InterSystems®
Caché

MultiValue Basic Quick Reference

Version 2017.2
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MultiValue Basic Quick Reference
Caché   Version 2017.2   2020-06-25
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Caché MVBasic Supported Features

The tables in this document list the features of UniVerse Basic and their status in Caché MVBasic. There are two possibilities:

- Present – This feature is implemented in Caché MVBasic.

- Caché Alternative Exists – The feature is not supported, but much of this functionality is available in other ways in Caché.

Rows with neither column checked indicate that the development is still underway. If the word "reserved" appears in a column, it indicates that the term is a reserved word, but is not a statement or function in MultiValue Basic.

For a quick reference to specific items, use one of the following links:

Table 1–1: Reserved Words By Initial Letter

A..	J..	S..
B..	K..	T..
C..	L..	U..
D..	M..	V..
E..	N..	W..
F..	O..	X..
G..	P..	Y..
H..	Q..	Z..
I..	R..	

Table 1–2: Other Items

Compiler Directives	String Extraction
@-Variables	Conversion Codes

For full details, please refer to the Caché MVBasic Language Reference documentation.

1.1 MultiValue Basic Commands, Functions, and Reserved Words

Table 1–3: MultiValue Basic - Reserved Words A...

Syntax Item	Present	Caché Alternative Exists
ABORTE	X	-
ABORTM	X	-
ABORT	X	-
ABS()	X	-
ABSS()	X	-
acceptConnection()	-	X
ACCESS()	X	
ACOS()	X	-
addAuthenticationRule()	-	X
addCertificate()	-	X
addRequestParameter()	-	X
ADDS()	X	-
ALL	X	-
ALPHA()	X	-
amInitialize()	-	X
amReceiveMsg()	-	X
amReceiveRequest()	-	X
amSendMsg()	-	X
amSendRequest()	-	X
amSendResponse()	-	X
amTerminate()	-	X
analyzeCertificate()	-	X
ANDS()	X	-
AND	X	-
ARG	X	-
ASCII()	X	-
ASIN()	X	-
ASSIGN	X	-
ASSIGNED()	X	-

Syntax Item	Present	Caché Alternative Exists
ATAN()	X	-
AUTHORIZATION	-	X
AUXMAP	-	X

Table 1–4: MultiValue Basic - Reserved Words B...

Syntax Item	Present	Caché Alternative Exists
BCONVERT	-	X
BEFORE	X	-
BEGIN	X	-
BITAND()	X	-
BITNOT()	X	-
BITOR()	X	-
BITRESET()	X	-
BITSET()	X	-
BITTEST()	X	-
BITXOR()	X	-
BREAK	X	-
BSCAN	X	-
BYTE()	X	-
BYTELEN()	X	-
BYTETYPE()	-	X
BY	X	-

Table 1–5: MultiValue Basic - Reserved Words C...

Syntax Item	Present	Caché Alternative Exists
CALCULATE()	X	-
CALLING	X	-
CALL	X	-
CAPTURING	X	-
CASE	X	-
CATS()	X	-
CAT	X	-
CENTURY.PIVOT()	-	X
CHAIN	X	-
CHANGE()	X	-
CHAR()	X	-

Syntax Item	Present	Caché Alternative Exists
CHARLEN()	-	-
CHARS()	X	-
CHECKSUM()	X	-
CLEARCOMMON	X	-
CLEARDATA	X	-
CLEARFILE	X	-
CLEARINPUT	X	-
CLEARPROMPTS	-	-
CLEARSELECT	X	-
CLEAR	X	-
CLOSESEQ	X	-
closeSocket()	-	X
CloseXMLData()	-	X
CLOSE	X	-
COL1()	X	-
COL2()	X	-
COMMIT	X	-
COMMON	X	-
COMPARE()	-	-
COM	X	-
CONTINUE	X	-
CONVERT()	X	-
CONVERT	X	-
COS()	X	-
COSH()	X	-
COUNT()	X	-
COUNTS()	X	-
createCertification()	-	X
createCertRequest()	-	X
createSecureRequest()	-	X
createSecurityContext()	-	X
CREATE	X	-
CRT	X	-

Table 1–6: MultiValue Basic - Reserved Words D...

