ES PROCESS ENGINE USER MANUAL

Overview

ES Process Engine is a process management utility that allows a user to have quick control over operating system processes. There are two main types of control: stopping (killing/destroying) a process and starting (executing/launching) a process. The engine has several mechanisms to accommodate the needs of the user in these regards.

The engine can be configured via GUI (Graphical User Interface) or with its XML files (for advanced users or in a business environment).

Process Engine Settings

All configuration settings for the engine come from an XML file. The default file is called 'Process Engine.xml' and can be found in the installation directory. The settings can either be configured through the XML file or the graphical user interface (preferred way). Figures 1-6 are sample screenshots of the graphical user interface settings dialog.
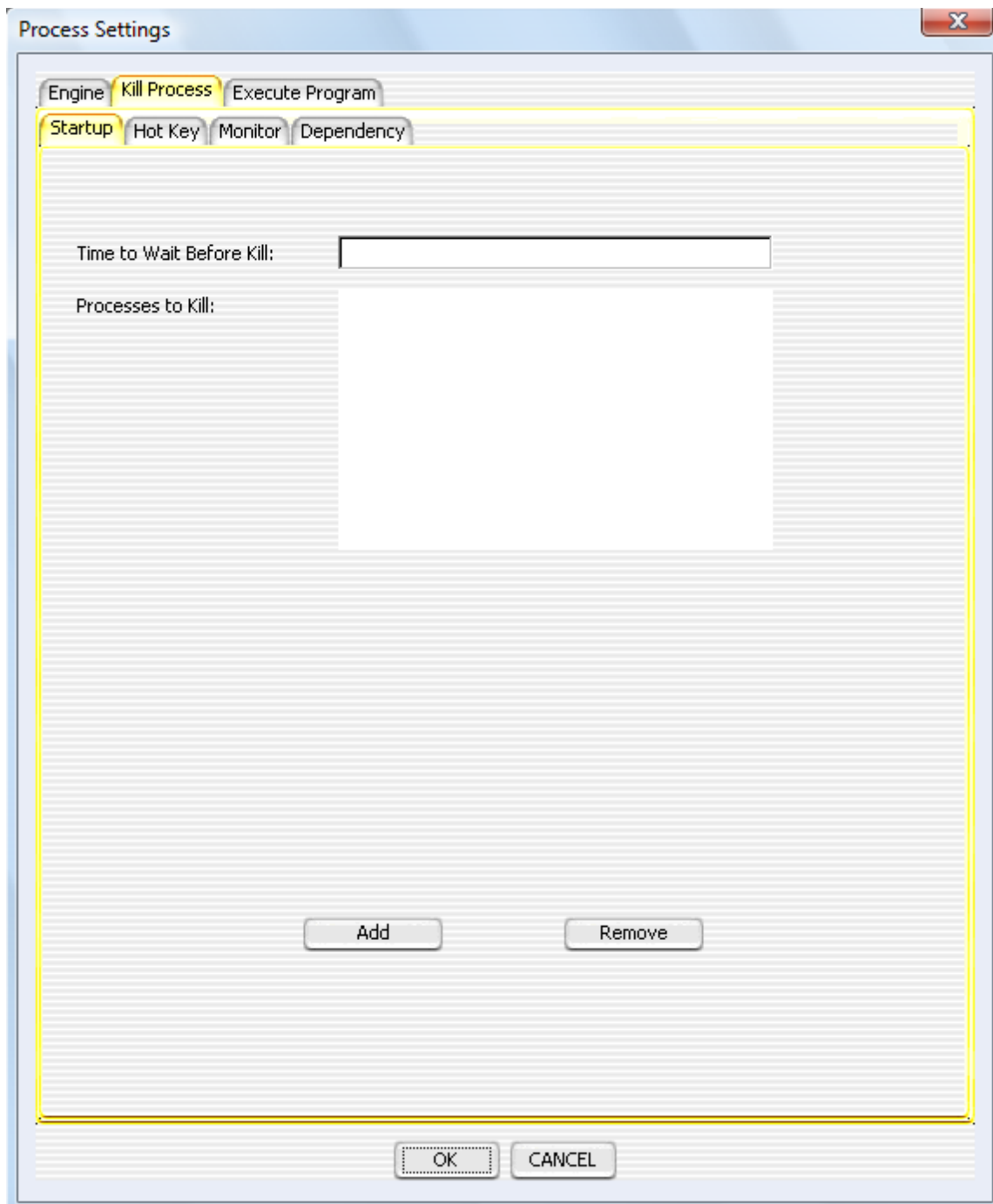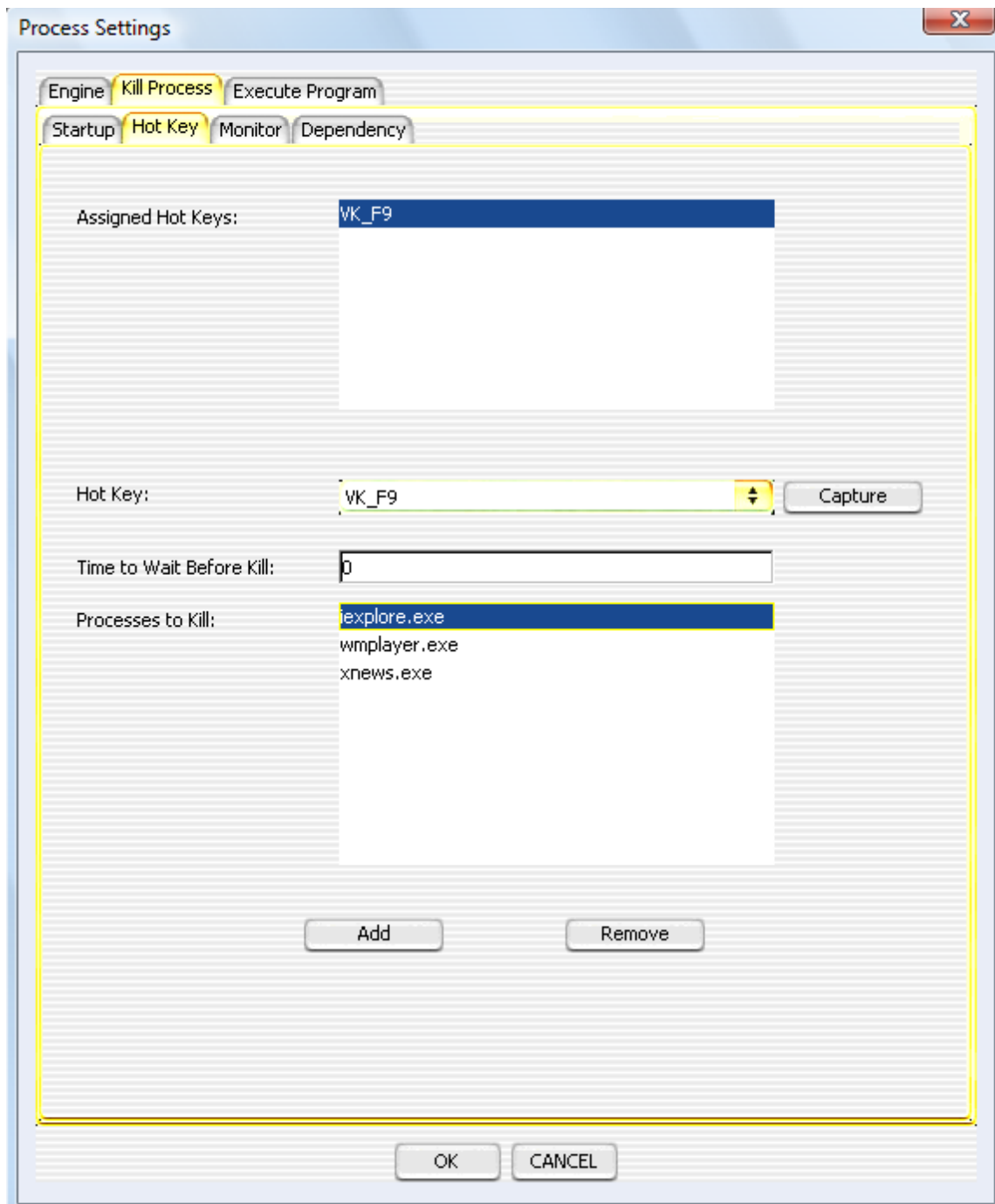
FIGURE 1

