

Visual Studio Plug-Ins

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Agenda

- 1. Where we can find plug-ins?**
- 2. Some usefull examples:**
 - Power Commands**
 - Visual Leak Detector**
 - Indend Guides**
 - VS10x Comments Extender**

Where we can find plug-ins?

All plug-ins could be found at official Microsoft web page. They are divided into categories according to its destination or version of Visual studio for which they are designed.

The screenshot displays the Microsoft Visual Studio Gallery website. The page is titled "Products and Extensions for Visual Studio" and features a search bar at the top right. The main content is organized into three columns: "RECENTLY ADDED", "MOST POPULAR", and "HIGHEST RATED". Each column lists several extensions with their names, authors, and brief descriptions. For example, under "RECENTLY ADDED", there is "JScript vsdoc Stub Generator 11 (Beta)" by Wetnoodles, "Architecture Layers Patterns v2.0" by Francisco Fagas, "Alias Be Gone" by Per Brage, and "Team Foundation Server Integration Tools (March 2012 Release)" by Microsoft. Under "MOST POPULAR", there is "NuGet Package Manager" by Microsoft, "AnkhSVN - Subversion Support / SCC Provider" by AnkhSVN Team and CollabNet, "VSCommands 2010 Squared Infinity" by Jarek Kardas, and "Productivity Power Tools" by Microsoft. Under "HIGHEST RATED", there is "VS10x Code Map v2" by Michael Kiss, "Visual Assist X" by Whole Tomato Software, "NuGet Package Manager" by Microsoft, and "Productivity Power Tools" by Microsoft. The page also includes navigation links like "Home", "Library", "Learn", "Samples", "Downloads", "Extensions", "Support", and "Forums".

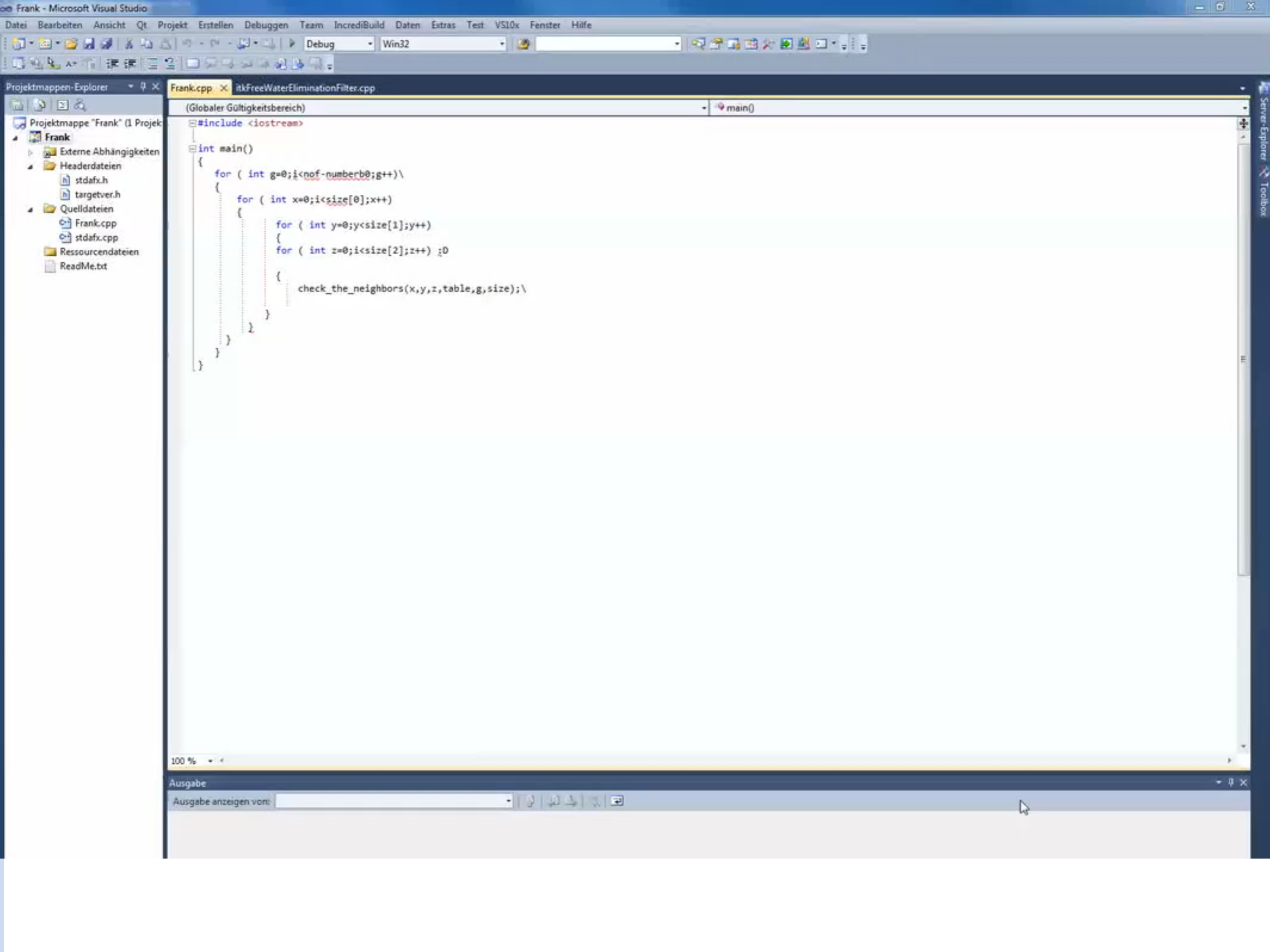
Link: [Visual Studio Gallery](https://visualstudio.microsoft.com/gallery/)