Syntax Item	Present	Caché Alternative Exists
DATA	X	-
DATE()	X	-
DBTOXML()	-	X
DCOUNT()	X	-
DEBUG	X	-
DECLARE	-	X
DEFFUN	X	-
DELETE()	X	-
DELETELIST	X	-
DELETEU	X	-
DELETE	X	-
DEL	X	-
DESCRINFO()	-	-
DIAGNOSTICS	-	X
DIGEST()	-	-
DIMENSION	X	-
DIM	X	-
DIR()	-	-
DISPLAY	X	-
DISPLAYWIDTH()	-	-
DIV()	X	-
DIVS()	X	-
DOWNCASE()	X	-
DO	X	-
DQUOTE()	X	-
DROUND()	-	-
DTX()	X	-

Table 1–7: MultiValue Basic - Reserved Words E...

Syntax Item	Present	Caché Alternative Exists
EBCDIC()	X	-
ECHO	X	-
ELSE	X	-
ENCODE()	-	-

Syntax Item	Present	Caché Alternative Exists
ENCRYPT()	-	See class %SYSTEM.Encryption
END	X	-
ENTER	X	-
EOF(arg)	X	-
EQS()	X	-
EQUATE	X	-
EQU	X	-
EQ	X	-
EREPLACE()	X	-
ERRMSG	X	-
ERROR	X	-
EXCHANGE()	-	-
EXECUTE	X	-
EXEC	reserved	reserved
EXIT	X	-
EXP()	X	-
EXTRACT()	X	-

Table 1–8: MultiValue Basic - Reserved Words F...

Syntax Item	Present	Caché Alternative Exists
FADD()	X	-
FDIV()	X	-
FFIX()	-	-
FFLT()	-	-
FIELD()	X	-
FIELDS()	X	-
FIELDSTORE()	X	-
FILEINFO()	X	-
FILELOCK	X	-
FILEUNLOCK	X	-
FIND	X	-
FINDSTR	X	-
FIX()	X	-
FLUSH	X	-
FMT()	X	-

Syntax Item	Present	Caché Alternative Exists
FMTDP()	-	-
FMTS()	X	-
FMTSDP()	-	-
FMUL()	X	-
FOLD()	X	-
FOLDDP()	-	-
FOOTING	X	-
FORMLIST	X	-
FOR	X	-
FROM	X	-
FSUB()	X	-
FUNCTION	X	-

Table 1–9: MultiValue Basic - Reserved Words G...

Syntax Item	Present	Caché Alternative Exists
GARBAGECOLLECT	-	X
GCI	-	X
generateKey()	-	X
GES()	X	-
GET(arg)	X	-
GET	-	-
getCipherSuite()	-	X
GETENV()	X	-
getHTTPDefault()	-	X
GETLIST	X	-
GETLOCALE()	-	X
GETPTR()	X	-
GETPU()	X	-
GETQUEUE()	-	-
GETREADU()	-	-
GETREM()	X	-
getSocketErrorMessage()	-	X
getSocketInformation()	-	X
getSocketOptions()	-	X
GETUSERGROUP()	-	-

Syntax Item	Present	Caché Alternative Exists
GETUSERID()	-	-
GETUSERNAME()	-	-
GETX	-	-
GE	X	-
GOSUB	X	-
GOTO	X	-
GO	X	-
GROUP()	X	-
GROUPSTORE	-	-
GTS()	X	-
GT	X	-

Table 1–10: MultiValue Basic - Reserved Words H...

Syntax Item	Present	Caché Alternative Exists
HASH()	-	-
HEADINGE	-	-
HEADINGN	-	-
HEADING	X	-
HUSH	X	-

Table 1–11: MultiValue Basic - Reserved Words I...

