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Subject: Please check the list of 2019.1 changes  
Posted by [mirek](#) on Fri, 08 Feb 2019 08:29:17 GMT

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I am getting reading for 2019.1 release cycle. Here is the list of features, please check whether I have missed something (e.g. in Bazaar etc...)

General improvements:

MacOS X support  
Improved support for UHD displays  
Improved support for dark themes

Core:

Core/SSH: SSH protocol support  
XMLRPC improvements (protocol version, support for i8 type)  
WebSockets improvements  
ToAscii, ToUpperAscii, ToLowerAscii functions optimized  
New CoWork variant CoWorkNX solves an compilation problem when using CoWork as member variable  
DarkTheme function inverts Color luminosity for dark themes support (dark colors become light, light colors dark, but color remains)  
MakeOne is now changed to function  
LocalProcess now allows setting current directory for started process

Ide:

Various improvements of Image designer  
'Disable UHD mode' option for testing applications  
GDB interface improvements: Now possible to stop running application and to set breakpoints while application runs  
Compare with clipboard function  
Initial setup improved  
New dialog for setting up project assemblies  
PDB debugger improvements: now displays INF and NAN for floats, fixed termination issues  
Selfupgrade feature (ide compiles itself and replaces the binary)

Other:

Improved jpeg EXIF support

RichText now suggests corrections for misspelled words

GLCtrl refactored, changed to use single context per application (allows sharing resources, e.g. textures, between widgets), support for GTK fixed,  
MSAA supported in Win32

VirtualGui is a new package to implement working 'fullscreen' GUI by implementing a SystemDraw and a dozen of virtual methods, intended for use with e.g. games. VirtualGUI/SDL2GL is an implementation with SDL2.

Painter is heavily optimized for multithreaded rendering.

PostgreSQL now supports RETURNING clause in SqlExp.

New plugin/tess2 package (tesselation) and plugin/glm (OpenGL maths support).

Release:

U++ now ships with speller files for multiple languages

Win32 Release:

Now ships with SDL2, MySQL and PostgreSQL client libraries

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Klugier](#) on Fri, 08 Feb 2019 09:57:25 GMT

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Hello,

Looks like good release! Good job Mirek! I would add the information about the possibility to copy string to clipboard from debugger tree. Currently it is supported only for GDB, but maybe I will find the time during the weekend to port it to PDB.

Do you plan to ship macOS installation? I think the initial release can be marked as beta.

Sincerely,  
Klugier

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Fri, 08 Feb 2019 11:04:55 GMT

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Klugier wrote on Fri, 08 February 2019 10:57

Do you plan to ship macOS installation? I think the initial release can be marked as beta.

Yes & Yes.

Although I am not yet 100% how will the final package look like.

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Zbych](#) on Fri, 08 Feb 2019 21:20:21 GMT

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mirek wrote on Fri, 08 February 2019 09:29 please check whether I have missed something (e.g. in Bazaar etc...)

Any chance for chameleon fix?

<https://www.ultimatepp.org/forums/index.php?t=msg&th=10501&start=0&>

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Novo](#) on Wed, 13 Feb 2019 11:44:31 GMT

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mirek wrote on Fri, 08 February 2019 03:29

MacOS X support

GridCtrl still doesn't work on MacOS, so, it would, probably, be better to say "Limited MacOS X support", because not every app can be ported to Mac at this time.

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Novo](#) on Wed, 13 Feb 2019 21:10:47 GMT

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Docking doesn't work in MacOS X either.

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Klugier](#) on Thu, 14 Feb 2019 13:34:07 GMT

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Hello,

I also find that in certain condition (I can not find the way how to reproduce it) the UI is blocked on macOS. I just try to launch GridCtrl example and switch between tabs and the UI is blocked. The only action I can execute is system close button. The application closed normally.

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Sincerely,  
Klugier

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Zbych](#) on Thu, 14 Feb 2019 20:35:41 GMT  
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Just one more thing - DLOG in X11Proc.cpp, line 7, causes compilation error in NOGTK mode.

