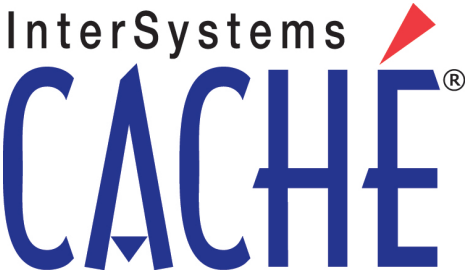

Using the $ZF Function Calls for DSM

Version 5.2
01 September 2006

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Caché Version 5.2 01 September 2006

This book was assembled and formatted in Adobe Page Description Format (PDF) using tools and information from the following sources: Sun Microsystems, RenderX, Inc., Adobe Systems, and the World Wide Web Consortium at www.w3c.org. The primary document development tools were special-purpose XML-processing applications built by InterSystems using Caché and Java.

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This document describes Caché-supplied (intrinsic) functions that are supplied as arguments to the $ZF function for DSM compatibility and conversion.

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For more information on ObjectScript functions generally, see the section Functions in the *Caché ObjectScript Guide*. For more information on the $ZF function, refer to $ZF in the *Caché ObjectScript Reference*.

The function names are shown here in all uppercase letters, but they are, in fact, case-insensitive.

GETJPI Intrinsic Function

Gets job and process information.

```
SET x = $ZF("GETJPI",pid,item,procname)
```

Parameters

pid	The process ID (in decimal).
item	An item code for the process information to be returned.
procname	Process name (instead of pid).

Description

This function returns job and process information.

Parameters

pid

The process ID (in decimal).

item

Item Codes for GETJPI: "ACCOUNT" "APTCNT" "ASTACT" "ASTCNT" "ASTEN" "ASTLM" "AUTHPRI" "AUTHPRIV" "BIOCNT" "BIOLM" "BUFIO" "BYTCNT" "BYTLM" "CLINAME" "CPU_ID" "CPULIM" "CPUTIM" "CREPRC_FLAGS" "CURPRIV" "DFPFC" "DFWSCNT" "DIOCNT" "DIOLM" "DIRIO" "EFCS" "EFCU" "EFWM" "ENQCNT" "ENQLM" "EXCVEC" "FAST_VP_SWITCH" "FILCNT" "FILLM" "FINALEXC" "FREP0VA" "FREP1VA" "FREPTECNT" "GPGCNT" "GRP" "IMAGECOUNT" "IMAGNAME" "IMAGPRIV" "JOBPRCCNT" "JOBTYPE" "LOGINTIM" "MASTER_PID" "MAXDETACH" "MAXJOBS" "MEM" "MODE" "MSGMASK" "NODENAME" "NODE_CSID" "NOD_VERSION" "OWNER" "PAGEFLTS" "PAGFILCNT" "PAGFILLOC" "PGFLQUOTA" "PHDFLAGS" "PID" "PPGCNT" "PRCCNT"

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procname

The process name.

GETDVI Intrinsic Function

Gets device information.

```
SET x = $ZF("GETDVI",devname,item,flag)
```

Parameters

devname	A physical device name, or a logical name that equates to a physical device name.
item	An item code for the device information to be returned.
flag	1 = primary characteristics. 2 = secondary characteristics. The default is 2.

Description

This function returns device characteristics.

Parameters

devname

A physical device name, or a logical name that equates to a physical device name.

item

Item Codes for GETDVI "ACPTYPE" "ALL" "ALLDEVNAM" "ALLOCLASS" "ALT_HOST_AVAIL" "ALT_HOST_NAME" "ALT_HOST_TYPE" "AVL" "CCL" "CLUSTER" "CONCEALED" "CYLINDERS" "DEVBUFSIZ" "DEVCHAR" "DEVCHAR2" "DEVCLASS" "DEVDEPEND" "DEVDEPEND2" "DEVLOCKNAM" "DEVNAM" "DEVSTS" "DEVTYPE" "DIR" "DMT" "DUA" "ELG" "ERRCNT" "EXISTS" "FOD"

