

原 Media Player Classic - HC 源代码分析 5：关于对话框（CAboutDlg）

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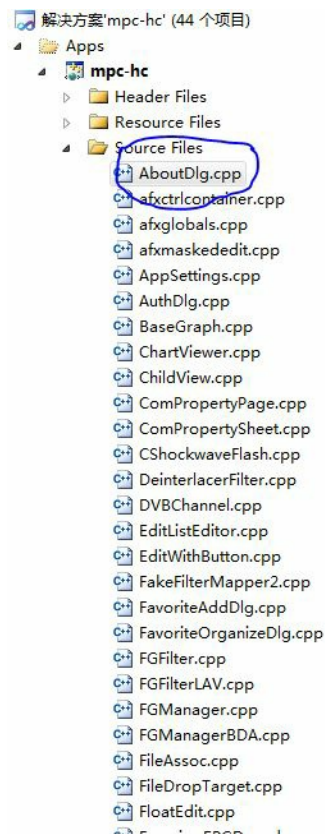
前几篇文章分析了Media Player Classic - HC（mpc-hc）的核心类（CMainFrame）：

[Media Player Classic - HC 源代码分析 2：核心类（CMainFrame）（1）](#)

[Media Player Classic - HC 源代码分析 3：核心类（CMainFrame）（2）](#)

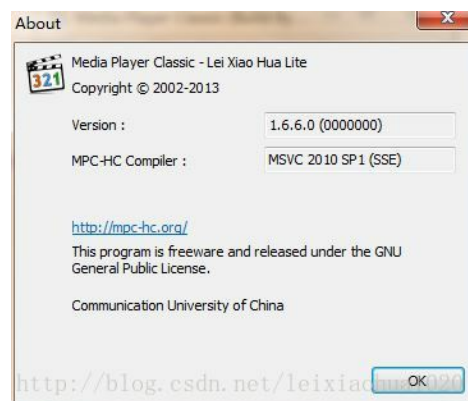
[Media Player Classic - HC 源代码分析 4：核心类（CMainFrame）（3）](#)

核心类已经分析的差不多了，现在可以看一看其他类的定义了。可是如此多的类，看看什么好呢？本着由易到难的原则，应该先看看“关于”对话框的代码。“关于”对话框作为mpc-hc系统的一部分，比较有代表性，而且代码相对来说十分简单，因而适合刚入门的人进行学习。



如图所示，“关于”对话框类的定义和实现都在最前面（因为开头是'A'.....= ）。类的名字叫做CAboutDlg，定义位于AboutDlg.h，实现位于AboutDlg.cpp。

先看看“关于”对话框是什么样子的吧：



其实相比于其他的“关于”对话框来说，这个还算是一个相对比较复杂的。包含了编译器信息，版本等等信息。

CAboutDlg定义如下所示：

```

1.  /*
2.   * (C) 2012 see Authors.txt
3.   *
4.   * This file is part of MPC-HC.
5.   *
6.   * MPC-HC is free software; you can redistribute it and/or modify
7.   * it under the terms of the GNU General Public License as published by
8.   * the Free Software Foundation; either version 3 of the License, or
9.   * (at your option) any later version.
10.  *
11.  * MPC-HC is distributed in the hope that it will be useful,
12.  * but WITHOUT ANY WARRANTY; without even the implied warranty of
13.  * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
14.  * GNU General Public License for more details.
15.  *
16.  * You should have received a copy of the GNU General Public License
17.  * along with this program. If not, see <http://www.gnu.org/licenses/>.
18.  *
19.  */
20.
21. #pragma once
22.
23. #include <afxwin.h>
24. #include "resource.h"
25.
26. class CAboutDlg : public CDialog
27. {
28.     CStatic m_icon;
29.
30.     CString m_appname;
31.     CString m_strBuildNumber;
32.     CString m_MPCCompiler;
33. #ifndef MPCHC_LITE
34.     CString m_FFmpegCompiler;
35. #endif
36.     CString m_credits;
37.     CString m_AuthorsPath;
38.
39. public:
40.     CAboutDlg();
41.
42.     virtual BOOL OnInitDialog();
43.
44.     afx_msg void OnHomepage(NMHDR* pNMHDR, LRESULT* pResult);
45.     afx_msg void OnAuthors(NMHDR* pNMHDR, LRESULT* pResult);
46.
47.     // Dialog Data
48.    //{{AFX_DATA(CAboutDlg)
49.     enum { IDD = IDD_ABOUTBOX };
50.     }}AFX_DATA
51.
52.     // ClassWizard generated virtual function overrides
53.    //{{AFX_VIRTUAL(CAboutDlg)
54. protected:
55.     virtual void DoDataExchange(CDataExchange* pDX);    // DDX/DDV support
56.     }}AFX_VIRTUAL
57.
58.     // Implementation
59. protected:
60.    //{{AFX_MSG(CAboutDlg)
61.     // No message handlers
62.     }}AFX_MSG
63.     DECLARE_MESSAGE_MAP()
64. };

