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Seamless Exception Registry Flags

EXTENDED

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Preface

This document extends the Citrix Knowledge Base article "Seamless Exception Registry Flags – CTX101644" by combining it with the articles "Adding Multiple Window Class Names under one Registry Setting – CTX153088" and "Using Spy++ to discover a Window Class Name – CTX103137"
It was further extended by explaining the free utility Winspector, updating the currently available Server Seamless Engine Exception Registry Flags that can be used to control specific behaviour of an Application's Windows when run in an ICA Seamless Session and by listing all Citrix article about known seamless flags for specific applications.

Please note that the main article about seamless flags "*Seamless Exception Registry Flags – CTX101644*" is constantly updated by the Citrix support and should be revisit for latest addition to the seamless flags.
Sometimes it looks like there is a new flag available for a specific behaviour but is often only a combination of different seamless flags.

My intension was to publish ONE paper that describes all the needed information to find the right exception flag and the maybe related window Class Name.

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Citrix seamless application behaviour

Citrix had to implement a lot of "tricks" to get seamless windows to work. Unfortunately, not every application in the world is programmed in the same way or with the same development tools. To address this Citrix had to add support for certain non-standard windows behavior of applications.

Applications that don't perform quite right in seamless windows environments can be dealt with the Citrix Seamless Windows exception flags that are configured in the registry of the Presentation Server. There are currently 15 global and 7 application-specific flags that can be set in whatever combination is needed to make a particular application perform via seamless windows in a way that you want

Figuring out exactly which exception flag and options are needed can be tricky. You typically have to find the window's ClassName. The procedure of finding a ClassName is explained in the next part.

Here a quick example.
Delphi and also Borland applications might use a so called "transparent window" and therefore you might have issues with the Taskbar icon. If so, try the following registry key:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\TApplication] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** TApplication **Value Name:** Type **Value Type:** REG_DWORD **Value:** 0x00000016

Seamless Application termination

When ending a seamless application, the client engine sends the request to the server. WFShell terminates the applications that are running on the server. From the user's perspective the application window is closed. Unfortunately, due to additional programs that have been started or issues with WFShell, a server session will sometimes remain active on the server. This is usually not a Citrix problem when it happens, although Citrix did add a special seamless exception flag (LogoffCheckSysModules) to terminate those additional programs when it happens.

If this is something that you experience in your environment then you'll have to figure out which process prohibits the graceful session logoff from the server before you can set any registry keys.

How to find the "bad" process

Use the CMC to open the session properties of the stuck session and terminating the processes one-by-one until a graceful logoff occurs.
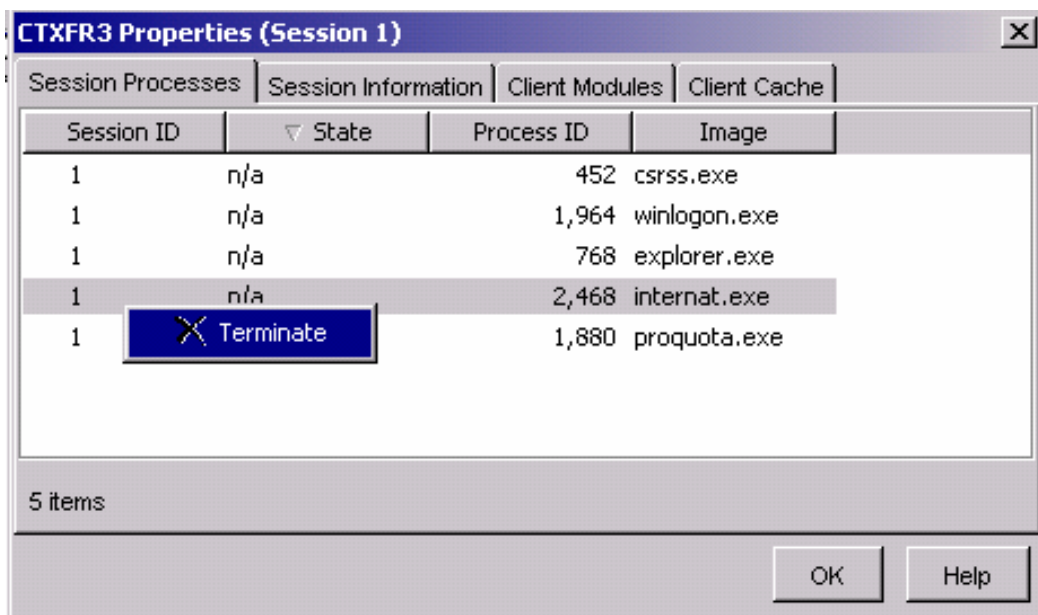
Once you figure out which process frees up the logoff (let's say it's "BadApp.exe") think about whether you really need that executable. If not, then delete it or uninstall the Application. If the executable is important then add the following registry key:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** LogoffCheckSysModules **Value Type:** REG_SZ **Value:** BadApp.exe
Note: Enter the list of executable names with a comma and NO spaces between them, for example: **App1.exe,app2.exe,app3.exe**

The Citrix article CTX891671 describes in more detail the logoff misbehaviour.

