Macro	AGEN(anlid) TYPE(t) MODE(m) LIMITS(x_1,x_2\{,y_1,y_2\})
	BINS(bx\{,by\}) NCND(c) TITLE(t) COMMENT(c) CXAXIS(c)
	CYAXIS(c) LINESYMBOL(c) FCAL(f) ERROR(e)

PURPOSE   Create SATAN analyzer

PARAMETERS

ANLID	Analyzer name; must begin with a letter.
LIMITS(l)	List of channel number limits for each dimension (2 or 4 values).
BINS(b)	Bin size(s) (number of channels per spectrum element) for each dimension (1 or 2 values). Any (also non-integer) value is supported. Default value is 1.
TYPE(t)	Analyzer type, indicates the type of data to be stored.

Analyzer type	data type	max. counts
FIXED	BIN FIXED(15) (4 bytes)	32767
FLOAT	DEC FLOAT(6) (4 bytes)	3.4E38

If omitted, FIXED analyzer type is assumed.

MODE(m)	Analyzer mode, indicates the nature of the measured quantity (x value).

Analyzer mode	nature of quantity	representation	GRAF notation
ANALOG	continuous values	histogram	HT0
DIGITAL	discrete values	data points	LT1

If omitted, ANALOG analyzer mode is assumed.
More flexibility to define the graphic representation is possible with the keyword "LINESYMBOL".

NCND(c)	Number of conditions.
TITLE(t)	Title of analyzer; if omitted, the title is equal to its name.
COMMENT(c)	Specifies the comment of the analyzer.
CXAXIS(c)	Caption of the x axis; default value is "Channel".
CYAXIS(c)	Caption of the y axis; default value for 1-dim. analyzers is "Counts".
LINESYMBOL(c)	Graphical presentation of the data (line and symbols) in GRAF format. (See also keyword "MODE")
FCAL(f)	Calibration factor(s) for the x axis and (eventually for a 2-dim. analyzer) for the y axis. Channels are multiplied by this factor.
ERROR(e)	Name of another analyzer to be attached to define the errors of the actual analyzer.

REMARKS   Note that the analyzer name is interpreted as a string, not as a variable name. Character strings in the other keywords should be included in quotes. Also the limits may be included in quotes.
Special characters are allowed in strings and interpreted according to the GRAF conventions (e.g. "si^ / mb" appears as "σ / mb").
The character "&" specified in any character string is replaced by the current element number of the array on the display.
Missing analyzer attributes are replaced by default values in most cases. Analyzer numbers are assigned in sequence of creation.
Arrays of analyzers are supported up to 5 dimensions.

EXAMPLE

AGEN(MASS) LIMITS(0,300) BINS(2) CXAXIS('Mass number');
The analyzer MASS is created reaching from channel 0 to channel 300.
The caption of the x axis is "Mass number".

AGEN(ZL(10:17)) LIMITS(1,50) MODE(DIGITAL) ERROR(DZL);
AGEN(DZL(10:17)) LIMITS(1,50) MODE(DIGITAL);
The array of 8 analyzers ZL(10) to ZL(17) with the attached analyzer
array of uncertainties DZL is created.

AGEN(A(50,2)) LIMITS(0,1023) TYPE(FLOAT) TITLE('A(&)');
The 2-dimensional array of 100 analyzers A(1,1) to A(50,2) is created.
The title contains the actual array number(s).

DECLARATION

This macro may only be used in the analysis program. It is declared by
%INCLUDE '\FRSTOOLS\TRI\SATAN\$MACROS.PLI';