

界面绘制



编辑框ID: IDC_EDIT_A、IDC_EDIT_B、IDC_EDIT_C

加法按钮ID: IDC_BUTTON_ADD1~7

方法1: GetDlgItem()->GetWindowTextW()

```
1  const int N = 20;
2  void CDemoDlg::OnBnClickedButtonAdd1()
3  {
4      TCHAR str1[N], str2[N], str3[N];
5
6      GetDlgItem(IDC_EDIT_A)->GetWindowTextW(str1, N);
7      GetDlgItem(IDC_EDIT_B)->GetWindowTextW(str2, N);
8
9      int a = _ttoi(str1);
10     int b = _ttoi(str2);
11
12     int c = a + b;
13
14     _itow_s(c, str3, 10);
15
16     GetDlgItem(IDC_EDIT_C)->SetWindowTextW(str3);
17 }
```

方法2: GetDlgItemText()

```
1  void CDemoDlg::OnBnClickedButtonAdd2()
2  {
```

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```

3     TCHAR str1[N], str2[N], str3[N];
4
5     GetDlgItemText(IDC_EDIT_A, str1, N);
6     GetDlgItemText(IDC_EDIT_B, str2, N);
7
8     int a = _ttoi(str1);
9     int b = _ttoi(str2);
10
11    int c = a + b;
12
13    _itow_s(c, str3, 10);
14
15    SetDlgItemText(IDC_EDIT_C, str3);
16 }

```

TCHAR转CString:

```

1  TCHAR chs[N] = _T("Hello");
2  CString str;
3  str.Format(_T("%s"), chs);
4  OutputDebugString(str);

```

TCHAR*转CString:

```

1  CString str1, str2;
2  GetDlgItemText(IDC_EDIT_A, str1);
3  GetDlgItemText(IDC_EDIT_B, str2);
4
5  TCHAR* chs1 = new TCHAR[N];
6  TCHAR* chs2 = new TCHAR[N];
7  TCHAR chs3[N];
8
9  chs1 = str1.GetBuffer(str1.GetLength());
10 chs2 = str2.GetBuffer(str2.GetLength());
11
12 int a = _ttoi(chs1);
13 int b = _ttoi(chs2);
14
15 int c = a + b;
16
17 _itow_s(c, chs3, 10);
18
19 SetDlgItemText(IDC_EDIT_C, chs3);
20
21 str1.ReleaseBuffer();
22 str2.ReleaseBuffer();

```

方法3: GetDlgItemInt()

```

1  int a = GetDlgItemInt(IDC_EDIT_A);
2  int b = GetDlgItemInt(IDC_EDIT_B);
3
4  int c = a + b;
5
6  SetDlgItemInt(IDC_EDIT_C, c);

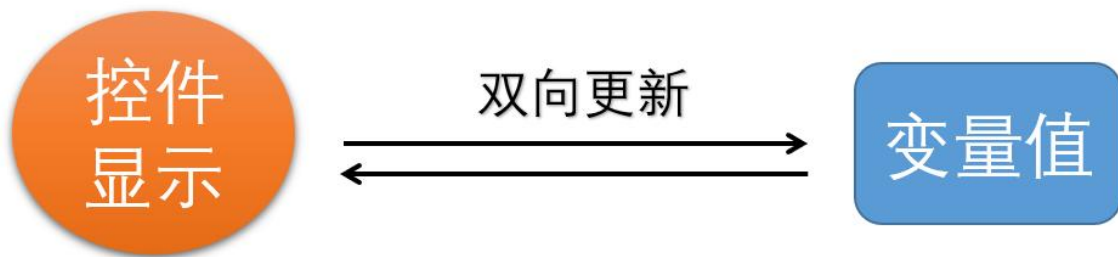
```

方法4：关联数值类型变量

MFC框架为用户提供了在对话框控件和数据变量间交换数据的DDX/DDV（数据交换/数据验证）机制。

DDX将数据成员变量和控件相连接，使得数据访问更加方便。

DDV用于数据校验，例如校验成员变量数值范围，并发出相应的警告。



`UpdateData()`函数接收一个BOOL类型参数，TRUE表示将控件中的数据传输到变量中，FALSE表示将变量中的数据传输到控件上。

`UpdateData()`并不直接完成DDX/DDV机制相关操作，而是通过调用一个`DoDataExchange`函数实现。

给编辑框IDC_EDIT_A关联值类型变量：选中编辑框-鼠标右键-添加变量

The screenshot shows the '添加控制变量' (Add Control Variable) dialog box. The '常规设置' (General Settings) tab is selected. The '控件' (Control) list on the left has '其他' (Other) selected. The '控件 ID(I)' (Control ID) is 'IDC_EDIT_A'. The '控件类型(Y)' (Control Type) is 'EDIT'. The '类别(I)' (Category) is '值' (Value). The '名称(N)' (Name) is 'm_edit_a_value'. The '访问(A)' (Access) is 'private'. The '变量类型(V)' (Variable Type) is 'int'. The '注释(M)' (Comment) field is empty. At the bottom, there are buttons for '上一步' (Previous Step), '下一步' (Next Step), '完成' (Finish), and '取消' (Cancel).

Dlg.h:

