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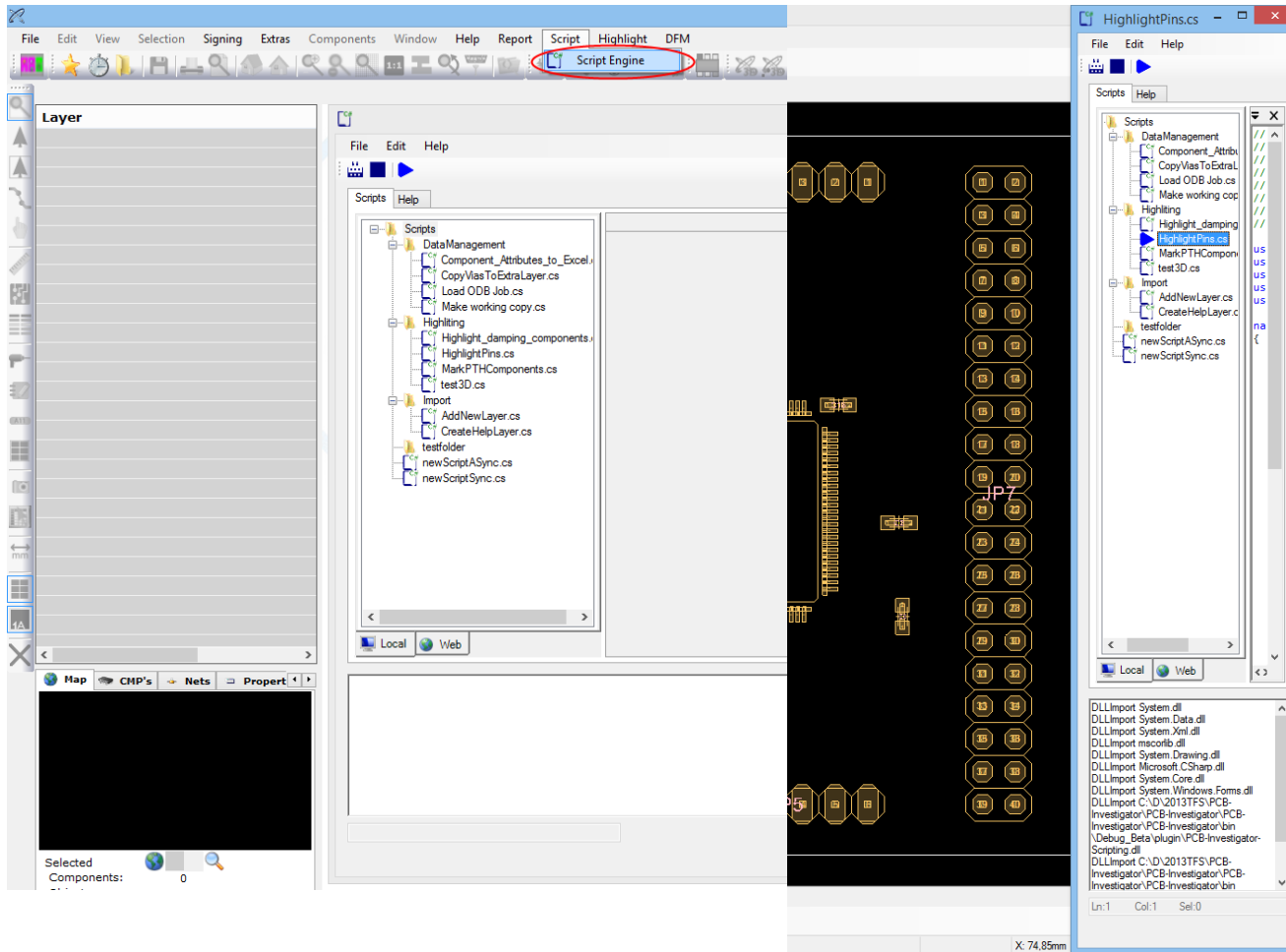
PCB-Investigator Scripting

