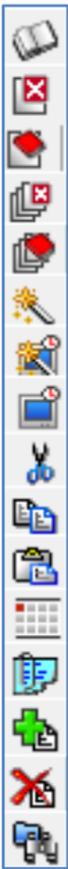# proiv

Quick Reference Guide

Version 8.0

PROIV Developer Tools

Image   Description

General Object Open

Function Open

Open a File Definition

Open a Global Logic

Open a Control Bar

Open an Action Control

Open Global Messages

Open Value Variables

Open the PROIV Dictionary

Open a Standard Task

Open a RESTful Task

Open Work Lists

Name New Function

Name Function from a Template

New File Browser

New File Report

New File Definition

New Global Logic

New Control Bar

New Action Control

New Standard Task

New RESTful Task

	Toggle Automatic Book-In Object
	Close Object
	Close and Book-In Object
	Close All Objects
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	Build execute the current Function
	Run the Current Function
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	Copy selected objects to Clipboard
	Paste clipboard contents after current selection
	Select active clipboard slot
	Paste a function fragment after current selection
	Add objects after selection
	Delete selected objects

	Search within function

	Remove redundant code from function
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	Current highlighted object properties
	Function properties
	Logic selection and edit
	Logic bookmarks
	Maintain global function and ActiveX interface maps
	Cycle calls within this function
	Function scratch variable maintenance
	Function error messages
	Open current parent cycle in Forms Designer
	Maintain function keys
	Maintain overloaded action controls
	ActiveX control events

Icon	Label
	Change Management
	Administration Suite
	Developer Options
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	EOD
	Connect
	Disconnect
	New
	Open
	Save
	Cut
	Copy
	Paste
	Larger Font
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	Window
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PROIV Developer Root Screen Tabs

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Display Comm Vars
Display System Info Display
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Bulk Fixl Xref
Bulk SQL Script Creation
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History
Clear Backups Clear CCN's
Terminal Types
Terminal Assignment Batch Q
Monitor System Defaults

CCN Tab
Change Control Management

General Information
Function Types

Code	Function Type		Function	Key
D	Document		Add Mode	<F5>
M	Menu		Cancel	<Esc> or
R S	Report			'<Enter>
	Screen		Change Mode	<F6>
U	Update		Delete Mode	<F7>
			Expand Mode	<F8>
			Field Help Msg	?<Enter>
			Help	<F1>
			Insert Mode	<Ctrl+F5>
			Lookup Mode	<F8>
			Save (EOD)	<F3> or .<Enter>
			Tab Back	<Shift+Tab>or
				[<Enter>
			Tab Forward	<Tab> or
				|<Enter>
			Window	<F4>

Keyboard Control Keys header spans the right columns (Function / Key).

PROIV Logic Point Names For Function Types

Function Type	Function Level
S, M, U, R, D	On Function Entry
S, M, U, R, D	On Function Exit

	Cycle Level
S, U, R, D	On Cycle Entry
S	Screen Mode
S, U, R, D	Sort/Select
S	Function Key
S	On Cancel/Commit
S, U, R, D	On Cycle Exit

	Format Level
D	Before Heading
D	After Heading

	Drag and Drop
S	On Drop Source
S	On Drop Target

	Field Level
S, M	On Focus
S, M	On Window
S	Standard Validation
S	Custom Validation
S, M	On Refresh
S	Lost Focus
M	Logic On Selection
R, D	After Process

	File Access
S, U, R, D	Key Mapping On Sort/Select
S, U, R, D	Before Read
S, U, R, D	On Record Lock
S, U, R, D	On Read Error
S, U, R, D	After Read
S, U, R, D	Before Write
S, U, R, D	On Write Error
S, U, R, D	After Write

General Information - continued

Function Type
U, R, D
U, R, D
U, R, D

Control Break
Before Control Break
After ControlBreak
On Next Record

Function / File Modes

Function Modes
A	Add
C	Change
D	Delete
I	Insert (Paging Screen)
L	Lookup

File Modes
A	Add
B	Both: Add or Change
C	Change
D	Delete
L	Lookup
M	Change or Delete
N	No File Access
R	Rename Key

Fill Codes (Alpha Data)
LFB	_____123
LFZ	000000000123
RFB	123_____
RFZ	123000000000

Display Codes
4.0	1000
4.0-	1000-
4.1	1000.0
4,0	1,000
4,2	1,000.00
DATE	DD/MM/YY
DATE4	DD/MM/YYYY
PHONE	(123) 456-7890
SSNO	123-45-6789
TIME	HH:MM:SS

Data Types

File Definition
A	Alpha Field
AK	Alpha Key
K	Alpha Key
L	Long Numeric Field
N	Numeric Field
NK	Numeric Key
S	Reality Subfile
W	Wide Field
WK	Wide Key

Structures
GS	Group Start
GE	Group End
RS	Redefine Start
R	Redefine Value
RE	Redefine End

Note: See Alternate Index File Mapping in VIP File Definition

Scratch Variable Indicators
$	Alpha Max 2000
$$	Alpha Max 2000
#	Numeric Max 12/15
##	Numeric Max 20

Value Variable Indicators
&$	Alpha Global
&#	Numeric Global
%$	Alpha CoDiv
%#	Numeric CoDiv

System Environment Variable Indicators
&$@~	Alpha Env
&#@~	Numeric Env

Special Checks
.....	Global Logic Name
ALPHA	A - Z Char check
DATE	Date check
DATE4	Date check
NONZERO	0 check
NUMERIC	Numeric check
TIME	Time check
Y	Y Char check
Y/N	Y, N or Blankcheck

PROIV Internal Communication Variables

@$COM1 through @$COM9	Alpha 32 characters
@$COM10	Alpha 80 characters
@!COM1 through @!COM9	Wide 15 characters
@!COM10	Wide 40 characters
@#COM1 through @#COM10	Numeric 17 characters

PROIV System Variables

$INPUT = Alpha keyboard data

!INPUT = Wide keyboard data

#INPUT = Numeric keyboard data

@CFLD = Previous cursor field number

@CLIENTINFO = Returns the handle of PROIV Client main window.

