
Subject: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Fri, 07 Apr 2017 13:22:53 GMT

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The CSyntax class from CodeEditor is good enough for what TheIDE needs and is very close to covering my needs too, but not quite.

Over a year ago I proposed a change but no one was on board. So I forked it and have been using the forked version since.

But it is quite the hassle to update the fork when U++ gets new updates.

So I'm going back to my original proposal, this time more refined, and I will implement it and post it.

I also want to add a dark color scheme to CodeEditor.

U++ comes with Chameleon skins, 2 custom ones, so maybe it is also time to add a standard "dark" skin to U++? It is very "fashionable" these days to have dark GUIs.

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [Klugier](#) on Sun, 16 Apr 2017 11:41:53 GMT

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Hello,

Some time ago I was thinking about adding theme manager to TheIDE. In my opinion the simplest version would be just adding array ctrl in "Syntax highlight options". In this array we will have the list of themes. Users should be able to edit, import and export such theme. By default TheIDE should bring two themes white (default) and dark.

I am personally "black on white" guy, so this feature is not important for me - but it is something that we should invest. I know that a lot of people likes to code in dark environment.

I am looking forward to your changes in CodeEditor. Do you plan to improve TheIDE as well?

Sincerely,
Klugier

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [koldo](#) on Mon, 17 Apr 2017 15:09:25 GMT

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It is interesting.

A possible addition would be to add the possibility of printing or copying to clipboard in color.

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Thu, 20 Apr 2017 08:47:50 GMT

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Klugier wrote on Sun, 16 April 2017 14:41Do you plan to improve TheIDE as well?

No :)

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [Klugier](#) on Thu, 20 Apr 2017 20:22:54 GMT

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cbpporter wrote on Thu, 20 April 2017 10:47Klugier wrote on Sun, 16 April 2017 14:41Do you plan to improve TheIDE as well?

No :)

I am, so sad :(Well, it did not hurt to ask :) Maybe next time.

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Thu, 20 Apr 2017 20:28:10 GMT

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But I do plan to steal the debugger from TheIDE for my own IDE :) .

But the current debugger is bad.

So there is a very small chance I can improve it an the changes come back to TheIDE.

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Tue, 30 May 2017 09:43:23 GMT

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Sorry, didn't have time before.

But I updated U++ yesterday and my sample CodeEditor test case gets all the CodeEditor::Bar

offset wrong, so I must go on an fix this.

But... Ouch...

File Attachments

1) [ce8.png](#), downloaded 654 times

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Tue, 30 May 2017 11:15:02 GMT

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The first step was to fix the offsets.

I'm still working on the exact pixel sizes, but "ceb1" is before/wrong one and "ceb2" is after/corrected.

I submitted this to redmine before, but the feedback was that I'm using pixel counts and not scaling.

But I'm not sure how to scale up pixel counts.

Let's say in CodeEditor, I have a 6 pixel wide line changed marked, a 12 pixel wide breakpoint icon and 2 pixels of padding.

What and how am I supposed to scale this up?

Should the 6 pixel wide line changed marker be larger than 6 pixels with zoom? Should the icon scale up? The padding?

File Attachments

1) [ceb1.png](#), downloaded 335 times

Subject: Re: Started my second attempt at redesigning CSyntax

Posted by [cbpporter](#) on Tue, 30 May 2017 11:16:46 GMT

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After image...

Only one attachment/message.

File Attachments

1) [ceb2.png](#), downloaded 345 times

Subject: Re: Started my second attempt at redesigning CSyntax
Posted by [cbpporter](#) on Tue, 30 May 2017 11:25:32 GMT
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Here is a screenshot with scaling of 150%.

Is this the expected result? Unfortunately, I never bothered with scaling before and am inexperienced...

File Attachments

1) [ceb3.png](#), downloaded 641 times

Subject: Re: Started my second attempt at redesigning CSyntax
Posted by [cbpporter](#) on Tue, 30 May 2017 14:12:05 GMT
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So my problem is that CSyntax is a bit too married to a specific languages. If the C++ highlighter covers 90% of what you need and the C# highlighter covers 90% of what you need and if you could selectively merge the two you would get full coverage, you are fine, but you can't. I tried in the past, but the only solution was to fork CodeEditor. I don't want to do that anymore.

So rather than CSyntax knowing that you are doing C++, CSyntax has no idea that it is C++.

I have broken highlight into multiple options:

```
class CSyntaxOptions {  
public:  
    int lang = 0;  
  
    bool SlashBlockComments = false;  
    bool SlashLineComment = false;  
    bool PoundLineComment = false;  
    bool PoundHexa = false;  
    bool DashInId = false;  
    bool CapitalizeId = false;  
    bool Macros = false;
```

I'll continue adding options. Using this, you can build your language on the fly: you could highlight a language with capitalized IDs with dashes inside, macros and only pound comments. And you can do this without touching CodeEditor.

But I have on important question:

What is HIGHLIGHT_CALC? The only reason I have "lang" in the structure is to handle HIGHLIGHT_CALC. I don't know what it is, so I can't give it a good name.

Subject: Re: Started my second attempt at redesigning CSyntax
Posted by [cbpporter](#) on Wed, 31 May 2017 12:52:58 GMT
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So, phase one is done.

I maintained current CodeEditor API and capabilities, but completely decoupled highlight options from language.

But beyond the current capabilities, you can also create custom languages:

```
CSyntaxOptions newLang = CSyntax::GetSyntaxDesc(CSyntax::HIGHLIGHT_CPP);
newLang.SlashBlockComments = false; // remove /* */ comments
newLang.SlashLineComment = false; // remove // comments
newLang.PoundLineComment = true; // the new way to comment is #
newLang.DashInId = true; // still C++, but a-b is a valid identifier
newLang.Keywords << "event";
newLang.MacroList << "beginregion" << "endregion";
```

```
RegisterCSyntax("foo", newLang, "*.foo", "Best language");
```

Other than adding new languages like this, the main use is to allow semantic highlighting: U++ identifiers are no longer static and once per syntax. Each CodeEditor can be assigned a separate derivative syntax descriptor with a different U++ identifier list.

Now comes phase two: adding the new capabilities, in short binary literals, 100'000 numerical identifiers, #region #endregion, some extra colors and customizable macro markers/language.

Two things that I won't add for now but do kind of need are code folding and nested comment highlighting (I tried and failed).

Subject: Re: Started my second attempt at redesigning CSyntax
Posted by [cbpporter](#) on Fri, 09 Jun 2017 09:36:45 GMT
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Almost done, but I'm facing massive regression with highlighting when compared to my forked CodeEditor.

And I have one major problem: I'm trying to make each editor have a separate name list for highlighting. With the old editor, that list is static and I did a hack: overwrite the static list on each tab change.

Now the list is no longer static, but EditorSyntaxes are created on the fly and I can't make them all point to the same list on creation.

Subject: Re: Started my second attempt at redesigning CSyntax
Posted by [cbpporter](#) on Wed, 12 Jul 2017 08:39:56 GMT
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Yeah, I have again 10 different versions of U++.

Need to delete them all, so I'm adding a backup here of the failed redesign.

File Attachments

1) [CodeEditor.rar](#), downloaded 268 times