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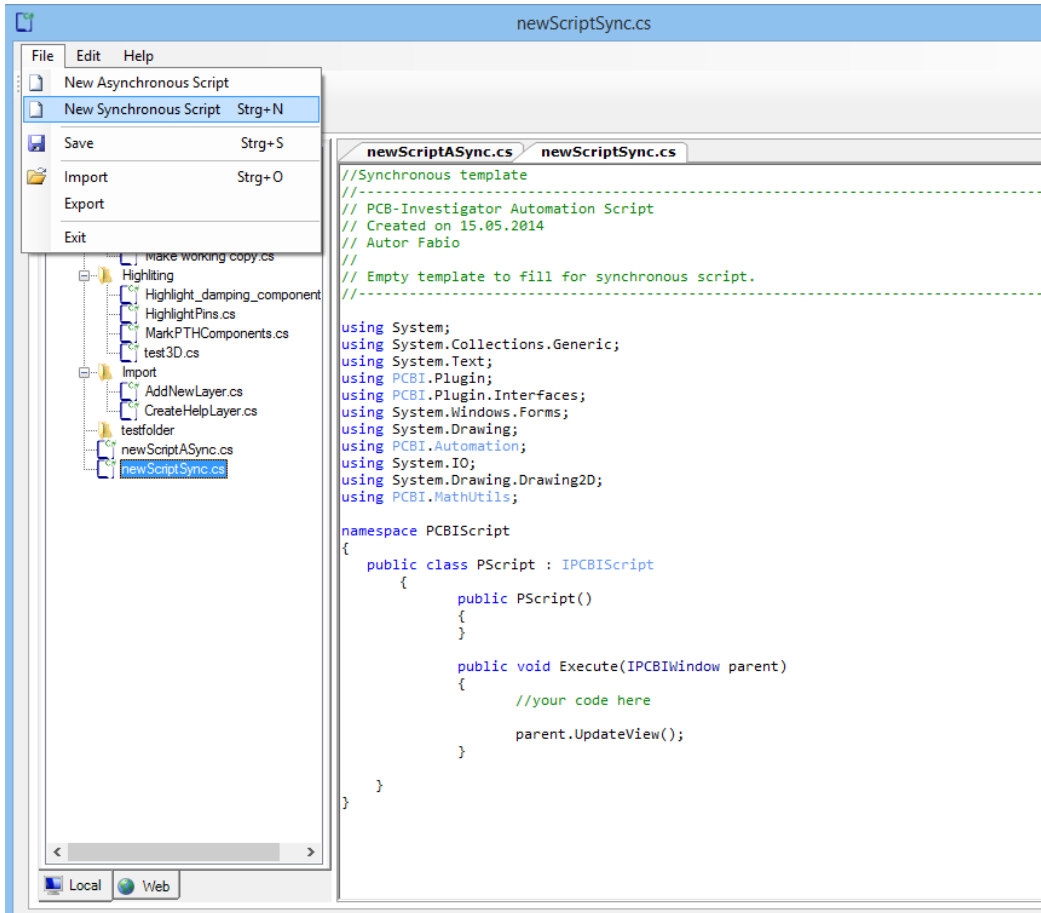
How to use PCB- Investigator Script Engine



PCB-Investigator scripting engine has his own menu to find it easy.

The window can be resized to use it without code page beside the main window of PCB-Investigator.

