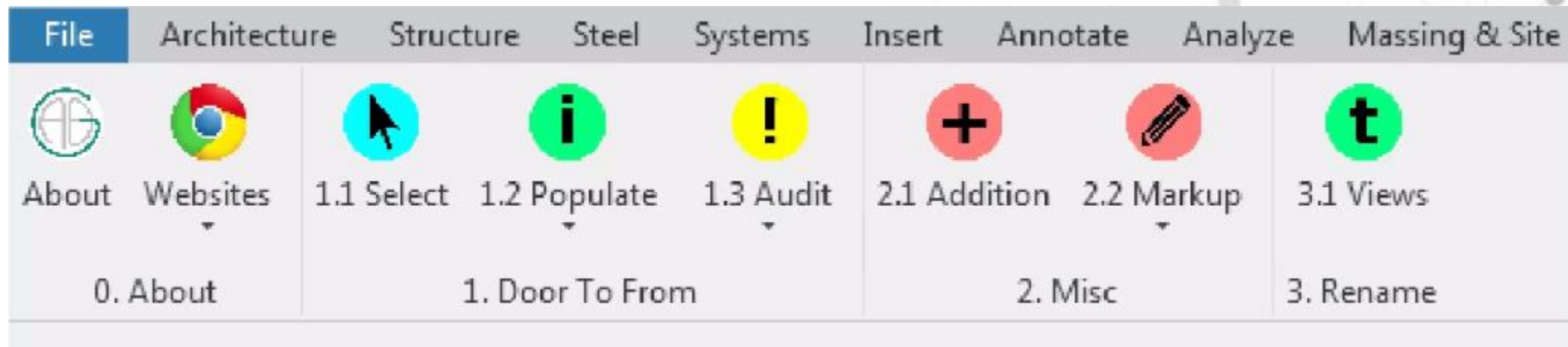
# Alternative Browser



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# Custom Toolbars



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# Developed by...

PRORUBIM

## Professional BIM Services

For construction and design companies, equipment manufacturers

For those who start their journey to information modeling  
and those who are already on it



Alexey Lobanov



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# This Video

1. Run scripts via Dyno
2. Gathering Inputs
3. Packaging a toolbar



# Versioning

## 2.0.3 Ideally



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Without further ado...



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