

# Using Variables

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Variables can be used in various dialogs and are replaced at runtime by the actual values:

- File or directory name in the [FTP Profiles](#) dialog.
- Subject or body text in the [Email Profiles](#) dialog
- Network messages in the [Messaging](#) dialog
- Comments in the [Text & Display Settings](#) dialog

**Notes**

- Apart from the variables listed above, you can also use [Placeholders for Dynamic Image Text](#).
- When retrieving data from one of the [supported weather stations](#) connected to the serial interface, [weather variables](#) will allow displaying the weather data in the image.
- Note that variables are *not* case-sensitive.
- Information on formatting variables is contained in the [Formatting Options](#) section in this help page.
- Optional parts of variables are written in **angular** brackets and do not have to be used.
- Note that a maximum of 25 variables can be used at the same time.

## Variable Description

The variable's syntax is as follows:

```
$ (GROUP.VARIABLE[, formatting options[,..]])
```

Variable	Description	Note
<b>LEV / LASTEVENT: Last Event</b>		
\$ (LEV . DATE)	Date and time of the last event	YYYY-MM-DD hh:mm:ss
\$ (LEV . TIME)	Time of the last event	hh:mm:ss
\$ (LEV . SECONDS)	Seconds since the last event	<i>Seconds</i>
\$ (LEV . RELATIV)	Time since the last event	<i>hh:mm:ss</i>
<b>EVT / EVENT: Event</b>		
\$ (EVT . AST) , \$ (EVENT . AST)	Displays all activated <a href="#">Action Groups</a> .	<b>See also</b>  <a href="#">Abbreviations</a>

Variable	Description	Note
		<a href="#">Used in the MOBOTIX Camera</a>
\$ (EVT . EST . SELECTED) , \$ (EVENT . EST . SELECTED)	Displays all active <a href="#">events</a> .	<b>See also</b>  <a href="#">Abbreviations Used in the MOBOTIX Camera</a>
\$ (EVT . EST . ACTIVATED) , \$ (EVENT . EST . ACTIVATED)	Displays the <a href="#">event</a> that triggered an alarm.	<b>See also</b>  <a href="#">Abbreviations Used in the MOBOTIX Camera</a>
\$ (EVT . SYA) , \$ (EVENT . ANTE)	Displays the number of the <a href="#">pre-alarm images</a> currently set.	<i>Pre-Alarm Images</i>
\$ (EVT . SYP) , \$ (EVENT . POST)	Displays the number of the <a href="#">post-alarm images</a> currently set.	<i>Post-Alarm Images</i>
\$ (EVT . SIA) , \$ (EVENT . ANTEINTERVAL)	Displays the interval between the <a href="#">pre-alarm images</a> .	<i>Milliseconds</i>
\$ (EVT . SIP) , \$ (EVENT . POSTINTERVAL)	Displays the interval between the <a href="#">post-alarm images</a> .	<i>Milliseconds</i>
\$ (EVT . VATIMESTAMP)	Shows the time stamp of the last time a <a href="#">visual alert (VA)</a> was acknowledged.	YYYY-MM-DD hh:mm:ss
\$ (EVT . VAD)	Shows the date of the last time a <a href="#">visual alert (VA)</a> was acknowledged.	YYYY-MM-DD
\$ (EVT . VAT)	Shows the time of the last time a <a href="#">visual alert (VA)</a> was acknowledged.	hh:mm:ss
\$ (EVT . VAS)	Shows the status of the <a href="#">visual alert (VA)</a> in this image.	<b>HIDE (hidden) or DRAW (shown)</b>
<b>FPR / FINGERPRINT: Fingerprint Information</b>		
\$ (FPR . VER) , \$ (FINGERPRINT . VERSION)	Version number of the JPEG comment	