```

24 // 实现
25 protected:
26     HICON m_hIcon;
27
28     // 生成的消息映射函数
29     virtual BOOL OnInitDialog();
30     afx_msg void OnSysCommand(UINT nID, LPARAM lParam);
31     afx_msg void OnPaint();
32     afx_msg HCURSOR OnQueryDragIcon();
33     DECLARE_MESSAGE_MAP()
34 public:
35     afx_msg void OnBnClickedButtonAdd1();
36     afx_msg void OnBnClickedButtonAdd2();
37     afx_msg void OnBnClickedButtonAdd3();
38 private:
39     int m_edit_a_value;
40 };

```

Dlg.cpp:

```

53 CDemoDlg::CDemoDlg(CWnd* pParent /*=nullptr*/)
54 : CDialogEx(IDD_DEMO_DIALOG, pParent)
55     , m_edit_a_value(0)
56 {
57     m_hIcon = AfxGetApp()->LoadIcon(IDR_MAINFRAME);
58 }
59
60 void CDemoDlg::DoDataExchange(CDataExchange* pDX)
61 {
62     CDialogEx::DoDataExchange(pDX);
63     DDX_Text(pDX, IDC_EDIT_A, m_edit_a_value);
64 }
65

```

默认初始值为0。

设置数值范围：

×

添加控制变量

其他设置

控件

其他

最小值(U)

0

最大值(E)

100

最大字符数(X)

.h 文件(E)

...

.cpp 文件(E)

...

上一步

下一步

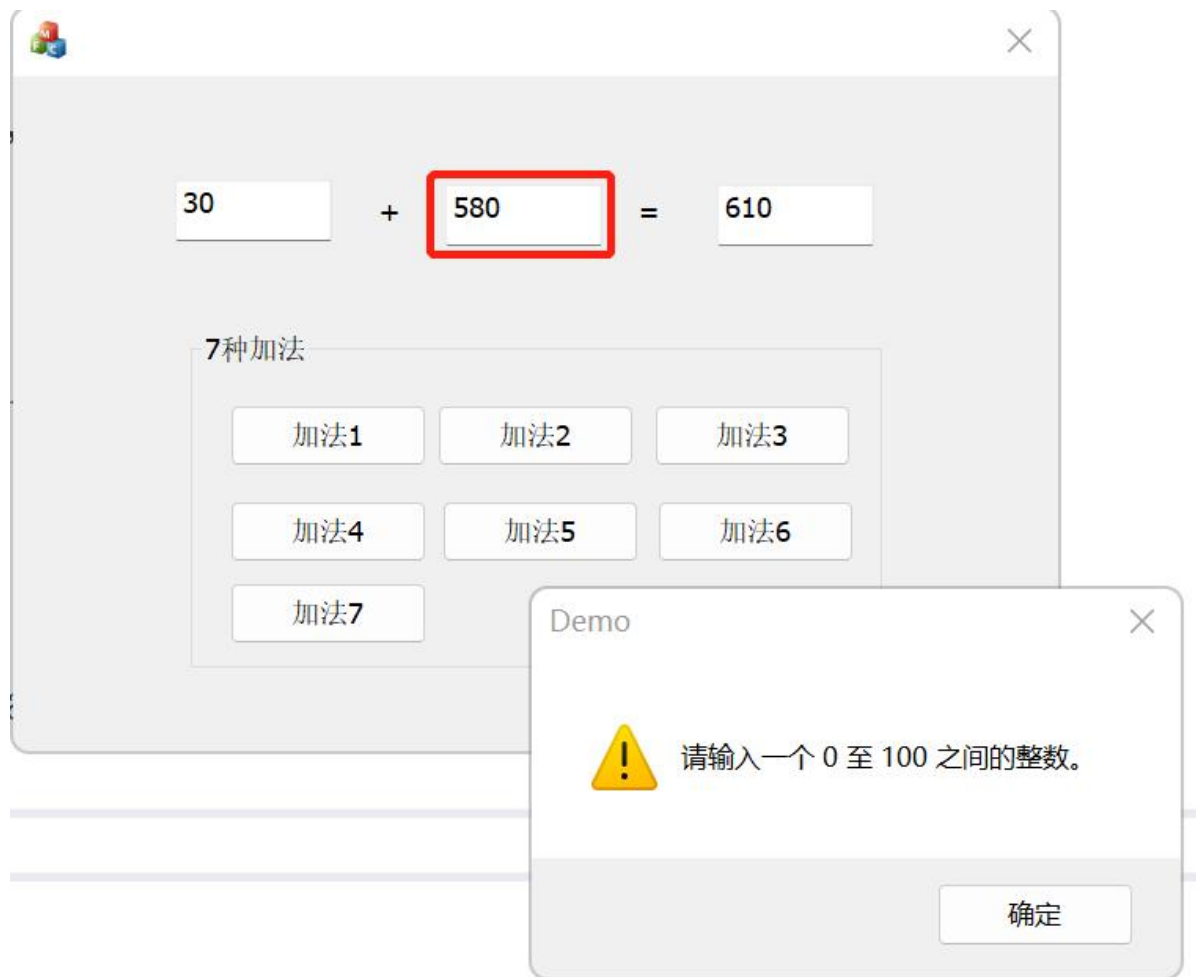
完成

取消

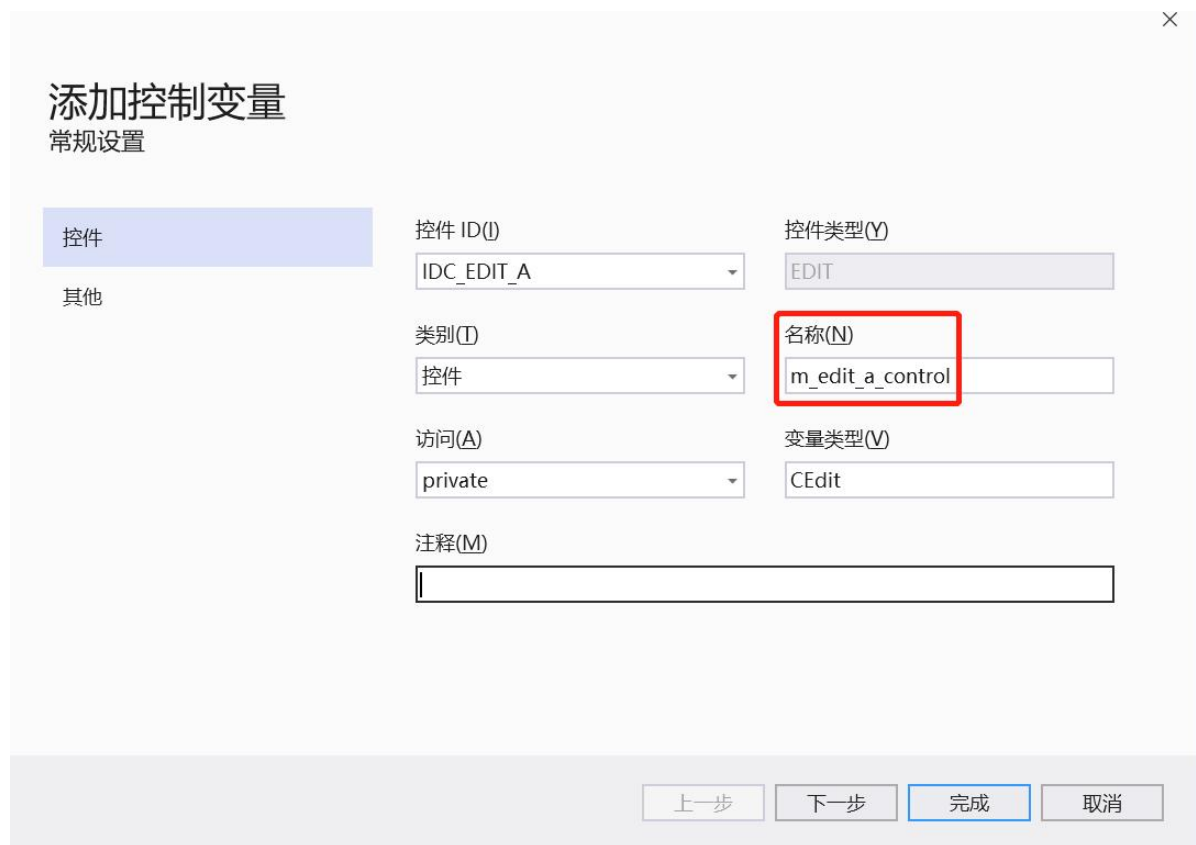
同理，给另外两个编辑框关联int类型变量。

