

# **jBASE Web Builder Sessions and Security**

## **GENERAL**

jBASE Web Builder manages a user's session using a unique session and sequence number to store the current state of that user's interactions.

When a user connects to a jBASE Web Builder system, one of two things can happen. He can be directed to a session-less page, such as a simple web page, or he can be directed to a page that creates a session and puts him into an interactive environment.

Different command line options as set up in the jBASE Web Builder Configuration allow the developer to dictate which of the above options is used.

## **USERS AND GROUPS**

When a user first connects to jBASE Web Builder and the Logon page is displayed, he is logged in as the predefined "guest" user. By default, all jBASE Web Builder objects are accessible by the "guest" user unless a specific group is assigned to that object.

After supplying a user name and password, the user is assigned any group privileges defined under "User Definitions". The global post-logon page is then built (or that user's particular post logon page if one has been defined), and only objects that have no security groups defined, or ones that have groups defined to which he belongs, will be displayed.

## **SESSION ASSIGNMENT AND MANAGEMENT**

When a user makes a connection to jBASE Web Builder through typing in the URL in the web browser and submitting the request, jBASE Web Builder first checks the query parameters for an existing session. If a session is not found, a new one will be created. The session number is a random 12 digit number. Care is taken to avoid duplications with existing sessions. The sequence number automatically defaults to 1. Further interactions with jBASE Web Builder will keep the same session number, but increment the sequence number. The IP address is checked on each interaction to ensure that session credentials may not be hijacked.

All session information is stored in the syssessions file. There is one master record, it's record id being the session number, which contains information such as session start date and time and any child or parent sessions. The layout follows:

Field	Field Type	Description	Information
<0>		<b>sessionno</b>	
<1>	MV	CGI Variable Names	For this session
<2>	MV	CGI Variable Values	For this session
<3>		Connection DLL/CGI	Script Name
<4>	MV	Child Sessions	(syssessions)
<5>		Parent Session Number	(syssessions)
<6>		Session start	date:time
<7>		Last interaction	date:time

The second session record is the global record, or the "sysperm" record. This is where any information stored in the "sysperm" values for this session are stored :

Field	Field Type	Description	Information
<0>		<b>sessionno:":global"</b>	
<1- 50>	MV	Compressed "sysglobal" items	Lowered once

The last session record is the one which contains detail on every interaction. It is used by jBASE Web Builder to move the user backwards and forwards between pages.

Field	Field Type	Description	Information
<0>		<b>sessionno:":":sequenceno</b>	
<1>		date():":":time()	
<2>		Syspage	Page name
<3>		sysbackseq	parent sequence number

<4-10>		Unused	
<11-...>		Compressed "sysvar" items	Lowered twice

## **SESSION / PASSWORD EXPIRY**

In the user settings area, you are able to define both session and password expiry per user. The password expiry option allow you to specify the number of days that a user's password is valid, whereas the session expiry option indicates the number of minutes that a user can be idle for before the system invalidates his/her session. A session expiry option is also available. Setting this to 0 takes the user back to the default logon page, setting it to 1 produces an error, and setting it to any other text will take the user to the page specified in the text. These options are available only in versions 3.0 and higher of jBASE Web Builder.

## **SESSIONCOPY, SEQUENCECOPY AND DATACOPY**

It is possible to spawn off another session, with the same securities as the original session, using the sessioncopy and sequencecopy command options. This is particularly useful in cases when another browser window is opened, using, for example the JavaScript "window.open(...)" function, or in a framed environment. A further option, datacopy , introduced in version 3.0, allows you to also copy all syshidden, sysdata, and sysperm values, as well as sysid.