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Subject: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Fri, 30 Apr 2021 12:02:06 GMT

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Importing a large library with "import.ext" I got a couple of problems:

1) Some files need to be excluded / included depending on platform.

A nice way would be something like

```
files(PLATFORM_POSIX)
  files.cpp
  dir1/*.cpp
;
exclude(PLATFORM_WIN32)
  an_unix_file.cpp
;
```

2) A big problem is that object files are put ALL in ONE folder. If the library has something like this:

```
dir1/MyNiceModule.cpp
dir2/MyNiceModule.cpp
```

build will fail because second MyNiceModule.o is placed in same output folder and overwrites first one.

The solution could be to put .o files in subfolder or add a prefix like dir1\_MyNiceModule.o.

Ciao

Massimo

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Sat, 01 May 2021 16:19:57 GMT

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I am all for it (after 2021.1 release).

If you could look into it (ide/Builders/CppBuilder.cpp:262), I will be happy to integrate the patch. If not, I will do it myself, some nice sunny or cloudy day in the future when I have time and mood...

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

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Posted by [mdelfede](#) on Sun, 02 May 2021 16:40:41 GMT

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For point 1 I can try it... just a question : the directives in import.ext are processed sequentially ?  
I mean :

```
files somefolder/*.cpp;  
exclude somefolder/platforms/*;  
files somefolder/platforms/posix/*.cpp;
```

will pull in all somefolder cpp files, excluding somefolder/plaforms folders but including somefolder/plaforms/posix folders ?

For point 2, I see it more difficult without tampering with all build system.

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Mon, 03 May 2021 06:45:01 GMT

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mdelfede wrote on Sun, 02 May 2021 18:40 For point 1 I can try it... just a question : the directives in import.ext are processed sequentially ?

I mean :

```
files somefolder/*.cpp;  
exclude somefolder/platforms/*;  
files somefolder/platforms/posix/*.cpp;
```

will pull in all somefolder cpp files, excluding somefolder/plaforms folders but including somefolder/plaforms/posix folders ?

Yes. I gave you a pointer to the code, did not I?

Quote:

For point 2, I see it more difficult without tampering with all build system.

Yes. Which is probably a good thing.

Mirek

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [Oblivion](#) on Mon, 03 May 2021 08:15:49 GMT

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This is a good idea, but for the record, there is already a serious problem with unrecognized keywords/flags/text in ext files, which I had reported here.

Best regards,  
Oblivion

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Mon, 03 May 2021 23:30:49 GMT

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mirek wrote on Mon, 03 May 2021 08:45

Yes. I gave you a pointer to the code, did not I?

Yep, and the part 1 is almost done. I just need to know which flags are available at build time and how to read them... if you

can point me in the right direction you'll spare me some time.

By now I added an optional (flags) part, where 'flags' can be any expression, for example:

TRUE

true

1

FALSE

false

0

!flag && (flag1 || flag2)

!flag && flag1 || flag2

with ! (or ~) is the negation, && is AND, || is OR, precedence is UNARY > && > ||.

For example:

```
files mypath/*.cpp;
```

Behaves as usual.

```
files(flagPosix && !flagSomething) mypath/*.cpp;
```

fetches the files only if flagPosix is true and flagSomething is false.

This applies also to other items (include, exclude, etc).

Just need to evaluate the flag(s) and it's complete.

Ciao

Max

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Tue, 04 May 2021 05:50:28 GMT

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mdelfede wrote on Tue, 04 May 2021 01:30mirek wrote on Mon, 03 May 2021 08:45

Yes. I gave you a pointer to the code, did not I?

Yep, and the part 1 is almost done. I just need to know which flags are available at build time and how to read them... if you

can point me in the right direction you'll spare me some time.

By now I added an optional (flags) part, where 'flags' can be any expression, for example:

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For example:

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Behaves as usual.

```
files(flagPosix && !flagSomething) mypath/*.cpp;
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fetches the files only if flagPosix is true and flagSomething is false.

This applies also to other items (include, exclude, etc).

Just need to evaluate the flag(s) and it's complete.

Ciao

Max

Is it using MatchWhen? It should.

Flags will need to be passed as additional parameter.

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Tue, 04 May 2021 06:10:17 GMT

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mirek wrote on Tue, 04 May 2021 07:50

Is it using MatchWhen? It should.

Nope, I wrote a quick-and-dirty expression evaluator on the fly... had no idea about MatchWhen... I see that I reinvented the wheel, as usual.

Btw, my flags fetching question is still open... where are available flags ?

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Tue, 04 May 2021 06:18:32 GMT

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mdelfede wrote on Tue, 04 May 2021 08:10mirek wrote on Tue, 04 May 2021 07:50

Is it using MatchWhen? It should.

Nope, I wrote a quick-and-dirty expression evaluator on the fly... had no idea about MatchWhen... I see that I reinvented the wheel, as usual.

Btw, my flags fetching question is still open... where are available flags ?

Quote:

Flags will need to be passed as additional parameter.

Check `ide/Builders/GccBuilder.cpp:88`

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Tue, 04 May 2021 07:44:03 GMT

mirek wrote on Tue, 04 May 2021 07:50  
Is it using MatchWhen? It should.

Mhhhh... You mean I shall use ReadWhen to extract the expression in string format and then use MatchWhen over it ?  
My way used the parser directly.  
What do you think about exposing