Variable	Description	Note
<code>\$(FPR.PRD)</code> , <code>\$(FINGERPRINT.PRODUCER)</code>	Manufacturer name <b>(MOBOTIX)</b>	
<code>\$(FPR.FRM)</code> , <code>\$(FINGERPRINT.FRAME)</code>	Unique image number of every digitized image since the camera has been rebooted.	
<code>\$(FPR.ENO)</code> , <code>\$(FINGERPRINT.EVENT)</code>	Currently valid event number; for an event images, the number of the event.	This variable is only available with active recording and outside of image profiles.
<code>\$(FPR.IMT)</code> , <code>\$(FPR.IMAGETYPE)</code>	Image type	
<code>\$(FPR.TIMESTAMP)</code>	Date and time as <code>\$(TMS)</code>	YYYY-MM-DD hh:mm:ss.msec
<code>\$(FPR.DAT)</code>	Date as <code>\$(TMS.DAT)</code>	YYYY-MM-DD
<code>\$(FPR.TIM)</code>	Time as <code>\$(TMS.TIME)</code>	hh:mm:ss.msec
<code>\$(FPR.TIT)</code>	Seconds and milliseconds as <code>\$(TMS.TIMET)</code>	ss.msec
<code>\$(FPR.TZN)</code>	Abbreviation of the current time zone as in <code>\$(TMS.ZONE)</code>	<i>ZZZ</i>
<b>IMG / IMAGE: Image Variables</b>		
<code>\$(IMG.CTY)</code>	Shows information on the camera model. If this variable shows <code>MONO</code> , all parameters will only display the value for the right lens.	<b>DUAL, MONO</b>
<code>\$(IMG.ICC)</code>	Video codec used for converting this image to JPEG	<b>MxPEG, JPEG</b>
<code>\$(IMG.FRJ)</code>	Frame rate of JPEG/MxPEG conversion	<i>Hz</i>
<code>\$(IMG.FRB)</code>	Digitizer rate of the camera sensor (Bayer frame rate)	<i>Hz</i>
<code>\$(IMG.XTO)</code> , <code>\$(IMG.XRES)</code>	<b>Image size</b> of the X dimension in pixels	<i>X pixels</i>
<code>\$(IMG.YTO)</code> , <code>\$(IMG.YRES)</code>	<b>Image size</b> of the Y dimension in pixels	<i>Y pixels</i>
<code>\$(IMG.QLT)</code> , <code>\$(IMG.QUALITY)</code>	<b>Quality level</b> of JPEG/MxPEG conversion in percent	<i>Percent</i>

Variable	Description	Note
\$ (IMG.CAM)	Image type or selected <a href="#">image sensors</a> when this image was recorded	RIGHT, LEFT, BOTH, PIP
\$ (IMG.ZOM)	Selected <a href="#">Zoom level</a> (x1000) of this image. 1000=1x Zoom	1000..8000
\$ (IMG.PAX)	Center of the <a href="#">zoomed image section</a> in X direction. -1000=left, 0=center, 1000=right	-1000..0..1000
\$ (IMG.PAY)	Center of the <a href="#">zoomed image section</a> in Y direction. -1000=bottom, 0=center, 1000=top	-1000..0..1000
\$ (IMG.MIR)	<a href="#">Mirroring</a> of the image	NONE, VERTICAL, HORIZONTAL, BOTH
\$ (IMG.ROT)	<a href="#">Rotation</a> of the image in degrees	0..359
\$ (IMG.SRP [ .RIGHT   LEFT ] )	<a href="#">Sharpness setting</a> of the right or left image	-2..0..10
\$ (IMG.ACT [ .RIGHT   LEFT ] )	Setting of the <a href="#">auto contrast</a>	OFF, AUTO
\$ (IMG.BRT [ .RIGHT   LEFT ] )	<a href="#">Brightness setting</a> for both lenses	-10..0..10
\$ (IMG.BLT [ .RIGHT   LEFT ] )	<a href="#">Backlight correction</a> for both lenses	-10..0..10
\$ (IMG.CSA [ .RIGHT   LEFT ] )	Color saturation. -10 = B/W	-10..0..10
\$ (IMG.BBL [ .RIGHT   LEFT ] )	<a href="#">Blue Balance</a>	-10..0..10
\$ (IMG.RBL [ .RIGHT   LEFT ] )	<a href="#">Red Balance</a>	-10..0..10
\$ (IMG.NSM [ .RIGHT   LEFT ] )	Setting of the <a href="#">noise filter</a>	OFF, LOW, HIGH
\$ (IMG.EXB [ .RIGHT   LEFT ] )	Black pixel correction	ON, OFF
\$ (IMG.EXW [ .RIGHT   LEFT ] )	Weighting of the measurement windows for <a href="#">exposure</a> . TOTAL: Ignore exposure windows, use full image to determine exposure.	0..100, TOTAL
\$ (IMG.WBW [ .RIGHT   LEFT ] )	<a href="#">White balance</a> weighting. TOTAL: Ignore exposure windows, use full image to determine white	0..100, TOTAL