<https://github.com/ultimatepp/mirror/blob/7fe7344ed5b6f14314b7dc6254cc7607756f692c/uppsrc/CtrlCore/X11Proc.cpp#L7>

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Novo](#) on Fri, 15 Feb 2019 12:04:55 GMT  
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Yet another tiny but extremely annoying thing: Control + trackpad click isn't handled. That makes using of contextual menus practically impossible. One basically needs to use an external mouse with MacBook.

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [mirek](#) on Sun, 17 Feb 2019 16:43:28 GMT  
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Novo wrote on Fri, 15 February 2019 13:04 Yet another tiny but extremely annoying thing: Control + trackpad click isn't handled. That makes using of contextual menus practically impossible. One basically needs to use an external mouse with MacBook.

Is that supposed to be the same thing as right-click? I thought that there is some "two fingers" gesture for that...

Other than that, I am announcing the upcoming release exactly to find out what has to be finalized.... :)

Mirek

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Novo](#) on Sun, 17 Feb 2019 17:12:37 GMT  
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mirek wrote on Sun, 17 February 2019 11:43

Is that supposed to be the same thing as right-click? I thought that there is some "two fingers" gesture for that...

...

Yes, that is the same thing as the right-click.

I didn't know about the two-finger touch ... :blush: Thanks for the hint. I was always using Control + Trackpad click ...

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Oblivion](#) on Sun, 17 Feb 2019 17:35:47 GMT

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Hello,

SSH package may have a problem on MacOS. (I can't test it as I don't have an Apple machine + OS.)

We are using POSIX's sigtimedwait() function in SshShell to notify console resize events (SshShell.cpp, ln 40-53).

However, it seems that MacOS didn't implement it, or it is stubbed.

I'd be grateful if anyone with such setup could compile and test it on MacOS. (by running reference/SshBasics with SSH\_SHELL defined, on a console window.)

Best regards,  
Oblivion

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Tom1](#) on Tue, 19 Feb 2019 12:32:21 GMT

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Hi,

Maybe take a look at this ArrayCtrl -thing before release:

[https://www.ultimatepp.org/forums/index.php?t=msg&th=10578&goto=51192&#msg\\_51192](https://www.ultimatepp.org/forums/index.php?t=msg&th=10578&goto=51192&#msg_51192)

Best regards,

Tom

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Klugier](#) on Tue, 19 Feb 2019 13:14:30 GMT  
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Hello Oblivion,

You are right the SSH package doesn't compile on macOS due to problem you have mentioned.

Here is the output of compilation on mac (Please notice that I do not have openssl installed):

```
----- Core ( CLANG DEBUG SHARED DEBUG_FULL BLITZ POSIX BSD OSX ) ( 1 / 3 )
BLITZ: Cpu.cpp Mt.cpp StringFind.cpp String.cpp WString.cpp StrUtil.cpp SplitMerge.cpp Utf.cpp
UnicodeInfo.cpp Bom.cpp Path.cpp NetNode.cpp App.cpp Huge.cpp Stream.cpp
BlockStream.cpp FileMapping.cpp FilterStream
.cpp Log.cpp Debug.cpp Ini.cpp Util.cpp mathutil.cpp Random.cpp Speller.cpp
LocalProcess.cpp Vcont.cpp Hash.cpp TimeDate.cpp Value.cpp ValueUtil.cpp Format.cpp
Convert.cpp Color.cpp Gtypes.cpp Lang.cpp LangIn
fo.cpp parser.cpp XML.cpp Xmlize.cpp JSON.cpp Uuid.cpp Ptr.cpp Topic.cpp CoWork.cpp
MD5.cpp SHA1.cpp SHA256.cpp xxHsh.cpp InetUtil.cpp MIME.cpp Socket.cpp Http.cpp
WebSocket.cpp Dli.cpp Win32Util.cpp
heaputil.cpp
sheap.cpp
lheap.cpp
heap.cpp
heapdbg.cpp
CharSet.cpp
t.cpp
z.cpp
lz4.c
xxhash.c
----- Core/SSH ( CLANG DEBUG SHARED DEBUG_FULL BLITZ POSIX BSD OSX ) ( 2 / 3 )
BLITZ: Core.cpp Malloc.cpp SFtp.cpp SFtpStream.cpp Channels.cpp Scp.cpp Exec.cpp
Tunnel.cpp Shell.cpp Hosts.cpp
Session.cpp
libssh2upp.c
----- SshBasics ( MAIN CLANG DEBUG SHARED DEBUG_FULL BLITZ POSIX BSD OSX ) ( 3 / 3 )
BLITZ: main.cpp SFtp.cpp SFtpStream.cpp SFtpFileSystemInfo.cpp Exec.cpp Scp.cpp Shell.cpp
X11Shell.cpp Tunnel.cpp SFtpMT.cpp ExecMT.cpp PickSemantics.cpp VerboseLogging.cpp
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/libssh2upp.c:4:
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/libssh2/agent.c:40:
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/libssh2/libssh2_priv.h:140:
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/libssh2/crypto.h:42:
/Users/rebaczz/upp/uppsrc/Core/SSH/libssh2/openssl.h:40:10: fatal error: 'openssl/opensslconf.h'
file not found
#include <openssl/opensslconf.h>
      ^~~~~~
1 error generated.
In file included from
/Users/rebaczz/out/reference/Core/SSH/CLANG.Debug.Debug_Full.Shared/$blitz.cpp:3:
```