"FOR" "FREEBLOCKS" "FULLDEVNAM" "GEN" "HOST_AVAIL" "HOST_COUNT" "HOST_NAME" "HOST_TYPE" "IDV" "LOCKID" "LOGVOLNAM" "MAXBLOCK" "MAXFILES" "MBX" "MEDIA_ID" "MEDIA_NAME" "MEDIA_TYPE" "MNT" "MOUNTCNT" "NET" "NEXTDEVNAM" "ODV" "OPCNT" "OPR" "OWNUIC" "PID" "RCK" "RCT" "REC" "RECSIZ" "REFCNT" "REMOTE_DEVICE" "RND" "ROOTDEVNAM" "RTM" "SDI" "SECTORS" "SERIALNUM" "SERVED_DEVICE" "SHR" "SPL" "SPLDEVNAM" "SQD" "STS" "SWL" "TRACKS" "TRANSCNT" "TRM" "TT_ACCPORNAM" "TT_ALTYPEAHD" "TT_ANSICRT" "TT_APP_KEYPAD" "TT_AUTOBAUD" "TT_AVO" "TT_BLOCK" "TT_BRDCSTMBX" "TT_CRFILL" "TT_DECCRT" "TT_DECCRT2" "TT_DIALUP" "TT_DISCONNECT" "TT_DMA" "TT_DRCS" "TT_EDIT" "TT_EDITING" "TT_EIGHTBIT" "TT_ESCAPE" "TT_FALLBACK" "TT_HALFDUP" "TT_HANGUP" "TT_HOSTSYNC" "TT_INSERT" "TT_LFFILL" "TT_LOCALECHO" "TT_LOWER" "TT_MBXDSABL" "TT_MECHFORM" "TT_MECHTAB" "TT_MODEM" "TT_MODHANGUP" "TT_NOBRDCST" "TT_NOECHO" "TT_NOTYPEAHD" "TT_OPER" "TT_PAGE" "TT_PASTHRU" "TT_PHYDEVNAM" "TT_PRINTER" "TT_READSYNC" "TT_REGIS" "TT_REMOTE" "TT_SCOPE" "TT_SECURE" "TT_SETSPEED" "TT_SIXEL" "TT_SYSPWD" "TT_TTSYNC" "TT_WRAP" "UNIT" "VOLCOUNT" "VOLNAM" "VOLNUMBER" "VOLSETMEM" "VPROT" "WCK"

flag

1 = primary characteristics. 2 = secondary characteristics. The default is 2.

GETSYI Intrinsic Function

Gets system information.

```
SET x = $ZF("GETSYI",item,csid,nodename)
```

Parameters

item	An item keyword code for the system parameter value to be returned, specified as a quoted string.
csid	Node CSID (cluster node ID) parameter for the cluster member from which to obtain information. Specify 0 (as a placeholder) when specifying the optional *nodename* parameter. Specify -1 to search all cluster nodes.
nodename	*Optional* — The name of the cluster node, specified as a quoted string. You can specify the cluster node by *nodename* or by *csid*; when specifying the cluster node by *nodename*, specify a value of 0 for *csid*.

Description

This function returns system information.

Parameters

item

Item Codes for GETSYI: "ACTIVECPU_CNT" "ARCHFLAG" "ARCH_NAME" "ARCH_TYPE" "AVAILCPU_CNT" "BALSETCNT" "BJOBLIM" "BOOTTIME" "CHARACTER_EMULATED" "CLUSTER_EVOTES" "CLUSTER_FSYSID" "CLUSTER_FTIME" "CLUSTER_MEMBER" "CLUSTER_NODES" "CLUSTER_QUORUM" "CPU" "CONTIG_GBLPAGES" "CPUTYPE" "DECIMAL_EMULATED" "D_FLOAT_EMULATED" "HW_MODEL" "HW_NAME" "FREE_GBLPAGES" "FREE_GBLSECTS" "GBLPAGES" "GBLPAGFIL" "GBLSECTIONS" "LOCKIDTBL" "LOCKIDTBL_MAX" "MAXPROCESSCNT" "MAXSYSGROUP" "NODENAME" "NODE_CSID" "PAGEFILE_FREE" "PAGEFILE_PAGE" "PQL_DWSDEFAULT" "PQL_DWSEXTENT" "PQL_DWSQUOTA" "PQL_MWSDEFAULT" "PQL_MWSEXTENT" "PQL_MWSQUOTA" "PQL_MASTLM" "PQL_MBYTLM" "PQL_MDIOLM" "PQL_MFILLM" "PQL_MENQLM" "SCSNODE" "SPTREQ" "SRPCOUNTV" "SWAPFILE_FREE" "SWAPFILE_PAGE" "VERSION" "VIRTUALPAGECNT" "WSMAX"

csid

The cluster node ID. You can specify a specific cluster node, or search through all cluster nodes.

