PC-DMIS V4.3 Support Documentation for DMIS 5.1

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ACLRAT

DMIS Description

Used to set the acceleration for measurements, path-directed moves, and rotary tables.

PC-DMIS Support

Not supported.

Application Notes

ALGDEF

DMIS Description

Defines an algorithm and assigns to it a label name.

PC-DMIS Support

Not supported.

Application Notes

ASSIGN

DMIS Description

Assigns the value of an expression to a variable or array element. Any previous variable value is lost.

PC-DMIS Support

The ASSIGN statement is supported and is translated into an equivalent ASSIGN statement in PC-DMIS.

Application Notes

In some DMIS programs the ASSIGN/ keyword is absent from the assignment, for example:

```
A = 5
B = A + 10
```

These forms are also recognized and correctly translated into ASSIGN statements in PC-DMIS.

BADTST*

DMIS Description

Defines a program section in which software checking and recovery for illegal or unexpected touch, or no touch errors is activated for GOTO and point feature measurement only.

PC-DMIS Support

The BADTST statement is supported and is translated as an ONERROR command in PC-DMIS.

Application Notes

PC-DMIS does not support directly the BADGT() and BADPT() intrinsic functions. Rather, variables BADGT and BADPT are set by the ONERROR command and can be tested for true or false logic conditions. While PC-DMIS does not have equivalent BADGT() and BADPT() intrinsic functions, it is able to properly convert these intrinsics during translation.

BOUND

DMIS Description

Applies boundaries to features and tolerances.

PC-DMIS Support

The BOUND statement has limited support as described below.

Application Notes

Only three types of features can be bounded by the BOUND statement, MEAS/LINE, MEAS/CONE, and MEAS/CYLNDR. Applying boundaries to tolerances is not supported.

CALIB

DMIS Description

Used to calibrate a sensor element or rotary table prior to taking measurements.

PC-DMIS Support

The CALIB statement has limited support as described below.

Application Notes

The method behind supporting the CALIB statement from DMIS is to create a CALIBRATE ACTIVE TIP command. If a feature is specified, this feature should be a sphere, no other feature types are supported. Since the CALIBRATE ACTIVE TIP command in PC-DMIS uses the currently selected tip, a TIP/ statement is inserted as needed so that the active tip calibrated corresponds to the sensor specified by S(label). The label of the referenced feature should be the same as one of the calibration tools previously defined from the Measure Probe dialog. If a sphere feature does not exist in the part program with the same label as that specified in the CALIB statement, an AUTOSPHERE/ command will be created and measured with the number of hits specified.

The following formats are supported:

```
CALIB/SENS,S(label1),F(label),n
CALIB/SENS,S(label1),FA(label),n
```

The RTAB form is not supported.

See also the CALIB statement in the Chorus NT Statement Reference section.

CALL

DMIS Description

Used to call and invoke execution of a macro or an external DMIS macro, DME routine, or system program/script.

PC-DMIS Support

The CALL statement is supported and is used to support DMIS macros, external system calls, and specifically defined external DMIS macros that were generated from PC-DMIS to DMIS export.

Application Notes

When SYS is found PC-DMIS creates an EXTERNAL_COMMAND command to make the call. Non-external DMIS macros or macros in files referenced by INCLUD statements are expanded in-line when translated into PC-DMIS.

See also the CALL statement in the Chorus NT Statement Reference section.

CASE

DMIS Description

To perform a separate Boolean test on the SELECT argument. If the CASE argument is equal to the SELECT argument, the result of the test is true, and the statement(s) from CASE to ENDCAS are executed.

PC-DMIS Support

The CASE statement is supported.

Application Notes

CLMPID

DMIS Description

Defines the identification of a part holding clamp, and assigns to it a label name.

PC-DMIS Support

The CLMPID statement is supported.

Application Notes

CLMPSN

DMIS Description

Defines the identification of a part holding clamp’s serial number, and assigns to it a label name.

PC-DMIS Support

The CLMPSN statement is supported by PC-DMIS.

Application Notes

CLOSE

DMIS Description

Disconnects the specified device identification label from a system device or file.

PC-DMIS Support

The CLOSE statement is mostly supported.