@CRTLEN = The length of the screen, in rows.

@CRTLEN = The length of the screen, in rows.

@COMP = Current CoDiv code

@COUNT = Number of records selected for processing

@CPSEQ = Previous cursor record number in paging

@CUREVENTTAG = Name of the ActiveX event fired

@CURFLDNAME = Name of the current field

@CURFUNCT = Name of the fuction currently executing

@CURLSNAME = Name of the current cycle

@DATE = PROIV internal system date, number of days since De- cember 31, 1799

@DFUNCT = Function name to execute when <Ctrl+Break> is depressed

@DTFMT = Date format
0 = MM/DD/YY
1 = DD/MM/YY
2 = YY-MM-DD

@EFUNCT = Function name to execute on current function error exit

@EODEXIT = True when EODEXIT statement is executed

@ERR = System error number

@ERRARGS = System error arguments

@ERRTEXT = System error text

@FLD = currently processed field number, Screen & Report

@EVENTNAME = Name of the ActiveX event fired

@FNKEY = Most recent function key number used

@FUNCT = Current function name

@LFUNCT = Function name to execute upon normal exit of current function

@LINE = Current line number on cur- rent page of a report

@LS_TITTLE = Contains / defines the function cycle title

@MENUNAME = Name of the last menu function executed

@MODE = Current screen function mode: A, C, D or L

@MODE_EXTENDED = Current screen function mode, includes insert mode: A, C, D, I, or L

@MSG = PROIV message number

@MSGARGS = PROIV message parameters

@MSGTEXT = PROIV message text

@OPR = Current PROIV operator ID

@PAGE# = Current page number of a report function

@PFKEY = Function key number previ- ously used

PROIV System Variables -continued

@PFUNCT = Name of previously executed function

@PRODEF = Path of alternate lan- guage bootstrap directory

@PSEQ = Index number gener- ated for use in indexed paging screen

@RETCD = Function return code

@RETRYCOUNT = Count of record lock retries

@RFUNCT = Function name to execute when transaction rollback occurs

@RPTOPT = Dynamically defines spooler parameters

@SELECT = Selection number entered at last menu

@SERVERID = The id of the server to which the client is connected.

@SFUNCT = Function name to execute when security violation occurs

@SPSEQ = Sequence number of first record displayed in a paging screen

@SQL_TIMEOUT = SQL_TIMEOUT environment variable value

@STDERR = RDBMS SQL error status code

@SYSERR = Last operating system error in hexadecimal during cur- rent function

@SYSERRDESC = Description of operating system error

@SYSERRTEXT - Operating system error text

@SYSID = PROIV Sytem ID of current system type: MSDOS, UNIX, VMS

@SYSPASS = PROIV system display pass indicator

@TIME = Current system time

@TFUNCT = Function name to execute when keyboard inactivity timeout occurs

@TIMEOUT = Keyboard inactivity timeout in minutes

@TASKID = Task number of last job submitted to server

@TERM = Current PROIV terminalID

@TASK = Task Name of current task

@VMODES = Sets screen mode restrictions

@XFUNCT = Function name to ex- ecuted on user-initiated abnormal exit

@XMODE = Overrides specified screen function mode in the next cycle

@XOFSET = Positions cursor at speci- fied position for field in edit mode

Arithmetic Operators

+	Addition
/	Division
**	Exponentiation
*	Multiplication
-	Subtraction

Relational Operators

=	Equal
# or <>	Not equal
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to
IN-ALPHA	Alpha match
IN-RANGE	Range check

Logical Operators

AND	True if both are equal
NOT	True if either are false and false if either are true
OR	True if either or both are true

Process Control Commands

Command	Description
ABORT_EXIT()	Overrides EOD and Cancel exit.
BITOFF(flagname)	Tests for the 'off' state of a PROIV System Variable flag. ie &#@BIT0 - &#@BIT64
BITON(flagname)	Tests for the 'on' state of a PROIV System Variable flag. ie &#@BIT0 - &#@BIT64
CALLEXIT({return code})	Returns control to calling function or logic screen, after processing end-of-function logics.
DISABLE(option)	Turns off a PROIV System Variable. Ie &#@FHELP
DSEL-ALL-CB()	Deselects all Control Breaks.
DSEL-CB()	Deselects a Control Break.
ENABLE(option)	Turns on a PROIV System Variable, ie &#@FHELP
EODEXIT(exitMode) 0 = FLD(999) 1 = <F3> plus exits current cycle	Overwrides normal cycle exit.
FNEXIT{exit code}	Terminates a function immediately.
GLOBAL_LSCALL(function name{,interface ID{,return code}})	Executes a Global Function call.
LSCALL(LS_name {,return_code})	Invokes an Screen, Report, or Update cycle. Note: return_code causes a 'gen' error.
LSEXIT({exit code})	Terminates the current Screen, Report, or Update cycle.
TASK_EXIT()	Automatically links to the task exit or task error function and return error codes.

Process Control Commands - continued

OR TASK_EXIT({Err#})	The number of the message in the message file.
OR TASK_EXIT({Err#, argument-list})	The number of the message in the message file plus displays argument list as first parameter.
OR TASK_EXIT({'U', message-string})	Displays the message-string as a programer defined message.

