

Using the Viewers with Natural on UNIX and OpenVMS Hosts

This chapter covers the following topics:

- Logon Credentials
 - Closing the Natural Application and Natural in Error Situations
 - Restrictions
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Logon Credentials

When logging on to UNIX and OpenVMS hosts, the following items control the way how the logon credentials are picked up:

Natural UNIX logon dialog

A logon dialog box can be shown to get the logon information for a UNIX or OpenVMS system. How to define this depends on the type of viewer.

- **Web Viewer**
For the Web Viewer, the property `param name="UNIXLOGON" value="1"` is set in the HTML page. See *Customizing the Web Viewer*.
- **Windows Viewer**
For the Windows Viewer, the property **Force Natural UNIX Logon** is set in the Client Control Properties dialog box. See *Defining the Client Control Properties* in the documentation *Defining the Rules Using the SDK*.
- **User Exits**
For the Web Viewer and Windows Viewer, this can also be set with an Entire Screen Builder user exit. See the *User Exits* documentation for a description of the property `UnixLogon`.
- **Terminal Viewer**
For the Terminal Viewer, the property **Prompt user for logon credentials** is set when defining host sessions of type Natural UNIX using the System Management Hub. See *Terminal Viewer Properties* in Entire Screen Builder's *System Management Hub* documentation.
- **JavaScript**
For the Terminal Viewer, this can also be set using a method of the NSW object. See the *Script Files* documentation for a description of the method `SetUnixLogonCredentials`.

Use logon credentials above

This property is set when defining host sessions of type Natural UNIX using the System Management Hub. See *Communication Properties for Natural UNIX* in Entire Screen Builder's *System Management Hub* documentation.

The logon credentials (user ID and password) to be used are specified in the same dialog as the property **Use logon credentials above**.

Values from client

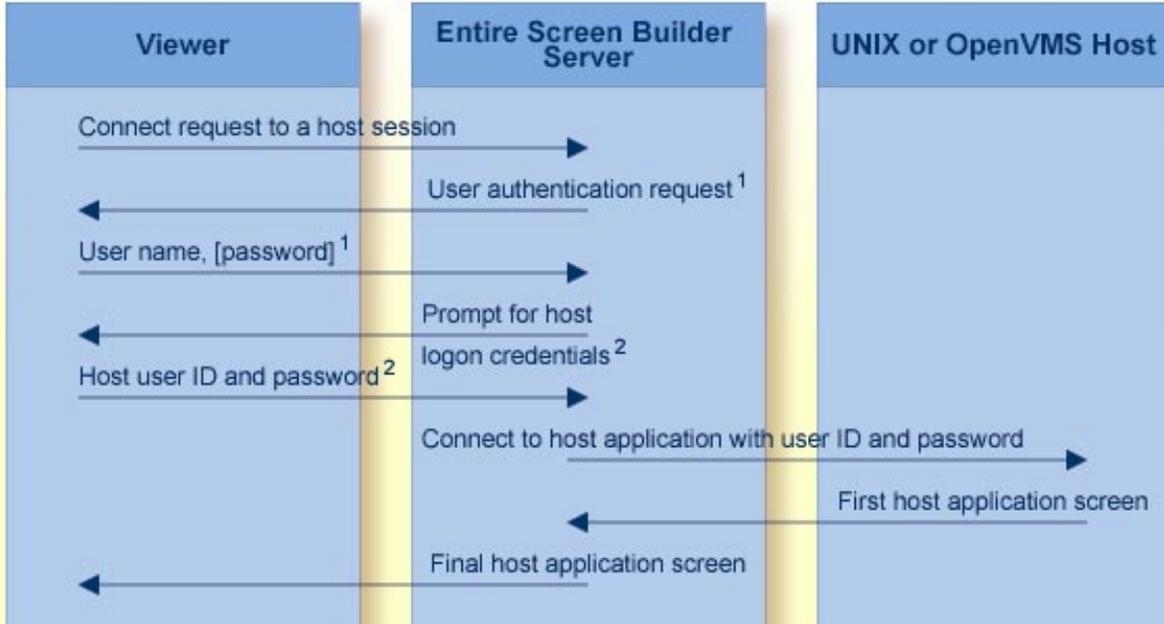
These are the logon credentials (user ID and password) that the user enters in the dialog box. The dialog box is only shown if Natural UNIX logon dialog has been enabled.

The following table shows the possible combinations of the above properties.

Natural UNIX logon dialog	Use logon credentials above	Values from client	Action
On	Off	Filled	Send values from client.
On	Off	Empty	Send empty string.
On	On	Filled	Send values from client.
On	On	Empty	Send values from session profile.
Off	On	Not applicable	Send values from session profile.
Off	Off	Not applicable	Send empty string.