```
static bool sMatchOr(CParser& p, const Vector<String>& flag)
```

As public function, for example overloading MatchWhen:

```
bool MatchWhen(CParser& p, const Vector<String>& flag)
{
    return sMatchOr(p, flag);
}
```

So it's possible to do :

```
bool CheckImportCondition(CParser &p, const Vector<String>& flag)
{
    // no condition == true
    if(!p.Char('('))
        return true;
    bool res = MatchWhen(p, flag);
    p.PassChar('(');
    return res;
}
```

??

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"  
Posted by [mdelfede](#) on Tue, 04 May 2021 21:11:35 GMT  
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Ok... first mod is done.  
With this patch ide accepts optional (flag) inside import.ext file.

I don't remember the way to contribute, so I'm attaching a svn diff here.

Ciao

Max

## File Attachments

1) [IdeImportConditions.patch](#), downloaded 297 times

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Tue, 04 May 2021 21:21:55 GMT

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mdelfede wrote on Tue, 04 May 2021 23:11Ok... first mod is done.  
With this patch ide accepts optional (flag) inside import.ext file.

I don't remember the way to contribute, so I'm attaching a svn diff here.

Ciao

Max

It is ok. It just has to wait after 2021.1 is released. Please remind me again by then...

Mirek

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Tue, 04 May 2021 21:46:26 GMT

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mirek wrote on Tue, 04 May 2021 23:21

It is ok. It just has to wait after 2021.1 is released. Please remind me again by then...

Mirek

Ok, thanx!

I hope to have some time for other 2 patches.

Forst onw is to allow duplicate source file names in different folders:

folder1/version.cpp

folder2/version.cpp

folder2/version.c

which could be compiled as

folder1\_version.cpp.o

folder2\_version.cpp.o

folder2\_version.c.o

For example.

The other one is to allow to reference an upper folder (now it doesn't work) :

files ../upperfolder/\*.cpp

which is useful to separate a library in many nested packages.

nest

  mypackage

    mylibcode

    mypackage.upp (referencing mylibcode as mylibcode/\*.cpp in ext file)

  myplugin

    myplugin.upp (referencing mylibcode as ../mylibcode/\*.cpp in ext file)

I guess this could allow import of most libraries.

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Wed, 05 May 2021 12:25:26 GMT

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mdelfede wrote on Tue, 04 May 2021 23:46mirek wrote on Tue, 04 May 2021 23:21

It is ok. It just has to wait after 2021.1 is released. Please remind me again by then...

Mirek

Ok, thanx!

I hope to have some time for other 2 patches.

Forst onw is to allow duplicate source file names in different folders:

folder1/version.cpp

folder2/version.cpp

folder2/version.c

which could be compiled as

folder1\_version.cpp.o

folder2\_version.cpp.o

folder2\_version.c.o

For example.

The other one is to allow to reference an upper folder (now it doesn't work) :

files ../upperfolder/\*.cpp

which is useful to separate a library in many nested packages.

nest

  mypackage

    mylibcode

mypackage.upp (referencing mylibcode as mylibcode/\*.cpp in ext file)  
myplugin  
myplugin.upp (referencing mylibcode as ../mylibcode/\*.cpp in ext file)

I guess this could allow import of most libraries.

I actually think this problem might be there even without import.ext, so it is definitely worth fixing...

---

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Wed, 05 May 2021 15:31:37 GMT

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---

mirek wrote on Wed, 05 May 2021 14:25

I actually think this problem might be there even without import.ext, so it is definitely worth fixing...

Agree... but now there's a problem : how shall we fix it ?

solution 1 :

```
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgWidget/Util.cpp
```

```
-->
```

```
outputdir/_home_massimo_sources_OSG_OSG_OpenSceneGraph_src_osgWidget_Util.cpp.o
```

which I'm afraid will make windows command line limitations quite unhappy when linking the whole stuff.

solution 2 :

```
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgWidget/Util.cpp
```

```
-->
```

```
outputdir/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgWidget/Util.cpp.o
```

probably same problem as point 1 on windows, with directory tree management plus

solution 3 :

strip all "common" path part from sources and use just the remaining as solution 1

```
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgWidget/Version.cpp
```

```
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgUtil/Version.cpp
```

```
-->
```

```
outputdir/osgWidget_Version.cpp.o
```

```
outputdir/osgUtil_Version.cpp.o
```

this should make windows linker happy, but it will cause complete rebuild if we add some new source file

having a different path and needs a source files preventive scan to get the common path part.

solution 4 :  
some sort of file mapping

