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Subject: LocalProcess child process killing in Windows

Posted by [koldo](#) on Tue, 07 Jul 2015 08:51:24 GMT

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Hello Mirek

Now LocalProcess works very well. However in windows, when a process is killed, child process are not so orphan processes remain working. It happens for example when launching .bat files.

Here it is TerminateChildProcesses(), that could be added into LocalProcess::Kill(), and searches and kills all child processes. As it uses a DWORD instead of a HANDLE, in DoStart() it would be necessary to get the process dwProcessId in addition to the hProcess.

```
#include <TIHelp32.h>
```

```
Vector<DWORD> GetChildProcessList(DWORD processId)
{
    // Gets all processes list
    PROCESSENTRY32 proc;
    Vector<DWORD> child, all, parents;
    HANDLE hSnap = CreateToolhelp32Snapshot(TH32CS_SNAPPROCESS, 0);
    if (hSnap == INVALID_HANDLE_VALUE)
        return child;
    proc.dwSize = sizeof(proc);
    long f = Process32First(hSnap, &proc);
    while (f) {
        all << proc.th32ProcessID;
        parents << proc.th32ParentProcessID;
        f = Process32Next(hSnap, &proc);
    }
    CloseHandle(hSnap);

    // Gets process child list
    child << processId;
    int init = 0;
    while (true) {
        int count = child.GetCount();
        if (init >= count)
            break;
        for (int cid = init; cid < count; ++cid) {
            for (int i = 0; i < all.GetCount(); ++i) {
                if (parents[i] == child[cid])
                    child << all[i];
            }
        }
        init = count;
    }
    child.Remove(0);
}
```

```
return child;
}

void TerminateChildProcesses(DWORD dwProcessId, UINT uExitCode)
{
    Vector<DWORD> child = GetChildProcessList(dwProcessId);
    for (int i = 0; i < child.GetCount(); ++i) {
        HANDLE hProcess = OpenProcess(PROCESS_TERMINATE, FALSE, child[i]);
        TerminateProcess(hProcess, uExitCode);
    }
}
```

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Subject: Re: LocalProcess child process killing in WIndows  
Posted by [koldo](#) on Sun, 19 Jul 2015 15:55:14 GMT  
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:roll:

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Subject: Re: LocalProcess child process killing in WIndows  
Posted by [mirek](#) on Sat, 17 Oct 2015 12:19:41 GMT  
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Hi,

I have finally got to reviewing this...

I am afraid there is sort of race-condition in the code. Processes can keep running and open more child processes after the snapshot. These would not be terminated....

Mirek

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Subject: Re: LocalProcess child process killing in WIndows  
Posted by [koldo](#) on Sun, 18 Oct 2015 09:15:27 GMT  
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mirek wrote on Sat, 17 October 2015 14:19Hi,

I have finally got to reviewing this...

I am afraid there is sort of race-condition in the code. Processes can keep running and open more child processes after the snapshot. These would not be terminated....

MirekThis is true. However it is better to try to kill them than to kill none :).

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