Finding a Class Name to set a seamless flag

To fix a seamless application issue it's sometimes needed to find a specific window Class Name to set the found Class Name as seamless exception flag. This chapter explains the use of two different utilities Spy++ and Winspector to find a windows Class Name.

Using SPY++

Spy++ (Spyxx.exe) is a Windows 32-based utility that gives you a graphical view of the systems processes, threads, windows, and window messages and is a tool included with Microsoft Visual studio. Spy++ is NOT free.
The following explanation about Spy++ is from the Citrix Knowledge Base article "Using Spy++ to discover a Window Class Name - CTX103137"

The following steps are used to discover a Window class name. This is required for resolving some seamless Windows issues.

  1. On the MetaFrame server desktop, launch the application window in question.

  2. Launch the Spy ++ application on the desktop of the MetaFrame server.

  3. Select the Find Window button (shown below).
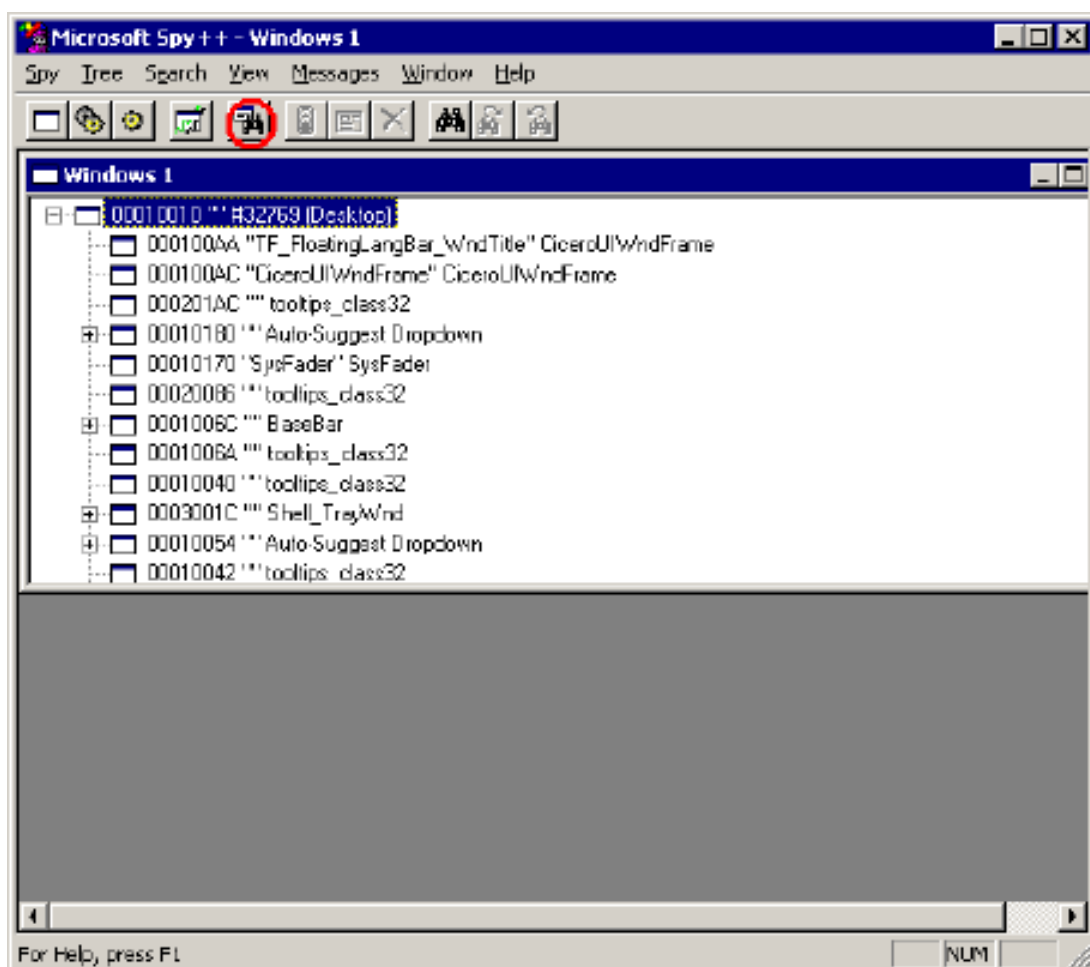
4. Click the Finder tool (as shown) and drag this over to the title bar of the window in question. The window is now outlined with a border.
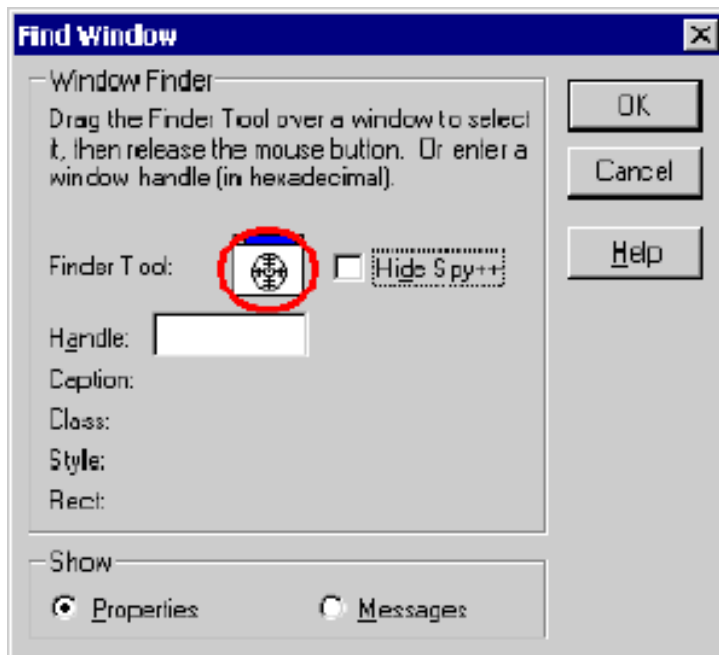
5. When you are done, click **OK** on the Find Window and the Windows Properties box appears.

