

Open Source Programming

The Chromium Project

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Chromium

<http://www.chromium.org/Home>

- The basis of Google Chrome – the most popular web browser
- Includes subprojects like
 - Blink (derived from WebKit)
 - V8 (JavaScript engine)
- Completely open-source (unlike Chrome), lacks of some features:
 - built-in Adobe Flash Player
 - several video & audio formats
 - auto-update system
 - crash report system
- Version 1 released in December 2008, most recent is version 42 (February 2015)

Chromium

<http://www.chromium.org/Home>

- Implemented mainly in C++
- Over 250.000 commits
- Millions of source code lines
- Thousands of contributors

Project organization

- Release channels
 - Stable
 - Beta
 - Development
- Release dates are known in advance
- Communication regarding the development – IRC, bug tracker, wishlist
- Public git repository

My contribution

<https://code.google.com/p/chromium/issues/detail?id=457697>

A simple cleanup – `scoped_ptr::release` is obsolete and should be replaced with `scoped_ptr::Pass`

Class `scoped_ptr`

- A smart pointer
- Ownership passing, copying not possible
- Eliminates memory leaks and double frees risk

```
scoped_ptr<Foo> my_pointer(new Foo("new"));  
my_pointer = do_something(my_pointer.Pass());  
  
scoped_ptr<Foo> do_something(scoped_ptr<Foo> arg) {  
    return arg.Pass();  
}
```