

FAMOS 6.0

STANDARD FUNCTIONS

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Trigonometry, Logarithms

Abs	Absolute value
acos	arccos, inverse of cos
asin	arcsin, inverse of sin
atan2	arctan, inverse of tan
cos	cos, trigonometric function
dB	Decibel, d. h. $20 * \log...$
exp	Exponential function
Floor	Next smaller or equal integer value
idB	Inverse function of dB
log	Common logarithm (base 10)
ln	Natural logarithm (base e)
sin	sin, trigonometric function
Sqr	Square
Sqrt	Square root
tan	tan, trigonometric function

FFT, Correlation, Octave Analysis

ACF	Auto-correlation function
CCF	Cross-correlation of a waveform with reference waveform
FFT	Spectrum according to FFT algorithm
IFFT	Inverse FFT, transformation of a spectrum to a time function
KBT	KB-evaluation
OctA	Octave analysis
OctI	Initialization for octave analysis
Spec	Creates an interpretive spectrum

Digital Filter, Smoothing

ABCRating	A-, B- and C-frequency rating (DIN 651)
DFilt	Standard digital filter
FiltBP	Band-pass filter
FiltBS	Band-stop filter
FiltHP	High-pass filter
FiltLP	Low-pass filter
Hyst	Hysteresis tolerance filter
Median	Median filter
SIClip	Slope clipping
Smo	Smoothing over specified window
Smo3	Smoothing over 3 points
Smo5	Smoothing over 5 points

Integration, Basic Calculations

* (Multiplication)	Multiplication, basic calculation
+ (Addition)	Addition, basic calculation
- (Sign)	Negative sign
- (Subtraction)	Subtraction, basic calculation
/ (Division)	Division, basic calculation
^ (power)	Exponent, raise to specified power
Add	Time-correct addition
Diff	Differentiation (derivative)
Div	Time-correct division
Int	Integral
mInt	Moving integral using specified interval width
Mod	Remainder of division (modulus)
Mult	Time-correct multiplication
Recip	Reciprocal value
Sub	Time-correct subtraction

Interpolation, Approximation

Appro	Approximation
Chrct	Create characteristic curve
eFit	Exp. regression, fitting data to an exponential function
Envelope1	Envelope curve determined by interval-secant procedure
Envelope2	Envelope curve determined by interval-secant procedure, using specified sample points
IPol	Interpolation with cubic splines
IFit	Linear regression, fitting data to straight line
Lip	Linear interpolation
Poly	Polynomial approximation
PTast0	Prototype resampling; sampling a data set at the sampling times of a reference
Red	Resampling with a given reduction factor
Red2	Resampling to create a waveform whose length is a power of two
rSamp	Reference sampling, sampling a waveform at the sampling rate of a reference waveform

Editing

Append	Time-correct merging of waveforms
Cut	copies a section from between x-positions
CutIndex	copies a section specified by indices
Join	Joins two waveforms (concatenation)
Perio	Analysis of periodic waveforms
Pos	X-coordinate (position) of a specified y-value in a waveform
PosiEx	All X-coordinates (positions) of a specified y-value in a waveform
Ramp	Creates ramp (line with slope 1) with specified start value, sampling rate and length
Random	Generates random numbers
Repl	Replaces a section of a waveform, specified by x-coord, with new data
ReplIndex	Replaces a section of a waveform, specified by indices, with new data
Set	Sets a specified x-position of a waveform to a specified y-value
SetIndex	Sets an index-specified position of a waveform to a specified y-value
Value	Y-value to a waveform at the specified x-position
ValueIndex	Y-value to a waveform at the position specified by indices

Scaling, Sorting, Matrices

Clip	Sets a bound for the y-value range to within one frequency band
MatrixCut	Makes a section through a matrix
MatrixSumLines	Calculates the sum along a row/ column
MatrixTranspose	Transposes a matrix
Mirror	Mirrors a waveform on the center of the x-axis
Scale	scales a waveform by linear transformation
Sort	Sorts a waveform's values
STri	Schmitt-Trigger with specification of upper and lower threshold value