To search all cluster nodes, specify a *csid* value of -1. Each subsequent call using a *csid* of -1 returns the *item* keyword information for the next node in the cluster. Once all nodes have been sequentially gone through, a call with a *csid* of -1 returns an empty string (""). Specifying any *csid* value other than -1 terminates this sequential node access.

SETSYM Intrinsic Function

Sets DCL symbol.

```
SET x = $ZF("SETSYM",symbol,value,flag)
```

Parameters

symbol	The DCL symbol to set.
value	The value for the DCL symbol.
flag	1 = local. 2 = global. The default is 1.

Description

This function sets a DCL symbol to a value. This DCL symbol can be local or global. SETSYM returns the null string.

GETSYM Intrinsic Function

Gets a DCL symbol value.

```
SET x = $ZF("GETSYM",symbol)
```

Parameters

symbol	The DCL symbol to return the value of.

Description

This function returns the value of a specified DCL symbol. This DCL symbol can be local or global. DCL values are set using the SETSYM function.

DELSYM Intrinsic Function

Deletes a DCL symbol.

```
SET x = $ZF("DELSYM",symbol,flag)
```

Parameters

symbol	The DCL symbol to delete.
flag	1 = local. 2 = global. The default is 1.

Description

This function deletes the value of a specified DCL symbol. This DCL symbol can be local or global. DCL values are set using the SETSYM function.

CRELOG Intrinsic Function

Creates a logical name.

```
SET x = $ZF("CRELOG",logname,value,type,table)
```

Parameters

logname	The logical name to create.
value	An equivalence string for the logical name.
type	*Optional* — Table/mode to define. Available values are described below. The default is USER mode.
table	*Optional* — The name of a user-defined logical name table. A *table* value is required if *type*=TABLE. The default is the process logical name table.

Description

This function creates a logical name in the specified logical name table with the specified mode. Defaults are *type*=USER mode and *table*=process logical name table. CRELOG returns the null string.

The available *type* values are:

- USER = process table / user mode.
- SUPERVISOR or PROCESS = process table / supervisor mode.
- JOB = job table — LNM$JOB.
- GROUP = group table — LNM$GROUP.
- SYSTEM = system table — LNM$SYSTEM.
- TABLE = user-defined logical name table.

TRNLNM Intrinsic Function

Translates a logical name.

```
SET x = $ZF("TRNLNM",logname,table,index,acmode,trans,item)
```

Parameters

logname	The logical name to translate.
table	The name of a user-defined logical name table. The default is the process logical name table.
index	Index of logical name if more than one translation.
acmode	Access mode. Available values are USER, SUPERVISOR, EXECUTIVE, and KERNEL.
trans	Type of case translation. Available values are CASE_BLIND and CASE_SENSITIVE.
item	The type of information about the logical name to return.

Description

This function translates a logical name and returns the equivalence name string or the requested attributes. TRNLNM returns the null string if no match is found.

Parameters

item

Item codes for TRNLNM: "ACCESS_MODE" "CONCEALED" "CONFINE" "CRELOG" "LENGTH" "MAX_INDEX" "NO_ALIAS" "TABLE" "TABLE_NAME" "TERMINAL" "VALUE"

DELLOG Intrinsic Function

Deletes logical name.

```
SET x = $ZF("DELLOG",logname,type,table)
```

Parameters

logname	The logical name to delete.
type	Type of logical name.
table	The name of a user-defined logical name table. The default is the process logical name table.

Description

This function deletes a logical name in the specified logical name table.

GETUAI Intrinsic Function

Get user account information.

```
SET x = $ZF("GETUAI",account,item)
```

Parameters

account	An account name.
item	An item code.

Description

This function returns values for authorization parameters of a specific VMS account.