FIGURE 2
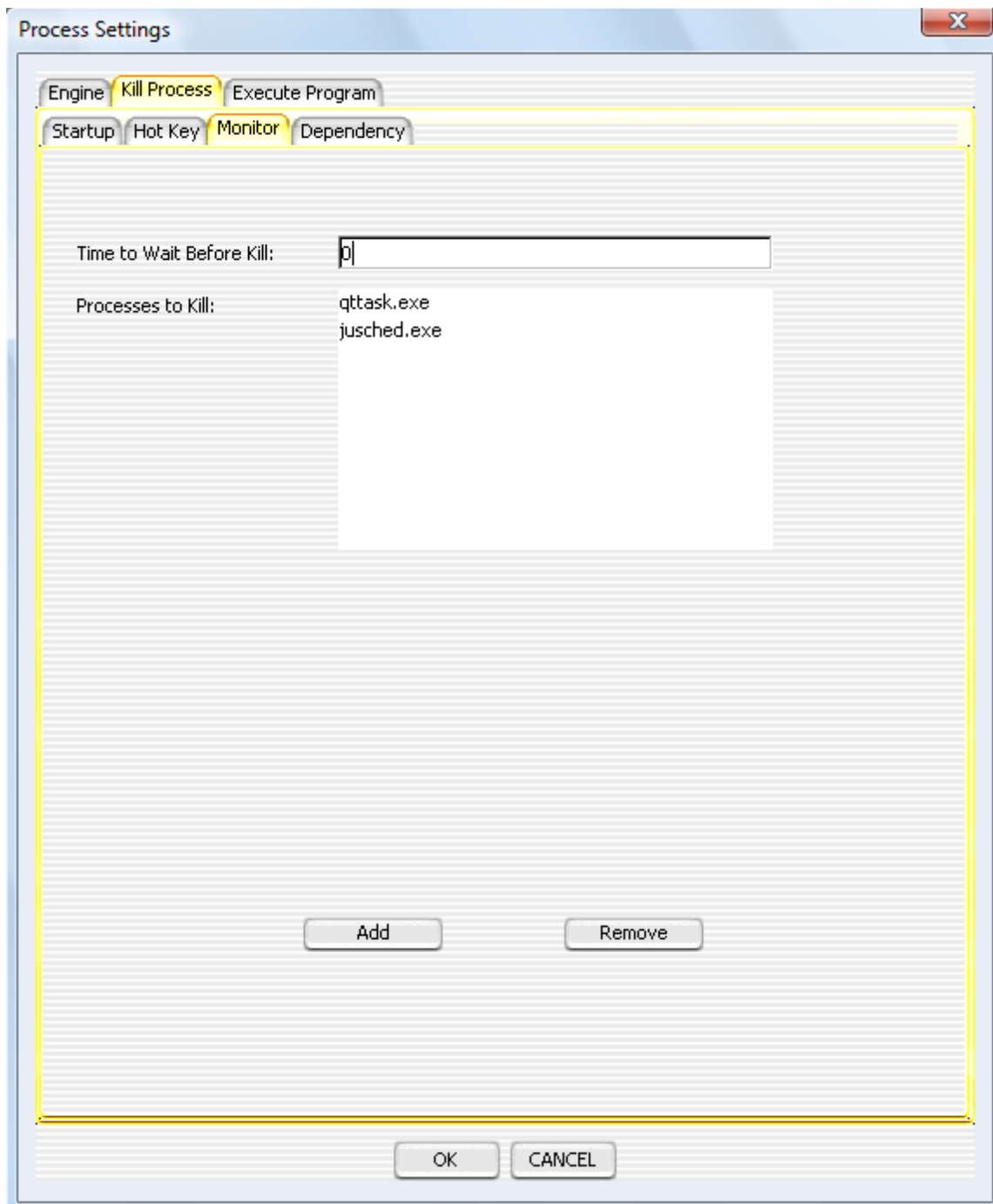
FIGURE 3

Process Settings

Engine | Kill Process | Execute Program

Startup | Hot Key | Monitor | Dependency

Time to Wait Before Kill: 0

Processes to Kill:
qttask.exe
jusched.exe

Add   Remove

OK   CANCEL

FIGURE 4

Process Settings