6. Select the **Class** tab and note the Class Name

Using Winspector

Winspector is a free window Spy utility. Winspector has pretty much every feature Microsoft's Spy++ has but Winspector goes a lot further than Spy++
WinSpcetor and many other great utilities can be found in my 4GEResource Kit at
http://www.citrix4ge.de/tipps/4gereskit.htm

The following steps are used to discover a Window class name. This is required for resolving some seamless Windows issues.

     1. On the MetaFrame server desktop, launch the application window in question.

     2. Launch the Winspector application on the desktop of the MetaFrame server.

     3. Select under the view menu, Quick window info
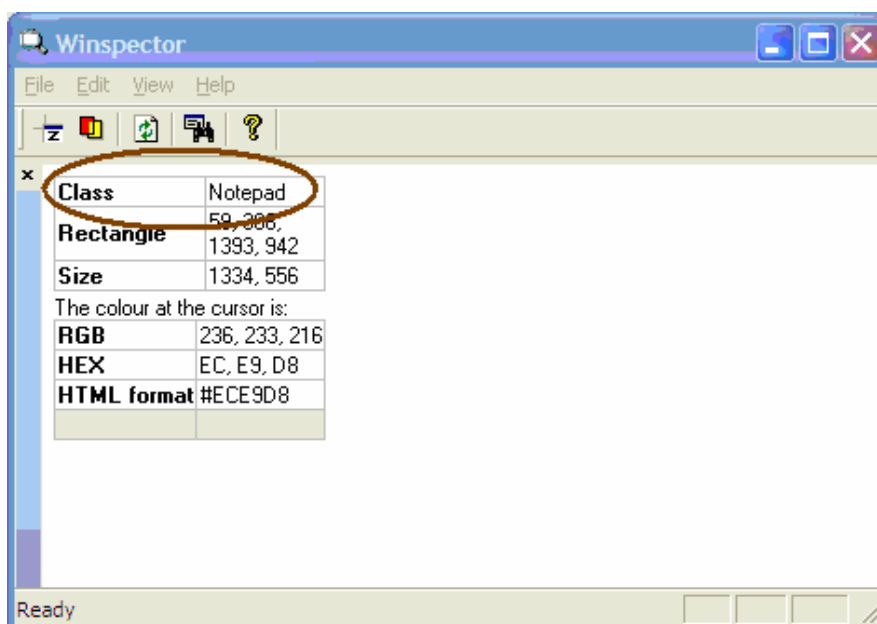
     5. When you are done, move the mouse over the application in question