Branching Within A Logic Routine

PAGE_BREAK()	Causes a Page Break.
PARMS scratch-var1 {,scratch-var2...} CALL	Declares formal parameters to global logic.
step-number	Calls a specified step label within a logic routine.
EXIT	Branches out of the logic routine.
FLD(field){,skip{,backtab}}...) - Screens FLD(field,{option}) - Reports	Sets the value of the field to be processed when the current logic and any associated processing is complete.
RETURN	In a CALLed step, causes processing to return to statement following CALL.
STEP step-number	Branches to a specified step label within a logic routine.

Conditional Commands

CASE case-selector WHEN case-list: statement or block {OTHERWISE: statement or block} ENDCASE	Conditionally selects a statement or block of statements for execution.

Conditional Commands - continued

IF expression {THEN statement(s)} {ELSE statement(s)} ENDIF OR IF variable {THEN statement(s)} {ELSE statement(s)} ENDIF	Conditionally selects a statement or block of statements for execution.
WHILE condition statement or block ENDWHILE	Causes a statement or block of statements to be executed repeatedly until a condition is met.

File Control Commands

ALIAS(filename,alternate-filename)	Changes the file of reference.
#variable = COMMIT()	Request immediate commit of data-base.
DSEL	Deselects a pass of an Screen, Report, or Update cycle.
DSELF	Deselects a file.
ISNULL(variable{,variable}...)	Tests for null data condition in data buffers.
RETRY_READ()	Reread a locked record.
#variable = ROLLBACK()	Transaction processing command.
SEL-ONLY(operand)	Selects a range of records from the primary file (generic processing).
SEL-PARTIAL(operand)	Selects a range of records from the primary file (generic processing).
SEL-RANGE(operand)	Selects a range of records from the primary file.

File Control Commands - continued

SET-CURR(key_var)

Used to select the record for the initial cursor position on a paging screen.

SET_RECORD_ FOR_ DELETE

Changes write mode to delete for "M" or "R" file modes.

SETNULL(variable{, variable}…)

Sets data buffers to a null data state.

SUPPRESS_RETRY()

Prevent automatic re-reading of a locked record.

String Processing Logic

IN-LINE SUBSTRINGING operand1(operand2,operand3{, operand4})

Finds a specific portion of an alphanumeric or wide string. **Note:** The following string processing logics support strings up to 2,000 bytes in length.

IF value IN-ALPHA 'string' THEN statement;

Tests if one string is within another string, on a byte-by byte basis.

IF value IN-ALPHA-NLS 'string' THEN statement;

Tests if one string is within another string by characters.

INDEX(search-string, find-string)

Returns the start position of one string within another string in bytes.

INDEX_NLS(search-string, find- string)

Returns the start position of one string within another string in characters.

LEN(operand)

Determines the length of a string in bytes.

LEN-NLS(input-string)

Determines the length of a string in characters.

LEN-SCREEN(input-string)

Returns the length on the screen for a multiple-byte string.

SUBSTR(operand1,operand2, op erand3)

Returns an alphanumeric substring. (This is being replaced by IN-LINE SUBSTRINGING.)

UPPER_CASE(operand)	Converts a string into uppercase.
LOWER_CASE(operand)	Converts a string into lowercase.
MIXED_CASE(operand)	Converts a string to mixed case (first letter in uppercase and the rest changed to lower case).
STRCOMP (operand1,operand2,operand3)	Compares two strings (in either case sensitive or insensitive mode) returning result value.
TRIM(operand1,{operand2,operand3})	Removes specified characters from a string.
TRIML (operand1)	Removes leading spaces from a string.
TRIMR (operand1)	Removes trailing spaces from a string.
CHANGE (operand1,operand2,operand 3)	Replaces all occurrences of a sub-string (within the source string) with the replacement sub-string.
TOKEN (InString,delimiters1,delimiter,EndOfString)	Can be called iteratively to return the string delimited by a list of delimiters
SQUOTE (operand)	Envelops a string with single quote characters.
DQUOTE (operand)	Envelops a string with double quote characters.
XQUOTE (operand1,operand2)	Envelops a string with a specified character or the first character in the specified string.

Date Conversions

CDATE(alpha-date{,mask})
OR
CDATE(numeric-date{,mask})

Converts alphanumeric dates to numeric format, or vice versa. Setting the environment variable CDATE_50=Y (CDATE50 on the Mainframe) causes CDATE to use the "50-year Rule" for two-digit years.

Data Conversions

ALPHA(operand)

Converts data from either numeric wide or mixed to alphanumeric.

ALPHAVAL(operand)

Converts data from wide to alphanumeric.

CONV(operand)

Converts data from either alphanumeric or wide to numeric.

NUMERIC(operand)

Performs the conversion with no editing.

PIC(operand,mask)

Performs the conversion with editing.

WIDEPIC(operand,mask)

Performs the conversion with editing.

WIDEVAL(operand)

Converts data from either numeric or alphanumeric to wide.

Character Translations

ASCII(operand)

Returns the ASCII equivalent character of an EBCDIC character.

CHAR(operand)

Returns the character of a numeric value, depending on the character set of the system.

EBCDIC(operand)

Returns the EBCDIC equivalent character of an ASCII character.

ORD(operand)

Returns the ordinal value of an alphanumeric character.