Statistics

All0	All zeroes of the waveform
Histo	Histogram with specified range and number of bins
Max	Maximum of a waveform
Mean	Arithmetic mean of a waveform
Min	Minimum of a waveform
Peaks	Number of peaks (oscillations) in a waveform
RMS	True RMS (root-mean-square)
SearchLevel	Searches for level and slope conditions
Stat	Determines various statistical properties of a waveform and assigns values to the variables sMin, sMax, sMean, sRMS, sStDev, sMinPos, sMaxPos
StDev	Standard deviation of a waveform
Sum	Sum of all y-values
Top	All points with y-values greater than given threshold
xMax	All relative maxima greater than a specified threshold

Data Reduction, Moving Average

ExpoRMS	Moving root mean square with exponential mean
MvMax	Moving maximum
MvMean	Moving mean
MvMin	Moving minimum
MvRMS	Moving root mean square with arithmetic mean
MvSum	Moving sum
MvStDev	Moving standard deviation
TransRec	Data reduction with transitional recording

Options, Dialogs, DDE

BoxMessage	Message box or Yes / No queries
BoxOut	Dialog for output or text / numerical values
BoxText?	Dialog for entering text
BoxValue?	Dialog for entering numerical values
CvUpdate	Suppression of continuous update of curve window
DDEInq	gets variable via DDE
DDESend	sends commands via DDE
DDESet	sends variables via DDE
DDESeparate	sets ASCII separator for DDE-text format
Dialog	starts a user-defined dialog
DlgFileName	Dialog for entering a file name
Execute	runs a program
GetOption	queries function presettings
SetBoxPos	specify position of dialogs
SetOption	sets function presettings
Sleep	interrupts processing of a sequence

Group Management, Variables List

GrChanAppend	Add new channel
GrChanDel	Delete channel
GrChanName?	Inquire name of channel
GrChanNum?	Inquire the number of channels
GrFind	Search for channel by name
GrJoin	Concatenation of channels in a group
GrNew	Create a new empty data group
VarExist?	inquires whether a variable exists
VarGetInit	queries the FAMOS variables list (Init)
VarGetName?	queries the FAMOS variables list
SelMeasListSize?	Size of Measurement list
SelMeasListName?	Returns an entry in the Measurement list
SelChanListSize?	Size of Channel list
SelChanListName?	Returns an entry in the Channel list
SelBuildVarName	Data selector: Constructs variable names
SelUseMeasurement	Formula Interpreter: Determines reference measurement

Text Functions

CharToSv	Char to ASCII code
SvToChar	ASCII code to char
TAdd	Joins two text variables
TComp	Compares two texts
TConv	Processes text according to specified options
TForm	Transforms single value to text
TLeng	Length of text
TPart	Returns part of a text
TReplace	Replaces text in a text
TtoSv	Transfer text to single value
TxWhere	Searches text in text

File Functions (FAMOS, FAS)

FileClose	Close a file
FileComm?	Inquire file comment
FileErrCode?	Retrieve error code
FileObjDelete	Deletes data objects in a file
FileErrText?	Retrieve error text
FileObjFind	Search in a file by name
FileObjName?	Name of data object in a file
FileObjNum?	Number of data objects in a file
FileObjRead	Read data object
FileObjType?	Type of data object in a file
FileObjWrite	Write data object
FileOpenDSF	Open a file in FAMOS format
FileOpenFAS	Open a file in a user-defined format (File Assistant)

FileResetAll	Close all open files
FileSetComm	Set file comment

File Functions (ASCII, XLS)

FileOpenASCII	Opens an ASCII file for writing to file in rows
FileOpenASCII2	Opens an ASCII-file for writing to file in columns
FileOpenXLS	Opens an XLS-file (EXCEL table) for reading
FileOpenXLS2	Opens an XLS-file (EXCEL table) for writing
FileLineRead	Reads one row of an ASCII file
FileLineWrite	Writes one row of an ASCII file
FileXLSCellRead	Reads an XLS-file (EXCEL-table) cell
FileXLSColumnRead	Reads a XLS-file (EXCEL-table) column