Create new scripts



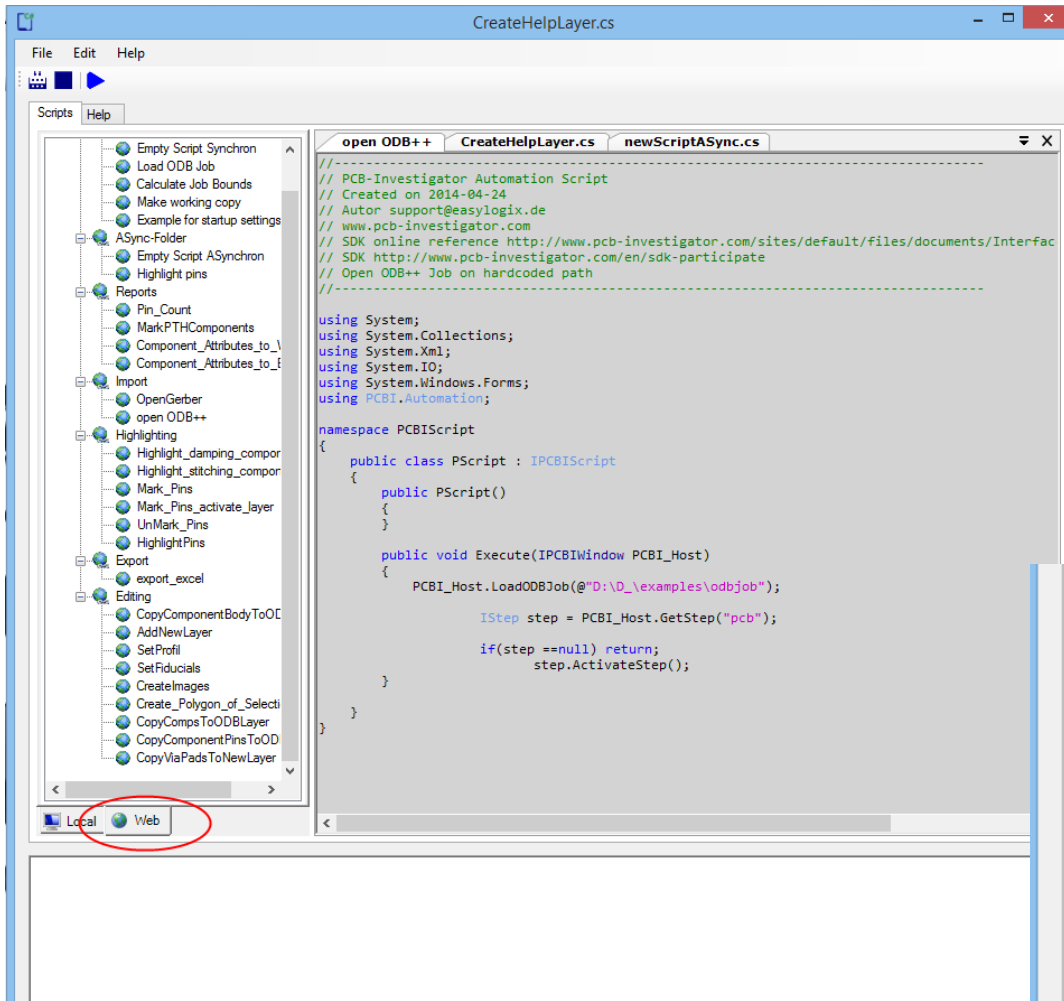
There are empty templates for synchronous or asynchronous scripts.

The standard case is without threading in synchronous state. There you can use all methods of IAutomation interface. For details see:

<http://www.pcb-investigator.com/sites/default/files/documents/InterfaceDocumentation/Index.html>