Syntax Item	Present	Caché Alternative Exists
ICHECK()	-	X
ICONV()	X	-
ICONVS()	X	-
IFS()	X	-
IF	X	-
ILPROMPT()	-	-
IN	X	-
IN()	-	-
INCLUDE	-	-
INDEX()	X	-
INDEXS()	X	-
INDICES()	X	-
initSecureServerSocket()	-	X

Syntax Item	Present	Caché Alternative Exists
initServerSocket()	-	X
INMAT()	X	-
INPUTCLEAR	X	-
INPUTDISP	-	-
INPUTDP	-	-
INPUTERR	X	-
INPUTIF	X	-
INPUTNULL	-	-
INPUTTRAP	-	-
INPUT	X	-
INPUTERR	X	-
INSERT()	X	-
INS	X	-
INT()	X	-
ISMB()	-	-
ISNULL()	-	-
ISNULLS()	-	-
ISMV()	-	-
ISNVS()	-	-
ISOLATION	reserved	reserved
ITYPE()	X	-

Table 1–12: MultiValue Basic - Reserved Words K...

Syntax Item	Present	Caché Alternative Exists
KEYEDIT	-	-
KEYEXIT	-	-
KEYIN()	X	-
KEYTRAP	-	-
KEY	X	-

Table 1–13: MultiValue Basic - Reserved Words L...

Syntax Item	Present	Caché Alternative Exists
LEFT()	X	-
LEN()	X	-
LENDP()	-	-

Syntax Item	Present	Caché Alternative Exists
LENS()	X	-
LENSDP()	-	-
LES()	X	-
LET	X	-
LEVEL	reserved	reserved
LE	X	-
LISTUSER()	-	-
LITERALLY	X	-
LIT	X	-
LN()	X	-
loadSecurityContext()	-	X
LOCALEINFO()	-	X
LOCATE	X	-
LOCKED	X	-
LOCK	X	-
LOOP	X	-
LOWER()	X	-
LPTR	reserved	reserved
LTS()	X	-
LT	X	-

Table 1–14: MultiValue Basic - Reserved Words M...

Syntax Item	Present	Caché Alternative Exists
MATBUILD	X	-
MATCHES	X	-
MATCHFIELD()	-	-
MATCH	X	-
MATPARSE	X	-
MATREADL	X	-
MATREADU	X	-
MATREAD	X	-
MATWRITEU	X	-
MATWRITE	X	-
MAT	X	-
MAXIMUM()	X	-

Syntax Item	Present	Caché Alternative Exists
MBLEN()	-	-
MESSAGE	reserved	reserved
MINIMUM()	X	-
MOD()	X	-
MODS()	X	-
MTU	reserved	reserved
MULS()	X	-

Table 1–15: MultiValue Basic - Reserved Words N

Syntax Item	Present	Caché Alternative Exists
NAP	X	-
NEG()	X	-
NEGS()	X	-
NES()	X	-
NEXT	X	-
NE	X	-
NO.ISOLATION	-	-
NOBUF	X	-
NOTS()	X	-
NOT()	X	-
NULL	X	-
NUM()	X	-
NUMS()	X	-

Table 1–16: MultiValue Basic - Reserved Words O...

Syntax Item	Present	Caché Alternative Exists
OCONV()	X	-
OCONVS()	X	-
OFF	X	-
ON	X	-
OPEN	X	-
OPENCHECK	-	X
OPENDEV	-	-
OPENPATH	X	-
openSecureSocket()	-	X
OPENSEQ	X	-

Syntax Item	Present	Caché Alternative Exists
openSocket()	-	X
ORS()	X	-
OR	X	-
OUT	X	-

Table 1–17: MultiValue Basic - Reserved Words P...

Syntax Item	Present	Caché Alternative Exists
PAGE	X	-
PASSLIST	X	-
PCDRIVER	-	X
PERFORM	X	-
PRECISION	X	-
PrepareXML()	-	X
PRINT	X	-
PRINTER	X	-
PRINTERIO	-	X
PRINTERR	-	X
PROCREAD	X	-
PROCWRITE	X	-
PROGRAM	X	-
PROG	X	-
PROMPT	X	-
protocolLogging()	-	X
PWR()	X	-

Table 1–18: MultiValue Basic - Reserved Words Q

Syntax Item	Present	Caché Alternative Exists
QUOTE()	X	-

Table 1–19: MultiValue Basic - Reserved Words R...

