
Subject: Why SshExec close the connexion ?
Posted by [omari](#) on Thu, 20 Feb 2020 17:32:41 GMT
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Hi Oblivion,

i want to automate file deployment using ssh,

```
SshSession session;
```

```
session.Connect(...);
```

```
SshExec exec(session);
```

```
Scp scp(session);
```

```
    exec.Execute("mkdir target/");  
    scp.SaveFile("target/binary", LoadFile(localFile));  
    exec.Execute("target/binary&");
```

but, the first use of SshExec close the session .

how can i achieve this, and keep the session open after remote command execution ?

thanks in advance.

Subject: Re: Why SshExec close the connexion ?
Posted by [Oblivion](#) on Sat, 22 Feb 2020 10:18:58 GMT
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Hello Omari,

Quote:but, the first use of SshExec close the session .

In SSH2 protocol, exec channels are fire-and-forget type channels - they are unique to single execution target.

The protocol does not allow the reuse of exec channels.

That's why you need to create a new SshExec instance for each command instance. (They are relatively cheap).

So what you need to do is:

```
String cout, cerr;  
SshExec ExecMkdir(session);  
SshExec ExecRun(session);  
Scp scp(session);  
  
ExecMkdir("mkdir target/", cout, cerr);  
scp.SaveFile("target/binary", LoadFile(localFile));  
ExecRun("target/binary&", cout, cerr);
```

Yet, as mentioned in SSH package's docs, If you need batch operations, I'd recommend SshShell instead.

OTOH, server does not close the connection on my setups (OpenSSH/sshd). It simply fails to reuse the exec channel.

This may be due to different server implementations, I am not sure.

Now if you are talking about the session, then you have to remember that all SSH objects are scope-bound, including the session. Typical C++ rule.

Still, the output of a brief trace (Ssh::Trace()) would be more helpful.

If you have any other questions regarding SSH package, or run into any other issues, feel free to ask. :)

Best regards,
Oblivion

Subject: Re: Why SshExec close the connexion ?
Posted by [omari](#) on Mon, 24 Feb 2020 09:31:00 GMT
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Thanks Oblivion,

I have confused channel and session, I have thought that the session is closed after each SshExec call.

based on your response, i create this helper class :

```
struct SshExecHelper
{
    SshSession& session;
    SshExecHelper(SshSession& _session): session(_session){}

    int operator()(const String& cmd, String& out, String& err)
    {
        SshExec e(session);
        return e.Execute(cmd, out, err);
    }
}
```

Subject: Re: Why SshExec close the connexion ?
Posted by [Oblivion](#) on Mon, 24 Feb 2020 12:41:33 GMT
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Hello Omari,

I made your suggestion into three helper functions, instead of a structure, similar to Upp::sys:

```
int  SshExecute(SshSession& session, const String& cmd, String& out, String& err);
int  SshExecute(SshSession& session, const String& cmd, String& out);
String SshExecute(SshSession& session, const String& cmd);
```

I've committed the changes to Upp-Svn. So they'll be available in Upp nightly builds.

Best regards,

Oblivion.

Subject: Re: Why SshExec close the connexion ?
Posted by [omari](#) on Tue, 25 Feb 2020 12:00:50 GMT
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Thanks Oblivion.
