SHCMD$ - Execute Windows or Unix Command

The SHCMD$ routine provides a method for a Speedbase program to initiate a program running on the host operating system. The host o/s command may be specified explicitly or indirectly, via a Schema File.

Two methods of initiating a host o/s program from within Global System Manager are possible. The first method, using SVC 70, is only available on some Global System Manager configurations:

Configuration	*Is SVC-70 available?*
GSM (BOS)	No
GSM (Unix)	Yes
GSM (DOS)	No
GSM (Novell)	No
GSM (Win NT)	Yes

In the context of this design, the SVC-70 interface will be referred to as the "Server" interface.

The second method, using a special escape sequence is only available when the program is running on the Global Windows Workstation terminal emulator (i.e. when $$GUI = 1). In the context of this design, the escape sequence interface will be referred to as the "Desktop" interface. The "Desktop" interface is also supported on GX.

1. Invocation

The SHCMD$ routine can be called in either of the following ways:

```
CALL SHCMD$ USING opcode prompt fd
```

or:

```
CALL SHCMD$ USING opcode prompt string [ex]
```

where *opcode* is a PIC 9(4) COMP field or literal which can be set to the following values:

0	Use schema file (see below)
1	Use Esc Seq to display string (Desktop) (ignores EXSHOW & EXWAIT)
2	Use SVC-70 to display string (Server)
3	Desktop command 254 bytes (ignores EXSHOW & EXWAIT)
4	Server command 254 bytes
5	Advanced desktop command 254 bytes (recognizes EXSHOW & EXWAIT)

prompt is a PIC 9(4) COMP field or literal which can be set to 1 to indicate that 'Key <CR> to continue' should be displayed before refreshing the screen when the Unix shell returns control to GSM, or 0 to refresh the screen immediately. This field has no effect when the string is displayed in "Desktop mode";

fd is the closed FD of the schema file;

string is the command string terminated by a byte of binary zero. **The length of the command string + the terminator byte must not exceed 79 characters.**

ex is an optional extension block for GSM (Windows) configurations and has the following structure:

```
01    EX
```

```
02  EXSHOW        PIC 9(2) COMP   * Window display flag
                                   * 0 - Normal Window
                                   * 1 - Maximised Window
                                   * 2 - Minimised Window
                                   * 3 - Minimised Window in background
02  EXWAIT        PIC 9(2) COMP   * 0 return control immediately
                                   * 1 Wait until window command
                                   * completes
```

2. STOP Codes and Exception Conditions

No STOP codes are generated by SHCMD$.

The following exception conditions may be returned by SHCMD$:

EXIT code	**$$COND**	**Description**
23901	01	I/O error on schema file
23902	02	Schema file not found
23903	03	Invalid version of GSM (i.e. SVC-70 not available; or obsolete version of SVC 70)
23904	04	Invalid schema file or command parameter
23905	05	SVC-70 is in use by another user
23906	06	Command string is too long
23907	07	Command failed ($$CRES contains the result of the command)
23908	08	Not running on GUI-1 or GX (i.e. $$GUI = 0)
23909	09	Unable to return command exit code
23910	10	It was not possible to allocate a temporary 32-bit page to hold the GX command block.

3. Programming Notes

The legacy SHCMD$ routine is supported on both GSM (Unix) and GSM (Windows) configurations. In addition, it supports both a “Server” interface (using SVC-70) and a “Desktop” interface (only available with GUI-1 and GX).

Note that the GXCMD$ routine provides a simpler method for the GX “Desktop” interface. Likewise, the CPROC$ routine provides a simpler method for the “Server” interface.

4. Examples

[EXAMPLE REQUIRED]

5. Copy-Books

None.

6. See Also

GXSHL$	Execute Windows shell command on GX.
GXSHX$	Execute Windows shell command on GX.
GXCMD$	Execute Windows application on GX
CPROC$	Run command on GSM (Windows) server