Syntax Item	Present	Caché Alternative Exists
RAISE()	X	-
RANDOMIZE	X	-
READ.COMMITTED	-	-
READ.UNCOMMITTED	-	-
READBLK	X	-

Syntax Item	Present	Caché Alternative Exists
READLIST	X	-
READL	X	-
READNEXT	X	-
READSEQ	X	-
readSocket()	-	X
READT	-	-
READU	X	-
READVL	X	-
READVU	X	-
READV	X	-
ReadXMLData()	-	X
READ	X	-
REAL()	-	-
RECIO	-	X
RECORDLOCKED()	X	-
RECORDLOCKL	X	-
RECORDLOCKU	X	-
ReleaseXML()	-	X
RELEASE	X	-
REM	X	-
REM()	X	-
REMOVE	X	-
REMOVE()	X	-
REPEATABLE.READ	-	-
REPEAT	X	-
REPLACE()	X	-
RESET	X	-
RETURNING	X	-
RETURN	X	-
REUSE()	X	-
REVREMOVE	X	-
REWIND	-	-
RIGHT()	X	-
RND()	X	-

Syntax Item	Present	Caché Alternative Exists
ROLLBACK	X	-
RPC.CALL()	-	X
RPC.CONNECT()	-	X
RPC.DISCONNECT()	-	X
RQM	X	-
RTNLIST	X	-

Table 1–20: MultiValue Basic - Reserved Words S

Syntax Item	Present	Caché Alternative Exists
SADD()	X	-
saveSecurityContext()	-	X
SCMP()	X	-
SDIV()	X	-
SEEK(arg)	X	-
SEEK	X	-
SELECTE	X	-
SELECTINDEX	X	-
SELECTINFO()	X	-
SELECTN	X	-
SELECTV	X	-
SELECT	X	-
SEND	-	-
SENTENCE()	X	-
SEQ()	X	-
SEQS()	X	-
SEQSUM	-	X
SERIALIZABLE	-	-
setAuthenticationDepth()	-	X
setCipherSuite()	-	X
setClientAuthentication()	-	X
setHTTPDefault()	-	X
SETLOCALE()	-	X
setPrivateKey()	-	X
setRandomSeed()	-	X
SETREM	X	-

Syntax Item	Present	Caché Alternative Exists
setSocketOptions()	-	X
SETTING	X	-
SET	-	-
SETENV()	-	-
showSecurityContext()	-	X
SIGNATURE()	-	X
SIN()	X	-
SINH()	X	-
SLEEP	X	-
SMUL()	X	-
SOAP functions	-	X
SORT()	X	-
SOUNDEX()	X	-
SPACE()	X	-
SPACES()	X	-
SPLICE()	X	-
SPOOLER()	X	-
SQLALLOCENV	-	See the developer materials on Caché SQL
SQLALLOCONNECT	-	See above.
SQLALLOCSTMT	-	See above.
SQLBINDCOL	-	See above.
SQLCANCEL	-	See above.
SQLCOLATTRIBUTES	-	See above.
SQLCONNECT	-	See above.
SQLDESCRIBECOL	-	See above.
SQLDISCONNECT	-	See above.
SQLERROR	-	See above.
SQLEXECDIRECT	-	See above.
SQLEXECUTE	-	See above.
SQLFETCH	-	See above.
SQLFREECONNECT	-	See above.
SQLFREEENV	-	See above.
SQLFREESTMT	-	See above.
SQLGETCURSORNAME	-	See above.

Syntax Item	Present	Caché Alternative Exists
SQLNUMRESULTCOLS	-	See above.
SQLPREPARE	-	See above.
SQLROWCOUNT	-	See above.
SQLSETCONNECT-OPTION	-	See above.
SQLSETCURSORNAME	-	See above.
SQLSETPARAM	-	See above.
SQRT()	X	-
SQUOTE()	X	-
SSELECTN	X	-
SSELECTV	X	-
SSELECT	X	-
SSUB()	X	-
START	X	-
STATUS()	X	-
STATUS	X	-
STEP	X	-
STOPE	X	-
STOPM	X	-
STOP	X	-
STORAGE	-	X
STR()	X	-
STRS()	X	-
submitRequest()	-	X
SUBROUTINE	X	-
SUBR()	X	-
SUBS()	X	-
SUBSTRINGS()	X	-
SUM()	X	-
SUMMATION()	X	-
SWAP	X	-
SWAP()	-	-

Table 1–21: MultiValue Basic - Reserved Words T...