Engine | **Kill Process** | Execute Program

Startup | Hot Key | Monitor | **Dependency**

Process Dependencies:
mediaserver.exe

Dependency Process:
mediaserver.exe

Time to Wait Before Kill:
0

Processes to Kill:
FreeCell.exe
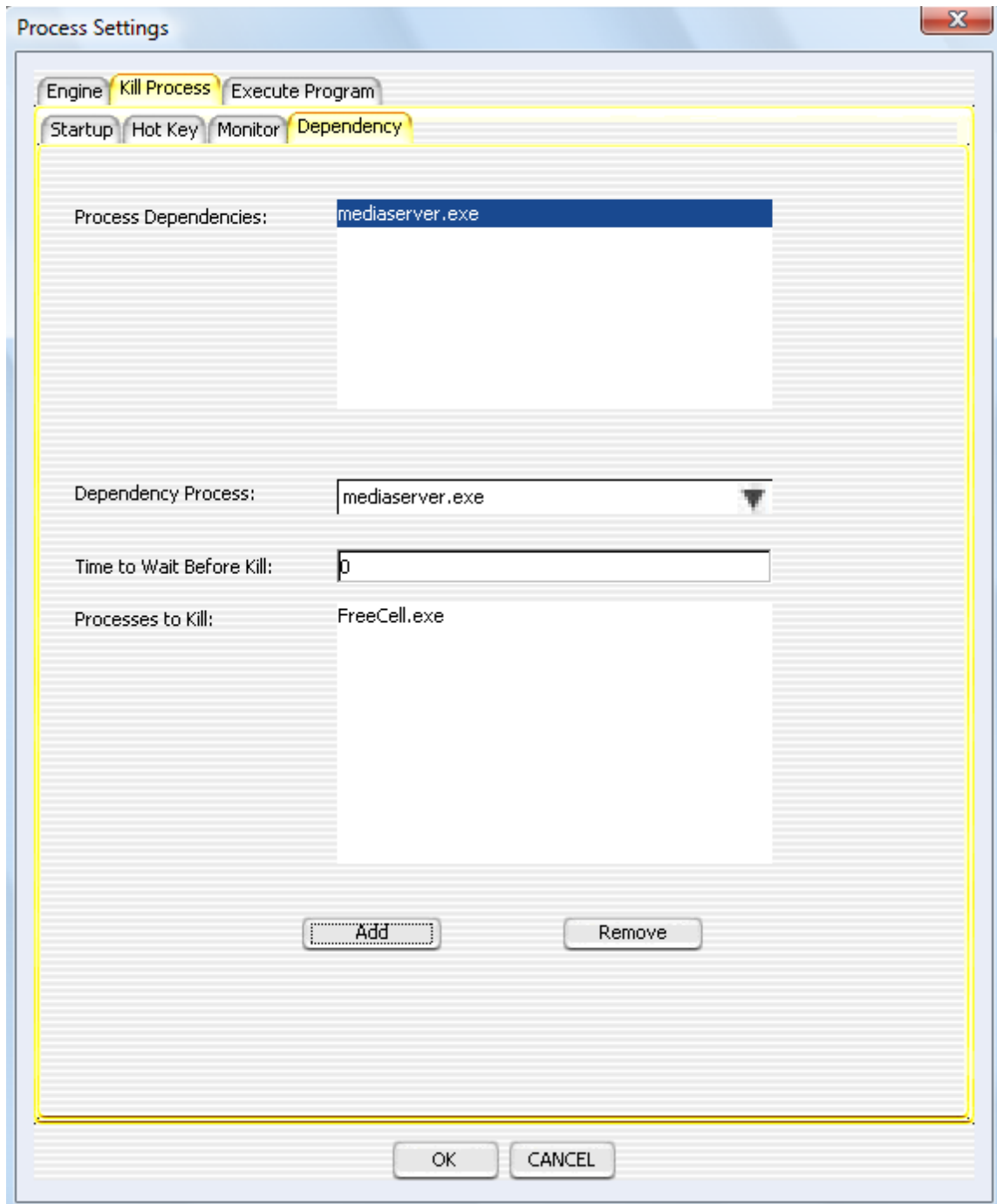
Add   Remove

