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/*****
/*
/*----- U R L . C -----*/
/* Task      : Creation of an Internet shortcut via the Uniform
/*             Resource Locator interface.
/*-----*/
/* Authors    : Michael Tischer and Bruno Jennrich
/* developed on : 10/01/1995
/* last update  : 10/04/1995
/*****
#include <windows.h>
#include <ole2.h>
#include <intshcut.h>
#include <shlobj.h>

//----- Typedefs -----

typedef IShellLink *LPSHELLLINK;           // Copy interface pointer
typedef IPersistFile *LPPERSISTFILE;

/*****
/* CreateInternetShortcut - Creates an Internet shortcut
/*-----*/
/* Parameters:    pszPath    - Path of URL file
/*                pszURL     - URL to Internet target(http:, ftp:,etc)
/*                pszWorkDir - Working directory for Browser
/*                nCmdShow    - Window mode at start of Browser
/* Return value : TRUE  - Shortcut created
/*                FALSE - Error
/*****
BOOL CreateInternetShortcut( LPSTR pszPath,
                             LPSTR pszUrl,
                             LPSTR pszWorkDir,
                             int  nCmdShow )
{
    HRESULT hrCoInit, hr;
    PIUniformResourceLocator pUrl;                // URL interface
    LPPERSISTFILE pPersistFile;                  // IPersistFile interface
    LPSHELLLINK pShellLink;                     // IShellLink interface

    hrCoInit = CoInitialize( NULL );             // Initialize OLE

    // Get URL interface. If Internet environment has not been correctly
    // set up, this call will result in a failure!
    hr = CoCreateInstance( &CLSID_InternetShortcut,
                           NULL,
                           CLSCTX_INPROC_SERVER,
                           &IID_IUniformResourceLocator,
                           &pUrl );

    if( SUCCEEDED( hr ) )
    {
        // Get PersistFile interface -----
        if( SUCCEEDED( pUrl->lpVtbl->QueryInterface( pUrl,
                                                    &IID_IPersistFile,
                                                    &pPersistFile ) ) )
        {
            // Get ShellLink interface -----
            if( SUCCEEDED( pUrl->lpVtbl->QueryInterface( pUrl,
                                                        &IID_IShellLink,
                                                        &pShellLink ) ) )
            {
                WORD wsz[ MAX_PATH ];           // Buffer for ANSI->Unicode conversion

                // Set URL -----
                hr = pUrl->lpVtbl->SetURL( pUrl, pszUrl, 0 );

                //As an alternative, you can also set the URL via the following      call
                //hr = iShellLink->lpVtbl->SetPath( iShellLink, pszUrl );

                // Set working directory -----
                if( SUCCEEDED( hr ) )
                    hr = pShellLink->lpVtbl->SetWorkingDirectory( pShellLink,
                                                                pszWorkDir );

                // Set SW_.. command -----
                if( SUCCEEDED( hr ) )

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        hr = pShellLink->lpVtbl->SetShowCmd( pShellLink, nCmdShow );

// Save shortcut -----
MultiByteToWideChar( CP_ACP, 0, pszPath, -1, wsz, MAX_PATH );
if( SUCCEEDED( hr ) )
    hr = pPersistFile->lpVtbl->Save( pPersistFile,
                                    wsz,
                                    FALSE );

if( SUCCEEDED( hr ) )
    hr = pPersistFile->lpVtbl->SaveCompleted( pPersistFile,
                                              wsz );

    pShellLink->lpVtbl->Release( pShellLink );
}
pPersistFile->lpVtbl->Release( pPersistFile );
}
pUrl->lpVtbl->Release( pUrl );
}
if( SUCCEEDED( hrCoInit ) ) CoUninitialize();

return SUCCEEDED( hr );
}

/*****
/* SetInternetShortcutIcon : Changes the icon of an Internet shortcut */
/*-----*/
/* Parameters:      pszLocation    - Name or file of shortcut          */
/*                  pszIconDLL     - Name of DLL containing icons       */
/*                  as a resource  - as a resource                     */
/*                  (e.g., moricons.dll)                               */
/*                  iIcon          - Index of icon to be used           */
/* Return value : TRUE  - Icon has been set                             */
/*               FALSE - Error                                           */
*****/
BOOL SetInternetShortcutIcon( LPSTR pszLocation,
                             LPSTR pszIconDLL,
                             int  iIcon )
{
    HRESULT hrCoInit;                // OLE installation result
    HRESULT hr;                      // Result of object methods