In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/Core.cpp:1:  
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/SSH.h:46:  
/Users/rebaczz/upp/uppsrc/Core/SSH/SFtp.h:238:5: warning: conversion function converting  
'Upp::SFtpFileSystemInfo' to its base class 'Upp::FileSystemInfo' will never be used  
operator FileSystemInfo&() { return static\_cast<FileSystemInfo&>(\*this); }  
^

In file included from  
/Users/rebaczz/out/reference/Core/SSH/CLANG.Debug.Debug\_Full.Shared/\$blitz.cpp:71:  
/Users/rebaczz/upp/uppsrc/Core/SSH/Shell.cpp:48:14: error: use of undeclared identifier  
'sigtimedwait'  
auto rc = sigtimedwait(&set, nullptr, &timeout);  
^

1 warning and 1 error generated.

In file included from  
/Users/rebaczz/out/reference/SshBasics/CLANG.Debug.Debug\_Full.Main.Shared/\$blitz.cpp:3:  
In file included from /Users/rebaczz/upp/reference/SshBasics/main.cpp:1:  
In file included from /Users/rebaczz/upp/reference/SshBasics/SshBasics.h:5:  
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/SSH.h:46:  
/Users/rebaczz/upp/uppsrc/Core/SSH/SFtp.h:238:5: warning: conversion function converting  
'Upp::SFtpFileSystemInfo' to its base class 'Upp::FileSystemInfo' will never be used  
operator FileSystemInfo&() { return static\_cast<FileSystemInfo&>(\*this); }  
^

1 warning generated.

In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/Session.cpp:1:  
In file included from /Users/rebaczz/upp/uppsrc/Core/SSH/SSH.h:46:  
/Users/rebaczz/upp/uppsrc/Core/SSH/SFtp.h:238:5: warning: conversion function converting  
'Upp::SFtpFileSystemInfo' to its base class 'Upp::FileSystemInfo' will never be used  
operator FileSystemInfo&() { return static\_cast<FileSystemInfo&>(\*this); }  
^

1 warning generated.

Core/SSH: 12 file(s) built in (0:00.05), 4 msecs / file, duration = 2274 msecs, parallelization 100%  
SshBasics: 13 file(s) built in (0:00.00), 0 msecs / file, duration = 1367 msecs, parallelization 100%  
Core: 66 file(s) built in (0:02.51), 38 msecs / file, duration = 5018 msecs, parallelization 98%

There were errors. (0:05.02)

Please also look at warning, maybe they are worth fixing, too.