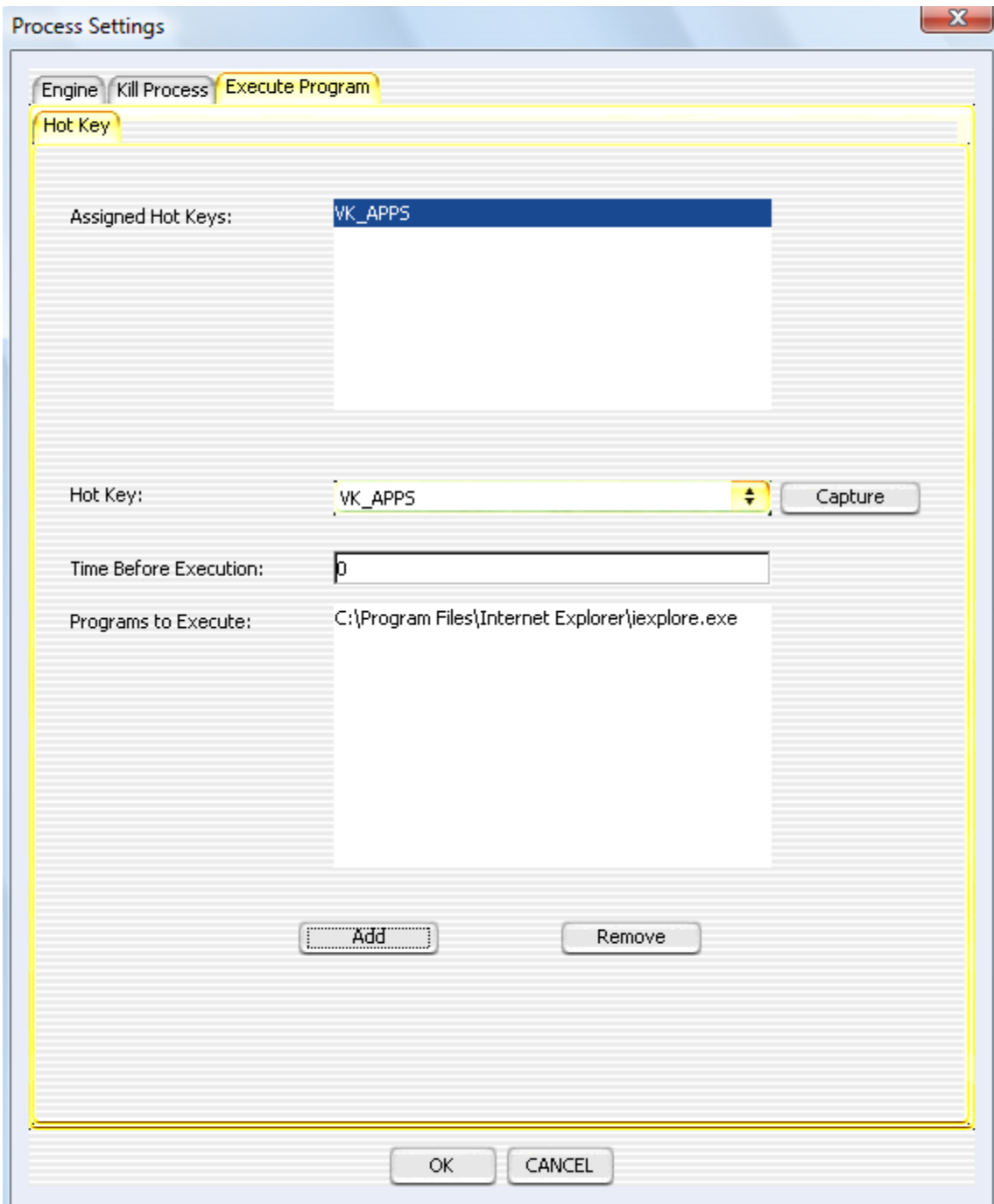OK   CANCEL

FIGURE 5

FIGURE 6

The following is a list of the various settings and what they mean (GUI name with XML tag name in parenthesis):

Engine Tab (Figure 1)

1)   GUI Hot Key (guiHotKey) – If set, and if the engine is running, hitting this hotkey will cause the process kill dialog to display.

Kill Process->Startup Tab (Figure 2)

2)   Time to Wait Before Kill (timeToWait) – This is the number of milliseconds to wait before performing the kill.
3)   Processes to Kill (processes) – This is the list of executable process names to kill. The engine requires the actual file name of the process. For example: 'iexplore.exe', 'winword.exe', etc. The first refers to Microsoft Internet Explorer and the second refers to Microsoft Word.