```
1 | UpdateData(TRUE);  
2 | m_edit_c_value = m_edit_a_value + m_edit_b_value;  
3 | UpdateData(FALSE);
```

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方法5：关联控件类型变量



```
1 void CDemoDlg::OnBnClickedButtonAdd5()  
2 {  
3     CString str1, str2;
```

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```

4      m_edit_a_control.GetWindowTextW(str1);
5      m_edit_b_control.GetWindowTextW(str2);
6
7      // OutputDebugString(str1 + str2);
8
9      // CString 转 int
10     int a = _ttoi(str1);
11     int b = _ttoi(str2);
12
13     int c = a + b;
14
15     // int 转 CString
16     CString str3;
17     str3.Format(_T("%d"), c);
18     m_edit_c_control.SetWindowTextW(str3);
19 }

```

方法6: SendMessage()

```

1  void CDemoDlg::OnBnClickedButtonAdd6()
2  {
3      TCHAR chs1[N], chs2[N], chs3[N];
4
5      ::SendMessage(GetDlgItem(IDC_EDIT_A)->m_hwnd, WM_GETTEXT, N,
6      (LPARAM)chs1);
7      ::SendMessage(GetDlgItem(IDC_EDIT_B)->m_hwnd, WM_GETTEXT, N,
8      (LPARAM)chs2);
9
10     int a = _ttoi(chs1);
11     int b = _ttoi(chs2);
12
13     int c = a + b;
14
15     _itow_s(c, chs3, 10);
16
17     ::SendMessage(GetDlgItem(IDC_EDIT_C)->m_hwnd, WM_SETTEXT, 0,
18     (LPARAM)chs3);
19 }

```

方法7: SendDlgItemMessage()

```

1  void CDemoDlg::OnBnClickedButton7()
2  {
3      TCHAR chs1[N], chs2[N], chs3[N];
4
5      SendDlgItemMessage(IDC_EDIT_A, WM_GETTEXT, N, (LPARAM)chs1);
6      SendDlgItemMessage(IDC_EDIT_B, WM_GETTEXT, N, (LPARAM)chs2);
7
8      int a = _ttoi(chs1);
9      int b = _ttoi(chs2);
10
11     int c = a + b;
12
13     _itow_s(c, chs3, 10);
14

```

```
15     SendDlgItemMessage(IDC_EDIT_C, WM_SETTEXT, 0, (LPARAM)chs3);  
16 }
```