Data Types, Data Format

Cmp1	First component of a complex waveform
Cmp2	Second component of a complex waveform
CmpX	X-component of a xy-waveform
CmpY	Y-component of a xy-waveform
Compl	Combines two real waveforms to form one complex waveform
DatFormat?	Inquire data format
IsCplx	Inquire whether waveform is complex
IsXY	Inquire whether waveform is a xy-waveform
Pol	Transformation to polar coordinates
Rect	Transformation to rectangular coordinates
SetDataFormat	Set data format
XY	Creates a normal waveform from the specified x- and y-components
XYdt	Creates a normal waveform from the x- and y-components (specify dx)
XYof	Creates a xy-waveform from x- and y-components

Properties I

Leng	Sets the length of a waveform to a specified number of points
Leng?	Length (number of points) of a waveform
SegLen?	Inquires length of segments in a waveform
SetSegLen	Set length of segment in a waveform
SetZdel	Set z-delta
SetZoff	Set z-offset
Xdel	Sets sampling rate to a new value
Xdel?	Sampling rate of a waveform
Xoff	Sets the x-offset of a waveform to a new value
Xoff?	X-offset of a waveform
Zdel?	Inquire z-delta
Zoff?	Inquire z-offset

Properties II

Color?	Inquires the color of curve display of a waveform
Comm?	Inquires the comment of a waveform
DisplayY?	Inquires scaling setting for display in curve window
RGB	Creates a color value from the color parts
FileName?	Inquires the name of file from which an object was loaded
Flag?	Queries special data set attributes
SetColor	Assigns a color for the curve display of a waveform
SetComm	Sets the commentary for a waveform
SetDisplayY	Assigns a set y-scaling for display in the curve window
SetFlag	Sets special data set attributes
SetUnit	Sets a unit in a waveform
Unit?	Inquires unit in a waveform

Date, Time

SetTime	Sets trigger time of a waveform
Time?	Inquires trigger time of a waveform
TimeAdd	Add seconds to time value
TimeDiff	Difference of two time values
TimeJoin	Creates time value from components
TimeSplit	Inquires a time component
TimeSystem?	Inquires present system time
TimeToText	Convert time value to text

Segmented Waveforms

EventAppend	Adds an event to a multi-event waveform
EventDel	Deletes an event from a multi-event waveform
EventGet	Copies an event from a multi-event waveform
EventJoin	Dissolves a waveform's event-structure
EventNew	Creates a new multi-event waveform
EventNum?	Inquires the number of events in a waveform
EventProp	Sets properties of specified events
EventProp?	Inquires properties of specified events
EventSet	Replaces an event in a multi-event waveform

Comparison operators, Logic

<, >, <=, >=, =, <>	Comparison operators
AND	Logical AND
LowerValue	Finds lesser of two values
NOT	Logical NOT
OR	Logical OR
UpperValue	Finds greater of two values
XOR	Logical exclusive OR

Curve window

CvAppendMarker	Set marker position
CvAskTitle	Get name of curve window or variable
CvAttrib	Set attribute
CvConfig	Load configuration
CvCursor	Get position of measurement cursor
CvLoadGlobalSettings	Load Clipboard and color settings
CvMenu	Expand curve window menu
CvMenu?	Inquire status of curve window menu
CvPosi	Move window
CvRefDB	Reference for dB-display
CvReplaceChannel	Replace channel data in a curve window
CvSave	Save curve window configuration
CvSetCursor	Set measurement cursor position
CvTitle	Rename curve window or variable
CvUpdate	See FAMOS Functions Reference
CvVar	Assign new variable to a window
CvWin	Display (help) window
CvXAxis	Define x-axis
CvYAxis	Define y-axis

Dialogs

General

DlgCloseDialog	Closes the dialog
DlgApplyData	Checks validity of changes to any input boxes and/or applies in the linked variables.
DlgGetValue	Queries the specified element's current numerical value.
DlgSetValue	Sets a new value for the specified element.
DlgGetText	Queries the content or caption of the specified element.
DlgSetText	Sets a new content or caption of the specified element.
DlgShow	The active dialog or a special dialog element is hidden or shown (again).
DlgEnable	The active dialog or the specified dialog element is disabled (made unavailable to the user) or restored.
DlgSetTextColor	Sets the font color
DlgSetBackColor	Sets the background color for the selected element
DlgGetPath	Returns the complete path of the running dialog file.