Variable	Description	Note
	balance.	
\$ (IMG.AVB [ .RIGHT   BOTH   LEFT ] )	Mean brightness of the image in percent. BOTH is the mean value of both the right and the left lens.	0 . . 100
\$ (IMG.AMB [ .RIGHT   BOTH   LEFT ] )	Minimum mean image brightness. This value is important for night improvement.	0 . . 100
\$ (IMG.GNG [ .RIGHT   LEFT ] )	Green amplification of the camera sensor. The value range depends on the sensor.	128 . . 1024 . . 16384
\$ (IMG.GNR [ .RIGHT   LEFT ] )	Red amplification of the camera sensor. The value range depends on the sensor.	128 . . 1024 . . 16384
\$ (IMG.GNB [ .RIGHT   LEFT ] )	Blue amplification of the camera sensor. The value range depends on the sensor.	128 . . 1024 . . 16384
\$ (IMG.CNG [ .RIGHT   LEFT ] )	Green color correction value. 1024=1. 0=No correction required.	128 . . 1024 . . 16384
\$ (IMG.CNR [ .RIGHT   LEFT ] )	Red color correction value.	128 . . 1024 . . 16384
\$ (IMG.CNB [ .RIGHT   LEFT ] )	Blue color correction value.	128 . . 1024 . . 16384
\$ (IMG.LFQ)	<a href="#">Power supply frequency</a> in Hz	50, 60
\$ (IMG.EXI [ .RIGHT   LEFT ] )	<a href="#">Minimum exposure time</a> in microseconds	<i>Microseconds</i>
\$ (IMG.EXI [ .RIGHT   LEFT ] . SECOND)	<a href="#">Minimum exposure time</a> in seconds Example: 1/90	<i>seconds 1/x</i>
\$ (IMG.EXA [ .RIGHT   LEFT ] )	<a href="#">Maximum exposure time</a> in microseconds	<i>Microseconds</i>
\$ (IMG.EXA [ .RIGHT   LEFT ] . SECOND)	<a href="#">Maximum exposure time</a> in seconds Example: 1/90	<i>seconds 1/x</i>
\$ (IMG.EXP [ .RIGHT   LEFT ] )	Current exposure time in microseconds	<i>Microseconds</i>
\$ (IMG.TRM. (MIN   MAX) [ .RIGHT   LEFT ] )	<b>Only with thermal image sensor!</b> Minimum and maximum of the measured thermal range	0..1023

Variable	Description	Note
\$ (IMG . TRP . (MIN MAX) [ . RIGHT LEFT ] )	<b>Only with thermal image sensor!</b> Minimum and maximum of the thermal range as determined by the color table	0..1023
\$ (IMG . EXP [ . RIGHT LEFT ] . SECOND)	Current exposure time in seconds. Example: 1/90	seconds 1/x
<b>TMS / TIMESTAMP: Timestamp Information</b>		
\$ (TMS)	Timestamp & milliseconds	YYYY-MM-DD hh:mm:ss.msec
\$ (TMS . DATE)	Date according to ISO 8601	YYYY-MM-DD
\$ (TMS . TIME)	24h date & milliseconds	hh:mm:ss.msec
\$ (TMS . TIMET)	Number of seconds since 1970-01-01 00:00:00 UTC & milliseconds	Seconds.msec
\$ (TMS . YEAR)	Year, four digits	YYYY
\$ (TMS . SYEAR)	Year, two digits	YY
\$ (TMS . MON)	Month from 01 to 12	MM
\$ (TMS . MON . NAME)	Abbreviation of the month Jan, Feb, etc.	MMM
\$ (TMS . MON . FULL)	Full name of the month. January, February, etc.	Month
\$ (TMS . DAY)	Day from 01 to 31	TT
\$ (TMS . YDAY)	Day of the year (001 ... 366)	DDD
\$ (TMS . WEEK)	Number of the week according to <i>ISO 8601:1988</i> from 01 to 53. The first week has at least four days in the current year. The week starts on Monday.	WW
\$ (TMS . WDAY)	Day of the week from 1 to 7. 1=Monday, 2=Tuesday, etc.	W
\$ (TMS . WDAY . NAME)	Abbreviation of the weekday. Mon, Tue, etc.	WWW
\$ (TMS . WDAY . FULL)	Full name of the weekday. Monday, Tuesday, etc.	Day

