Tech Note 591
Avoiding Memory Leaks When Using aaHistClientTrend ActiveX Control with InTouch®

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Introduction

Using the **aaHistClientTrend** ActiveX control in an InTouch stand-alone application can begin a memory leak. Every time the container's window of the ActiveX control is opened and closed, the memory usage of the **View.exe** application increases.

Application Versions

- InTouch 9.5
- InTouch 10.0

Monitoring the Memory Leak

You can easily confirm the Usage from the **Processes** tab of Windows Task Manager, or you can trace the log using Performance Monitor.

Task Manager View

Figure 1 (below) shows the memory leak in Windows Task Manager:

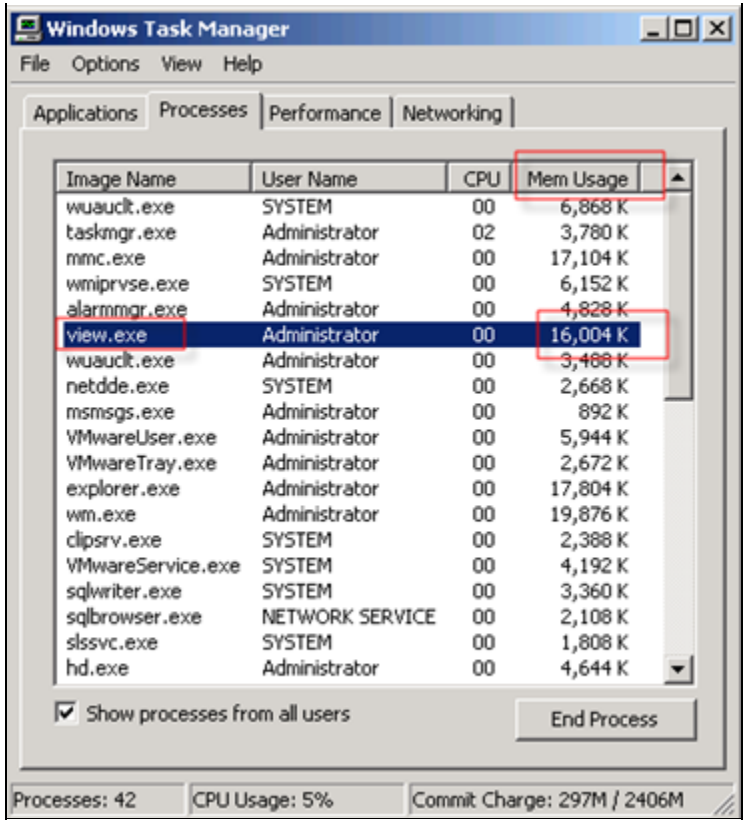

FIGURE 1: WINDOWS TASK MANAGER / VIEW.EXE

Windows Performance Monitor View

1. Open the Windows Performance Monitor (**Control Panel / Administrative Tools / Performance**).
2. Right-click anywhere on the graph panel.
3. Click **Add Counters** and click **Private Bytes > Process View.exe**.

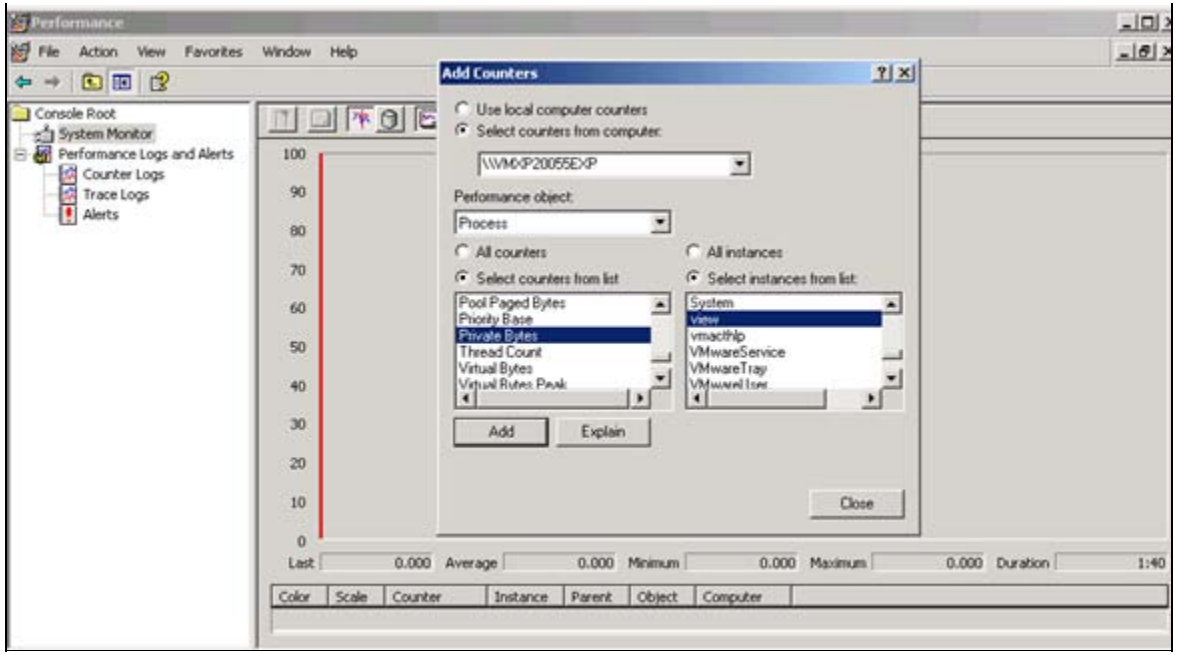

Figure 2: Add View Performance Counters

4. Click **Close**.

Explanation

The reason for InTouch application crashing is related to a Graphic Device Interface (GDI) Objects leak where the application does not have enough resources for screen painting. The problem is caused by a bug in the RuntimeCallableWrapper of .NET 1.1. The Garbage Collector (GC) part of .NET Framework is supposed to take care of the memory release automatically when the memory is no longer used. When the Garbage Collector runs it releases all the allocated objects from memory if, *and only if,* the objects are not referenced by any other objects. The GC is specifically designed for .NET applications. ActiveFactory controls such as aaHistClientTrend are .NET controls with an ActiveX wrapper. In the case of .NET 1.1, the Garbage Collector isn't called properly.

Solution

If you have a memory leak issue related to aaHistClientTrend ActiveX control you can do one of the following:

- You can use an InTouch script to periodically run the Garbage Collector manually. Copy/paste the following into an InTouch script editor:

```
OLE_CreateObject(%GC,"ArchestrA.HistClient.Util.ManagedMemoryManager");
%GC.CollectAndWaitForFinalize();
OLE_ReleaseObject(%GC);
```

- Wonderware developed Hot Fix **CR00072418** (ActiveFactory 9.2 + InTouch v10.0) to use the Garbage Collector properly.

If you need further assistance with this issue, contact Wonderware Technical Support to request this Hot Fix.

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