Kill Process->Hot Key Tab (Figure 3)

4)   Assigned Hot Keys (hotKeyProcesses) – These are all the assigned hot keys that if pressed, will perform a kill action.
5)   Hot Key (hotKey) – The specific hot key to currently view settings for. By changing this value from the GUI, the list of processes assigned will refresh. It also allows one to add/remove from the list.
6)   Time to Wait Before Kill (timeToWait) – This is the number of milliseconds to wait before performing the kill.
7)   Processes to Kill (processes) – These are the processes that will be killed according to what hot key is currently selected in the 'Hot Key' combo box.

Kill Process->Monitor Tab (Figure 4)

8)   Time to Wait Before Kill (timeToWait) – This is the number of milliseconds to wait before performing the kill upon detection of the process.
9)   Processes to Kill (processesToMonitor) – These are the processes that will be monitored continually by the engine. If a process is found, it is shutdown. The engine will continue to shutdown any found processes in this list indefinately.

Kill Process->Dependency Tab (Figure 5)

10)   Process Dependencies (processDependenciesToMonitor) – This is the list of all process dependencies to monitor. If one of these processes is found to be executing, any of the processes specified in the associated list will be killed. These processes are continually looked for by the engine.
11)   Dependency Process (dependencyProcess) – The specific dependency process to currently view settings for. By changing this value from the GUI, the list of processes assigned will refresh. It also allows one to add/remove from the list.
12)   Time to Wait Before Kill (timeToWait) – This is the number of milliseconds to wait before performing the kill upon detection of the process.
13)   Processes to Kill (processesToMonitor) – These are the processes that will be killed if the associated dependency process is found to be running.

These processes will also be prevented from running because they will be detected and shutdown as they are started.

Execute Program->Hot Key Tab (Figure 6)

14) Assigned Hot Keys (hotKeyPrograms) – These are all the assigned hot keys that if pressed, will perform an execute action.
15) Hot Key (hotKey) – The specific hot key to currently view settings for. By changing this value from the GUI, the list of programs assigned will refresh. It also allows one to add/remove from the list.
16) Time to Wait Before Execution (timeToWait) – This is the number of milliseconds to wait before performing the execute.
17) Programs to Execute (program) – These are the programs that will be executed according to what hot key is currently selected in the 'Hot Key' combo box.

INI File Settings

The INI files are currently used by the Windows exe files and should only be modified by advanced users. The following is an example of the contents of the 'ES_PROCESS_ENGINE.INI' file:

[Options]
; This should be the full path and filename of the jar file.
JarFilePath=c:\Program Files\EverlastSoftware\ES Process Engine\es_
process_engine.jar;c:\Program Files\EverlastSoftware\ES Process
Engine\activation.jar;c:\Program Files\EverlastSoftware\ES Process
Engine\es_lookandfeel.jar

; This should be the full path and file prefix of configuration information
ConfigFilePath=c:\Program Files\EverlastSoftware\ES Process Engine\Process
Engine

; This should be the name of the class to run
JavaClass=com.everlast.process.ProcessEngine

JVMParameter=-Xmx512M

The 'JarFilePath' should be altered if the jar files are being moved somewhere else (or copies exist somewhere else) besides the installation directory.

'ConfigFilePath' is the XML file to use (minus '.xml' for the real filename). For example, if the real file was 'Nightly Backup Run.xml', the 'ConfigFilePath' would read 'Nightly Backup Run'.

'JavaClass' is the ProcessEngine and should never change.

'JVMParameter' can be any number of parameters to pass to the Java Virtual Machine on startup. If a particular parameter is wanted, simply insert/modify it here.

XML Section Examples

The following are examples of excerpts from the 'Process Engine.xml' file. Each type of function is in its own section in the XML file directly inside the '`<com.everlast.process.ProcessEngineInitializer>`' and '`</com.everlast.process.ProcessEngineInitializer>`' tags.