     6. The **Class Name** is automatically displayed in the **Class** cell of Winspector

How to set window watches to see window messages

Sometimes it's also useful to watch the window messages that are send to a specific application. To enable a message watch in Winspector select in the edit menu "window class watches" and use the add button to add the window Class Name. Tick "Enable this watch" and "Window messages" as shown in the next picture
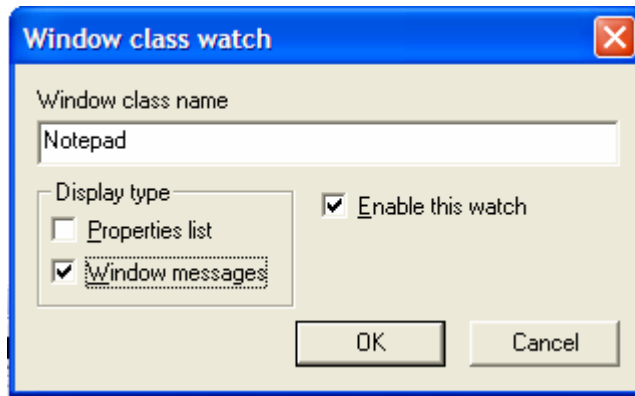
Then restart the application in question and a new window will show up in Winspector showing all window messages that are send to the application.
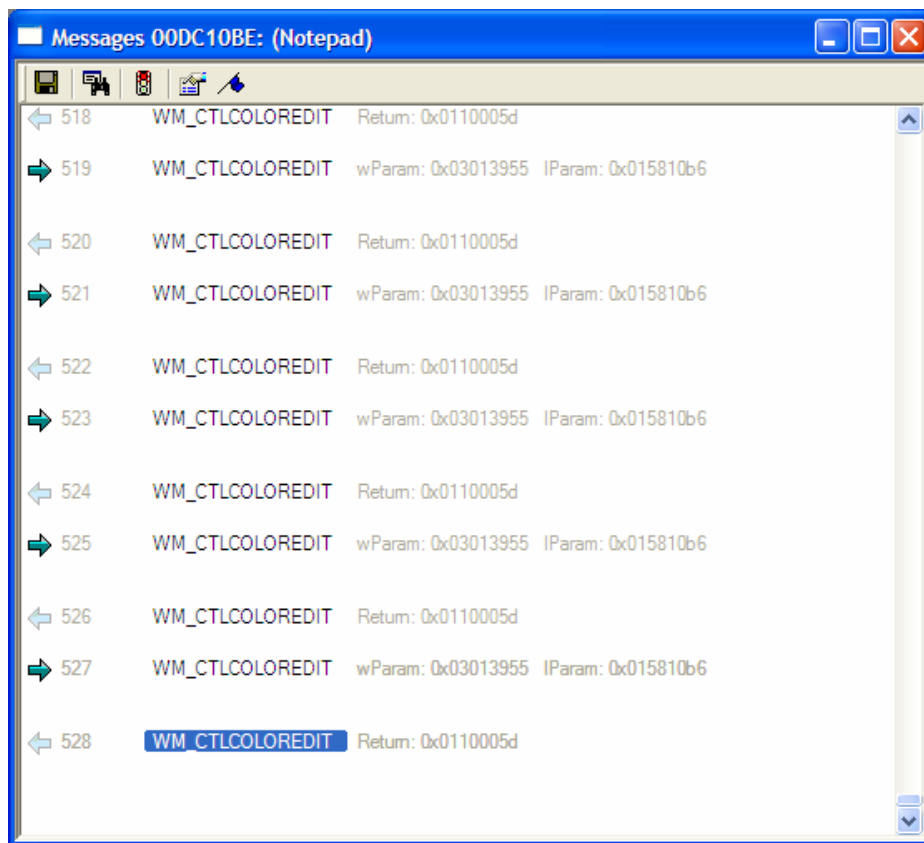
Global Registry Flags

These global registry values or in other words flags will affect all Seamless connections to a Citrix Server and requires changing the value of only one specific Registry key.
If more than one of these flags is needed, then add them together as follows:

For example to use Flags 0x1 and 0x200 below,
the value for SeamlessFlags would be **0x1 + 0x200 = 0x201**

Or if you wanted to use Flags 0x1, 0x200 and 0x400 then
the value for SeamlessFlags would be **0x001+0x200+0x400 = 0x601**

The following registry hive is the main key to set a global seamless exception flag

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Values:** 0x0001 – 0x4000
Note: See the points 1 through 13 for details on the specific Values that can be set

01. DISABLE SESSION SHARING

Value 0x1
Explanation: Determines if each Seamless connection to the server uses Session Sharing. Use this Flag to Disable Session Sharing. Without this Registry Value set, or setting this value to 0x0 enables Session Sharing.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x1**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

02. DISABLE MODALITY CHECK

Value: 0x2
Explanation: Specifies that the ICA client will not perform a Modality check. The owner window of a Modal Dialog can be moved, although input focus will remain on the Modal Dialog. This is useful when running an application such as PaintShop Pro Version 6 in a Seamless session.
Without this Registry Value set, or setting this value to 0x0 specifies that the ICA client will perform a Modality check on Seamless windows.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x2**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

03. DISABLE ACTIVE ACCESSIBILITY HOOK

Value: 0x4
Explanation: Determines if the Seamless Engine will load its Active Accessibility hook in a Seamless session. By default the Seamless Engine uses a technique called event hooking to monitor any changes made to an application's windows on the server and sends these changes to the ICA Client. Wfshell.exe loads the DLL, sehook20.dll.
Without this Registry Value set or setting this value to 0x0 specifies that Active Accessibility is enabled.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x4**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k, or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

04. SUPPORT ZERO SIZED WINDOWS

Value: 0x8
Explanation: Specifies that any applications that create zero-sized windows will be reported to the ICA client and will be re-created as zero-sized windows on the client. Some applications use zero-sized windows to enforce windows modality relationships.
Without this Registry Value set, or setting this value to 0x0 specifies that zero-sized windows will not be reported or created on the client.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x8**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

05. ENABLE COLOR SYNC

Value: 0x10
Explanation: Specifies that the Seamless session will inherit the client system color settings. This may cause problems with some applications when the color scheme used on the client is not fully supported by the server. Without this Registry Value set, or setting this value to 0x0 specifies that the Seamless session will not inherit the client system color settings.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x10**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

06. DISABLE SYSTRAY AGENT

Value: 0x20
Explanation: Specifies that the System Tray agent in a Seamless session will not be created. The System Tray agent allows an application that uses the System Tray, using the Shell_NotifyIcon API, to be sent to the ICA client's System Tray. Without this Registry Value set, or setting this value to 0x0 specifies that System Tray agent in a Seamless session will be created.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x20**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

