

To: "4D iNUG Technical" <4D_Tech@lists.4Dinug.org>
From: Dan LaSota <dan@ae-data.com>
Subject: Re: Save money with a new feature of 4D V6 Server
Cc:
Bcc:
X-Attachments:

>On Wed, 25 Sep 2002 15:46:35 -0800 dan@ae-data.com said:
>
>>I have worked around this little problem by using the fact that
>>stored procedures run as the designer under a Server/Client system.
>
>Hmmm - this is an interesting approach... :) Is this documented
>behaviour?
>

I don't know if it's documented. I just ran into it after I built a record modification system, which makes note of who the last user is to alter a record. I noticed that records created from web processes (which of course run under the server), were created by the designer account.

I have also used this practice in a current application which allows users to assume the role of the Admin account, and administer the database, without the 4D password interface, *but* this method uses the 4D password system. These procedures are quite convoluted and I cannot post them here.

However, I have created a very simple database and posted it to my web site:

<http://www.ae-data.com/download.html>

Look for it near the top of the page. Its called currentUser.

It basically illustrates that at the database trigger level, 4D believes the current user is the one who is logged in and is saving records. This works even if a user executes a method on the server, which then creates the record. *But*, if a method on the server, executes another method on the server, the second method runs under the guise of the designer account.

I don't know if this is a bug, or what, but I consider it a damn nice feature.

In the sample database posted at my website I have enabled the following accounts:

ae (designer), password "ae"
Biff (user), password "Biff"

Also:

Table: Sample
field 1: created by ; alpha 30
field 2: bit_of_info; alpha 30

and this method

```
☐☐` srv_CreateSampleRecord
☐☐` this simple method can be run on the server
☐☐` it will illustrate which user in the 4D password system
☐☐` actually creates records under the server

☐☐` to test it out, run it from the user environment
☐☐` locally, and then on Server
☐☐` combined with the trigger the results should be different
```

```
CREATE RECORD([Sample])
[Sample]bit_of_info="nothing important"
SAVE RECORD([Sample])
UNLOAD RECORD([Sample])
```

and this method:

```

[]` execute_Sample

```

```

C_LONGINT($err)

```

```

$err:=Execute on server("srv_CreateRecord";32*1024;"Makin' Copies")

```

also the table should have the trigger for new record creation enabled with code like this:

```

Case of
  : (Database event=On Saving New Record Event )
    [Sample]createdBy:=Current user
End case

```

After creating the structure I quit 4D Client and Server. Relaunch server, and then from the client machine, log into server as "Biff". In the user environment I use the menu "Special:Execute Method..." (Cmnd/Cntrl E)

The execute method dialog pops up. Notice that you can have the method run locally, or on 4D Server.

Consider a method called `srv_CreateSampleRecord`. It creates records. Another method, called `executeSample`, merely creates a server process, which then executes the `srv_CreateSampleRecord` method. The results are summarized below:

Method Executed	Method Executed Where?	resulting "creator"
<code>srv_CreateRecord</code>	locally	Biff
<code>srv_CreateRecord</code>	On 4D Server	Biff
<code>execute_Sample</code>	locally	Biff
<code>execute_Sample</code>	On 4D Server	ae

This illustrates that a method which is invoked on the server, takes on the user properties and privs of the designer.

Other methods that happen on the server this way (that I have noticed) are web processes, stored procedures that run from Server Startup Method, and the `ServerStartup` method it self. (I am assuming On Server Shutdown is the same way).

Comments and questions are appreciated. Hope this helps.

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