Lists

DlgGetItemCount	Determines the number of entries in the specified dialog element (list, table etc.)
DlgGetItemText	Returns the text for an entry into a dialog element (list box, tree diagram etc.).
DlgSetItemText	Replaces an entry (list box, tree diagram etc.) with the specified text.
DlgInsertItem	Adds a new entry to a dialog element (list, table etc.).
DlgFindItem	Finds a (list-/ table-, etc.) entry with the specified contents.
DlgDeleteItem	Deletes one or all entries (list, table etc.)
DlgSelectItem	Selects an entry in a list/ table with single-selection
DlgGetSelectedItem	Determines the entry currently selected in a list/ table with single-selection.
DlgGetSelectedItemCount	Determines the number of selected entries in a list with multi-selection.
DlgSetItemSelection	Sets or cancels the selection for an entry in a list with multi-selection.
DlgIsItemSelected	Determines whether an entry in the list/ table is selected with multi-selection

Tables

DlgGetCellText	The content of the specified table cell is queried
DlgSetCellText	Sets new content for the specified table cell.
DlgGetCellValue	Queries the value of the specified table cell
DlgSetCellValue	Resets the value of the specified table cell
DlgSetCellTextColor	Sets the font color for the specified table cell.
DlgSetCellBackColor	Sets the background color for the specified table cell

Treeview

DlgInsertTreeItem	Adds a dialog element (tree diagram) to a new entry
DlgExpandTree	Expansion or collapse of a node in a tree diagram
DlgGetItemLevel	Finds the level (indicated by the indent) of a tree diagram entry

Slider

DlgSetBarRange	Configures a Slider control in terms of range minimum and -maximum, as well as step size.
DlgGetBarMin	Determines the value range's lower limit
DlgGetBarMax	Determines the value range's upper limit

File kit

File list

FsFileListNew	Read-in of files and folders
FsFileListGetCount	Determines number of file list entries
FsFileListGetName	Determines file names in a file list
FsFileListGetSize	Return the size of a file from a file list
FsFileListGetTime	Returns the time last modified for a file from the file list
FsFileListGetAttribute	Determines a file attribute of a file from the file list
FsFileListClose	Deletes file list

File names

FsTempFileName	Composes temporary filename
FsSplitPath	Decompose entire filename
FsMakePath	Compose complete filename
FsGetLongPathName	Conversion of a short filename to long form
FsGetShortPathName	Conversion of a long filename to a short one
FsGetParentDirectoryName	Determines a folder's parent folder

Attributes

FsGetFileSize	Determines the size of a file
FsGetFileTime	Determines time of last modification of file, or time of creation of folder
FsSetFileTime	Change file date and time
FsGetFileAttributes	Determine file attributes
FsSetFileAttributes	Change file attributes

Copy, move, create

FsRemoveDirectory	Delete folder
FsCreateDirectory	Create folder
FsMoveFile	Move files and folders
FsRenameFile	Renames file or folder
FsDeleteFile	Delete file(s)
FsCopyFile	Copy files or folders

Drives

FsGetLogicalDrives	Determine logical drive
FsGetDriveType	Determine a logical drive's type
FsGetDiskFreeSpace	Determine free space on a drive

Selection

FsDlgSelectDirectory	Folder selection dialog
FsDlgSelectFiles	File selection dialog

Datei-Werkzeuge

FsDlgSelectDirectory	Folder selection dialog
FsDlgSelectFiles	File selection dialog

Sound-Kit

SndError	Return 0=OK, else error code
SndPlayF	Plays the specified WAV file.
SndPlayM	Plays back the specified waveform in mono
SndPlayS	Plays back two waveforms in stereo
SndReadF	Converts the specified channel of the WAV file into a waveform.
SndSaveM	Saves the specified waveform as a mono WAV file.
SndSaveS	Saves the two specified waveforms as a stereo WAV file.
SndVolum	Changes the playback volume.