Miscellaneous Commands

CHECK-INPUT	Postpones processing of special characters until after Check logic has been executed.
CTIME(operand)	Converts an alphanumeric time to numeric format, or vice versa.
#STATUS = DDE_EXECUTE ($service_name, $topic_name, $command)	Executes an application command.
#STATUS = DDE_LAST_ERROR ($error_number, $error_text)	Returns the last DDE error code.
#STATUS = DDE_POKE($service_ name, $topic_name,{$dde_item_ name, $dde_item_value})	Sends data to an application.
#STATUS = DDE_REQUEST ($service_name, $topic_name {$dde_item_name, $dde_item_ value} ...)	Used to request data from an application through the DDE links within Windows.
EXTERN(var1{,var2,...varn})	Specifies that one or more scratch variables are to be shared between the global logic and the functions in which it is used.
#status = GET_LOGICAL_PATH (logical path name, directory name)	Provides information about a logical path definition.
#variable = GETLPSEQ(file-name)	Determines the last sequence number used.
GMSG(operand1 {operand2,} {operand3}...) IN-RANGE	Displays a globally defined user message or the contents of a variable.
	Tests whether a value is within specified range.
LITERAL_TEXT(alpha literal name)	Eases translation to another language.

Miscellaneous Commands - continued

LITERAL_WIDE_TEXT(wide literal name)	Eases translation to another language.
MAX-PAGE(#)	Sets the maximum number of paging lines in an auto-sequenced paging screen.
MSG(operand)	Displays a user-defined message when an error is encountered.
PFKEYCAP(fn-key-number)	Retrieve the keycap text entered at the $CRT screen for keys that are application definable.
PFKEYUSAGE(fn-key-number) REL-PSB	Retrieves the usage text entered.
	Releases the PSB currently in use by PROIV. (Supported on Mainframe only.)
#STAT = SET_HELP_FILENAME ("operand")	Allows dynamic selection of Windows help file to be used for display of group and field level help.
SET-LANGUAGE-PATH(log_db_ name)	Allow assignment of logical database name as the default object base.
SET_RPTOPT("operand1", "operand2","operand3")	Sets the current report device name and type for subsequent report output.
UMSG(operand1{,operand2})	Displays a user-defined message or the contents of a variable.
WINLOCATE(LS-num,row,col)	Specifies or changes the screen coordinates of a window. WINLOCATE does not function in Windows environments.
FLDLOOP(operand)	Sets limit for number of FLD state- ments that can be executed within one execution of logic routine. (Supported on Mainframe only.)

Loop Processing Commands

FOR control-variable = initial-value TO final-value BY increment/decrement}	Causes a statement or block of statements to be executed repeatedly until a condition is met.
ENDFOR OR FOR control-variable = initial-value DOWNTO final-value {BY increment/decrement} statement or block ENDFOR	
LOOPEXIT	Transfers control from block within a FOR or WHILE loop to the statement following the ENDFOR or ENDWHILE statement.
LOOPNEXT	Transfers control from block within a FOR or WHILE loop to ENDFOR or ENDWHILE statement.
STEPLOOP(operand)	Sets limit for number of STEP statements that can be executed within one execution of a logic routine. (Supported on Mainframe only.)

Arithmetic And Numeric Operations

FRAC(operand)	Determines the fractional portion of a number.
INT(operand)	Determines the integer portion of a number.
MAX(operand1, operand2, . . . operandn)	Determines the maximum (largest) value of a series of numbers.
MEAN(operand1, operand2, . . . operandn)	Determines the mean (average) of a series of numbers.
MIN(operand1,operand2, . . . operandn)	Determines the minimum (smallest) value of a series of numbers.
PRECISION(rounding-factor)	Sets number of decimal places in the result of an arithmetic operation.

Arithmetic And Numeric Operations - continued

REM(operand1,operand2)
Determines the remainder of a division operation.

ROUND(operand1, operand2)
Rounds a numeric value to the specified number of decimal places.

#var-name = VERT-TOT (file-var)
Returns the vertical total for a variable.

External Program Interface

LINK($name, $param1...)
Calls a subroutine directly from the kernel. If issued from a UNIX or VMS kernel, the subroutine indicated by the LINK verb must be physically linked to the kernel at build time. If issued from a Windows kernel, the subroutine must be in a DLL that that is called by the kernel process. (see the PROLINK INI file directive).

#RC = LINK_CLIENT_VAR ($name,$param1, {direction}...)
A faster and more functional replacement for the LINK-CLIENT verb. It supports keywords on the call to indicate whether a parameter is an input to the DLL, an output (return) parameter, or both.

LINK-CRT($name, $param1...)
Calls an external procedural language routine from PROIV and provides screen refreshing.

#STAT = SYSTEM(statement)
An external program is called from PROIV with the expectation that the called program will return control to PROIV.

#STAT = SYSTEM-CRT (statement)
A pass command to the operating system and provides for screen refreshing.

#var-name = XFER(program)
PROIV transfers control to an external program with no provision for the return of control to PROIV.

External Program Interface - continued

XFERIN(var1, var2, ... varn)	An external program calls PROIV and provides for the return of control.

Full Function SQL Interface Keywords

SQL SQL-statement ENDSQL	Keyword indicating the start of a full function SQL statement.
SQL DYNAMIC	Keyword indicating the start of a full function SQL dynamic statement.
ENDSQL	Keyword indicating the end or a full function SQL statement.
#STAT = SYS-SQL(statement)	Executes an SQL Statement immediately.

PROIV System Value Variables

&#@ALIAS	Superseded by the ALIAS logic command.
&#@BACK-TAB	When enabled, allows the operator to modify previously entered fields on a cycle in Add or Change mode (non-buffered terminals only).
&#@BIT0 to &#@BIT63	64 user-set bits for passing conditions between functions.
&#@CALL-EXIT	Permits the designer to control post CALLEXIT processing.
&#@CONT-RPT	When enabled, page mode reports print in contracted.
&#@DECEDT	When enabled, displays numerics in the form 9.999.999,99. When disabled, displays the form 9,999,999.99.
&#@DSEL-VT	When enabled, enables vertical total accumulation.