Application Notes

The following formats are supported:

```
CLOSE/DID(label)
CLOSE/DID(label),KEEP
CLOSE/DID(label),DELETE
```

When closing a file within the PC-DMIS architecture the ability to delete the file at the same time it is closed does not exist as it does in DMIS. To accomplish this the file must be closed with one command and then deleted with another. So CLOSE/DID(label),DELETE will be translated into two commands in PC-DMIS. The ability to 'KEEP' the file is the default behavior when DELETE is not specified and so is optional.

The END option is not yet supported.

See also the CLOSE statement in the Chorus NT Statement Reference section.

CMPNTGRP

DMIS Description

Defines a component group without a sensor, and assigns to it a label name.

PC-DMIS Support

Not supported.

Application Notes

CONST (input format 1)

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features used in the construction.

PC-DMIS Support

This construction format is mostly supported.

Application Notes

The CONST command is supported and provides best fit (BF) construction for arc (circle), circle, cone, line, plane, sphere, and cylinder feature types. A constructed set is created when specifying PATERN.

See also CONST (Form A) in the Chorus NT Statement Reference section.

CONST (input format 2)

DMIS Description

Causes the DME to construct a line, given the label names of other features used in the construction.

PC-DMIS Support

This construction format is supported.

Application Notes

CONST (input format 3)

DMIS Description

Causes the DME to construct a plane, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is supported.

Application Notes

CONST (input format 4)

DMIS Description

Causes the DME to construct a point, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is partially supported.

Application Notes

Supported options are: MIDPT, PROJPT, MOVEPT, PIERCE.

CONST (input format 5)

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is partially supported.

Application Notes

Supported options are: CIRCLE.

CONST (input format 6)

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is mostly supported.

Application Notes

Constructions of type circle, line, and point are supported for INTOF. In each of these cases, an intersection feature (circle, line, point) is constructed except when dealing with an intersection point when the reference features are of type plane. In this latter case, a pierce point feature is constructed.

CONST (input format 7)

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is mostly supported.

Application Notes

Supported options are: PERPTO and PARTO for line and plane only. Neither CIRCLE nor TANTO are supported for this input format.

CONST (input format 8)*

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is supported.

Application Notes

CONST (input format 9)*

DMIS Description

Causes the DME to construct a soft gauge, and assign to it a label name, given the label names of other feature to use in the construction.

PC-DMIS Support

This construction format is not supported.

Application Notes

CONST (input format 10)*

DMIS Description

Causes the DME to construct a soft part, and assign to it a label name, given the label names of other feature to use in the construction.

PC-DMIS Support

This construction format is not supported.

Application Notes

CONST (input format 11)*

DMIS Description

Causes the DME to construct a geometric feature, given the label names of other features to use in the construction.

PC-DMIS Support

This construction format is partially supported.

Application Notes

See CONST (Form D) in the Chorus NT Statement Reference section.

Supported options are: CIRCLE, CONE, CYLNDR, ELLIPS, LINE, PLANE, POINT and SPHERE. var_2 is not supported for ,D(label3) or ,DA(label4).

CONST (input format 12)*

DMIS Description

Causes the DME to construct a geometric feature, given the label name of a cone feature to use in the construction.

PC-DMIS Support

This construction format is not supported

Application Notes

CONST (input format 13)*

DMIS Description

Causes the DME to construct a geometric feature, given the label name of a feature defined in a previous FEAT/GEOM statement.

PC-DMIS Support

This construction format is not supported

Application Notes

CRGDEF

DMIS Description

Defines an independent sensor carrying carriage, and assigns to it a label name.

PC-DMIS Support

The CRGDEF statement is supported

Application Notes

For PC-DMIS it is only necessary to associate a carriage definition with a particular arm (1, 2, etc.) Therefore, due to the ambiguity of the DMIS CRGDEF statement for arm association, when selecting this carriage with the CRSLCT/ statement PC-DMIS will prompt the user for the arm to use with a particular carriage. For example:

"Does the CRGDEF statement 'CR(CR1)=CRGDEF/…' correspond to the Master or Slave arm?"

The user will then select 'Master' or 'Slave' for this carriage definition. PC-DMIS V3.5 only supports up to two carriages.

The Chorus NT extension does not have the arm association ambiguity, see Chorus NT application notes for CRGDEF for more information.

CRMODE

DMIS Description

Selects the mode in which DMIS statements are executed.

PC-DMIS Support

Both CRMODE/SEQNTL and CRMODE/SIMUL modes are supported. CRMODE/SYNC is not supported.