Power Commands

**Plug in ads some useful functionalities to Visual studio.
Most useful (in my opinion) are :**

- **Copy and paste class-copy** entire class (with all contents) and past it renamed.
- **Format document on save**-adds tabs spaces and all the stuff during saving file
- **Email CodeSnippet**- enables us to send a part of code via e-mail with just one right click
- **Undo Close**- undo accidentally close of file- even cursors remains in the place it was before close.

Link: [Power Commands](#)



Visual Leak Detector

This plug inn runs by default during each debugging. It returns a memory leak report. It shows the full call stack that contains any leaked memory block. It also shows how this block was allocated.

It is possible to double click on line in call stack to be moved to a proper file and line in order to remove a memory leak(if possible).

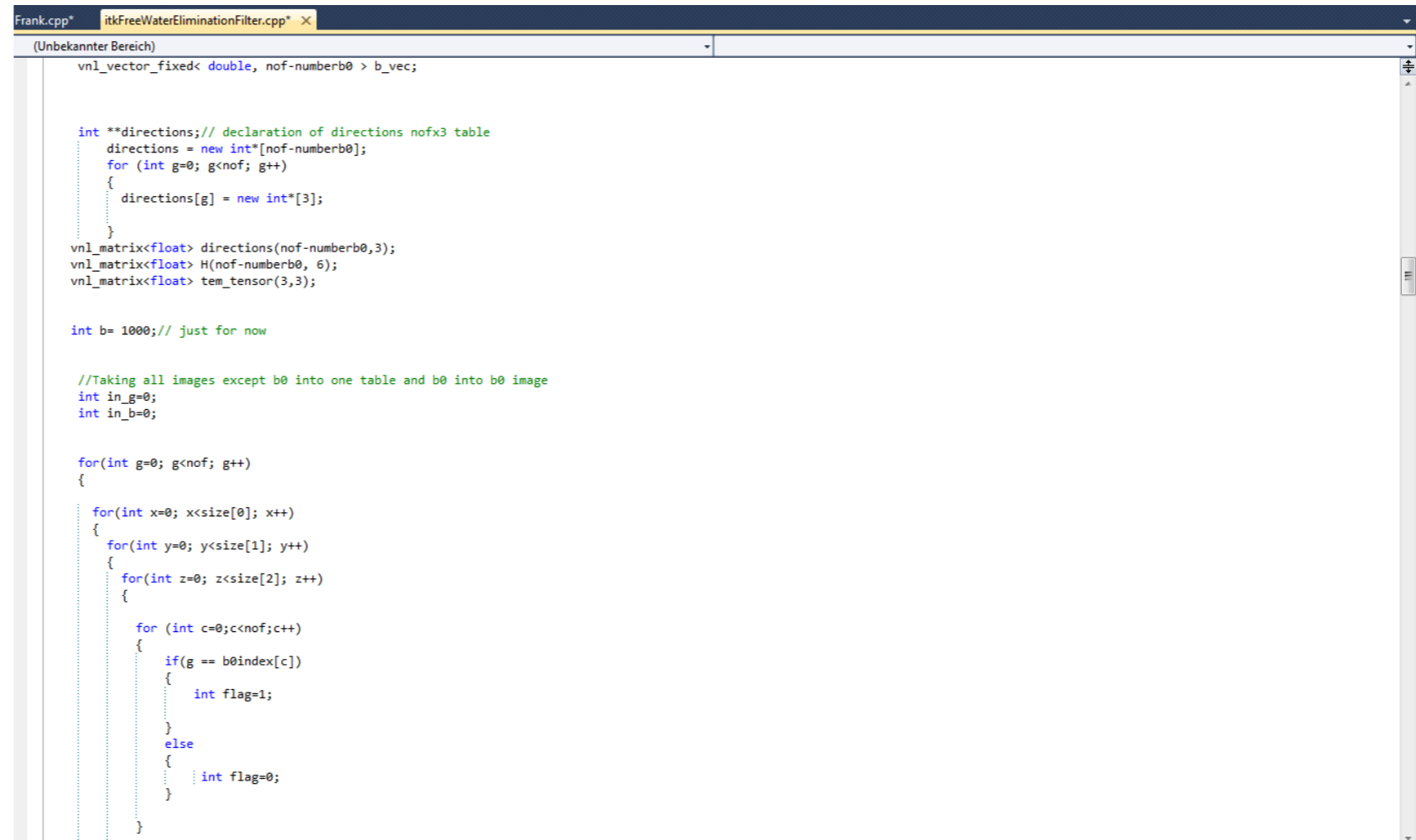
Examples:

```
----- Block 1199 at 0x04BE1058: 136 bytes -----  
Call Stack:  
d:\Foobar\FooLog.cpp (26): FooLog::getInstance  
d:\Foobar\FooMain.cpp (75): FooMain::init  