PROIV System Value Variables - continued

&#@EMODE	When enabled, forces the next field to be in edit mode rather than add mode.
&#@EURCURR	When enabled, modifies the cur- rency display code such that the full stop/period is used as thousands and thousandths separator, and the comma is used as the decimal point.
&#@EUROF	When enabled, the date display code is set to European format (DDMMYY for input and DD/MM/YY for display).
&#@FHELPF	When enabled, forced help is turned on.
&#@Windows-MODE	When enabled, indicates the application is running under a windows-type environment.
&#@INSMODE	When enabled, forces field editing mode to 'Edit with Insert'.
&#@INTERRUPT	When enabled, allows use of the interrupt key. When disabled, prevents use of the interrupt key to exit the function.
&#@LCTRTF	When enabled (set), indicates that PROIVXXXX is in expanded mode.
&#@LSUPDATE	When enabled in default logic for a nested cycle, causes it to be processed as an update.
&#@NO-CR	When enabled, forces next field to not require a carriage return terminator.
&#@NO-ECHO	When enabled, the display of data entered is suppressed.
&#@NORESET	When enabled, the display of the message "Function Reset In Progress" during function gen is suppressed.

PROIV System Value Variables - continued

&#@RPAGEF

When enabled, reports are output one page at a time followed by the prompt MORE? (Y/N/C).

&#@RTCONT

When enabled, forces the user to enter RETURN before displaying the next screen.

&#@SQL-SORT

When enabled, instructs system to use specific SQL-SORT capability to improve performance when sorting.

&#@SUPDETF

When enabled, the output of detail lines in a logical report is suppressed.

&#@SUPP-CANX

When enabled, prevents use of the CANCEL key to exit a cycle.

&#@SUPP-COMM

Transaction processing. When enabled, suppresses the issuing of commit requests.

&#@SUP-CWIN

Sets the suppress close window flag.

&#@SUPP-EXIT

When enabled, prevents the operator from canceling or not completing a cycle.

&#@UPDNCHILD

When enabled in a field after the Last Read Field cancel is suppressed.

&#@UPDPARENT

When enabled and Calling screen is in a field after the Last Read Field, cancel is suppressed in Calling screen.

&#@V14CF

When enabled, turns Version 1.4 capability on.

&#@V22EODCAN

When enabled, EOD functionality is disabled.

&#@V22RCDLOK

When enabled, record-locking behavior is disabled.

Properties And Methods

Application Objects

Variable = Application.AboutBox
OR
Application.AboutBox =
""Global- function-name,Help-
menu-item""

To retrieve or specify the submenu text to be displayed in the Help Menu and the global function-name to be called when the sub-menu item is selected.

Variable = Application.
DisableInterrupt
OR

Application.DisableInterrupt =
Value

To retrieve or specify whether the <Break> key interrupt will be recognized.

To retrieve or specify the time interval (in seconds) in which the count of records processed so far is updated.

Variable = Application.
DisplayProgressTime
OR
Application.DisplayProgressTime
= Refresh-time-interval

To retrieve or specify if a new look and feel to all subsequent paging screens without having to modify the properties of each paging cycle.

Variable =
Application.PaginModel
OR
Application.PagingModel =
Value

Specifies if shortcut menus are displayed when a field or record in a paging cycle is clicked using the secondary mouse button.

Application.RightClickMenus
= Value

Application.TabNavigation =
Value

Specifies if the user can navigate around every edit field by using the <Tab> and <BackTab> (Shift+<Tab>) keys without the developer having to set the TABSTOP attribute on every field.

Client Objects

Variable =
CLIENT.EXECUTE(Filena
me{,Parameters,{Directory,{Sho
w Cmd, {SynchFlag}}}})

A method that provides the ability to execute a file on the Windows Client.

Variable = CLIENT.GET
(ServerFileName,
ClientFileName)

To transmit a file from the kernel to the Windows Client, and store it on the Client machine (method).

Client Objects - continued

Variable = CLIENT.GETPATH(LogicalDatabaseName, ResolvedPath)	To resolve a Client-side logical database name to a full path on the Client's machine (method).
Variable = CLIENT.PRINT (Filename)	To print the specified file that resides on the Windows Client on the Windows default printer of that Windows Client's machine (method).
Variable = CLIENT.PUT (ServerStorage, ClientStorage)	To transmit a file from the Windows Client to the kernel, and store it on the kernel's machine (method).

Cycle Objects

Cycle_tagname.ClearFormat()	A method to clear format objects from a cycle.
Cycle_tagname.ForceWrite()	A method to allow data to be updated from the first input field of a paging screen, even if the EOD key has been pressed prior to the last read field or on the first enterable field.
Variable = ObjectReference. OneTime OR ObjectReference.OneTime = Value	To retrieve or specify if the One-time flag is applied to the cycle.
Variable = ObjectReference. ScaleWallpaper OR ObjectReference.ScaleWallpaper = Value	To retrieve or specify the current graphic applied as scalable wallpaper.
Variable = ObjectReference. Wallpaper	To specify which graphic is to be applied as a wallpaper to a screen cycle.
ObjectReference.AutoComplete = Value	To specify whether a <Return> is automatically applied on either a change of content for a Combo Box, Check Box or Radio Group, or when the input field length is reached for an Edit Box.