Or examples:
<http://www.pcb-investigator.com/de/plugins/pcbi-scripting>

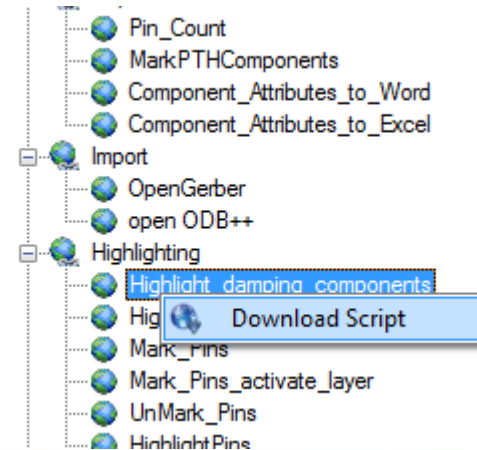
Examples for download



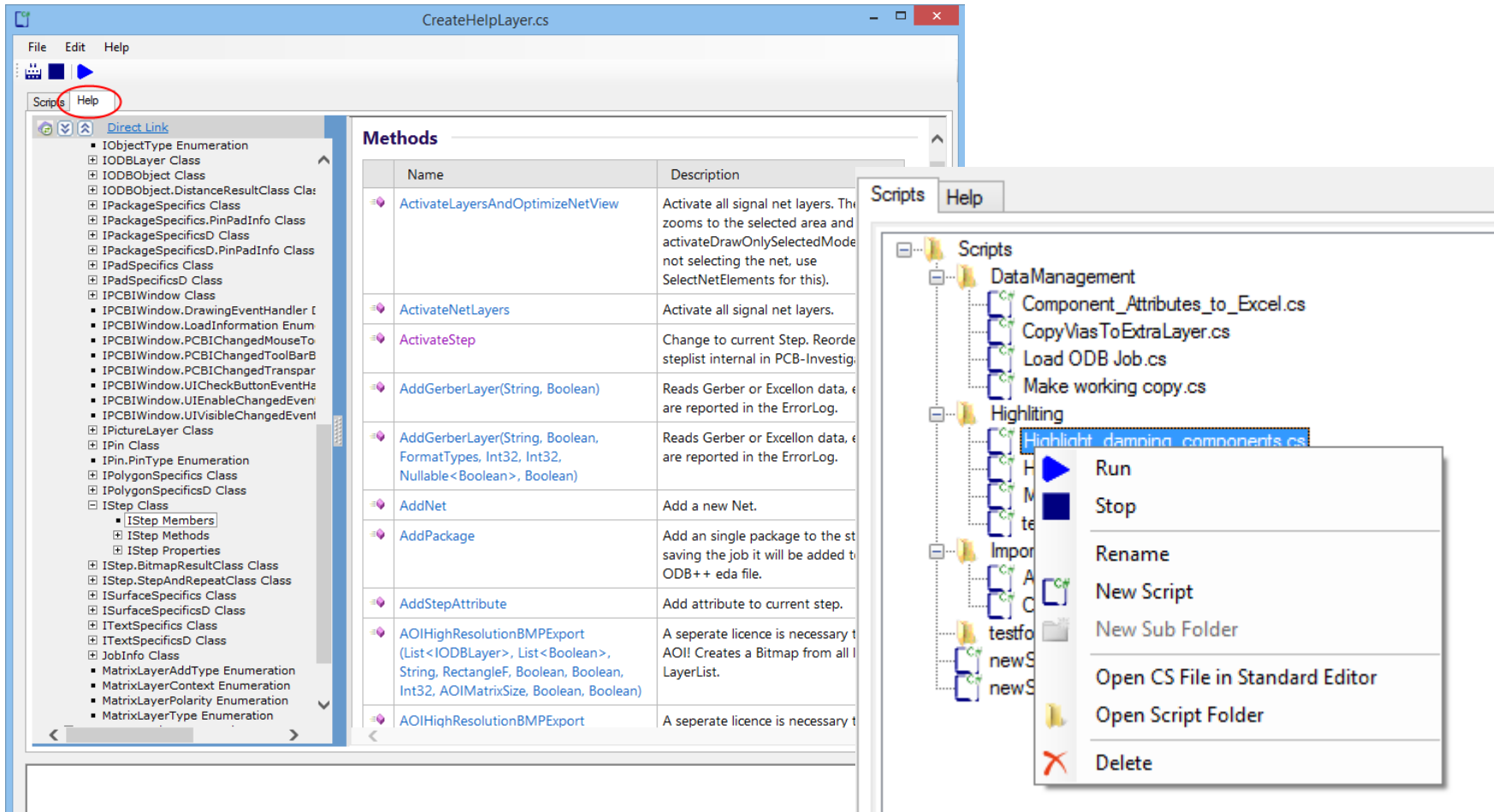
There are many example scripts for download, direct in the scripting window.

Just change to the web tab and open context menu by right click of your mouse.

It's possible to order your local scripts via drag and drop or create new folders with context menu.



