
Subject: Improved heuristics in C++ parser...
Posted by [mirek](#) on Thu, 11 Sep 2008 20:46:27 GMT
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This is not the "final step" in C++ parser, but it seems to greatly improve its performance by implementing new error recovery heuristics.

In other words, C++ parser is now able to skip things that it does not understand much better than before...

Mirek

Subject: Re: Improved heuristics in C++ parser...
Posted by [Mindtraveller](#) on Fri, 12 Sep 2008 07:36:49 GMT
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This must be really tricky algorithm.
As I understand finally TheIDE will have lightspeed & accurate parsing. And it's great!

Subject: Re: Improved heuristics in C++ parser...
Posted by [mirek](#) on Fri, 12 Sep 2008 08:09:29 GMT
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Mindtraveller wrote on Fri, 12 September 2008 03:36 This must be really tricky algorithm.
As I understand finally TheIDE will have lightspeed & accurate parsing. And it's great!

Actually, not yet. We still need macros - and that is EXTREMELY tricky (just think that you need to detect all macros changes, remember which files are using which macros and reparse them accordingly

Anyway, current heuristics is hopefully able to parse correctly most of U++ sources. Which in turn is quite needed for T++ efforts...

Mirek

Subject: Re: Improved heuristics in C++ parser...
Posted by [cbpporter](#) on Sat, 13 Sep 2008 15:38:03 GMT
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Just a little thought: when inserting separators into a package, or even opening and closing those separators, Assist++ is checking my packages. It goes real fast, but is quite redundant for separators.

Subject: Re: Improved heuristics in C++ parser...
Posted by [cbpporter](#) on Sat, 13 Sep 2008 16:08:36 GMT
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luzr wrote on Fri, 12 September 2008 11:09

Anyway, current heuristics is hopefully able to parse correctly most of U++ sources.

After testing on a lot of code, I can confirm that too. The only thing I could find that kills auto complete up until now was something like this:

```
Vector<int*>* grade[11] = { NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL };
```

(And yes, that is not a made up example, I do have something similar in my code)

Subject: Re: Improved heuristics in C++ parser...
Posted by [mirek](#) on Sat, 13 Sep 2008 17:12:16 GMT
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cbpporter wrote on Sat, 13 September 2008 12:08luzr wrote on Fri, 12 September 2008 11:09

Anyway, current heuristics is hopefully able to parse correctly most of U++ sources.

After testing on a lot of code, I can confirm that too. The only thing I could find that kills auto complete up until now was something like this:

```
Vector<int*>* grade[11] = { NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL };
```

(And yes, that is not a made up example, I do have something similar in my code)

Does it kill it for 'grade' only, or anything that follows is affected as well?

Mirek

Subject: Re: Improved heuristics in C++ parser...
Posted by [cbpporter](#) on Sat, 13 Sep 2008 17:23:30 GMT
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luzr wrote on Sat, 13 September 2008 20:12

Does it kill it for 'grade' only, or anything that follows is affected as well?

Anything that follows, but only in current function. The problem seems to be related to initializer list, not the type. More precisely, it doesn't handle the ',' in the initializer list. Initializing with one item works.

Subject: Re: Improved heuristics in C++ parser...
Posted by [mirek](#) on Sat, 13 Sep 2008 17:56:28 GMT

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Ah, yeah, the new heuristics is basically about detecting the next file-level item in error recovery and putting parser into file-level too. It is not able to solve what happens inside body.

I have noticed the initializer list problem before too (just before implementing heuristics), I guess it is worth fixing (and easy to fix too in fact...).

Mirek

Subject: Re: Improved heuristics in C++ parser...
Posted by [mirek](#) on Sun, 14 Sep 2008 16:48:44 GMT
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luzr wrote on Sat, 13 September 2008 13:56
I have noticed the initializer list problem before too

Hopefully, initializer list should be now fixed...

Please check with your testcase.

Mirek
