

**Appendix  
B**

**REFERENCE  
TABLES**

*Get on the  
Fast Track!*



TM

**SYS-ED/  
COMPUTER  
EDUCATION  
TECHNIQUES, INC.**

**1 CLIST Statements**

Control	Assignment	Conditional	I/O
ATTN CONTROL DATA-ENDDATA DATA-PROMPT ERROR EXIT GLOBAL GOTO NGLOBAL PROC RETURN SELECT TERMIN WRITE WRITENR	READ READVAL SET	DO-WHILE-END DO-UNTIL-END DO EXPRESSION FROM TO BY IF THEN ELSE	CLOSFILE GETFILE OPENFILE PUTFILE

---

**2 Control Variables by Category**

Category	Variable	Modifiable
Current Date and Time	&SYSDATE &SYSJDATE &SYSSDATE &SYSTIME &SYSSTIME	No No No No No
Terminal-related	&SYSLTERM &SYSWTERM	No No
User-related	&SYSUID &SYSPREF &SYSPROC	No No No
System-related	&SYSCPU &SYSSRV &SYSISPF &SYSRACF	No No No No
CLIST-related	&SYSSCAN &SYSENV &SYSICMD &SYSPCMD &SYSSCMD &SYSNEST	Yes No No No No No
Input-related	&SYSDVAL &SYSDLM	Yes No
Output-related	&SYSOUTTRAP &SYSOUTLINE	Yes Yes
Return codes	&LASTCC &MAXCC	Yes Yes

---

**3 Modifiable Control Variables**

---

<b>Modifiable Variable</b>	<b>Contents</b>
&LASTCC	Contains the return code from the last operation (TSO command, subcommand, or CLIST statement).
&MAXCC	Contains the highest return code issued up to this point in the CLIST or the highest passed back from a nested CLIST.
&SYSDVAL	(1) Contains the input line supplied by the user when he returned control to the CLIST after a TERMIN statement (2) Contains the input line supplied by the user after a READ statement without operands. (3) Contains the value after the execution of a SET SYSDVAL=.
&SYSOUTLINE	Contains the number of lines of command output saved in CLIST variables; points to the variables containing the output.
&SYSOUTTRAP	Contains the maximum number of TSO command output to be saved.
&SYSSCAN	Contains the maximum number of times a CLIST may rescan a line to evaluate variables. The default is 16 times. The maximum value is +2,417,483,647. The minimum is 0.

#### 4 Non-Modifiable Control Variables

Modifiable Variable	Contents
&SYSCPU	Contains the number of CPU seconds used during the session in the form: seconds.hundreths-of-seconds.
&SYSDATE	Contains the current date in the form: month/day/year.
&SYSDLM	Contains the character string the user entered to return control to the CLIST after a TERMIN statement.
&SYSENV	Indicates whether the CLIST is executing in the foreground or background.
&SYSICMD	Contains the name by which the invoker implicitly invoked this CLIST. This value is null if the invoker explicitly invoked the CLIST.
&SYSISPF	Indicates whether ISPF dialog management services are available.
&SYSJDATE	Contains the Julian date in the form year.days.
&SYSLTERM	Contains the number of lines available to the screen.
&SYSNEST	Indicates whether the currently executing CLISTs was invoked by CLIST.
&SYSPCMD	Contains the name (or abbreviation of the name) of the most recently executed TSO command.
&SYSPREF	Contains the prefix that TSO uses to fully qualify data set names.
&SYSPROC	Contains the name of the logon procedure used when the TSO user logged on.
&SYSRACF	Indicates whether the Resource Access Control Facility (RACF) is installed and available to the CLIST.
&SYSSCMD	Contains the name of the most recently executed subcommand.
&SYSSDATE	Contains the date in the form: year/month/day.
&SYSSRV	Contains the number of system resource manager (SRM) service units used during the session.
&SYSSTIME	Contains the time of day in the form: hours:minutes.
&SYSTIME	Contains the time of day in the form: hours:minutes:seconds.
&SYSUID	Contains the user ID under which the current session is logged.
&SYSWTERM	Contains the width of the screen.

## 5 CLIST Statement Error Codes

Error Code	Explanation
16	Not enough virtual storage.
300	User tried to update a control variable that can only be updated by the system.
304	Invalid keyword on EXIT statement.
308	CODE keyword specified, but no code given on EXIT statement.
312	Internal GLOBAL processing error.
316	TERMIN delimiter greater than 256 characters.
324	GETLINE error.
328	More than 64 delimiters on TERMIN.
332	Invalid file name syntax.
336	File already open.
340	Invalid OPEN type syntax.
344	Undefined Open type.
348	File specified did not open.
352	GETFILE - file name not currently open.
356	GETFILE - the file has been closed by the system.
360	PUTFILE - file name not currently open.
364	PUTFILE - file closed by the system.
368	PUTFILE - CLOSEFILE- file not opened by OPENFILE.
372	PUTFILE - issued before GETFILE on a file opened for update.
400	GETFILE - end of file.
404	PUTFILE - tried to write to a file open for INPUT.
408	GETFILE - tried to read from a file open for OUTPUT.
8xx	Evaluation routine error codes.
	800 Data found where operator was expected.
	804 Operator found where data was expected.
808	A comparison operator was used in a SET statement.
812	(Reserved)
816	Operator found at the end of a statement.
820	Operators out of order; data may resemble operators.
824	More than one exclusive operator found.
828	More than one exclusive comparison operator found.
832	The result of an arithmetic calculation is outside the valid range extending from -2,147,483,647 to +2,147,483,647.

Error Code	Explanation
836	Reserved.
840	Not enough operands.
844	Not valid operands.
848	Attempt to load character from numeric value.
852	Addition error - character data.
856	Subtraction error - character data.
860	Multiplication error - character data.
864	Divide error - character data or division by 0.
868	Prefix found on character data.
872	Numeric value too large.
900	Single ampersand found.
904	Reserved.
908	Error occurred in an error range that received control because of another error.
912	Substring range invalid.
916	Non-numeric value in substring value.
920	Substring range value too small - zero or negative.
924	Invalid substring syntax.
932	Substring outside of the range of the string.
936	A built-in variable that requires a value was entered without a value.
940	Invalid symbolic variable.
944	A label was used as a symbolic variable.
948	Invalid label syntax on a GOTO statement.
952	GOTO label was not defined.
956	GOTO statement has no label.
960	&SYSSCAN was set to an invalid valid.
964	&LASTCC was set to an invalid value and EXIT tried to use it as a default.
968	DATA PROMPT-ENDDATA statement supplied, but no prompt occurred.
972	TERMIN statement cannot be used in background jobs.
976	READ statement cannot be used in background jobs.
999	INTERNAL CLIST error.
Sxxx	A system ABEND code, printed in hexadecimal.
Uxxx	A user ABEND code, printed in hexadecimal.