Online help

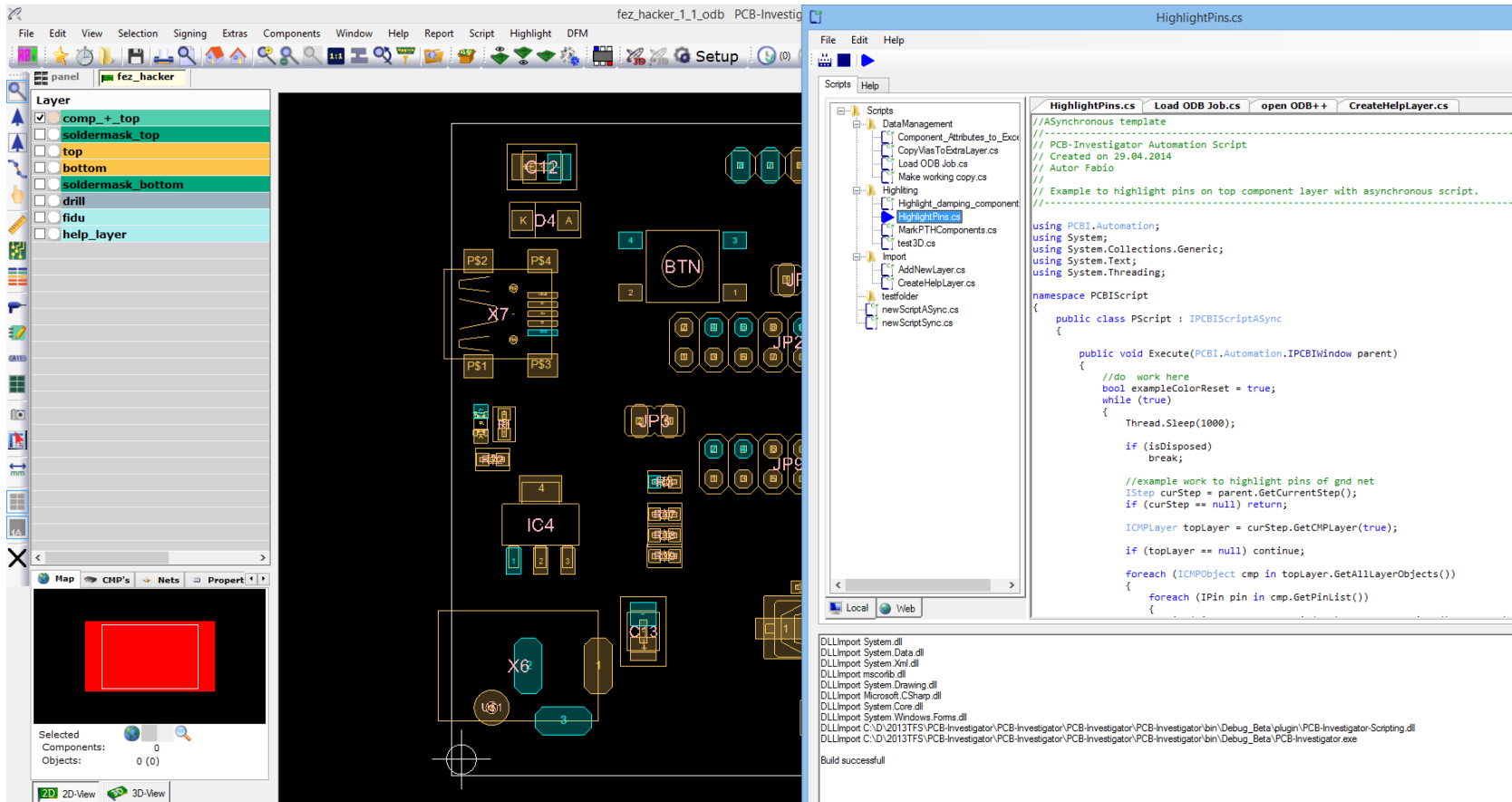


The screenshot shows the 'CreateHelpLayer.cs' application window. The 'Help' menu is highlighted in the top menu bar. A context menu is open over the 'Scripts' tree, showing options for 'Run', 'Stop', 'Rename', 'New Script', 'New Sub Folder', 'Open CS File in Standard Editor', 'Open Script Folder', and 'Delete'. The 'Highlight_damning_components.cs' script is selected in the tree.

