

An Unofficial Guide to the URL File Format

Table of Contents:

1. [The URL Format](#)
2. [Extended URL Format](#)
3. [Settings Not Stored in The URL Format](#)
4. [Links](#)
5. [Contact](#)
6. [Appendix A HotKey Reference](#)

This article is an update to my previous postings. A new update to this article (2004) is finally changing around the modified field decoding to using, the more correct method, FILETIME and FileTimeToSystemTime.

This article describes programming information and data specifications for the URL file format. URL files are used as the favourites format in IE, as well as a stand-alone double clickable resource in the file system created by browsers by dragging the address bar into the file system. These files have the **url** file extension.

The URL Format

The classic URL file specification is pretty simple; it has a format similar to an INI file:

Sample URL File:

```
[InternetShortcut]
URL=http://www.someaddress.com/
WorkingDirectory=C:\WINDOWS\
ShowCommand=7
IconIndex=1
IconFile=C:\WINDOWS\SYSTEM\url.dll
Modified=20F06BA06D07BD014D
HotKey=1601
```

The syntax of the file format is like the following:

```
[Group\Section]
Field=Value
```

Field=Value

.
.

Each line terminates with CR and LF characters, and uses ANSI as it's character set. The files can be manipulated using basic file I/O or the GetPrivateProfileString, GetPrivateProfileSection, WritePrivateProfileSection, WritePrivateProfileString API functions provided by Windows.

URL

The URL field is self-explanatory. It's the address location of the page to load. It should be a fully qualifying URL with the format protocol://server/page. A URL file is not restricted to the HTTP protocol. In general, at least, whatever that can be saved as a favorite is a valid URL.

WorkingDirectory

It's the "working folder" that your URL file uses. The working folder is possibly the folder to be set as the current folder for the application that would open the file. However Internet Explorer does not seem to be affected by this field.

Note: this setting does not seem to appear in some versions of Internet Explorer/Windows.

IconIndex

The Icon Index within the icon library specified by IconFile. In an icon library, which can be generally be either a ICO, DLL or EXE file, the icons are indexed with numbers. The first icon index starts at 0.

IconFile

Specifies the path of the icon library file. Generally the icon library can be an ICO, DLL or EXE file. The default icon library used tends to be the URL.DLL library on the system's Windows\System directory

Modified

This field is generally the most cryptic of all the fields.

Example:

Modified=20F06BA06D07BD014D

Thanks goes to Shawn K. Hall, Jeff Dickey, Ken Schenke, Vivian De Smedt, David Jones, Frank Stocker, and possibly others (I've lost some mail since a few years ago) for pointing out this is a FILETIME structure (this article has last been updated in late 2000, basically 3-4 years, so I've been late to rewrite this section), The first 8 hex bytes are the FILETIME structure, the last hex byte is found to be a checksum and is unimportant. Since this is a FILETIME structure, you can pass it to the FileTimeToSystemTime API call to get all the discrete date and time elements. However the first 8 hex bytes need to be inverted before passing in to FileTimeToSystemTime. Therefore:

C0	34	90	B3	07	DC	C3	01	DE
Invert								Rem.
01	C3	DC	07	B3	90	34	C0	
High DW = 01 C3 DC 07				Low DW = B3 90 34 C30				
FileTimeToSystemTime								
16/1/2004 08:06:53								

I've wrote a [small VB6 demonstration](#) that does this task.

ShowCommand

(Nothing) Normal

7 Minimized

3 Maximized

Note: this setting does not seem to appear in some versions of Internet Explorer/Windows.

HotKey

The HotKey field specifies what is the shortcut key used to automatically launch the Internet shortcut. The field uses a number to specify what hotkey is used.

833 – Ctrl + Shift + A

834 – Ctrl + Shift + B

835 – Ctrl + Shift + C

.

.

1345 – Shift + Alt + A

1346 – Shift + Alt + B

1347 – Shift + Alt + C

.

.
1601 – Ctrl + Alt + A
1602 – Ctrl + Alt + B
1603 – Ctrl + Alt + C

.Refer to *Appendix A* for a more complete table of hotkeys.