Variable	Description	Note
\$ (TMS . HOUR)	Two-digit number of the current hour (24h representation) from 00 to 23	hh
\$ (TMS . HOUR12)	Two-digit number of the current hour (12h representation) from 01 to 12	hh
\$ (TMS . AMPM)	AM and PM abbreviations 12 o'clock noon is 'PM' and 12 o'clock midnight is 'AM'	<b>AM or PM</b>
\$ (TMS . MIN)	Two-digit minutes	mm
\$ (TMS . SEC)	Two-digit seconds	ss
\$ (TMS . MSEC)	Three-digit milliseconds	msec
\$ (TMS . ZONE)	Abbreviation of the current time zone	ZZZ
\$ (TMS . RFC822)	Date and time as deviation from GMT (UTC) according to RFC822	Day, DD MMM YYYY hh:mm:ss +zzzz
<b>ID: Identification Information</b>		
\$ (ID . MAC)	MAC address of the network interface	00:03:C5:xx:yy:zz, where 00:03:C5: MOBOTIX identifier, xx:yy:zz: Factory IP address in hexadecimal notation
\$ (ID . FIP)	Factory default IP address of the camera	10.x.x.x
\$ (ID . NAM) , \$ (ID . HOSTNAME)	Host name of the camera	<host name>
\$ (ID . ET0) , \$ (ID . ETHERNET)	Current IP address of the camera	E.g. 10.0.4.10
\$ (ID . SWV)	Software version of the camera	E.g. MX-V4.7.2.21
\$ (ID . UPT) , \$ (ID . UPTIME)	Operating time of the camera since the last reboot in seconds	ss
\$ (ID . TSI)	IP addresses of the time servers separated by space characters.	e.g. 10.1.1.1 10.1.1.2
\$ (ID . TSP)	Time Server Protocol NONE: Automatic Adjustment is not activated.	<b>NTP, RFC868, NONE</b>

Variable	Description	Note
\$ (ID . TST)	Time stamp of the last time server check (this is <b>not</b> the time of the last contact to the server): A check is run every 30 minutes with NTP, every 6 hours with RFC868.	YYYY-MM-DD hh:mm:ss
\$ (ID . TSO)	Time server offset in milliseconds (NTP only)	e.g. 0.073
\$ (ID . PTS)	If the camera time is set to a point in the future, this counter is increased by the time difference in seconds. It serves the detection of camera time changes to prevent manipulation of recordings.	0..4294967295
\$ (ID . NTS)	Like \$ (ID . PTS) , but counting changes to the past.	0..4294967295
\$ (ID . CTX [ . ALL   . <n> ] )	Returns text lines from IP Receive and the serial interface. . ALL returns all available lines, . <n> up to <i>n</i> lines (maximum of 64 lines possible). Corresponds to \$ (ID . CTX . 1) if called without parameters.	<i>Several strings</i>
\$ (ID . CTX . LIP [ . DAT   . TIM   . SRC   . MSG ] )	Returns the last text line from IP Receive, if available. . DAT limits the output to a certain date, . TIM to a certain time, . SRC to an IP address and port of the sender and . MSG to the message itself. Corresponds to \$ (ID . CTX) and returns all lines if called without parameters.	YYYY-MM-DD hh:mm:ss IP:port <i>string</i>
\$ (ID . CTX . LRS [ . DAT   . TIM   . SRC   . MSG ] )	Returns the last text line from the serial interface, if available. . DAT limits the output to a certain date, . TIM to a certain time and . MSG to the message itself. Corresponds to \$ (ID . CTX) and returns all lines if called without parameters.	YYYY-MM-DD hh:mm:ss "RS232" <i>string</i>
<b>SEN / SENSOR: Sensor Information</b>		