Dynamic Objects

Variable = ObjectReference.Auto-CompleteEntry OR ObjectReference.AutoCompleteEn- try = Value	To retrieve or specify if and how the user is offered remembered entries as data is typed into an edit box or combo box.
RadioGroup_tagname.Button(button_tagname)	A method to return an object reference for a radio button object.
Variable = ObjectReference. ColumnHeader OR ObjectReference.ColumnHeader = Value	To retrieve or specify the text to be displayed as the column header in a paging cycle.
ObjectReference.MandatoryInput = Value	To specify whether data is required. Applies to field objects.
ObjectReference.NoChange = Value	To specify that data cannot be changed, if the screen is in change mode, when applied to a field object.
ObjectReference.Refresh()	To redisplay field data (method).
Variable = ObjectReference. RememberSettings OR ObjectReference. RememberSettings = Value	To retrieve or specify to remember the column order, column widths, and column sort order for list boxes between invocations of the list box.
Variable = ObjectReference. SortOnColumnClick OR ObjectReference.SortOnColumn-Click = Value	To retrieve or specify whether the End-user is allowed to sort on any columnin a list box or paging screen.
ObjectReference.TabStop = Value	To specify whether the field object will behave as a tab stop.

Dynamic and Static Objects

Variable = ObjectReference. Alignment OR ObjectReference.Alignment = Value	To retrieve or specify which alignment is applied to labels and field data.
Variable = ObjectReference. BackColor OR ObjectReference.BackColor = Value	To retrieve or specify which color is applied to the background area of an object.
Variable = ObjectReference.Bold OR ObjectReference.Bold = Value	To retrieve or specify whether the bold attribute is applied to text.
Variable = ObjectReference. BoxAppearancennn OR ObjectReference.BoxAppearance = Value	To retrieve or specify which shape style is applied to a box.
Variable = ObjectReference. CursorGraphic OR ObjectReference.CursorGraphic = Value	To retrieve or specify the cursor graphic image used for the Windows cursor when the mouse pointer hovers over an icon or button which has a response defined.
ObjectReference. DefaultEscapeHotSpot = Value	To specify the icon or button that will be mapped to the <Escape> key.
ObjectReference.DefaultHotSpot = Value	To specify the icon or button that will be mapped to the <Enter> key.
Variable = ObjectReference. DisabledGraphic OR ObjectReference.DisabledGraphic = Value	To retrieve or specify the graphic to be used when the icon or button (which must have a response string defined) is disabled, overriding the default gray- ing supplied by PROIV.
Variable = ObjectReference.Enable OR ObjectReference.Enable = Value	To retrieve or specify whether a field or format object will be displayed as active.

Dynamic and Static Objects - continued

Variable = ObjectReference.
FontName OR
ObjectReference.FontName =
Value

To retrieve or specify which font is applied to all objects (except lines and check boxes).

Variable = ObjectReference.
ForeColor OR
ObjectReference.ForeColor =
Value

To retrieve or specify which color is applied to the foreground area of an object.

FullSelect
Note: Only available in the
Devel- opment environment.

Selects one of two modes for the selection of text in an editable text field. Either all of the text is selected (the default) or the cursor is placed at the end of the text.

Variable = ObjectReference.
Graphic OR
ObjectReference.Graphic =
Value

To retrieve or specify the name of the graphic file to be applied to an icon, button or combo box button.

Variable =
ObjectReference.Italic OR
ObjectReference.Italic = Value

To retrieve or specify whether the italic attribute is applied to text.

Variable = bjectReference.Label
OR
ObjectReference.Label = Value

To retrieve or specify the label that is applied to a button, icon, radio group, radio button, format text, or format box.

Variable = ObjectReference.
MouseOverGraphic OR
ObjectReference.
MouseOverGraphic = Value

To retrieve or specify the graphic to be applied to a button or icon (which must have a response string defined) when the cursor is positioned over it.

Variable = ObjectReference.
MouseOverLabel OR
ObjectReference.
MouseOverLabel= Value

To retrieve or specify the label to be applied to a button or icon when the mouse pointer is positioned over it.

Dynamic and Static Objects - *continued*

Variable = ObjectReference.
MousePressedGraphic
OR ObjectReference.
MousePressedGraphic =
Value

To retrieve or specify the graphic to be applied to a button or icon (which must have a response string defined) when the mouse pointer is over it and the primary mouse button is depressed.

Variable = ObjectReference.
MousePressedLabel
OR ObjectReference.
MousePressedLabel = Value

To retrieve or specify the label to be applied to a button or icon when the mouse pointer is over it and the primary mouse button is depressed.

ObjectReference.
MOVE(start_row, start_column, width, height)

To specify the new size or location of a field or format object (method).

Variable =
ObjectReference.Scale
OR
ObjectReference.Scale = Value

To retrieve or specify if the scale attribute of the object GUI height and width, when applied to an icon, button or format text.

Variable = ObjectReference.
ShapeBold OR
ObjectReference.ShapeBold =
Value

To retrieve or specify if a bold outline is to be applied to a box.

Variable = ObjectReference.
ShapeProjection OR
ObjectReference.
ShapeProjection = Value

To retrieve or specify the visual level on which an object will be displayed is to be applied to a box.

Variable = ObjectReference.
StrikeOut OR

ObjectReference.StrikeOut
= Value

To retrieve or specify whether the strikeout attribute is applied to text.

Variable = OjectReference.
ToolTip OR

ObjectReference.ToolTip
= Value

To retrieve or specify the text to be displayed as a Windows® tooltip when the mouse hovers over an object on the screen.

Dynamic and Static Objects - continued

Variable = ObjectReference.
Underline OR
ObjectReference.Underline
= Value

To retrieve or specify whether the underline attribute is applied to text.

Variable = ObjectReference.
Visible OR
ObjectReference.Visible
= Value

To retrieve or specify whether a field or format object will be displayed as visible.

Paging Cycle Objects

ObjectReference.AllowSelection
= Value

To specify whether more than one row, or a rectangular region of fields, can be selected in a paging cycle.

ObjectReference.AutoCount =
Value

To specify whether the number of records in a paging file is determined before the paging cycle is first displayed.

ObjectReference.
ConfirmOnDelete = Value

To specify whether the user is asked to confirm a record deletion in a paging cycle.