Methods

Name	Description
ActivateLayersAndOptimizeNetView	Activate all signal net layers. The zooms to the selected area and activateDrawOnlySelectedMode not selecting the net, use SelectNetElements for this).
ActivateNetLayers	Activate all signal net layers.
ActivateStep	Change to current Step. Reorder steplist internal in PCB-Investig.
AddGerberLayer(String, Boolean)	Reads Gerber or Excellon data, are reported in the ErrorLog.
AddGerberLayer(String, Boolean, FormatTypes, Int32, Int32, Nullable<Boolean>, Boolean)	Reads Gerber or Excellon data, are reported in the ErrorLog.
AddNet	Add a new Net.
AddPackage	Add an single package to the st saving the job it will be added to ODB++ eda file.
AddStepAttribute	Add attribute to current step.
AOIHighResolutionBMPExport(List<IODBLayer>, List<Boolean>, String, RectangleF, Boolean, Boolean, Int32, AOIMatrixSize, Boolean, Boolean)	A separate licence is necessary t AOI! Creates a Bitmap from all LayerList.
AOIHighResolutionBMPExport	A separate licence is necessary t

Use extra Threads



The screenshot displays the PCB-Investigator software interface. The main window shows a PCB layout with various components like IC12, IC4, X7, X6, and buttons. A layer selection panel on the left shows 'comp_+ top' selected. A script editor window titled 'HighlightPins.cs' is open on the right, showing a C# script that uses asynchronous programming to highlight pins. The script includes a namespace 'PCBIScript' and a class 'PScript' that inherits from 'IPCBIscriptAsync'. The 'Execute' method contains a loop that highlights pins on the top layer. The status bar at the bottom of the script editor shows 'Build successful'.

```
using PCB.Automation;
using System;
using System.Collections.Generic;
using System.Text;
using System.Threading;

namespace PCBIScript
{
    public class PScript : IPCBIscriptAsync
    {
        public void Execute(PCB.Automation.IPCBIWindow parent)
        {
            //do work here
            bool exampleColorReset = true;
            while (true)
            {
                Thread.Sleep(1000);

                if (isDisposed)
                    break;

                //example work to highlight pins of gnd net
                IStep curStep = parent.GetCurrentStep();
                if (curStep == null) return;

                ICMPLayer topLayer = curStep.GetCMPLayer(true);
                if (topLayer == null) continue;

                foreach (ICMPObject cmp in topLayer.GetAllLayerObjects())
                {
                    foreach (IPin pin in cmp.GetPinList())
                    {
```

With extra threads it is possible to run processes in the background.

Import of dlls

```
using System.Collections;
using System.Xml;
using System.IO;
using System.Windows.Forms;
using PCBI.Automation;

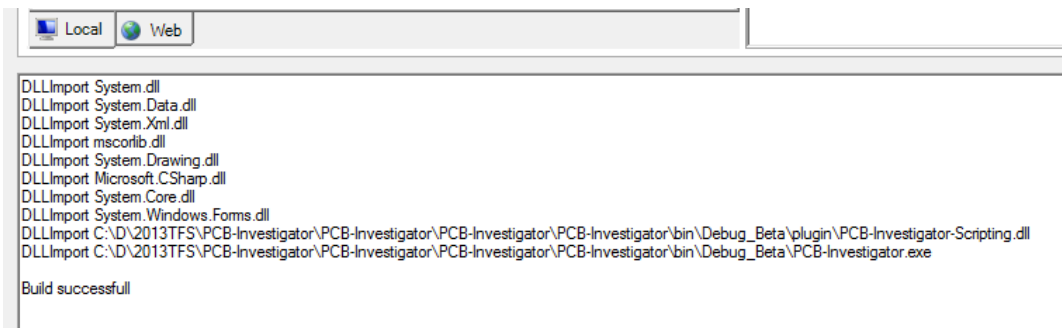
// DLLImport C:\Program Files (x86)\EasyLogix\PCB-Investigator-Beta\PlugIn\PCBI-3D-View.dll;

namespace PCBIScript
```

By using the comment

```
// DLLImport fullpath
```

The compile know you want to integrate a library from outside and put references to the script. Just check the output area on the bottom of the window.



Information



Further information online:

<http://www.pcb-investigator.com/de/plugins/pcbi-scripting>

<http://www.pcb-investigator.com/sites/default/files/documents/InterfaceDocumentation/Index.html>

<http://www.pcb-investigator.com/de/forum/sdk-samples>

You can also contact us directly for support and detail information:

<mailto:support@easylogix.de>