f:\dd\vctools\crt_bld\self_x86\crt\src\crtexe.c (578): __tmainCRTStartup  
f:\dd\vctools\crt_bld\self_x86\crt\src\crtexe.c (403): WinMainCRTStartup  
0x759A3677 (File and line number not available): BaseThreadInitThunk  
0x770C9D42 (File and line number not available): RtlInitializeExceptionChain  
0x770C9D15 (File and line number not available): RtlInitializeExceptionChain  
Data:  
9C 33 2D 6B    74 2A 2D 6B    C8 11 BE 04    00 00 00 00    .3-kt*-k .....  
00 00 00 00    70 14 BB 6C    70 14 BB 6C    00 00 00 00    ....p..l p..l....  
00 00 00 00    68 14 BB 6C    68 14 BB 6C    00 00 00 00    ....h..l h..l....  
00 00 00 00    6C 14 BB 6C    6C 14 BB 6C    20 12 BE 04    ....l..l l..l....  
00 00 00 00    CD 00 CD CD    00 00 00 00    01 CD CD CD    .....  
68 14 BB 6C    78 33 2D 6B    00 00 00 00    00 00 00 00    h..lx3-k .....  
00 00 00 00    01 02 00 00    06 00 00 00    00 00 00 00    .....  
00 00 00 00    00 00 00 00    88 11 BE 04    5C 10 BE 04    ..... \...  
00 00 00 00    20 CD CD CD    .....  
.....
```

Link: [Visual Leak Detector](#)