Application Notes

CRMODE/SIMUL is the default for multi-arm part program execution. When this mode is set, PC-DMIS executes master and slave arm commands simultaneously. When CRMODE/SEQNTL mode is selected, part program execution still functions as it does in the SIMUL case with the exception that when a carriage is changed via the CRSLCT/ statement, PC-DMIS inserts a MOVE/SYNC command enforcing arm synchronization at that point.

CROSCL

DMIS Description

Used to enable or disable sensor motion to the negative (far) side of the rotary axis centerline of a DME with two linear and one rotary axis.

PC-DMIS Support

Statement is not supported.

Application Notes

CRSLCT

DMIS Description

Defines the carriage associated to the subsequent part program code.

PC-DMIS Support

CRSLCT is supported

Application Notes

CRSLCT is supported and works in conjunction with the CRGDEF and CRMODE statements as stated above. In addition to standard implementations CRSLCT can be used in the following ways to accomplish arm selection:

`CRSLCT/CR(MASTER)` – selects the master arm
`CRSLCT/CR(SLAVE)` – selects the slave arm
`CRSLCT/CR(A)` – selects the master arm
`CRSLCT/CR(B)` – selects the slave arm

where MASTER, SLAVE, A, and B are the literal labels for CR(). Note that a CRGDEF/ is not required in these instances.

When the CRSLCT/ALL statement is issued, PC-DMIS inserts a MOVE/SYNC command in the part program enforcing part program synchronization at that point.

See also CRSLCT/ in the Chorus NT extensions reference.

CUTCOM

DMIS Description

Defines a compensation or process adjustment for a manufacturing device, and assigns to it a label name.

PC-DMIS Support

Only the USERDF option is supported.

Application Notes

CZONE

DMIS Description

Identifies a potential collision path between different carriages, and assigns to it a label name.

PC-DMIS Support

The CZONE statement is not supported.

Application Notes

CZSLCT

DMIS Description

Delimits a possible collision path between different carriages.

PC-DMIS Support

The CZSLCT is not supported

Application Notes

DATDEF

DMIS Description

Assigns a datum label to one or more previously defined, measured or constructed feature(s).

PC-DMIS Support

The DATDEF statement is supported.

Application Notes

The concept of a datum mapping between feature labels and datum labels does not currently exist in PC-DMIS V3.5 as an independent command. So when a DMIS tolerance or part coordinate system references a datum, PC-DMIS finds the corresponding feature and uses that label instead of the datum label. For example:

```
DATDEF/ FA(PLN1), DAT(A)
TRANS/ZORIG,DAT(A)
```

becomes

```
ALIGNMENT/TRANS,ZAXIS,PLN1
```

in PC-DMIS.

DATSET

DMIS Description

Defines and activates a datum set, or part coordinate system, and assigns to it a label name. Datum sequence per ASME Y14.5M-1994.

PC-DMIS Support

The DATSET statement is supported.

Application Notes

DECL

DMIS Description

Declares variable names and their corresponding data type to be used in a program.

PC-DMIS Support

The DECL statement is supported.

Application Notes

PC-DMIS does not require that variables be declared prior to their use and so the DECL statement may be omitted.

DECPL

DMIS Description

Specifies the number of decimal places to the right of the decimal point, to output for specified parameters.

PC-DMIS Support

The DECPL statement is not supported.

Application Notes

DELETE

DMIS Description

Deletes part coordinate system datum sets, sensor calibration data, and measured feature actual data that was previously saved.

PC-DMIS Support

The DELETE statement is not supported.

Application Notes

DEVICE

DMIS Description

Assigns a label to a system device.

PC-DMIS Support

The DEVICE statement's STOR option is supported and used in conjunction with the OPEN and CLOSE statements.

Application Notes

DFTCAS

DMIS Description

Provides an optional default case in a SELECT...ENDSEL block, if and only if none of the CASE statements returns true, the statement(s) from DFTCAS to ENDCAS are executed. If present, DFTCAS must come after all CASE...ENDCAS blocks in the SELECT...ENDSEL block.

PC-DMIS Support

The DFTCAS statement is supported.

Application Notes

DISPLY

DMIS Description

Specifies the control and format of output data to DME default device(s).

PC-DMIS Support

The DISPLY statement is supported.