Parameters

item

Item Codes for GETUAI: "ACCOUNT" "ASTLM" "BIOLM" "BYTLM" "DEFDEV" "DEFDIR" "DEF_PRIV" "DFWSCNT" "DIOLM" "ENQLM" "FILLM" "FLAGS" "JTQUOTA" "LASTLOGIN_I" "LASTLOGIN_N" "LGICMD" "MAXACCTJOBS" "MAXDETACH" "MAXJOBS" "OWNER" "PBYTLM" "PGFLQUOTA" "PRCCNT" "PRI" "PRIV" "QUEPRI" "SHRFILLM" "TQCNT" "UIC" "USERNAME" "WSEXTENT" "WSQUOTA"

Examples

The following example shows **GETUAI** used as a function:

```
SET x = $ZF("GETUAI","FRED","USERNAME")
```

GETMSG Intrinsic Function

Returns error message text.

```
SET x = $ZF("GETMSG",code)
```

Parameters

code	A status code for an error.

Description

This function returns the message text that corresponds to the specified status code.

SETPRN Intrinsic Function

Sets name of the calling process.

```
SET x = $ZF("SETPRN",pname)
```

Parameters

pname	A valid VMS process name.

Description

This function sets the name of the calling process to the specified VMS process name.

SETPRI Intrinsic Function

Set the base priority for the process.

```
SET x = $ZF("SETPRI",pri,pid)
```

Parameters

pri	The base priority of a process, specified as an integer from 0 to 15 (inclusive).
pid	The process ID (in decimal).

Description

This function sets the base priority of the specified process. The process must be running CACHE image.

OPCOM Intrinsic Function

Sends a message to the operator.

```
SET x = $ZF("OPCOM",msg)
```

Parameters

msg	A message string to send to the operator terminal(s).

Description

This function sends the specified message to the operator terminal(s). It returns a null string.

MOUNT Intrinsic Function

Mounts the specified device.

```
SET x = $ZF("MOUNT",devnam,label,options,lognam)
```

Parameters

devnam	A device name.
label	A device label.
options	One or more mount options, as specified in the DCL Dictionary.
lognam	A logical name to assign to the device.

Description

This function mounts a device. It calls LIB$SPAWN to issue the DCL command MOUNT.

DISMOUNT Intrinsic Function

Dismounts the specified device.

```
SET x = $ZF("DISMOUNT",devnam,options)
```

Parameters

devnam	A device name.
options	One or more dismount options, as specified in the DCL Dictionary.

Description

This function dismounts a device. It calls LIB$SPAWN to issue the DCL command DISMOUNT.

DIRECTORY Intrinsic Function

Returns the default directory.

```
SET x = $ZF("DIRECTORY",dir)
```

Parameters

dir	A new directory name.

Description

This function returns the current VMS default directory, and optionally sets the VMS default directory to the specified directory.

PARSE Intrinsic Function

Parses a file name.

```
SET x = $ZF("PARSE",filename,defname,relname,keyword,flag)
```

Parameters

filename	The name of the file to be parsed.
defname	The default file name.
relname	A related file name.
keyword	Specifies which field value to return from the parsed file name. Available values are: NODE, DEVICE, DIRECTORY, NAME, TYPE, VERSION.
flag	A flag to indicate whether or not to perform an I/O check. 1 = no I/O check is performed. 0 = I/O check is performed. The default is 0.

Description

This function parses the specified file name and returns a parsed file name. PARSE calls the RMS $PARSE service.

GETFILE Intrinsic Function

Gets file information.

```
SET x = $ZF("GETFILE",filename,keyword)
```

Parameters

filename	The name of a file.
keyword	Specifies which attributes to return from the file.

Description

This function returns information about the specified file. It emulates the F$FILE_ATTRIBUTES lexical function, using the same keywords. GETFILE returns the UIC in standard OpenVMS format, and returns TRUE or FALSE as 1 or 0.

Parameters

keyword

Keywords for GETFILE: "ALQ", "BDT", "BKS", "BLS", "CBT", "CDT", "CTG", "DBS", "DEQ", "DID", "DVI", "EDT", "EOF", "FID", "FSZ", "GRP", "GBC", "IBS", "LRL", "LVL", "MBM", "MRN", "MRS", "NOA", "NOK", "ORG", "PRO", "PVN", "RAT", "RCK", "RDT", "RFM", "RVN", "SIZ", "UIC", "WCK"