07. DISABLE ICONIC WINDOWS

Value: 0x80
Explanation: Specifies that iconic windows will not be sent to the ICA client. This may improve performance slightly; however setting it can cause problems with applications such as MS Office when run in a Seamless session. For example, the application's icon may not be visible when it is minimized on the local Client Taskbar. Without this Registry Value set, or setting this value to 0x0, specifies that iconic windows are sent to the ICA client.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x80**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

08. DISABLE WM_QUERYDRAGICON MESSAGES

Value: 0x200
Explanation: Specifies that the Seamless engine will not send **WM_QUERYDRAGICON** messages to application windows to obtain the Icons associated with them. Without this Registry Value set, or setting this value to 0x0, the Seamless engine will send these messages to application windows to get the Icons associated with them.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x200**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

09. FORCE RAW MOUSE EVENTS TO SERVER

Value: 0x400
Explanation: Specifies that the ICA client will send raw mouse event messages to the server. This is useful, when running an application developed using the Borland IDE, which allows the creation of dialog boxes that behave like a modal dialog box, but its parent window still responds to certain types of window messages, like **WM_SETFOCUS**. Without this Registry Value set, or setting this value to 0x0, specifies that the ICA client will send regular translated mouse event messages to the server.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x400**
Required: ICA Win32 Client version 6.31 or later - MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3, MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

10. DISABLE FULL WINDOW DRAG

Value: 0x800
Explanation: Specifies that the Windows feature "Full Window Drag" can be disabled. This may be necessary for some non-standard applications. Without this Registry Value set, or setting this value to 0x0 specifies this Windows feature is enabled.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x800**
Required: MF XP 1.0 SP3 for Win2k or Win2k3, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

11. FORCE MENU WINDOW TO HAVE OWNER

Value: 0x1000
Explanation: Specifies that Menu Windows will always be re-created on the ICA client with an owner window.
Closing nested popup menus in a seamless session sometimes caused an application to lose focus when the seamless session was displayed on a Windows NT 4.0-based system. Menus that are created as a regular window using the CreateWindow API did not always adhere to top level window changes correctly

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x1000**
Required: International versions of MF XP SP3 for Win2k or Win2k3, Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

12. DISABLE SHELL HOOK AGENT

Value: 0x2000
Explanation: Instant Messenger type programs commonly use the FlashWindow() API to flash the taskbar button to alert users of incoming messages. After applying the updates listed below in the 'Required' section, support for the FlashWindow() API is added and turned on by default.

Setting the Global Seamless registry value (0x2000) disables this default behaviour.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x2000**
Required: Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

13. DISABLE CLIENT INFO SYNC

Value: 0x4000
Explanation: Some custom applications that did not display properly when running on Windows XP/2000 with the Windows XP Theme enabled sometimes saw the same behavior when running as a seamless application on MetaFrame XP Feature Release 3 on Windows 2003 that does not have the Windows XP Theme enabled. For example, the title bar of the application is larger in height.

Starting with MetaFrame XP Feature Release 3 for Windows 2000/2003, the server seamless engine has extended support for certain window style properties of the workstation where the seamless application is running; for example, the styles generated by Windows XP Themes.

This new seamless global registry flag, when set, instructs the server-side seamless engine not to read certain client workstation window style information. Setting the following server-side registry key to instruct the server seamless engine not to synchronize with the client's window style that pertains to those representatives of the Windows XP Theme.
Custom applications that do not display properly when running on Windows XP/2000 with the Windows XP Theme enabled can be run in a seamless session from a workstation that has the Windows XP Theme enabled and be displayed using the Windows Classic style.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** SeamlessFlags **Value Type:** REG_DWORD **Value: 0x4000**
Required: Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k with Hotfix MPSE300W2K006 or later, MPS 3.0 for Win2k3 with Hotfix MPSE300W2K3017 or later.

Special Global Registry Flags

01. Logoff Check

Explanation: Some published applications may not exit properly. For example, an application may have an open registry key or there could be a problem with a Citrix function such as Wfshell.

As a **workaround**, add the process file name to the following registry key:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** LogoffCheckSysModules **Value Type:** REG_SZ **Value String:** MyAppName.exe
NOTE: Enter the list of executable names with a comma and **NO** spaces between them. For example:**App1.exe,app2.exe,app3.exe**
Required: MetaFrame XP Service Pack 2 for Windows 2000 and Terminal Server 4.0 and on MetaFrame 1.8 Service Pack 3 for Windows 2000 and Terminal Server 4.0 with the respective hotfixes ME183W030 and ME183T032, or their equivalents.

02. Intervals for Logoff Check

Explanation: When launching certain published applications, the session was logged off before the application was started. The issue occurred if both session and application startup took several seconds. This fix adds support for a registry setting to configure the time allotted before checking to determine if the session should be logged out because no more user processes exist.

To do this, must set the following registry key:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** IntervalsForLogoffCheck **Value Type:** REG_DWORD **Value:** *<time, in milliseconds*; for example: 5000 for 5 seconds>
Required: Post MF SP3 English Hotfix XE103W2K3047 for Win2k3

03. Job Object

Explanation: If a published application was a program that created a new process and then terminated itself, the published application appeared in the Management Console for MetaFrame XP. However, in a seamless session the application was launched through session sharing, the application appeared in the Management Console but then disappeared.