Indend Guides

It allows to connect all loops(or conditions) beginnings with proper end. It is very helpful when you are dealing with a lot of nested loops(loop inside a loop, inside a loop, and etc...)



```
Frank.cpp* itkFreeWaterEliminationFilter.cpp* X
(Unbekannter Bereich)
vn1_vector_fixed< double, nof-numberb0 > b_vec;

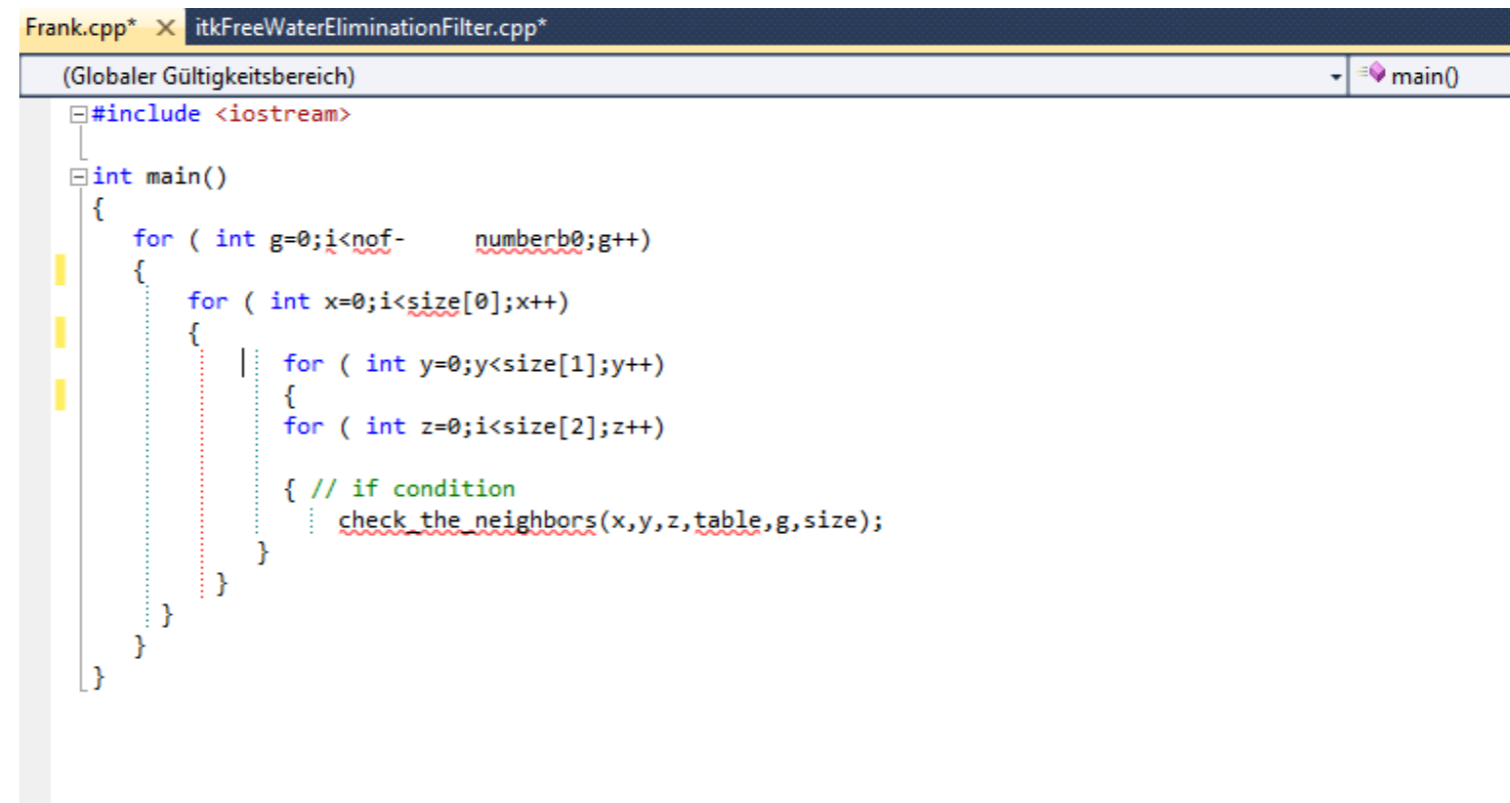
int **directions;// declaration of directions nofx3 table
directions = new int*[nof-numberb0];
for (int g=0; g<nof; g++)
{
    directions[g] = new int*[3];
}
vn1_matrix<float> directions(nof-numberb0,3);
vn1_matrix<float> H(nof-numberb0, 6);
vn1_matrix<float> tem_tensor(3,3);

int b= 1000;// just for now

//Taking all images except b0 into one table and b0 into b0 image
int in_g=0;
int in_b=0;

for(int g=0; g<nof; g++)
{
    for(int x=0; x<size[0]; x++)
    {
        for(int y=0; y<size[1]; y++)
        {
            for(int z=0; z<size[2]; z++)
            {
                for (int c=0;c<nof;c++)
                {
                    if(g == b0index[c])
                    {
                        int flag=1;
                    }
                    else
                    {
                        int flag=0;
                    }
                }
            }
        }
    }
}
```