```

从代码上来看。该对话框类和普通的MFC对话框类没有什么区别。不过这个“高端”的“关于”对话框确实包含了不少信息：mpc-hc版本，ffmpeg版本，编译器版本等等。这里就不再多说了，看看它类的实现部分的代码：

```

1.  /*
2.   * (C) 2012-2013 see Authors.txt
3.   *
4.   * This file is part of MPC-HC.
5.   *
6.   * MPC-HC is free software; you can redistribute it and/or modify
7.   * it under the terms of the GNU General Public License as published by
8.   * the Free Software Foundation; either version 3 of the License, or
9.   * (at your option) any later version.
10.  *
11.  * MPC-HC is distributed in the hope that it will be useful,
12.  * but WITHOUT ANY WARRANTY; without even the implied warranty of
13.  * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
14.  * GNU General Public License for more details.
15.  *
16.  * You should have received a copy of the GNU General Public License
17.  * along with this program. If not, see <http://www.gnu.org/licenses/>.
18.  *

```

```

19.  */
20.
21. #include "stdafx.h"
22. #include "AboutDlg.h"
23. #include "mpc-hc_config.h"
24. #ifndef MPCHC_LITE
25. #include "FGFilterLAV.h"
26. #endif
27. #include "mplayerc.h"
28. #include "version.h"
29. #include "SysVersion.h"
30. #include "WinAPIUtils.h"
31.
32. //////////////////////////////////////
33. // CAboutDlg dialog used for App About
34.
35. CAboutDlg::CAboutDlg() : CDialog(CAboutDlg::IDD)
36.     , m_appname(_T(""))
37.     , m_strBuildNumber(_T(""))
38.     , m_MPCCompiler(_T(""))
39. #ifndef MPCHC_LITE
40.     , m_LAVFiltersVersion(_T(""))
41. #endif
42. {
43.     //{{AFX_DATA_INIT(CAboutDlg)
44.     //}}AFX_DATA_INIT
45. }
46. //初始化
47. BOOL CAboutDlg::OnInitDialog()
48. {
49.     // Get the default text before it is overwritten by the call to __super::OnInitDialog()
50.     GetDlgItem(IDC_STATIC1)->GetWindowText(m_appname);
51.     GetDlgItem(IDC_AUTHORS_LINK)->GetWindowText(m_credits);
52. #ifndef MPCHC_LITE
53.     GetDlgItem(IDC_LAVFILTERS_VERSION)->GetWindowText(m_LAVFiltersVersion);
54. #endif
55.
56.     __super::OnInitDialog();
57.
58.     // Because we set LR_SHARED, there is no need to explicitly destroy the icon
59.     m_icon.SetIcon((HICON)LoadImage(AfxGetInstanceHandle(), MAKEINTRESOURCE(IDR_MAINFRAME), IMAGE_ICON, 48, 48, LR_SHARED));
60.
61. #if MPC_BETA_RELEASE || _WIN64
62.     m_appname += _T(" ");
63. #endif
64.
65. #if MPC_BETA_RELEASE
66.     m_appname += MPC_VERSION_BETA;
67. #endif
68.
69. #if MPC_BETA_RELEASE && _WIN64
70.     m_appname += _T(", ");
71. #endif
72.
73. #ifdef _WIN64
74.     m_appname += _T("64-bit");
75. #endif
76.
77. #if MPC_BETA_RELEASE || _WIN64
78.     m_appname += _T(" ");
79. #endif
80.
81. #ifndef MPCHC_LITE
82.     m_appname += _T(" Lite");
83. #endif
84.
85.     // Build the path to Authors.txt
86.     m_AuthorsPath = GetProgramPath() + _T("Authors.txt");
87.     // Check if the file exists
88.     if (FileExists(m_AuthorsPath)) {
89.         // If it does, we make the filename clickable
90.         m_credits.Replace(_T("Authors.txt"), _T("<a>Authors.txt</a>"));
91.     }
92.
93.     m_homepage.Format(_T("<a>%s</a>"), WEBSITE_URL);
94.
95.     m_strBuildNumber = MPC_VERSION_STR_FULL;
96.
97. #if defined(__INTEL_COMPILER)
98.     if (_INTEL_COMPILER >= 1210)
99.         m_MPCCompiler = _T("ICL ") MAKE_STR(__INTEL_COMPILER) _T(" Build ") MAKE_STR(__INTEL_COMPILER_BUILD_DATE);
100.    #else
101.    #error Compiler is not supported!
102.    #endif
103.    #elif defined(_MSC_VER)
104.    #if (_MSC_VER == 1700) // 2012
105.    #if (_MSC_FULL_VER == 170060610)
106.        m_MPCCompiler = _T("MSVC 2012 Update 3");
107.    #elif (_MSC_FULL_VER == 170060315) // MSVC 2012 Update 2
108.    #error VS2012 Update 2 is not supported because the binaries will not run on XP. Install Update 3 instead.
109.    #elif (_MSC_FULL_VER == 170051106)