Extended URL Format

Sometimes the URL file will provide more information when it is saved as a Favorite with the following format:

```
[DEFAULT]
BASEURL=url
```

```
[DOC#n(#n#n#n...)]
BASEURL=url
ORIGURL=url
```

Sample URL File with extended URL fields:

```
[DEFAULT]
BASEURL=http://www.someaddress.com
```

```
[DOC#4#5]
BASEURL=http://www.someaddress.com/frame1.html
ORIGURL=frame1.html
```

```
[DOC#4#6]
BASEURL=http://www.someaddress.com/frame2.html
ORIGURL=frame2.html
```

```
[InternetShortcut]
URL=http://www.someaddress.com/
```

The purpose of these extra fields is probably for the browser to figure out what HTML documents were loaded in each frame, since the main URL tends to not record the state of its framesets. If you navigate to a framed site, click on a frame link (which changes one of the frames), and add the page to your favorites, the state of the framesets is preserved. When a frame is nested inside another frame, the frame's section name has the same first numbers, and another few numbers appended, like the following:

Sample URL File with extended URL fields and nested frames:

[DEFAULT]

BASEURL=http://www.someaddress.com

[DOC#4#5]

BASEURL=http://www.someaddress.com/frame1.html

ORIGURL=frame1.html

[DOC#4#5#4#6]

BASEURL=http://www.someaddress.com/frame1a.html

ORIGURL=frame1a.html

[DOC#4#5#4#7]

BASEURL=http://www.someaddress.com/frame1b.html

ORIGURL=frame1b.html

[DOC#4#6]

BASEURL=http://www.someaddress.com/frame2.html

ORIGURL=frame2.html

[InternetShortcut]

URL=http://www.someaddress.com/

Settings Not Stored in The URL Format

- Visits
- "Make this page available offline"
- Synchronization settings
- Download Settings
- Schedule Settings

Appendix A HotKey Reference

	C+S	S+A	C+A	C+S+A		C+S	S+A	C+A	C+S+A	
A	833	1345	1601	1857		0	817	1329	1584	1841
B	834	1346	1602	1858		1	818	1330	1585	1842
C	835	1347	1603	1859		2	819	1331	1586	1843

D 836	1348	1604	1860	3 820	1332	1587	1844
E 837	1349	1605	1861	4 821	1333	1588	1845
F 838	1350	1606	1862	5 822	1334	1589	1846
G 839	1351	1607	1863	6 823	1335	1590	1847
H 840	1352	1608	1864	7 824	1336	1591	1848
I 841	1353	1609	1865	8 825	1337	1592	1849
J 842	1354	1610	1866	9 826	1338	1593	1850
K 843	1355	1611	1867	; 954	1466	1722	1978
L 844	1356	1612	1868	= 955	1467	1723	1979
M 845	1357	1613	1869	, 956	1468	1724	1980
N 846	1358	1614	1870	- 957	1469	1725	1981
O 847	1359	1615	1871	. 958	1470	1726	1982
P 848	1360	1616	1872	/ 959	1471	1727	1983
Q 849	1361	1617	1873	` 960	1472	1728	1984
R 850	1362	1618	1874	[987	1499	1755	2011
S 851	1363	1619	1875	\ 988	1500	1756	2012
T 852	1364	1620	1876] 989	1501	1757	2013
U 853	1365	1621	1877	' 990	1502	1758	2014
V 854	1366	1622	1878				
W 855	1367	1623	1879				
X 856	1368	1624	1880				
Y 857	1369	1625	1881				
Z 858	1370	1626	1882				

	None	Ctrl	Alt	Shift	C+A	S+A	C+S	C+S+A
F1 112	624	1136	368	1648	1392	880	1904	
F2 113	625	1137	369	1649	1393	881	1905	
F3 114	626	1138	370	1650	1394	882	1906	
F4 115	627	1139	371	1651	1395	883	1907	
F5 116	628	1140	372	1652	1396	884	1908	
F6 117	629	1141	373	1653	1397	885	1909	
F7 118	630	1142	374	1654	1398	886	1910	
F8 119	631	1143	375	1655	1399	887	1911	
F9 120	632	1144	376	1656	1400	888	1912	

F10	121	633	1145	377	1657	1401	889	1913
F11	122	634	1146	378	1658	1402	890	1914
F12	123	635	1147	379	1659	1403	891	1915