    PIUniformResourceLocator pUrl;    // URL interface
    LPPERSISTFILE pPersistFile;      // IPersistFile interface
    LPSHELLLINK pShellLink;          // IShellLink interface

    hrCoInit = CoInitialize( NULL ); // Initialize OLE

    // Get URL interface. If the Internet environment hasn't been set up
    // correctly, this call will result in a failure!
    hr = CoCreateInstance( &CLSID_InternetShortcut,
                          NULL,
                          CLSCTX_INPROC_SERVER,
                          &IID_IUniformResourceLocator,
                          &pUrl );

    if( SUCCEEDED( hr ) )
    {
        // Get PersistFile interface -----
        if(SUCCEEDED(pUrl->lpVtbl->QueryInterface(pUrl,
                                                  &IID_IPersistFile,
                                                  &pPersistFile)))
        {
            // Get ShellLink interface -----
            if( SUCCEEDED( pUrl->lpVtbl->QueryInterface( pUrl,
                                                         &IID_IShellLink,
                                                         &pShellLink ) ) )
            {
                WORD wsz[ MAX_PATH ];
                char szPath[ MAX_PATH ];

                // Load Shortcut file -----

                MultiByteToWideChar( CP_ACP, 0, pszLocation, -1, wsz, MAX_PATH );
                hr = pPersistFile->lpVtbl->Load( pPersistFile,
                                                wsz,

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                                STGM_READ );

// Set icon of shortcut -----
if( SUCCEEDED( hr ) )
{
    WIN32_FIND_DATA fd;

    pShellLink->lpVtbl->GetPath( pShellLink,
                                szPath,
                                MAX_PATH,
                                &fd,
                                0 );

    hr = pShellLink->lpVtbl->SetIconLocation( pShellLink,
                                             pszIconDLL,
                                             iIcon );

    // Save shortcut again under the same name -----
    pPersistFile->lpVtbl->Save( pPersistFile, wsz, TRUE );
    pPersistFile->lpVtbl->SaveCompleted( pPersistFile, wsz );
}
pShellLink->lpVtbl->Release( pShellLink );
}
pPersistFile->lpVtbl->Release( pPersistFile );
}
pUrl->lpVtbl->Release( pUrl );
}
// If OLE was initialized here, it must also be uninstalled
// here.
if( SUCCEEDED( hrCoInit ) ) CoUninitialize();

return SUCCEEDED( hr );
}

/*****
/* main - Start function */
/*-----*/
/* Parameters:    none */
/* Return value : none */
/*****
void main( void )
{
    char szDesktopPath[ MAX_PATH ];
    char szShortCutPath[ MAX_PATH ];
    LPITEMIDLIST pidl;
    BOOL bCreated;

    CoInitialize( NULL );

    // Get PIDL of Desktop directory -----
    if( SUCCEEDED( SHGetSpecialFolderLocation( NULL,
                                             CSIDL_DESKTOPDIRECTORY,
                                             &pidl ) ) )
    {
        // Get path of Desktop directory from PIDL -----
        SHGetPathFromIDList( pidl, szDesktopPath );
        CoTaskMemFree( pidl );

        bCreated = TRUE;                // Assume success!

        //
        // Create selection of five Internet addresses
        //

        // Put together path where shortcut will be placed -----
        // Internet shortcuts must have the URL extension! -----

        // For all you music lovers:
        lstrcpy( szShortCutPath, szDesktopPath );
        lstrcat( szShortCutPath, "\\Internet Underground Music Archive.URL");

        if( !CreateInternetShortcut( szShortCutPath,          // Create shortcut
                                    "http://www.iuma.com/",
                                    "",
                                    SW_SHOW ) ) bCreated = FALSE;
    }
}

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// Hello, this is Peter Arnett:
lstrcpy( szShortcutPath, szDesktopPath );
lstrcat( szShortcutPath, "\\CNN Newsroom.URL");

if( !CreateInternetShortcut( szShortcutPath,          // Create shortcut
    "http://www.nmis.org/NewsInteractive/CNN/Newsroom/contents.html",
    "",
    SW_SHOW ) ) bCreated = FALSE;

// For all you amateur astronauts:
lstrcpy( szShortcutPath, szDesktopPath );
lstrcat( szShortcutPath, "\\NASA.URL");

if( !CreateInternetShortcut( szShortcutPath,          // Create shortcut
    "http://www.nasa.gov/",
    "",
    SW_SHOW ) ) bCreated = FALSE;

// Great site to find whatever you might be looking for on the NET:
lstrcpy( szShortcutPath, szDesktopPath );
lstrcat( szShortcutPath, "\\YAHOO start here.URL");
if( !CreateInternetShortcut( szShortcutPath,          // Create shortcut
    "http://WWW.YAHOO.COM",
    "",
    SW_SHOW ) ) bCreated = FALSE;

// Another great site for finding good shareware:
lstrcpy( szShortcutPath, szDesktopPath );
lstrcat( szShortcutPath, "\\Great Shareware Site!!!.URL");
if( !CreateInternetShortcut( szShortcutPath,          // Create shortcut
    "http://WWW.JUMBO.COM",
    "",
    SW_SHOW ) ) bCreated = FALSE;

if( !bCreated )
{
    MessageBox( NULL, "Could not create one or more Internet shortcuts!\n Please set up your Internet environment correctly",
        "Error", 0 );
}
CoUninitialize();
}

```