Report generator

Documents

RgDocOpen	Starts the Report Generator and loads a document
RgDocSave	Saves the currently active document
RgDocExport	Exports active document as a graphic
RgDocPrint	Prints the currently active document
RgDocNew	Creates a new document
RgDocClose	Closes the currently active document
RgDocCopy	Copies the active document to the Clipboard
RgDocSetActive	Sets the currently active document
RgDocExportEx	Exports the selected page(s) as a graphic
RgDocInsertPage	inserts a new page
RgDocRemovePage	deletes a page
RgDocGetPageCount	determines the number of pages in the report
RgDocSetActivePage	Sets the current report page

Objects

RgObjSetColor	Sets the color of an object
RgObjGetCount	Retrieves the number of objects in a report
RgObjGetTitle	Retrieves the title of an object
RgObjGetType	Retrieves the type of an object
RgObjFind	Searches for an object with the given title
RgObjSetSize	For changing an object's size
RgObjMove	For changing an object's position
RgObjGetPos	Queries an object's current position
RgObjDelete	Deletes an object

Texts

RgTextSet	Assigns contents to a text object
RgTextSetData	Assigns data or text to a place-holder in a text object
RgTextGet	Retrieves the contents of a text object

Curves

RgCurveSet	Assigns contents of currently active curve window to a curve object
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Tables

RgTableSetCell	Assigns contents to a cell in a table
RgTableGetCellText	Retrieves contents from a table cell
RgTableSetRow	Assigns a row to a table
RgTableSetColumn	Assigns a column to a table
RgTableColumns?	Retrieves the number of columns
RgTableRows?	Retrieves the number of columns

Compatibility

PrPrint	Prints the currently active document
PrWin	Starts, quits or minimizes Report Generator
PrConfig	Loads a Report Generator document
PrMove	Moves an object
PrRdClip	Pastes the Clipboard contents
PrSet	Assigns contents to a curve object or text to a text place-holder.
PrSave	Saves the currently active document
PrTitle	Retrieves the number of text and curve objects
PrTitleN	Retrieves an object title

Miscellaneous

RgWindow	Opens or quits the Report Generator
RgGetErrorText	Gets the corresponding error text from an error code
RgSetDir	Assigns the default directory for opening and saving documents

Timestamp-Ascii-Kit

TsaFindFirst	This function is called to begin an enumeration of the elements of a time-stamp ASCII channel.
TsaFindNext	This function is called to continue the enumeration of time-stamp-ASCII channels.
TsaFindTime	At a specified time, the position of the first time-stamp-ASCII element whose time is greater than or equal to the specified time, is returned.
TsaGetTime	For a specified position in a time-stamp-ASCII channel, the corresponding element's time is returned.
TsaGetText	For a specified position in a time-stamp-ASCII channel, the corresponding element's contents are returned as text.
TsaGetData	For a specified position in a time-stamp-ASCII channel, the corresponding element's contents are returned as a waveform.
TsaSetTime	For a specified position in a time-stamp-ASCII channel, the corresponding element's time is reset.
TsaSetData	For a specified position in a time-stamp-ASCII channel, the corresponding element's contents are reset. The contents are represented as a waveform.
TsaSetText	For a specified position in a time-stamp-ASCII channel, the corresponding element's contents are reset. The contents are represented as text.
TsaGetCount	For a time-stamp-ASCII channel, the number of constituent elements is determined.
TsaDelete	For a specified position in a time-stamp-ASCII channel, the corresponding element is deleted from the channel.
TsaInsert	At a specified position in a time-stamp-ASCII channel, a new element is inserted.
TsaInsertText	At a specified position in a time-stamp-ASCII channel, a new element is inserted.
TsaCreateEmpty	Creates an empty channel in time-stamp-ASCII format.
TsaAppend	A new element is appended to the end of a time-stamp-ASCII channel.
TsaAppendText	The contents and time of the new element are to be specified.
TsaSaveAscii	A time-stamp-ASCII channel is saved to a file in ASCII format.
TsaTextToData	A text is converted byte by byte into a waveform. This waveform will take the Byte numerical format.
TsaDataToText	A waveform is converted byte by byte into a text. The numerical format of the waveform does not matter.
TsaFindValidPos	At a specified position in a time-stamp-ASCII channel, next equal or larger valid position of an element is determined.