```

```

110.     m_MPCCompiler = _T("MSVC 2012 Update 1");
111. #elif (_MSC_FULL_VER < 170050727) // MSVC 2012
112. #error Please install the latest Update for VS2012.
113. #else
114.     m_MPCCompiler = _T("MSVC 2012");
115. #endif
116. #elif (_MSC_VER == 1600) // 2010
117. #if (_MSC_FULL_VER >= 160040219)
118.     m_MPCCompiler = _T("MSVC 2010 SP1");
119. #else
120.     m_MPCCompiler = _T("MSVC 2010");
121. #endif
122. #elif (_MSC_VER < 1600)
123. #error Compiler is not supported!
124. #endif
125. #else
126. #error Please add support for your compiler
127. #endif
128.
129. #if (_AVX_)
130.     m_MPCCompiler += _T(" (AVX)");
131. #elif (_SSSE3_)
132.     m_MPCCompiler += _T(" (SSSE3)");
133. #elif (_SSE3_)
134.     m_MPCCompiler += _T(" (SSE3)");
135. #elif !defined(_M_X64) && defined(_M_IX86_FP)
136. #if (_M_IX86_FP == 2) // /arch:SSE2 was used
137.     m_MPCCompiler += _T(" (SSE2)");
138. #elif (_M_IX86_FP == 1) // /arch:SSE was used
139.     m_MPCCompiler += _T(" (SSE)");
140. #endif
141. #endif
142.
143. #ifdef _DEBUG
144.     m_MPCCompiler += _T(" Debug");
145. #endif
146.
147. #ifndef MPCHC_LITE
148.     //版本
149.     CString LAVFiltersVersion = CFGFilterLAV::GetVersion();
150.     if (!LAVFiltersVersion.IsEmpty()) {
151.         m_LAVFiltersVersion = LAVFiltersVersion;
152.     }
153. #endif
154.
155.     m_buildDate = _T(_DATE_) _T(" ") _T(_TIME_);
156.
157.     OSVERSIONINFOEX osVersion = SysVersion::GetFullVersion();
158.     m_OSName.Format(_T("Windows NT %lu.%lu (build %u)",
159.         osVersion.dwMajorVersion, osVersion.dwMinorVersion, osVersion.dwBuildNumber);
160.     if (osVersion.szCSDVersion[0]) {
161.         m_OSName.AppendFormat(_T(", %s"), osVersion.szCSDVersion);
162.     } else {
163.         m_OSName += _T(" ");
164.     }
165.     m_OSVersion.Format(_T("%lu.%lu"), osVersion.dwMajorVersion, osVersion.dwMinorVersion);
166.     if (SysVersion::Is64Bit()) {
167.         m_OSVersion += _T(" (64-bit)");
168.     }
169.
170.     UpdateData(FALSE);
171.
172.     GetDlgItem(IDOK)->SetFocus();
173.
174.     return FALSE;
175. }
176.
177. void CAboutDlg::DoDataExchange(CDataExchange* pDX)
178. {
179.     CDialog::DoDataExchange(pDX);
180.     //{{AFX_DATA_MAP(CAboutDlg)
181.     //}}AFX_DATA_MAP
182.     DDX_Control(pDX, IDR_MAINFRAME, m_icon);
183.     DDX_Text(pDX, IDC_STATIC1, m_appname);
184.     DDX_Text(pDX, IDC_AUTHORS_LINK, m_credits);
185.     DDX_Text(pDX, IDC_HOMEPAGE_LINK, m_homepage);
186.     DDX_Text(pDX, IDC_VERSION, m_strBuildNumber);
187.     DDX_Text(pDX, IDC_MPC_COMPILER, m_MPCCompiler);
188. #ifndef MPCHC_LITE
189.     DDX_Text(pDX, IDC_LAVFILTERS_VERSION, m_LAVFiltersVersion);
190. #endif
191.     DDX_Text(pDX, IDC_STATIC2, m_buildDate);
192.     DDX_Text(pDX, IDC_STATIC3, m_OSName);
193.     DDX_Text(pDX, IDC_STATIC4, m_OSVersion);
194. }
195.
196. BEGIN_MESSAGE_MAP(CAboutDlg, CDialog)
197.     //{{AFX_MSG_MAP(CAboutDlg)
198.     // No message handlers
199.     //}}AFX_MSG_MAP
200.     ON_NOTIFY(NM_CLICK, IDC_HOMEPAGE_LINK, OnHomepage)
201.     ON_NOTIFY(NM_CLICK, IDC_AUTHORS_LINK, OnAuthors)