Sincerely,  
Klugier

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Oblivion](#) on Tue, 19 Feb 2019 16:38:51 GMT  
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Hello Klugier,

Thank you for your feedback.

I found a very simple workaround for sigtimedwait() issue on MacOS:  
It relies on already existing functionality, so I tested it on Linux, and it worked:

```
#if defined(PLATFORM_MACOS)
// We are using sigtimedwait on POSIX-compliant systems.
// Unfortunately MacOS didn't implement it. This is a simple workaround for MacOS.
// It relies on ioctl, which is implemented on MacOS.
Size sz = GetConsolePageSize();
resized = !IsNull(sz) && sz != psize;
if(resized)
  LLOG("Window size changed.");
#else
```

And as to the the CLANG warning, which I don't get with GCC (probably because it's more relaxed):

I found that in C++11 standard (section 12.3.2):

If a conversion function is a member function, the type of the conversion function (8.3.5) is "function taking no parameter returning conversion-type-id". A conversion function is never used to convert a (possibly cv-qualified) object to the (possibly cv-qualified) same object type (or a reference to it), to a (possibly cv-qualified) base class of that type (or a reference to it), or to (possibly cv-qualified) void

So I removed the implicit converter.

I've committed the patches. And updated the ezamples accordingly.

I'd be grateful if you can test it when you have some time.

Best regards,  
Oblivion

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Klugier](#) on Thu, 21 Feb 2019 20:44:44 GMT

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Hello Oblivion,

I can confirm that there is lack of compilation errors and warning on macOS. However, I do not test the implementation, because I didn't install OpenSSL yet.

Sincerely,  
Klugier

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Fri, 22 Feb 2019 08:00:07 GMT

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Klugier wrote on Thu, 21 February 2019 21:44Hello Oblivion,

I can confirm that there is lack of compilation errors and warning on macOS. However, I do not test the implementation, because I didn't install OpenSSL yet.

Sincerely,  
Klugier

BTW, general request. We will need some docs about how to setup U++ on MacOS.  
Unfortunately, I have done these steps months ago and probably forgot most of them. So if you make this work, it would be nice if you posted steps required here so that we can gradually compile it together :)

Mirek

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Fri, 22 Feb 2019 18:06:08 GMT

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Novo wrote on Wed, 13 February 2019 12:44mirek wrote on Fri, 08 February 2019 03:29  
MacOS X support

GridCtrl still doesn't work on MacOS, so, it would, probably, be better to say "Limited MacOS X support", because not every app can be ported to Mac at this time.

Hopefully fixed.

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Subject: Re: Please check the list of 2019.1 changes

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Posted by [mirek](#) on Fri, 22 Feb 2019 18:08:06 GMT

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Novo wrote on Fri, 15 February 2019 13:04 Yet another tiny but extremely annoying thing: Control + trackpad click isn't handled. That makes using of contextual menus practically impossible. One basically needs to use an external mouse with MacBook.

Any suggestion how to fix this?

The problem is that Ctrl+Left Click (or Alt+Click as these are logically reversed) has valid meaning, so I am not sure that simply calling right click there is a good idea...

Mirek

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Novo](#) on Fri, 22 Feb 2019 18:39:53 GMT

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mirek wrote on Fri, 22 February 2019 13:06

Hopefully fixed.

Checked latest git (CtrlCore: StateH(OPEN) fixes GridCtrl). The problem with GridCtrl is still there. Full rebuild.

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Sat, 23 Feb 2019 06:55:07 GMT

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Novo wrote on Fri, 22 February 2019 19:39 mirek wrote on Fri, 22 February 2019 13:06

Hopefully fixed.

Checked latest git (CtrlCore: StateH(OPEN) fixes GridCtrl). The problem with GridCtrl is still there. Full rebuild.

Thanks for reporting... "Problem with GridCtrl" is pretty wide description....

Before above fix, there was nothing visible in reference/GridCtrlTest. Now this particular test seems to work fine on my PowerBook.

What are your symptoms?

