



# UPDATED UTILITIES AND COMMANDS

DireXions 2024

# UTILITIES - NEW

**\*TOOLS/COPYDIR** - Copies a directory and its contents

**CALL** `"*tools/copydir"`, source\_dir\$, dest\_dir\$, recursive

## Example

CALL `"*tools/copydir","myData/","backup/",1`

**\*TOOLS/REGEXSUB** - Performs regular expression substitution similar to Apache RedirectMatch

**CALL** `"*tools/regExSub"`, input\$, mask\$, replacement\$, output\$

## Example

CALL `"*tools/regExSub","http://www.devdaily.com/handler.php?cat=java&article=1001",  
"/handler\.php\?cat=(.*)&article=(.*)", "http://www.devdaily.com/%1/%2",output$`

## Where:

output\$ will be `"http://www.devdaily.com/java/1001"`

# UTILITIES - NEW

**\*MAP** - Uses the Google Maps interface to display a popup window on the screen with the address specified

**CALL** `"*map"`, street\$, city\$, state\$, country\$

**Note:** Google API key will be required

## Example

**CALL** `"*map"`, "25 Centurian Blvd.", "Markham", "Ontario", "Canada"

**\*TOOLS/HOSTTEST** - Used to test your system to confirm that WindX can spawn a subordinate task (\*plus/spawn )

**CALL** `"*tools/hosttest"`

**\*TOOLS/CHARTIMAGE** - New format to retrieve Chart Definition

**CALL** `"*tools/chartimage;GetChartInfo"`, ERR=stmtref, query\$, library\$, chart\$, object

# UTILITIES – NEW

**\*TOOLS/SYSTEMANALYSIS** - Analyzes the PxPlus installation and setup. It runs tests and reports any issues found

**CALL** `"*tools/systemanalysis",results$,htmlOutput`

Available in both graphical and text mode.

See 'IDE and Project Enhancements' PDF  
for more details

**\*TOOLS/UTCOFFSET** - Gets the UTC offset for the local time zone for a given date

**CALL** `"*tools/utcoffset",date$,outpututcoffset`

## Example

```
call "*tools/utcoffset","2024-11-30",newOffset
```

```
print "UTC offset is "+str(newOffset/60/60)+" hours."
```

UTC offset is 5 hours.

# UTILITIES - NEW

**\*TOOLS/READFILE** - Reads the entire binary contents of a file and returns the data in the output string

**CALL** `"*tools/readfile",filename$,outputfiledata$`

## **Example**

`call "*tools/readfile","addresses.xml",addressxml$`

Reads the file addresses.xml and outputs contents to addressxml\$

# UTILITIES - NEW

**\*TOOLS/QRYEXPORT** - Creates an export file (.csv, .slk, .txt or .xml) based on a query definition

**CALL `"*tools/qryexport"`**, queryName\$, queryLib\$, exportfile\$ [, queryopts\$, show\_flg\$]

**\*TOOLS/QRYPRINT** - Prints a PDF report based on a query definition

**CALL `"*tools/qryprint"`**, queryName\$, queryLib\$, pdffile\$ [, queryopts\$, show\_flg\$, subheader\$]

See 'NOMADS Query Enhancements' PDF  
for more details

# UTILITIES - NEW

**\*TOOLS/CONVERTHTMLCOLOR** - Converts HTML color names into Hex colors

**CALL** `"*tools/converthtmlcolor",htmlcolorname$,outputhexcolor$`

**Example**

```
call "*tools/converthtmlcolor","DarkGoldenRod",hexcolor$
```

**Where:**

`hexcolor$` will be "#b8860b" (the Hex color of the HTML color "DarkGoldenRod ")

**\*TOOLS/PRINTHTML** - Converts HTML input into formatted text output on the given open channel

**CALL** `"*tools/printhtml",html$,outputchannel,[left],[top],[right],[bottom]`

**Example**

```
open (hfn)"*PDF*;file=output_pdf$"
pdfChan=lfo
call "*tools/printHTML",tinyMCE.ctl'value$,pdfChan,1,1
close (pdfChan)
```

Example is for printing TinyMCE formatted text as a PDF

# UTILITIES - UPDATED

**\*PLUS/WEB/REQUEST** - Added support for the use of HTTP version 1.1 protocol, overriding the user agent, and timeout

**CALL** **"\*plus/web/request"**, url\$, postdata\$, recvdata\$, recvhdr\$, mimetype\$, certificate\$, extrahdrs\$, method\$, timeout