Variable	Description	Note
\$ (SEN . INA) to \$ (SEN . INP)	Status of the signal inputs: If an ExtIO is attached, these variables show the corresponding status. Otherwise, the variables show the status of the inputs of the MX-232-IO-Box (INA to IND: 7.1 to 7.4, INE to INH: PIR to Bpc, INI to INP: ERT mode of the inputs, also in the order of 7.1 to Bpc). The on-board inputs will be available only if there is no MX-232-IO-Box present.	0, 1
\$ (SEN . BTR)	State of the right camera key	0, 1
\$ (SEN . BTL)	State of the left camera key	0, 1
\$ (SEN . PIR)	PIR level in percent	0..100
\$ (SEN . MIC)	Microphone level in percent This value will only be displayed if the <b>Microphone</b> event or the level meter has been activated.	0..100
\$ (SEN . ILR)	Illumination level of the right lens, where 0: dark, 1000: direct sun at the equator at noon	0..1000
\$ (SEN . ILL)	Illumination level of the left lens, where 0: dark, 1000: direct sun at the equator at noon	0..1000
\$ (SEN . LXR)	Lux value of the right lens	0..100000
\$ (SEN . LXL)	Lux value of the left lens	0..100000
\$ (SEN . LXE)	Lux value of the sensor in the MX-GPS-Box	0..100000
\$ (SEN . VM1)	List of all triggered motion windows	(Comma-separated list with window numbers)
\$ (SEN . TIN . CELSIUS) , \$ (SEN . TIN . FAHRENHEIT)	Internal camera temperature in degrees Celsius or degrees Fahrenheit	°C °F

Variable	Description	Note
\$ (SEN . TOU . CELSIUS) , \$ (SEN . TOU . FAHRENHEIT)	<b>Only cameras with ambient temperature sensor!</b> Ambient camera temperature in degrees Celsius or degrees Fahrenheit.	°C °F
\$ (SEN . TEX . CELSIUS) , \$ (SEN . TEX . FAHRENHEIT)	<b>Only with ExtIO!</b> Temperature of the ExtIO in degrees Celsius or degrees Fahrenheit	°C °F
\$ (SEN . TGP . CELSIUS) , \$ (SEN . TGP . FAHRENHEIT)	<b>Only with MX-GPS-Box!</b> Temperature of the MX-GPS-Box in degrees Celsius or degrees Fahrenheit	°C °F
\$ (SEN . TSR . CELSIUS) , \$ (SEN . TSR . FAHRENHEIT)	<b>Only with thermal image sensor!</b> Temperature of the sensor center in degrees Celsius or degrees Fahrenheit (right sensor)	°C °F
\$ (SEN . TSL . CELSIUS) , \$ (SEN . TSL . FAHRENHEIT)	<b>Only with thermal image sensor!</b> Temperature of the sensor center in degrees Celsius or degrees Fahrenheit (left sensor)	°C °F
\$ (SEN . TTR . CELSIUS) , \$ (SEN . TTR . FAHRENHEIT)	<b>Only with image sensor for thermal radiometry!</b> A list of measured temperatures of all configured radiometry events. The displayed values are determined for every event according to the following method: <ul style="list-style-type: none"> <li>• Comparison operator <b>Greater than</b> and Trigger Mode <b>One Pixel</b>: Shows the highest temperature of the measurement area in degrees Celsius or degrees Fahrenheit.</li> <li>• Comparison operator <b>Less than</b> and Trigger Mode <b>One Pixel</b>: Shows the lowest temperature of the measurement area in degrees Celsius or degrees Fahrenheit.</li> <li>• Comparison operator <b>Greater than</b> and Trigger Mode</li> </ul>	°C °F