Syntax Item	Present	Caché Alternative Exists
TABSTOP	-	-

Syntax Item	Present	Caché Alternative Exists
TAN()	X	-
TANH()	X	-
TERMINFO()	-	-
THEN	X	-
TIME()	X	-
TIMEDATE()	X	-
TIMEOUT	-	-
TO	X	-
TPARM()	-	-
TPRINT	-	-
TRANS()	X	-
TRANSACTION	X	-
TRIM()	X	-
TRIMB()	X	-
TRIMBS()	X	-
TRIMF()	X	-
TRIMFS()	X	-
TRIMS()	X	-
TTYCTL	-	X
TTYGET	-	X
TTYSET	-	X

Table 1–22: MultiValue Basic - Reserved Words U...

Syntax Item	Present	Caché Alternative Exists
UNASSIGNED()	X	-
UNICHAR()	X	-
UNICHARS()	X	-
UNISEQ()	X	-
UNISEQS()	X	-
UNIT	X	-
UNLOCK	X	-
UNTIL	X	-
UPCASE()	X	-
UPRINT	-	X
USING	X	-

Table 1–23: MultiValue Basic - Reserved Words W...

Syntax Item	Present	Caché Alternative Exists
WEOFSEQF	-	-
WEOFSEQ	X	-
WEOF	-	-
WHILE	X	-
WORDSIZE	-	X
WORKWRITE	-	X
WRITEBLK	X	-
WRITELIST	X	-
WRITESEQF	X	-
WRITESEQ	X	-
WRITET	-	-
WRITEU	X	-
WRITEVU	X	-
WRITEV	X	-
WRITE	X	-

Table 1–24: MultiValue Basic - Reserved Words X...

Syntax Item	Present	Caché Alternative Exists
XDOM functions	-	X
XLATE()	X	-
XMAP functions	-	X
XML functions	-	X
XTD()	X	-

1.2 Conversion Codes

The MultiValue conversion codes listed in the following table can be used in various ways, including the following:

• The MVBasic ICONV, ICONVS, OCONV, and OCONVS functions.

• The MVBasic FMT and FMTS functions.

• Implicit formatting with the MVBasic DISPLAY, CRT, and PRINT statements.

• The CMQL query language CONV (or **CONVERSION**) clause.

• The VOC Attribute 7 value.

For further details and program examples for individual conversion codes, refer to the ICONV and OCONV functions in the *Caché MVBasic Language Reference*.

Table 1–25: MultiValue Basic Conversion Codes

Code(s)	Present	Description
A	OCONV	Arithmetic and equality functions
BB	-	Bit conversion (binary)
BX	-	Bit conversion (hexadecimal)
C	OCONV	Concatenation
D	ICONV/OCONV	Date conversion
DI	ICONV/OCONV	Internal date conversion
ECS	-	Extended character set conversion
F	-	Mathematical functions
G	ICONV/OCONV	Group extraction
L	ICONV/OCONV	Length function
MB	-	Binary conversion
MCA	ICONV/OCONV	Masked character alphabetic
MC/A	OCONV	Masked character exclude alphabetic
MCAX	ICONV/OCONV	Masked character to ASCII conversion
MCB	ICONV/OCONV	Masked character both alphabetic and numeric
MC/B	OCONV	Masked character exclude both alphabetic and numeric
MCD	OCONV	Decimal to hexadecimal conversion
MCDX	ICONV/OCONV	Decimal to hexadecimal conversion
MCL, MCU	ICONV/OCONV	Masked lowercase and uppercase conversion
MCM, MC/M	-	Masked multi- and single-byte conversion
MCN	ICONV/OCONV	Masked character numeric
MC/N	OCONV	Masked character exclude numeric
MCP	OCONV	Masked non-printable character conversion
MCT	OCONV	Masked initial capitals conversion
MCW	-	Masked wide character conversion
MCWX	ICONV/OCONV	Masked wide character to ASCII conversion
MCX	ICONV/OCONV	Hexadecimal to decimal conversion
MCXA	ICONV/OCONV	Character to 8-bit hexadecimal conversion
MCXD	ICONV/OCONV	Hexadecimal to decimal conversion
MCXW	ICONV/OCONV	Character to 16-bit (wide) hexadecimal conversion
MD	ICONV/OCONV	Masked decimal conversion
ML, MR	ICONV/OCONV	Masked left, right conversion
MM	-	NLS monetary conversion