Variable = ObjectReference.
CurPagingSequence OR
ObjectReference.
CurPagingSequence = Value

To retrieve or specify the currently selected paging sequence record number in a paging cycle.

Variable = ObjectReference.
EndPagingSequence

To return the last paging sequence record number displayed in a paging cycle.

Variable = ObjectReference.
EvenColor OR
ObjectReference.EvenColor
= Value

To retrieve or specify which color is applied to the even-numbered records of a paging cycle.

Variable = ObjectReference.HighlightColor OR ObjectReference.HighlightColor = Value	To retrieve or specify which color is used to distinguish a selection region on a paging cycle.
ObjectReference.HighlightRecord = Value	To specify whether the current record on a paging cycle will be highlighted with a horizontal bar.
ObjectReference.NoClearOnAdd = Value	Specifies screen clearing mode when adding or inserting records in a paging cycle.
ObjectReference.NoNavigationField = Value	To specify whether the first column on a paging cycle is treated as a navigation field.
Variable = ObjectReference.OddColor OR ObjectReference.OddColor = Value	To retrieve or specify which color is applied to the odd-numbered records of a paging cycle.
ObjectReference.OddEvenType = Value	To specify if the records in a paging cycle should be displayed in alternating colors.
ObjectReference.RecordCount = Value	To specify the number of records in a paging file to the GUI Client, in order to set the size of the scroll bar thumb.
ObjectReference.RefreshPage()	To redisplay paging cycle data (method).
ObjectReference.ResizeableColumn = Value	To specify whether the end-user is allowed to resize any column in the contracted mode of a paging cycle.
ObjectReference.Scroll = Value	To specify the visual appearance of the vertical scroll bar in a paging cycle.
ObjectReference.SmoothModeSwitch = Value	To specify whether more streamlined methods of mode changing are enabled in a paging cycle.

Variable = ObjectReference. SortOnColumnClick OR ObjectReference. SortOnColumnClick = Value	To retrieve or specify whether the end- user is allowed to sort on any column in a list box or paging screen.
Variable = ObjectReference. StartInNavigation OR ObjectReference. StartInNavigation = Value	To retrieve or specify where the cursor is placed when you enter a paging cycle in Change mode.
Variable = ObjectReference. StartPagingSequence OR ObjectReference. StartPagingSequence = Value	To retrieve or specify the starting paging sequence record number (the first record displayed) in a paging cycle.

Session Objects

Variable = Session.Mode	To retrieve the kernel mode (either Component or Standard).

Static Objects

HandlerOnly **Note:** Only available in the Development environment.	To specify that an ActiveX control has Screen persistence in the current function.
Variable = ObjectReference. Inset OR ObjectReference.Inset = Value	To retrieve or specify whether the inset attribute is applied to text.
Persistence **Note:** Only available in the Development environment.	To define the persistence (lifetime) of an ActiveX control.
Variable = ObjectReference. Raised OR ObjectReference.Raised = Value	To retrieve or specify whether the raised attribute is applied to text.
TextBox **Note:** Only available in the Development environment.	To specify the height and width of a text area on the screen.

Appendix

Properties and Methods Grid

| | Dynamic Objects | | | | | | | | | | | |
Command	Check Box	Combo Box	Edit Box	Field Button	Field Icon	List Box	Paging Icon	Radio Button	Radio Group	Chart	Slider	Spinner
AboutBox												
Alignment		Y	Y	Y	Y		Y		Y			
AllowSelection												
AutoComplete	R	R	R						R			
AutoCompleteEntry		R	R									
AutoCount												
BackColor		Y	Y	Y	Y	Y	Y	Y	Y			
Bold		Y	Y	Y	Y	Y	Y	Y	Y			
BoxAppearance									Y			
Button()									Y			
Chart Type										Y		
ClearFormat()												
ColumnHeader												
ConfirmOnDelete												
CSS Class	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CurPagingSequence												
CursorGraphic				Y	Y		Y					
DefaultEscapeHotSpot				Y	Y		Y					
DefaultHotSpot				Y	Y		Y					
DisabledGraphic				Y	Y		Y					
DisableInterrupt												
DisplayProgressTime												
Enable	Y	Y	Y	Y	Y	Y	Y	Y	Y			
EndPagingSequence												
EvenColor												
Execute()												
FontName		Y	Y	Y	Y	Y	Y	Y	Y			
ForceWrite												
ForeColor		Y	Y	Y	Y	Y	Y	Y	Y			
FullSelect		Y	Y									
Get()												
GetPath()												
Graphic		Y		Y	Y		Y					
HandlerOnly												
HighlightColor												
HighlightRecord												
Inset												
Italic		Y	Y	Y	Y	Y	Y	Y	Y			

Command	Check Box	Combo Box	Edit Box	Field Button	Field Icon	List Box	Paging Icon	Radio Button	Radio Group	Chart	Slider	Spinner
Increment											Y	Y
Label				Y	Y		Y	Y	Y			
MandatoryInput	R	R	R			R			R			
Max Height						Y				Y	Y	Y
Max Width						Y				Y	Y	Y
Mode												
MouseOverGraphic				Y	Y		Y					
MouseOverLabel				Y	Y		Y					
MousePressedGraphic				Y	Y		Y					
MousePressedLabel				Y	Y		Y					
Move()	R	R	R	R	R	R	R	R				
NoChange	R	R	R			R		R				
NoClearOnAdd												
NoNavigationField												
OddColor												
OddEvenType												
Orientation											Y	Y
OneTime												
Paging Column Header	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Sort on Column Click	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Forecolor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Backcolor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Font	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Alignment	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Bold	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Strikeout	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Italic	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paging Column Underline	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PagingModel												
Page Increment											Y	Y
Persistence												
Print()												
Put()												
Raised												
Range Minimum											Y	Y
Range Maximum											Y	Y