Variable	Description	Note
	<p><b>Percent:</b> Shows the highest temperature of the coldest pixels within the minimum range measured in the TR measurement window in degrees Celsius or Fahrenheit.</p> <ul style="list-style-type: none"> <li>• Comparison operator <b>Less than</b> and Trigger Mode</li> </ul> <p><b>Percent:</b> Shows the lowest temperature of the hottest pixels within the minimum range measured in the TR measurement window in degrees Celsius or Fahrenheit.</p> <p>In this context, the minimum range specifies the number of pixels in which the temperature values exceeds or drops below the trigger value in order to trigger an event.</p>	
<p>\$(SEN.GST)</p>	<p><b>Only with MX-GPS-Box!</b> Shows the number of satellites used to obtain the fix and the total number of reachable satellites.</p>	
<p>\$(SEN.GPS[.(DEG MIN SEC)])</p>	<p><b>Only with MX-GPS-Box!</b> Shows the position in degrees longitude and degrees latitude. In addition, the box also shows the precision of this value in meters. Note that the availability of this value depends on the reception status of the MX-GPS-Box.</p> <p>By default, longitude and latitude are shown as a decimal fraction (this corresponds to using \$(SEN.GPS.DEG)).</p> <p>When using \$(SEN.GPS.MIN), the result includes degrees and arc minutes, using \$(SEN.GPS.SEC) will also show the arc seconds.</p>	<p>° &amp; m</p>
<p>\$(SEN.GLO[.(DEG MIN SEC)])</p>	<p><b>Only with MX-GPS-Box!</b> Shows the current longitude. Note that the availability of this value</p>	<p>°</p>

Variable	Description	Note
	<p>depends on the reception status of the MX-GPS-Box.</p> <p>By default, the longitude is shown as a decimal fraction (this corresponds to using <math>\\$(SEN.GLO.DEG)</math>).</p> <p>When using <math>\\$(SEN.GLO.MIN)</math>, the result includes degrees and arc minutes, using <math>\\$(SEN.GLO.SEC)</math> will also show the arc seconds.</p>	
$\$(SEN.GLA[.(DEG MIN SEC)])$	<p><b>Only with MX-GPS-Box!</b></p> <p>Shows the current latitude. Note that the availability of this value depends on the reception status of the MX-GPS-Box.</p> <p>By default, the latitude is shown as a decimal fraction (this corresponds to using <math>\\$(SEN.GLA.DEG)</math>).</p> <p>When using <math>\\$(SEN.GLA.MIN)</math>, the result includes degrees and arc minutes, using <math>\\$(SEN.GLA.SEC)</math> will also show the arc seconds.</p>	°
$\$(SEN.GAL)$	<p><b>Only with MX-GPS-Box!</b></p> <p>Shows the elevation above Mean Sea Level and the precision of this value. Note that the availability of this value depends on the reception status of the MX-GPS-Box. Note that <math>\\$(SEN.GPS)</math> may already deliver a position, but the elevation cannot be determined yet.</p>	m
$\$(SEN.GVE[.(MPS KMH MPH KNOT)])$	<p><b>Only with MX-GPS-Box!</b></p> <p>Shows the current speed and the precision of this value. Note that the availability of this value depends on the reception status of the MX-GPS-Box. Note that <math>\\$(SEN.GPS)</math> may already deliver a position, but the speed cannot be determined</p>	mps, kph, mph & kn

Variable	Description	Note
	<p>yet.</p> <p>By default, the speed is shown in meters per second (this corresponds to using <code>\$(SEN.GVE.MPS)</code>). Use <code>\$(SEN.GVE.KMH)</code> to get kilometers per hour, <code>\$(SEN.GVE.MPH)</code> to get miles per hour and <code>\$(SEN.GVE.KNOT)</code> to get the speed in knots.</p>	
<code>\$(SEN.GDI)</code>	<p><b>Only with MX-GPS-Box!</b></p> <p>Shows the direction of movement and the precision of this value. Note that the availability of this value depends on the reception status of the MX-GPS-Box. Note that <code>\$(SEN.GPS)</code> may already deliver a position, but the direction of movement cannot be determined, although the box is measuring significant movement.</p>	°
<b>TEXT: Text Variables</b>		
<code>\$(TEXT.FTPDIR)</code>	Default path for FTP image storage	<hostname>/YYYY/MM/DD/hh/
<code>\$(TEXT.FTPFILE)</code>	Default filename for FTP image storage (without file name extension)	mYYMMDDhhmmssmsc
<code>\$(TEXT.EVENTFILE)</code>	File name (without file name extension) that contains a timestamp and where event images are identified by a <code>E+&lt;event number&gt;</code> suffix.	fYYMMDDhhssmsc[_Eeeeeee]
<b>STO / STORAGE: Storage</b>		
<code>\$(STORAGE.BUFFERFILL.CURRENT)</code> , <code>\$(STORAGE.BUFFERFILL.AVERAGE)</code> , <code>\$(STORAGE.BUFFERFILL.MAXIMUM)</code>	Buffer load indicator in percent	0..100
<code>\$(STORAGE.TRANSFERDELAY.CURRENT)</code> , <code>\$(STORAGE.TRANSFERDELAY.AVERAGE)</code> , <code>\$(STORAGE.TRANSFERDELAY.MAXIMUM)</code>	Transfer delay when storing in seconds	Seconds
<b>Special Variables</b>		
<code>\$("any text" [, <a href="#">Formatting option</a>])</code>	Use double quotes to write any text. This text can then be formatted using the <a href="#">Formatting Options</a> .	If <i>any text</i> is entered as the second parameter, this text is seen as the result of the variable.