Two different types of logon dialog box may appear: one for specifying the Natural UNIX and Natural OpenVMS logon credentials (see above) and, before that, another for specifying the user name as defined with the System Management Hub (when anonymous logon is not enabled); see *Users* in Entire Screen Builder's *System Management Hub* documentation.

The following graphic explains the user authentication process:



1. Only if anonymous logon is disabled.

2. Only if "Use logon credentials above" in the session profile is not selected.

Closing the Natural Application and Natural in Error Situations

There are error situations in Entire Screen Builder which force the termination of the Natural session. For example, when the user chooses the close button in the upper right corner of the Entire Screen Builder window, the communication with the Natural application is disconnected immediately. Then also the Natural process finishes execution immediately without running through the normal close down code of the application. This may lead to inconsistencies in the system, for example, if the corresponding entry for the Natural process remains in the database user queue.

Entire Screen Builder returns error codes to Natural which can be used in a Natural error handling routine. To make sure that the close down code of your application is always executed, write an error handling routine which identifies the Entire Screen Builder fatal errors or add this code to your existing error handling routine. For critical errors, move the command `FIN` to the top of the Natural stack in order to finish and close everything correctly.

The Entire Screen Builder critical errors are:

- 6296 Fatal error in the communication. The communication will be disconnected immediately.
- 6297 Fatal error allocating memory.

Example: Application Program

This Natural program reads the employees file stored in Adabas. The program moves `ERRGEN` to `*ERROR-TA` to check any Natural error.

```
DEFINE DATA LOCAL
1 VIS VIEW OF EMP
  2 AA-1
END-DEFINE
MOVE "ERRGEN" TO *ERROR-TA
READ VIS
  DISPLAY AA-1
END-READ
END
```

Example: Error Handling Routine ERRGEN

This Natural program with the name ERRGEN checks the Natural error number. If the error number is 6296 (fatal error in the communication), the program stacks the command FIN on top of the Natural stack. The Natural execution finishes immediately and all databases are closed.

```
DEFINE DATA LOCAL
1 ERRNUMBER (N4)
1 LINENUMBER (N4)
1 STATUS (A1)
1 LEVEL (A2)
1 GNPACTU (A8)
END-DEFINE
INPUT (SG=OFF) ERRNUMBER LINENUMBER STATUS GNPACTU LEVEL
IF ERRNUMBER=6296
    STACK TOP COMMAND "FIN"
END-IF
END
```

Restrictions

There are several restrictions when using the Entire Screen Builder viewers with Natural applications on UNIX and OpenVMS hosts:

- **Runtime errors in Natural applications**

Runtime errors in Natural UNIX and Natural OpenVMS applications are not handled correctly by Entire Screen Builder. This may lead to a loss of the session. Bypass: use the Natural system variable *ERROR-TA to handle the error. See the Natural documentation for details. Sample Natural error transaction:

```
DEFINE DATA
LOCAL
1 ERR_INFO
  2 ERR_NR(N5)
  2 ERR_LINE(N4)
  2 ERR_STAT(A1)
  2 ERR_PNAM(A8)
  2 ERR_LEVEL(N2)
END-DEFINE
INPUT ERR_INFO
DISPLAY ERR_INFO
STACK TOP COMMAND 'E'
END
```

Starting with Natural 6.1, a default error transaction named NSWUCIET will be used if Natural is running with Entire Screen Builder and an error transaction has not been set by the user.

- **Return to the Natural main screen**

You cannot use Natural applications that return to the Natural main screen. This always leads to wrong screen display and a loss of the session.

- **Natural editors and utilities**

You cannot use the Natural utilities such as SYSMAIN, SYSDDM and editors such as NATEDIT. This always leads to wrong screen display and a loss of the session.

- **Natural system commands**

You cannot use any Natural system command such as CATALL, FIND, GLOBALS, HELP, KEY, LIST, SCAN or XREF. This always leads to wrong screen display and a loss of the session.

- **Natural commands SETUP and RETURN**

You should not use the Natural commands SETUP and RETURN as this may lead to a loss of the session.

- **Terminal commands**

Terminal (%) commands are not supported. They do not work when entered in a viewer.

- **Internal REINPUT**

The error messages of an internal REINPUT are not displayed in the viewers (for example, if you enter the number 500 into a I1 field: NAT1142). Examples of such messages:

NAT1142 Input results in integer value overflow.
NAT1125 Too many significant digits in numeric input value.
NAT1143 Input does not correspond to input edit mask.
NAT1011 Requested function key not allocated.

- **Natural system variable *INIT-ID**

When using the Entire Screen Builder viewers with Natural applications on OpenVMS hosts, the Natural system variable *INIT-ID will not be filled with a value for the terminal type. Instead, it will contain the value notty.