Application Notes

When DISPLY/PRINT is issued, output to the system default printer will be enabled. Since output to the terminal is also enabled in PC-DMIS, DISPLY/TERM has no affect except in the case of V(label), which is used to create a FORMAT/ command in PC-DMIS (see VFORM for more information). When …,STOR,DMIS is issued, output results are additionally sent to a DMO file. If …,STOR,V(label) is issued, PC-DMIS looks at the V(label) definition for DME. If DME is found in the V(label) definition, then output to statistics is enabled via a STATS/ command in PC-DMIS. Also, if …,COMM is issued, a STATS/ command is again created. When DISPLY/OFF is issued, printing to printer and/or file is disabled, a PRINTREPORT/ command is created in the PC-DMIS part program causing any output generated up to that point to be sent to the correct output device, and a STATS/OFF command is created to disable statistical reporting.

See also Chorus NT extension application notes for DISPLY

DMEHW

DMIS Description

Communicates specific DME hardware information to a servo-driven DME to control execution of move and measurement statements.

PC-DMIS Support

The DMEHW statement is not supported.

Application Notes

DMEID

DMIS Description

Defines the identification of a Dimensional Measuring Device, and assigns to it a label name.

PC-DMIS Support

The DMEID statement is supported.

Application Notes

DMESW

DMIS Description

Used to control data or the processing of data sent in the input file to the DME.

PC-DMIS Support

The DMESW statement is partially supported.

Application Notes

Supported option: COMAND.

Typically the DMESW command is used to insert commands into the part program from DMIS that are native PC-DMIS commands. For example,

```
DMESW/COMAND,'FORMAT/HEADINGS,SYMBOLS, ; NOM, TOL, MEAS, MAXMIN, DEV,
OUTTOL'
```

will create a FORMAT/ command in the PC-DMIS part program with the given options.

DMESWI

DMIS Description

Defines the identification of the DME's software, and assigns to it a label name.

PC-DMIS Support

The DMESWI statement is supported.

Application Notes

DMESWV

DMIS Description

Defines the identification of the DME's software version, and assigns to it a label name.

PC-DMIS Support

The DMESWV statement is supported.

Application Notes

DMIS

DMIS Description

Defines when statements are processed, or ignored by the DME.

PC-DMIS Support

The DMIS statement is not supported.

Application Notes

DMISMD

DMIS Description

External program identification for a DMIS input module.

PC-DMIS Support

The DMISMD statement is supported.

Application Notes

DMISMN

DMIS Description

Specifies program identification for a DMIS input program.

PC-DMIS Support

The DMISMN statement is supported.

Application Notes

The ‘Part Name’ as stored by the PC-DMIS program header is taken as the text provided with the DMISMN/ statement.

Some flavors of DMIS do not include the DMISMN statement as required by the DMIS standard. Therefore, DMISMN can be omitted.

DO

DMIS Description

Provides the capability of repeating a sequence of instructions based on an initial and limit value at a specified increment.

PC-DMIS Support

The DO statement is supported.

Application Notes

ELSE

DMIS Description

Provides an optional branch within an IF...ENDIF block.

PC-DMIS Support

The ELSE statement is supported.

Application Notes

ENDAT

DMIS Description

Signifies the end of a data stream.

PC-DMIS Support

The ENDAT statement is supported where applicable to DMIS output formats.

Application Notes

ENDAT will be used in RAWDAT output formats of measured features when the PROBECOM/ command is set to OFF in PC-DMIS the part program.

ENDCAS

DMIS Description

Indicates the end of the current CASE...ENDCAS or DFTCAS...ENDCAS block, initiated with the CASE or DFTCAS statement.

PC-DMIS Support

The ENDCAS statement is supported.

Application Notes

ENDDO

DMIS Description

Indicates the end of a DO...ENDDO block, initiated with a DO statement.

PC-DMIS Support

The ENDDO statement is supported.

Application Notes

ENDFIL

DMIS Description

Specifies the end of the program or input module.

PC-DMIS Support

The ENDFIL statement is supported.

Application Notes

Some flavors of DMIS do not include an ENDFIL statement at the end of their DMIS programs. To accommodate these programs, ENDFIL may be omitted.

ENDGO

DMIS Description

Indicates the end of a GOTARG...ENDGO block, initiated with the GOTARG statement.

PC-DMIS Support

The ENDGO statement is not supported.