Kill on Startup

Killing a single process (Internet Explorer) on startup:

```
<processes>
  <processEvents>
    <com.everlast.process.ProcessDirectKillObject>
      <processes>
        <string>iexplore.exe</string>
      </processes>
      <timeToWait>0</timeToWait>
    </com.everlast.process.ProcessDirectKillObject>
  </processEvents>
</processes>
```

Killing two processes (Internet Explorer and Notepad) 1.5 seconds after startup:

```
<processes>
  <processEvents>
    <com.everlast.process.ProcessDirectKillObject>
      <processes>
        <string>iexplore.exe</string>
        <string>notepad.exe</string>
      </processes>
      <timeToWait>1500</timeToWait>
    </com.everlast.process.ProcessDirectKillObject>
  </processEvents>
</processes>
```

Kill by Hot Key

Killing a single process (Internet Explorer) when pressing the F8 key:

```
<hotKeyProcesses>
  <processEvents>
    <com.everlast.process.ProcessHotKeyKillObject>
      <hotKey>VK_F8</hotKey>
      <processes>
        <string>iexplore.exe</string>
      </processes>
      <timeToWait>0</timeToWait>
    </com.everlast.process.ProcessHotKeyKillObject>
  </processEvents>
</hotKeyProcesses>
```

Killing one process on a hot key (~) and two more processes on a different hot key (Scroll Lock):

```
<hotKeyProcesses>
  <processEvents>
    <com.everlast.process.ProcessHotKeyKillObject>
      <hotKey>VK_OEM_3</hotKey>
      <processes>
        <string>iexplore.exe</string>
      </processes>
      <timeToWait>0</timeToWait>
    </com.everlast.process.ProcessHotKeyKillObject>
    <com.everlast.process.ProcessHotKeyKillObject>
      <hotKey>VK_SCROLL</hotKey>
      <processes>
        <string>wmplayer.exe</string>
        <string>iTunesHelper.exe</string>
      </processes>
      <timeToWait>0</timeToWait>
    </com.everlast.process.ProcessHotKeyKillObject>
  </processEvents>
</hotKeyProcesses>
```

Kill by Monitoring

Killing a single process (Internet Explorer) indefinitely (polling every 20 milliseconds):

```
<processesToMonitor>
  <pollTime>20</pollTime>
  <processesToMonitor>
    <processEvents>
      <com.everlast.process.ProcessDirectKillObject>
        <processes>
          <string>iexplore.exe</string>
        </processes>
        <timeToWait>0</timeToWait>
      </com.everlast.process.ProcessDirectKillObject>
    </processEvents>
  </processesToMonitor>
</processesToMonitor>
```

Killing two processes (Internet Explorer and notepad) indefinitely (polling every 100 milliseconds):

```
<processesToMonitor>
  <pollTime>100</pollTime>
  <processesToMonitor>
    <processEvents>
      <com.everlast.process.ProcessDirectKillObject>
        <processes>
          <string>iexplore.exe</string>
          <string>notepad.exe</string>
        </processes>
        <timeToWait>0</timeToWait>
      </com.everlast.process.ProcessDirectKillObject>
    </processEvents>
  </processesToMonitor>
</processesToMonitor>
```

Kill by Dependency Process Monitoring

Killing two processes (Internet Explorer and Safari) anytime Netscape is running (polling every 20 milliseconds):

```
<processDependenciesToMonitor>
  <dependencyProcesses>
    <com.everlast.process.ProcessDependency>
      <pollTime>20</pollTime>
      <processesToMonitor>
        <processEvents>
          <com.everlast.process.ProcessDirectKillObject>
            <processes>
              <string>iexplore.exe</string>
              <string>safari.exe</string>
            </processes>
            <timeToWait>0</timeToWait>
          </com.everlast.process.ProcessDirectKillObject>
        </processEvents>
      </processesToMonitor>
      <dependencyProcess>netscape.exe</dependencyProcess>
    </com.everlast.process.ProcessDependency>
  </dependencyProcesses>
</processDependenciesToMonitor>
```

Execute by Hot Key

Executing a single program (Internet Explorer) with the press of hot key F2

```
<hotKeyPrograms>
  <programEvents>
    <com.everlast.process.ProgramHotKeyExecuteObject>
      <hotKey>VK_F2</hotKey>
      <program>C:\Program Files\Internet
Explorer\iexplore.exe</program>
      <timeToWait>0</timeToWait>
    </com.everlast.process.ProgramHotKeyExecuteObject>
  </programEvents>
</hotKeyPrograms>
```