Variable	Description	Note
	In order to output the "\$" character itself, make sure that you enter "\$\$".	

## Formatting Options

The formatting options allow formatting the [Text Display](#) of the MOBOTIX camera's live image.

### Examples:

- `$(fpr.eno, fill=0, len=6, align=right)`: Sequence number 6 digits and leading zeros.
- `$("sampletext", len=80, fill=-, align=center)`: One full row of minus signs ("-") with the center-aligned word "sampletext".

In order to output the "\$" character itself, make sure that you enter "\$\$".

Syntax errors are displayed behind the formatting instructions and are enclosed in leading/trailing "#" signs:

```
#"sampletext",Test,len=80,fill=-,align=center:format parameter unknown#
```

## Formatting Commands

The formatting commands take a value and are separated by commas (",") one after another.

```
FORMATTINGOPTION1=VALUE, FORMATTINGOPTION2=VALUE
```

Option	Description	Note										
<b>LEN, LENGTH</b>	<p>This parameter sets the width of the text output. The remaining space is filled using the fill character. "0" is variable width. If the text is larger than defined in <code>LENGTH</code>, the output width is enlarged automatically, if the <a href="#">Formatting Switch</a> <code>TRUNCATE</code> has not been set.</p> <p>Default value: 0</p> <p><b>Reasonable maximum values and image sizes:</b></p> <table border="1"> <thead> <tr> <th>Image Size</th> <th>Maximum Value</th> </tr> </thead> <tbody> <tr> <td>PDA: 160x120</td> <td>20</td> </tr> <tr> <td>CIF: 320x240</td> <td>40</td> </tr> <tr> <td>VGA: 640x480</td> <td>80</td> </tr> <tr> <td>MEGA: 1280x960</td> <td>160</td> </tr> </tbody> </table> <p>If higher than the maximum values in this table are used, the characters are wrapped to the next line.</p>	Image Size	Maximum Value	PDA: 160x120	20	CIF: 320x240	40	VGA: 640x480	80	MEGA: 1280x960	160	0..512
Image Size	Maximum Value											
PDA: 160x120	20											
CIF: 320x240	40											
VGA: 640x480	80											
MEGA: 1280x960	160											
<b>FIL, FILL</b>	<p>Sets the fill character to be used to format the output. This command takes one character. Superfluous characters will be ignored.</p> <p>Default value: [Space]</p>	<i>Any character</i>										
<b>ALI, ALIGN</b>	<p>This parameter sets the alignment of the text output within the specified length.</p> <p>Default value: <code>LEFT</code></p>	<b>RIGHT, CENTER, LEFT</b>										

## Formatting Switches

The formatting switches do not take a value and are separated by commas (",") one after another.

Switch	Description	Note
<b>DEF, DEFAULT</b>	Uses the default settings for this variable	
<b>GLO, GLOBAL</b>	Sets the values of this variable as global default for all following variables. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"><p><b>Note</b></p><p>Combining <code>DEFAULT</code> and <code>GLOBAL</code> will reset the values to the camera's default settings.</p></div>	
<b>TRU, TRUNCATE</b>	Cuts off any text longer than specified by <code>LENGTH</code> .	
<b>B64, BASE64</b>	Switches text output to Base64 encoding (this is required by some email servers, for example)	Use this switch to supply user information, for example: <code>\$ ("admin:meinsm", BASE64)</code> .

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