By default, the thread that checks the process cares about only the first instance of the launched process. The thread regarded the published application as terminated when the first instance of the process was terminated even if that process created a separate process.

This update provides a way to configure those published applications to use the JOB object so that additional processes created by the initial process are considered as published applications.

For this update to work properly, you need to perform the following steps:
If the command line of the published application is [ApplicationPath], go to the following registry key and make changes as necessary:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\StartInJobObject] **Value Name:** [ApplicationPath] **Value Type:** REG_DWORD **Value: 0x0**

For example, if the command line specified for the published application is **c:\notepad.cmd**, go to the following registry key and make changes as necessary:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\StartInJobObject] **Value Name:** c:\notepad.cmd **Value Type:** REG_DWORD **Value: 0x0**
Required: Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k, MPS 3.0 for Win2k3

For those applications whose command line is specified in the StartInJobObject key, the published application will not disappear from the Management Console until all of the processes created by the process are terminated.

04. Worker Wait Interval

Explanation: This update addresses a custom application's performance when run seamlessly. Some applications appeared to be slower to respond when performing actions such as moving, resizing, or closing windows. This fix introduces two new registry settings that allow administrators to configure an explicit time interval for the seamless engine mechanism to monitor when changes take place in the seamless applications.

Create the following two registry keys:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** WorkerWaitInterval **Value Type:** REG_DWORD **Value:** <Number of milliseconds allowed> (Values are between 5 – 500; the default is 50.)
Required: Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k with Hotfix MPSE300W2K006 or later, MPS 3.0 for Win2k3 with Hotfix MPSE300W2K3017 or later.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI] **Value Name:** WorkerFullCheckInterval **Value Type:** REG_DWORD **Value:** <Number of milliseconds allowed> (Values are between 50 – 5000; the default is 500.)
Required: Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k with Hotfix MPSE300W2K006 or later, MPS 3.0 for Win2k3 with Hotfix MPSE300W2K3017 or later.

For both values, a larger size slows responsiveness but improves scalability; a smaller size increases responsiveness but decreases scalability slightly. The level of scalability depends on several factors, such as hardware sizing, types of applications, network performance, and number of users.

Registry Flags Per Specified Window

These Flags are used to single out a specific Window of an Application that may need to be handled differently by the Seamless Engine. To determine the Class Name of a Window, use SPY ++ from Microsoft Visual Studio or the free tool Winspector.
See "Finding a Class Name to set a seamless flag" later on that explains the use of Spy++ and Winspector

Specifying a Seamless exception flag for a specific application window consists of creating a registry key that is the same name as the Window Class Name and adding 2 Value Names, Type and ClassName, each with their own value.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>]   **Value Name:** ClassName   **Value Type:** REG_SZ   **Value:** <WindowClassName>   **Value Name:** Type   **Value Type:** REG_DWORD   **Values:** 0x8 – 0x200
Note: See the points 1 through 07 for details on the specific Values that can be set

Specifying more than one Exception Flag for a window.

If more than one of these flags are needed for a specific window, then add them together as follows.

For example to use Flags 0x8 and 0x10
then the value would be **0x8 + 0x10 = 0x18**

Steps to Add Per Specified Window Exception Flags:

a) Run Regedit
b) Go to HKLM/System/CurrentControlSet/Control/Citrix/wfshell/TWI
c) Highlight the TWI Key, then from the Edit Menu select New, then Key.
d) Enter, <WindowClassName> for the Key Name.
e) Highlight the newly created <WindowClassName> Subkey.
f) From the Edit Menu, select New, then String Value.
g) Enter, ClassName for the Value Name.
h) Double-click on the Value Name, Enter the <WindowClassName> for the Value data.
i) Highlight the <WindowClassName> in the left pane.
j) From the Edit Menu select New, then DWORD value.
k) Enter, Type for the Value Name.
l) Double-click on the Value Name, Enter the < Hex number for the Exception Flag > for the Value data.

Adding Multiple Window Class Names under one Registry Setting

When a window is created on a Microsoft Windows Operating System, one of the attributes is the "class name" of the window. For most applications and their windows, this is usually only a few names. However, in certain development environments such as Delphi, each form or window has the ability to have its own unique class name. To flag a particular window to notify the seamless engine to treat it a certain way, you need to create a registry setting that identifies the window by its class name. It is not possible to hard-code a class name. If each window has a different class name, each requires a registry entry. The only exception to this rule is if all the class names of the windows that need to be entered into the registry have the same first few characters; then you can create one registry setting for all of them as follows:

Example: In the case of AutoCad2000i, the main window class name changes in every instance like the following:

Afx:400000:8:10008:0:10537
Afx:400000:8:10008:0:10539
Afx:400000:8:10008:0:10541

The first several strings do not change.