```

```

201.         ON_NOTIFY(NM_CLICK, IDC_AUTHORS_LINK, OnAuthors)
202.         ON_BN_CLICKED(IDC_BUTTON1, OnCopyToClipboard)
203.     END_MESSAGE_MAP()
204.
205.     void CAboutDlg::OnHomepage(NMHDR* pNMHDR, LRESULT* pResult)
206.     {
207.         ShellExecute(m_hWnd, _T("open"), WEBSITE_URL, nullptr, nullptr, SW_SHOWDEFAULT);
208.         *pResult = 0;
209.     }
210.
211.     void CAboutDlg::OnAuthors(NMHDR* pNMHDR, LRESULT* pResult)
212.     {
213.         ShellExecute(m_hWnd, _T("open"), m_AuthorsPath, nullptr, nullptr, SW_SHOWDEFAULT);
214.         *pResult = 0;
215.     }
216.     //拷贝到剪切板
217.     void CAboutDlg::OnCopyToClipboard()
218.     {
219.         //把各种信息添加到一个字符串中
220.         CStringW info = m_appname;
221.         info += _T("\n-----\n\n");
222.         info += _T("Build information:\n");
223.         info += _T("    Version:          ") + m_strBuildNumber + _T("\n");
224.         info += _T("    MPC-HC compiler:  ") + m_MPCCompiler + _T("\n");
225.         info += _T("    Build date:       ") + m_buildDate + _T("\n\n");
226. #ifndef MPCHC_LITE
227.         info += _T("LAV Filters:\n");
228.         info += _T("    LAV Splitter:      ") + CFGFilterLAV::GetVersion(CFGFilterLAV::SPLITTER) + _T("\n");
229.         info += _T("    LAV Video:         ") + CFGFilterLAV::GetVersion(CFGFilterLAV::VIDEO_DECODER) + _T("\n");
230.         info += _T("    LAV Audio:         ") + CFGFilterLAV::GetVersion(CFGFilterLAV::AUDIO_DECODER) + _T("\n\n");
231. #endif
232.         info += _T("Operating system:\n");
233.         info += _T("    Name:              ") + m_OSName + _T("\n");
234.         info += _T("    Version:           ") + m_OSVersion + _T("\n");
235.
236.         COleDataSource* pData = DEBUG_NEW COleDataSource();
237.
238.         int len = info.GetLength() + 1;
239.         HGLOBAL hGlob = GlobalAlloc(GMEM_FIXED, len * sizeof(WCHAR));
240.
241.         if (pData && hGlob) {
242.             wcsncpy_s(WCHAR*)hGlob, len, (LPCWSTR)info);
243.
244.             pData->CacheGlobalData(CF_UNICODETEXT, hGlob);
245.
246.             // The system will take care of removing the allocated memory
247.             pData->SetClipboard();
248.         } else if (pData) {
249.             delete pData;
250.         } else if (hGlob) {
251.             GlobalFree(hGlob);
252.         }
253.     }

```

代码整体上通俗易懂，调用的都是很常见的函数，不多解释了。

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