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Subject: Re: Please check the list of 2019.1 changes

Posted by [Novo](#) on Sat, 23 Feb 2019 12:14:40 GMT

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mirek wrote on Sat, 23 February 2019 01:55

Before above fix, there was nothing visible in reference/GridCtrlTest. Now this particular test seems to work fine on my PowerPook.

What are you symptoms?

Actually, GridCtrl works fine now. Thanks a lot!

The reason why I couldn't detect that first time is related to another problem with TheIDE :)

TheIDE in Release configuration adds a suffix to the executable's name:

GridCtrlTest-WI,--gc-sections.

"-WI,--gc-sections" is coming from the "Release link options".

I was launching the app via Debug --> Execute, and it was running a bare "GridCtrlTest", which was outdated.

I also have a question. You mentioned that you've fixed problems with gdb. I still cannot use any debugger with TheIDE.

My build configuration: CLANG, Compiler name: clang++, External debugger field is empty. I tried both lldb and gdb, none of them work (I'm getting the "Error while invoking gdb!" message). gdb is installed via "brew install gdb".

Is this supposed to be this way?

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Sat, 23 Feb 2019 12:42:26 GMT

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Novo wrote on Sat, 23 February 2019 13:14

I also have a question. You mentioned that you've fixed problems with gdb. I still cannot use any debugger with TheIDE.

My build configuration: CLANG, Compiler name: clang++, External debugger field is empty. I tried both lldb and gdb, none of them work (I'm getting the "Error while invoking gdb!" message). gdb is installed via "brew install gdb".

Is this supposed to be this way?

AFAIK gdb is broken by Mojave, lldb impossible to use this way.

After about a month trying to deal with this I decided that the most logical course of action is to claim that we support gdb only and wait until it is fixed...

Mirek

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Subject: Re: Please check the list of 2019.1 changes

Posted by [mirek](#) on Sun, 24 Feb 2019 13:21:57 GMT

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Novo wrote on Wed, 13 February 2019 22:10 Docking doesn't work in MacOS X either.

MacOS related part hopefully fixed. There seem to be UHD problems as well, but that has to be

fixed for all platforms.

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [mirek](#) on Mon, 25 Feb 2019 11:29:59 GMT  
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[quote title=Novo wrote on Sat, 23 February 2019 13:14]mirek wrote on Sat, 23 February 2019 01:55  
TheIDE in Release configuration adds a suffix to the executable's name:  
GridCtrlTest-WI,--gc-sections.  
"-WI,--gc-sections" is coming from the "Release link options".

This is now fixed, however --gc-sections are not supported by toolchain anyway, so I have removed it from default setup...

Mirek

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [mirek](#) on Mon, 25 Feb 2019 11:36:43 GMT  
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Novo wrote on Fri, 15 February 2019 13:04 Yet another tiny but extremely annoying thing: Control + trackpad click isn't handled. That makes using of contextual menus practically impossible. One basically needs to use an external mouse with MacBook.

This is now supported.

Supporting this removes the possibility to bind anything to K\_ALT+LeftClick, but I have decided that these are rare anyway... (probably such code would need #ifdef PLATFORM\_COCOA section, maybe using K\_OPTION for the same reason. Or I can do that by default?

Not 100% sure this is the right approach. Maybe we need some further review of the situation with Control / Option / Command. Right now fro keyboard, we map Command -> K\_CTRL and Control -> K\_ALT to Control. This is because common Win/Linux hotkeys like Ctrl+F for find are normally mapped to Command+F on Mac.

BTW, Win32 Ctrl+Tab in theide is mapped to Option+Tab on Mac, but that is just specific for theide (this is because the combo is unavailable).

Any input is welcome.

Mirek

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Subject: Re: Please check the list of 2019.1 changes  
Posted by [Novo](#) on Tue, 05 Mar 2019 05:07:20 GMT  
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mirek wrote on Mon, 25 February 2019 06:29  
This is now fixed ...

...  
Any input is welcome.

Thanks a lot!  
I'm not a right person to recommend something when it comes to GUI although I spent nine years working for a commercial GUI project :)

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