It even marks with red loop that is selected at the moment, so its even easier to check weather each of your loops is ok or not.



```
Frank.cpp* X itkFreeWaterEliminationFilter.cpp*
(Globaler Gültigkeitsbereich) main()
#include <iostream>
int main()
{
    for ( int g=0; i<nof- numberb0; g++)
    {
        for ( int x=0; i<size[0]; x++)
        {
            for ( int y=0; y<size[1]; y++)
            {
                for ( int z=0; z<size[2]; z++)
                {
                    // if condition
                    check_the_neighbors(x,y,z,table,g,size);
                }
            }
        }
    }
}
```

Link: [Indend Guides](#)

VS10x Comments Extender

Last plug-in that I want to present you , enables more sophisticated comments into C++ projects. With use of special operators we may indicate part of codes which are suspicious (in our opinion) in purpose of „bugsquahing”. We may also put some important information about code for the next person that would work with it. It is also possible to use special marking for old version of code.

Possible operators

In C#, C++, F#	In VB	In Markup	Meaning	Formatting
//+	'+'	<--+	Large size	Normal text color, large size
//++	'++'	<---++	Extra large size	Normal text color, extra large size
//-	'-'	<---	Small size	Normal text color, small size
//--	'--'	<----	Extra small size	Normal text color, extra small size
//!	'!'	<--!	Important comment	Red text color
//!+	'!+'	<--!+	Important comment, large	Red text color, large size
//!++	'!++'	<--!++	Important comment, extra large	Red text color, extra large size
//?	'?'	<--?	Question	Magenta text color
//?+	'?+'	<--?+	Question, large	Magenta text color, large size
//?++	'?++'	<--?++	Question, extra large	Magenta text color, extra large size
//x	'x'	<--x	Removed code	Light gray color, strikethrough

Examples:

```
Frank.cpp* x itkFreeWaterEliminationFilter.cpp
(Globaler Gültigkeitsbereich) main()
#include <iostream>
int main()
{
    for ( int g=0; i<nof-numberb0; g++)///?++ Is this line correct?
    {
        for ( int x=0; i<size[0]; x++)
        {
            for ( int y=0; y<size[1]; y++)
            {
                for ( int z=0; i<size[2]; z++)
                {
                    // important comment
                    check_the_neighbors(x,y,z,table,g,size);///!++ Even more important comment- Possible BUG
                    //x-removed-function(x,y,z);
                }
            }
        }
    }
}
//--Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer viverra dictum elit, suscipit suscipit urna lacinia vel. Duis pretium eros turpis, id faucibus magna.
//--Cras vehicula vulputate enim in facilisis. Vestibulum porta, augue id laoreet facilisis, purus risus vestibulum enim, vitae aliquam dolor urna nec libero.
//--Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Mauris faucibus urna et lorem viverra mattis. Vivamus mauris quam, vehicula ut ultricies eu, vehicula ut tellus.
//--Duis vulputate orci at augue consequat rutrum. Suspendisse id est dui. Fusce pretium aliquam lorem, tristique luctus diam feugiat ut. Ut ut lacus magna.
```

Link: [Comments Extender](#)

REASONS WHY PEOPLE WHO WORK WITH COMPUTERS SEEM TO HAVE A LOT OF SPARE TIME... evilj4ym2.com

Web Developer



'Its uploading'

Sysadmin



'Its rebooting'

Hacker



'Its scripted'

3D Artist



'Its rendering'

IT Consultant



'Its your problem now'

Programmer



'Its compiling'

**Vielen Dank für
Ihre Aufmerksamkeit**