To make a single registry entry for multiple class names for AutoCad2000i, add the following to the registry:

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\Afx:400000:8:1] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** Afx:400000:8:1 **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x00000040** **Value Name:** Method **Value Type:** REG_DWORD **Value: 0x00000001**

Creating a .Reg File

If a registry Flag needs to be created on many Servers, then it might be worthwhile to create it first on one server, then export the registry key as a .Reg file which can then be easily executed on the other servers. To export a .Reg file, Select Export from the Regedit File menu.

01. WINDOW ALWAYS VISIBLE

Value: 0x8
Explanation: For performance reasons, invisible windows that are created are not re-created on the ICA client. Setting this flag for a specified window enables it to be re-created on the ICA client.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x8**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

02. WINDOW SIZE AND LOCATION NOT CHECKED

Value: 0x10
Explanation: For performance reasons, windows that are created with a Zero window size or created outside of the Desktop area, are not re-created on the ICA client. Setting this flag for such a specified window enables it to be re-created on the ICA client.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x10**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

03. USE OWNER WINDOW INSTEAD OF PARENT

Value: 0x20
Explanation: Enabling this flag specifies that the Owner window of the window specified will be determined by using the GW_OWNER parameter instead of the GWL_HWNDPARENT parameter. This may be necessary if some application windows do not use the same window as both the Parent and Owner window.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x20**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3- MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

04. USE GETPARENT API

Value: 0x40
Explanation: Setting this value to a window enables the Seamless engine to use the GetParent API to get the Owner of the specified window.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x40**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

05. *SET AS INDEPENDENT WINDOW*

Value: 0x80
Explanation: Setting this value to a window enables the Seamless engine to send the specified window as an independent window (no parent, no owner).

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x80**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

06. *SEND NO ICON CHANGES*

Value: 0x100
Explanation: Setting this value to a window enables the Seamless engine not to send WM_GETICON or WM_QUERYDRAGICON messages to the specified window. This may cause some applications to have a generic Icon displayed on the Local ICA client Taskbar instead of its own.

Registry Key
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>] **Value Name:** ClassName **Value Type:** REG_SZ **Value:** <WindowClassName> **Value Name:** Type **Value Type:** REG_DWORD **Value: 0x100**
Required: MF 1.8 SP4 for TSE - MF 1.8 SP4 for Win2K - MF XP 1.0 SP3 for Win2k or Win2k3 - MF XP 1.0 SP2 for TSE, MPS 3.0 for Win2k, MPS 3.0 for Win2k3.

07. DO NOT REQUEST SMALL ICON

Value: 0x200
Explanation: Setting this value to a window, will direct the Server Seamless Engine to not request the small Icon associated with that window. This may be needed for application windows that alternate between different Icons while running that are not displaying the different Icons when run Seamlessly.

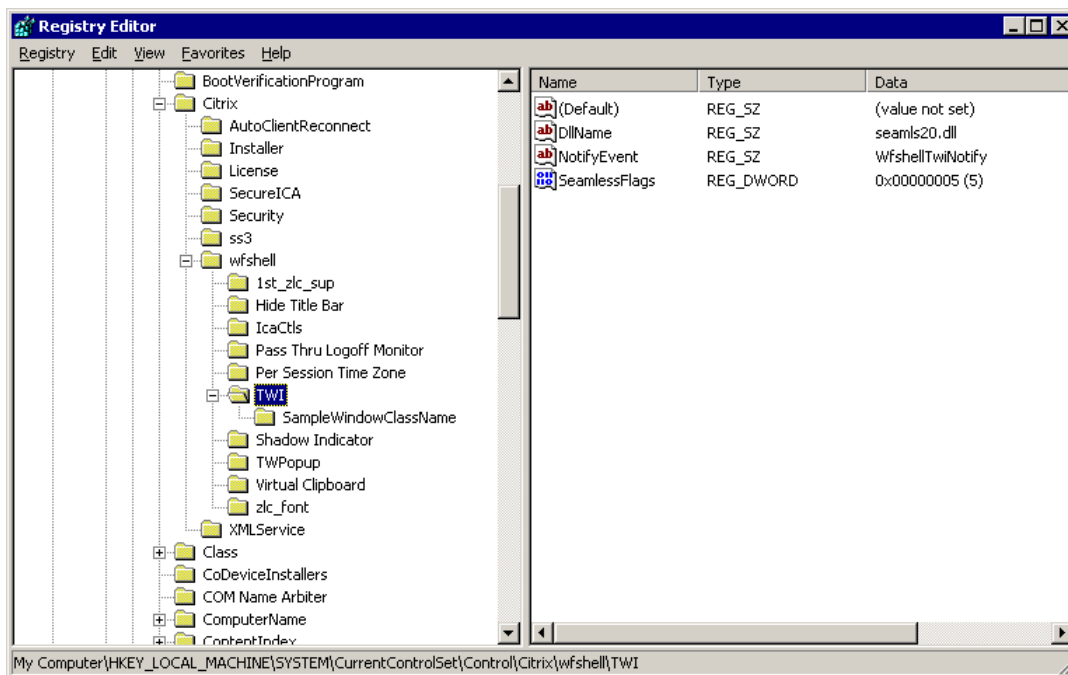| Registry Key |
| --- |
| [HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Citrix\wfshell\TWI\<WindowClassName>]
Value Name: ClassName
Value Type: REG_SZ
Value: <WindowClassName>