```
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgWidget/Version.cpp  
/home/massimo/sources/OSG/OSG/OpenSceneGraph/src/osgUtil/Version.cpp  
-->  
outputdir/1.o  
outputdir/2.o
```

The map could be stored in output folder along with object files, and updated on demand.  
IMHO that one would be the better solution...

what do you think about ?

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"  
Posted by [mdelfede](#) on Wed, 05 May 2021 17:18:34 GMT  
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Attached file implements solution 4 for GCCBuilder... it seems to work.  
It create obj files in form of 00000000.o ... 99999999.o and stores in a map the relationship between  
source file and obj file, which is recorded as OBJFILES.MAP in output folder.

If you agree with this method, I can do it also for MSC builder.

Ciao

Max

#### File Attachments

1) [GccBuilder.diff](#), downloaded 266 times

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"  
Posted by [mirek](#) on Thu, 06 May 2021 06:09:19 GMT  
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mdelfede wrote on Wed, 05 May 2021 17:31  
which I'm afraid will make windows command line limitations quite unhappy when linking the whole stuff.

You do not have to worry about that, we are using response files (that is basically commandline in

a file) when commandline is too long. Hit that limit even as things are now.

I think that something like (1) is probably the best.

Mirek

---

Subject: Re: [PROPOSAL] A couple of changes in "import.ext"  
Posted by [mdelfede](#) on Thu, 06 May 2021 14:02:48 GMT  
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---

Hi,

here the complete patch.

Tested (quickly) on Linux, so no MSC builder, I'll do it if it's all ok.

'import.ext' now accepts flags:

files(POSIX & !SOMETHING) some/path/\*.cpp

allows relative paths (from current package) and absolute paths (useless, but anyways):

files(POSIX & !SOMETHING) ../myoriginallib/some/path/\*.cpp  
files /home/massimo/some/path/\*.c

and finally allows duplicate file names in different paths and in c/c++/cxx files:

files some/path/version.cpp  
files another/path/version.cpp  
files another/path/version.c

object files are put in output directory with names prepended with original paths and with source extension before .o :

some/path/test.cpp --> outdir/package\_full\_path\_some\_path\_test.cpp.o

Patch is attached. Please tell if it's ok and if I shall do the same for MSC too.

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File Attachments

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1) [ide.patch](#), downloaded 263 times

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Sat, 15 May 2021 08:35:02 GMT

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Unfortunately, patch is against outdated CppBuilder.cpp (bug reported by Oblivion was fixed meanwhile), so it cannot be applied (I have actually spent some time trying to figure out whether this is not a bug in TheIDEs "Apply patch" function, but it really is not).

Before I start fixing the patch, maybe you could send me the plain CppBuilder.cpp?

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Sat, 15 May 2021 12:26:07 GMT

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I can try to re-fetch the three and apply my patch on updated code... just wait a little.  
I changed both cppbuilder and gccbuilder (latter, iirc, for adding path to output file names).

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mdelfede](#) on Sat, 15 May 2021 12:49:05 GMT

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Hi Mirek,

here you have the 2 files up-to-date with last svn checkout

(beware, msc mod is missing!)

#### File Attachments

1) [2021\\_05\\_15-IDE\\_MODS.zip](#), downloaded 224 times

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Mon, 17 May 2021 07:59:04 GMT

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mdelfede wrote on Sat, 15 May 2021 14:49Hi Mirek,

here you have the 2 files up-to-date with last svn checkout

---

For some reason it is not. Check <https://github.com/ultimatepp/ultimatepp/blob/de0ac2c77c48bf6bccba675a367756d7e405232f/uppsrc/ide/Builders/CppBuilder.cp#L319>.

But never mind, I will manage.

Mirek

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Mon, 17 May 2021 08:08:38 GMT

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```
Error executing c:\upp\bin\clang\bin\c++.exe -c -I"C:\upp\MyApps" -I"C:\u\upp.src\uppsrc"
-I"C:\upp\UppHub\eigen" -I"C:\upp\UppHub\Scatter" -I"C:\upp\UppHub\Skylark"
-I"C:\upp\UppHub\URR" -I"C:\upp\UppHub\XMLMenu" -I"c:\upp\bin\SDL2/include"
-I"c:\upp\bin\pgsql/x64/inc
  lude" -I"c:\upp\bin\mysql/include"
-I"C:/upp/out/MyApps/plugin/lzma/CLANGx64.Debug.Debug_Full.Usemalloc" -DflagUSEMALLOC
-DflagCLANG -DflagDEBUG -DflagDEBUG_FULL -DflagBLITZ -DflagWIN32 -mthreads
-gcodeview -fno-limit-debug-info -g2 -static -fexceptions -D_DEBUG
-x c++ "C:\u\upp.src\uppsrc\plugin\lzma\lzma.cpp" -o
"C:/upp/out/MyApps/plugin/lzma/CLANGx64.Debug.Debug_Full.Usemalloc:_u_upp.src_uppsrc_p
lugin_lzma_lzma.cpp.o"
error: unable to open output file
'C:/upp/out/MyApps/plugin/lzma/CLANGx64.Debug.Debug_Full.Usemalloc:_u_upp.src_uppsrc_pl
ugin_lzma_lib_LzFind.c.o': 'Invalid argument'
```

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Subject: Re: [PROPOSAL] A couple of changes in "import.ext"

Posted by [mirek](#) on Mon, 17 May 2021 08:35:13 GMT

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OK, applied with changes, please check when you have time...