Code(s)	Present	Description
MO	-	Octal conversion
MP	-	Packed decimal conversion
MT	ICONV/OCONV	Time conversion
MU0C	-	Hexadecimal Unicode character conversion
MX	ICONV/OCONV	Hexadecimal conversion
MY	OCONV	ASCII conversion
NL	-	NLS Arabic numeral conversion
NR	-	Roman numeral conversion
P	OCONV	Pattern-matching
Q	-	Exponential conversion
R	OCONV	Range function
S	OCONV	Soundex conversion
S;val;zeroval	OCONV	Substitution for non-zero values and zero values
T	OCONV	Text extraction
T<filename>	-	File translation
TI	-	International time conversion
U<hex>	OCONV	User exit to entrypoint <hex>. The specified entrypoint must be a hexadecimal number.
ZV	OCONV	Dynamic array element extraction

1.3 Compiler Directives

Table 1–26: MultiValue Basic - Compiler Directives

Syntax Item	Present	Caché Alternative Exists
#INCLUDE	X	-
#PRAGMA	X	
$CHAIN	-	-
$COPYRIGHT	X	-
$DEFINE	X	-
$EJECT	-	-
$IFDEF	X	-
$IFNDEF	X	-
$INCLUDE	X	-

Syntax Item	Present	Caché Alternative Exists
$INSERT	X	-
$MAP	-	X
$PAGE	-	-
$UNDEFINE	X	-

For details, refer to "Compiler Directives" in the *Caché MVBasic Language Reference*.

1.4 System Variables (@ Variables)

Table 1–27: MultiValue Basic - @-Variables

Syntax Item	Present	Caché Alternative Exists
@ABORT.CODE	-	-
@ACCOUNT	X	-
@AM	X	-
@ANS	X	-
@AUTHORIZATION	X	-
@COMMAND.STACK	X	-
@COMMAND	X	-
@CRTHIGH	X	-
@CRTWIDE	X	-
@DATA	X	-
@DATA.PENDING	X	-
@DATE	X	-
@DAY	X	-
@FALSE	X	-
@FILE.NAME	X	-
@FILENAME	X	-
@FM	X	-
@HDBC	-	-
@HSTMT	-	-
@ID	X	-
@IM	X	-
@ISOLATION	-	-
@LEVEL	X	-

Syntax Item	Present	Caché Alternative Exists
@LOGNAME	X	-
@LPTRHIGH	X	-
@LPTRWIDE	X	-
@MONTH	X	-
@MV	-	-
@NB	X	-
@ND	X	-
@NI	X	-
@NS	X	-
@NULL.STR	-	-
@NULL	-	-
@NV	X	-
@OPTION	-	-
@PARASENTENCE	X	-
@PATH	X	-
@RECCOUNT	X	-
@RECORD	X	-
@SCHEMA	-	-
@SELECTED	X	-
@SENTENCE	X	-
@SM	X	-
@STDFIL	X	-
@SVM	X	-
@SYS.BELL	X	-
@SYSTEM.RETURN.CODE	X	-
@SYSTEM.SET	X	-
@TERM.TYPE	X	-
@TIME	X	-
@TM	X	-
@TRANSACTION.ID	-	-
@TRANSACTION.LEVEL	-	-
@TRANSACTION	X	-
@TRUE	X	-
@TTY	X	-

Syntax Item	Present	Caché Alternative Exists
@UDTNO	X	-
@UID	X	-
@USER.NO	X	-
@USER.TYPE	X	-
@USER.RETURN.CODE	X	-
@USERNO	X	-
@USER*n*	X	-
@VM	X	-
@WHO	X	-
@YEAR4	X	-
@YEAR	X	-

For details, refer to "System Variables" in the *Caché MVBasic Language Reference*.

1.5 String Extraction Operators

Table 1–28: MultiValue Basic - String Extraction

Syntax Item	Present	Caché Alternative Exists
<>	X	-
[]	X	-

For details, refer to "Operators" in the *Caché MVBasic Language Reference*.