Value Name: Type
Value Type: REG_DWORD
Value: 0x200 |
| **Required:**
Post MF XP SP3 English Hotfix XE103W2K126 for Win2k or later, post MF XP SP3 English Hotfix XE103W2K3037 for Win2k3 or later, MPS 3.0 for Win2k, MPS 3.0 for Win2k3. |

Adding Global Seamless Exception Flags Graphic

Adding Specific Window Seamless Exception Flags Graphic.
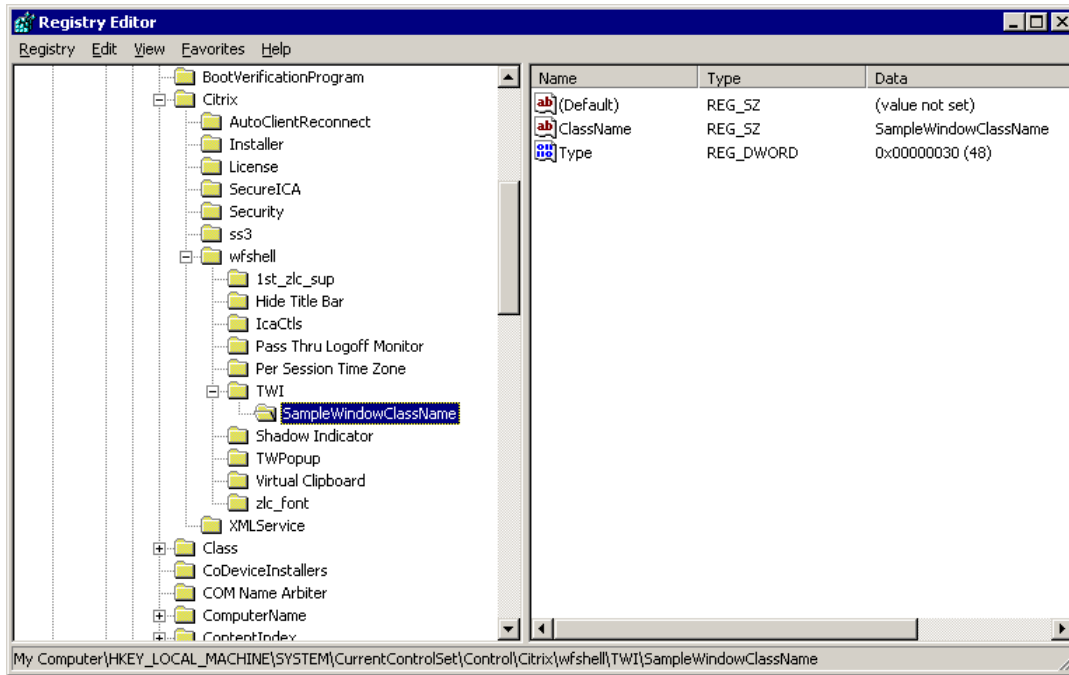
Known flags for Applications

- Disabled Icons do not Appear in a **JDEdwards One World** Seamless Application
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX103956
- Seamless Issue with **Scala ERP** Application
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX104302
- **Password Manager Agent** remains active after a graceful logoff
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX103640
- Seamless Custom **Power Builder** Applications May Flash
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX301090
- Minimized **Microsoft Office XP Applications** Disappear from Task Bar
  in MetaFrame 1.8 with Service Pack 3 Installed
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX581454
- Published Applications do not Appear in the **Citrix Management Console**
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX102683
- A seamless Computer Associates **Client Manager Ver. 6.5** may Dr. Watson
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX101950
- **Error**: Not Enough System Resources to Create Window
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX785377
- Seamless Focus Problems with **Borland Applications**
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX019171
- When running Microsoft **Windows Messenger 4.7** through a seamless
  ICA session, intermittently, the ICA session drops
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX104635
- MetaFrame and **SAP R/3**
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX163533
- Installation guide -- **SAPGUI 6.20** on MetaFrame
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX102297
- Error: " Run-Time-2147220503 "with **VB 5.0 Application** Running Seamlessly
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX908459
- Seamless engine needs the window owner with **AutoCad 2000i**
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX153088
- Published Applications do not Appear in the **Citrix Management Console**
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX102683
- Microsoft **Word 2000**, the **AutoText ToolTip** window occasionally
  disappeared for several seconds
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX101908
- Seamless Applications Do Not Respond to **Task Bar** Functions
  http://ctxex10.citrix.com/kb/entry.jspa?externalID=CTX552428
- Seamless Applications Cover the **Local Taskbar** on Windows 2000 or
  XP Professional Computers when Auto Hide the Local Taskbar is Selected
  http://support.citrix.com/kb/entry.jspa?externalID=CTX821811
- New Instances of **Excel Books** do not Display on the **Local Taskbar**
  http://support.citrix.com/kb/entry.jspa?externalID=CTX101598
- **PaintShop Pro Version 6** in a Seamless session
  http://support.citrix.com/kb/entry.jspa?externalID=CTX101644