## Example

```
extrahdr$="User-Agent: MyApp/1.00.0000"  
timeout=20. Defaults to 15 seconds, if not set.
```

**\*TOOLS/MAKEQRCODE** - Added option to set the quality of the QR code to be returned

**CALL** **"\*tools/makeqrcode"**, "text", "output\_file.png" [ , **qualitycode\$** ]

(Low) 7% of data bytes can be restored. (Default, if omitted)

(Medium) 15% of data bytes can be restored

(Quartile) 25% of data bytes can be restored

(High) 30% of data bytes can be restored

## Example

```
call "*tools/makeqrcode", "https://home.pvxplus.com", "pxplus_qr_code.png", "H"
```



# UTILITIES - UPDATED

**\*WEB/EMAIL** - Ability to Embed an Image using `<img cid=>` in the body of an email

**CALL** `"*web/email"[,ERR=stmtref], fromaddress$, replyaddress$, toaddress$, ccaddress$, bccaddress$, subject$, message$, attachments$, option$, smtpserver$, servertimeout, linewrapsat, body encoding$, eraseit, errormsg$, senddirectory$, savedfilename$`

```
message$="<html><head></head><body><p>Check out the new  
logo</p><p>&nbsp;<img src='cid:newlogo.png' /></p><p>Regards.</p></body></html>"  
attachments$="newlogo.png"
```

# UTILITIES - UPDATED

**\*WEB/FTP** - Added TLS support and curl options for FTPS, FTPES or SFTP

**CALL** `"*web/ftp;XXXX"`, ftpserver\$, user\$, password\$, timeout, files\_to\_send\$, upload\_dir\$, case\$, result\$

## Example

`ftps://files.server.com`

Depending on the protocol, additional curl options may be specified:

## Curl Options

<code>-k</code>	Allow untrusted certificates or self-signed certificates
<code>--cacert file path</code>	Specify custom CA certificate store as apposed to PxPlus supplied CA certificate store
<code>--key kep path</code>	Private key for SSH authentication (SFTP)
<code>--pass passphrase</code>	Passphrase for private key

`ftpes://files.server.com -k`

This example uses the curl option `-k` to allow untrusted certificates or self-signed certificates.

# UTILITIES - UPDATED

**\*TOOLS/SMS** - Added new SMS services and name case insensitivity

**CALL `"*tools/sms;send"`**, sms\_service\_name\$, account\_info\$, to\$, message\$

Added support for "clickatell", "seven" and "vonage" (formerly "nexmo")

Added support for an Australian SMS service "smsbroadcast"

**\*TOOLS/CONVERTDATA** - Converts native PxPlus keyed (EFF, VLR, FLR) and indexed files to/from a formatted text file

**CALL `"*tools/ConvertData;Text_to_Binary"`**, txtPath\$, binPath\$, password\$, **flags\$**, **retMessage\$**

## **flags\$ (Optional)**

Force using non-exclusive file access if existing binary file is in use.

Verbose mode displays a message box to the user to determine behavior when exclusive access to an existing binary file is not available.

## **retMessage\$ (Optional)**

Identifiers for individual records that are not available (due to being extracted by another task) when non-exclusive file access is used.

# EXTENDED COMMANDS

- Commands that are entered in Command mode

COMMAND	Description
<a href="#">OLHELP</a>	Launches the online PxPlus Help manual in a browser. Also available on IDE Menu Bar.
<a href="#">SET_NK</a>	New command can be used to set or reset the <a href="#">'NK'</a> system parameter for a file. Once changed, the file key table will be reloaded.
<a href="#">WDW</a>	<p>New ZOOM option that will attempt to adjust the font size to fill the primary window as opposed to changing the number of lines and columns.</p> <p>If enabled and a WDX AUTO command is issued, the automatic sizing logic will also change the font size, instead of changing lines and columns. To disable ZOOM mode, a WDW ZOOM OFF can be issued.</p> <p>WDW 100x30 ZOOM</p>

# SPECIAL COMMAND TAGS

TAG	Description
<a href="#">[TCP]</a>	<p>New options added to TCP</p> <p>TLS1.3 forces a secure connection to use TLS1.3</p> <p>NOTLSV1.3 disables support of TLSv1.3 connections</p>

# SPECIAL FILE HANDLING

COMMAND	Description
<a href="#">*PDF*</a>	<p>New options added to *PDF* Print Interface</p> <p><a href="#">PIXELPOS</a> - set for pixel positioning instead of PDF positioning when using @X/Y(=num).</p> <p><a href="#">DPI</a> - defines the dots per inch used only when PIXELPOS is On. Defaults to 150.</p>