Command	Check Box	Combo Box	Edit Box	Field Button	Field Icon	List Box	Paging Icon	Radio Button	Radio Group	Chart	Slider	Spinner
RecordCount												
Refresh()	Y	Y	Y	Y	Y	Y	Y	Y				
RefreshPage()												
RememberSettings						Y						
ResizeableColumn												
RightClickMenus												
Scale				Y	Y		Y					
ScaleWallPaper												
Slider Source											Y	
Spinner Source												Y
Scroll												
ShapeBold								Y				
ShapeProjection								Y				
SmoothModeSwitch												
SortOnColumnClick												
StartInNavigation												
StartPagingSequence												
Strikeout		Y	Y	Y	Y	Y	Y	Y	Y			
TabNavigation												
TabStop	R	R	R			R		R				
TextBox												
ToolTip	Y	Y	Y	Y	Y	Y	Y	Y				
Underline		Y	Y	Y	Y	Y	Y	Y	Y			
Visible	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Wallpaper												

Properties and Methods Grid - continued

| Command | Static Objects | | | | | | Other Objects | | | | |
	ActiveX Control	Format Box	Format Button	Format Icon	Format Line	Format Text	Cycle	Paging Cycle	Session	Application	Client
AboutBox										Y	
Alignment		Y	Y	Y		Y					
AllowSelection								Y			
AutoComplete											
AutoCompleteEntry											
AutoCount								Y			
BackColor		Y	Y	Y		Y					
Bold		Y	Y	Y		Y					
BoxAppearance		Y									
Button()											
ClearFormat()							Y	Y			
ColumnHeader								Y			
ConfirmOnDelete								Y			
CSS Class	Y										
CurPagingSequence								Y			
CursorGraphic			Y	Y							
DefaultEscapeHotSpot			Y	Y							
DefaultHotSpot			Y	Y							
DisabledGraphic			Y	Y						Y	
DisableInterrupt										Y	
DisplayProgressTime											
DragEnabled				Y							
Drag Type				Y							
Drag Data				Y							
ON Drop Source				Y							
Drop Enable				Y							
Drop Type Allowed				Y							
Drop Data Variable				Y							
Drop Item Limit				Y							
On Drop Target				Y							
Enable	Y	Y	Y	Y	Y	Y					
EndPagingSequence								Y			
EvenColor								Y			
Execute()											
FontName		Y	Y	Y		Y	Y				
ForceWrite											
ForeColor		Y	Y	Y	Y	Y					

Command	ActiveX Control	Format Box	Format Button	Format Icon	Format Line	Format Text	Cycle	Paging Cycle	Session	Application	Client
Get()											
GetPath()											
Graphic			Y	Y							
HandlerOnly	Y										
HighlightColor											
HighlightRecord											
Inset											
Italic		Y	Y	Y		Y					
Label		Y	Y	Y		R					
MandatoryInput											
Mode									R		
MouseOverGraphic			Y	Y							
MouseOverLabel			Y	Y							
MousePressedGraphic			Y	Y							
MousePressedLabel			Y	Y							
Move()		R	R	R	Y	R					
NoChange	R	R	R					R		R	
NoClearOnAdd											
NoNavigationField											
OddColor											
OddEvenType											
OneTime											
PagingModel											
Persistence											
Print()											
Put()											
Raised											
RecordCount											
Refresh()	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
RefreshPage()											
RememberSettings								Y			
ResizeableColumn											
RightClickMenus											
Scale				Y	Y		Y				
ScaleWallPaper											
Scroll											

Properties and Methods Grid - continued

ShapeBold									Y	
ShapeProjection									Y	
SmoothModeSwitch										
SortOnColumnClick										
StartInNavigation										
StartPagingSequence										
Strikeout		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TabNavigation										
TabStop	R	R	R			R		R			
TextBox										
ToolTip	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Underline		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Visible	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Wallpaper										

Y : Indicates the property is valid for that object with no restrictions on use.

R : Indicates the property is valid for that object with some restrictions. Please refer to the property description.

The PROIV Control Panel

The PROIV Control Panel provides access to the configuration settings for all of the PROIV components

Control Panel - Configure the components managed by the control panel.

Statistics - View statistics generated by various PROIV components.

Virtual Machine - Configure the PROIV Virtual Machine, Lexicon and System Database.

Licensing - Manage the Licence Server used by various PROIV components.

Gateway - Control the PROIV Gateway Servers that provide external access to the PROIV Virtual Machine.

Web Services - Expose PROIV functionality to external routines using either SOAP or Restful Web Services.

Aurora - Configure Aurora's access to a PROIV Virtual Machine.

Open Client - Create and manage access to PROIV Virtual Machines via Open Client

If you are unfamiliar with the myriad configuration settings in the Control Panel, it is recommended to open context sensitive help whilst making changes. To open the context sensitive help, click Show Help, in the top right corner of the control panel. This will open a resizeable panel on the right hand side of the control panel, the help that appears therein will remain relevant to the configuration settings viewed as the control panel is navigated using the accordion style menu displayed on the left.

Accessing the PROIV Control Panel

Simply point the browser at the default address for the Control Panel which is http://<hostname>:8801 where <hostname> is replaced with the host name or IP address of the machine on which PROIV is installed.
Note on a MS Windows OS, the installer will have created a start menu shortcut named 'Management Services' which will directly open the PROIV Control Panel in the browser.

Problems Accessing the Control Panel

If an attempt to access the control panel results in a "This Web Page Is Not Available" error, the most likely cause is that the PROIV services are not running or runninng but not on that port number.

Notes

Notes

Notes

Notes

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