Application Notes

ENDIF

DMIS Description

Indicates the end of an IF...ENDIF or IF...ELSE...ENDIF block, initiated with the IF statement.

PC-DMIS Support

The ENDIF statement is supported.

Application Notes

ENDMAC

DMIS Description

Terminates a MACRO sequence definition, initiated with the M(label)=MACRO/... statement.

PC-DMIS Support

The ENDMAC statement is supported.

Application Notes

ENDMES

DMIS Description

Indicates the end of a CALIB...ENDMES, MEAS...ENDMES, or RMEAS...ENDMES statement, initiated with the CALIB, MEAS, or RMEAS statements.

PC-DMIS Support

The ENDMES statement is supported.

Application Notes

ENDSEL

DMIS Description

Indicates the end of a SELECT...CASE...ENDCAS...DFTCAS...ENDCAS...ENDSEL block, initiated with the SELECT statement.

PC-DMIS Support

The ENDSEL statement is supported.

Application Notes

ENDXTN

DMIS Description

Indicates the end of an external declaration, XTERN...ENDXTN block, initiated with the XTERN statement.

PC-DMIS Support

The ENDXTN statement is not supported.

Application Notes

EQUATE

DMIS Description

Recovers the current part coordinate system by equating two datum sets or part coordinate systems, or associates a part coordinate system with a CAD coordinate system.

PC-DMIS Support

The EQUATE statement is supported.

Application Notes

ERROR

DMIS Description

Used to define the handling of DME error codes

PC-DMIS Support

The ERROR statement is supported for (jumptarget) followed by an error code.

Application Notes

An error code of 0 should be used to cause PC-DMIS to jump to the (jumptarget) label in the event that the program gets an unexpected hit. An error code of 1 should be used to cause PC-DMIS to jump to the (jumptarget) label in the event that the program gets a missed hit.

See also Chorus NT extension support for the BADTST statement.

EVAL

DMIS Description

Evaluates named feature(s) to the tolerance(s).

PC-DMIS Support

The EVAL statement is supported but is treated synonymously with the OUTPUT/ statement.

Application Notes

PC-DMIS cannot evaluate a feature to a tolerance without generating the appropriate DIMENSION commands for the evaluation. Therefore, EVAL/ will generate output just as the OUTPUT/ statement does.

EXTENS

DMIS Description

Defines a sensor extension component, and assigns to it a label name.

PC-DMIS Support

The EXTENS statement is not supported.

Application Notes

EXTFIL

DMIS Description

Declares an external file definition.

PC-DMIS Support

The EXTFIL statement is not supported.

Application Notes

FEAT/ARC (input format 1)

DMIS Description

Defines a nominal arc or constructs an actual arc, and assigns to it a label name. There are two formats.

PC-DMIS Support

The FEAT/ARC (input format 1) statement is supported.

Application Notes

The ARC feature is implemented as either a measured or auto circle depending on whether the feature is measured using MEAS or RMEAS respectively. Additionally if MODE/AUTO is in effect or the sensor type is a non-contact sensor, an auto circle is created.

FEAT/ARC (input format 2)

DMIS Description

Defines a nominal arc or constructs an actual arc, and assigns to it a label name. This second format defines the arc with four points.

PC-DMIS Support

The FEAT/ARC (input format 2) statement is not supported.

Application Notes

FEAT/CIRCLE

DMIS Description

Defines a nominal circle or constructs an actual circle, and assigns to it a label name.

PC-DMIS Support

The FEAT/CIRCLE statement is supported.

Application Notes

The CIRCLE feature is implemented as either a measured or auto-circle depending on whether the feature is measured using MEAS or RMEAS respectively. Additionally if MODE/AUTO is in effect or the sensor type is a non-contact sensor, an auto circle is created.

FEAT/CONE

DMIS Description

Defines a nominal cone or constructs an actual cone, and assigns to it a label name.

PC-DMIS Support

The FEAT/CONE statement is supported.

Application Notes

The CONE feature is implemented as either a measured or auto-cone depending on whether the feature is measured using MEAS or RMEAS respectively. Additionally if MODE/AUTO is in effect or the sensor type is a non-contact sensor, an auto cone is created.

FEAT/CPARLN

DMIS Description

Defines a nominal, or constructs an actual, closed ended parallel line by center point and length axis, and assigns to it a label name.

PC-DMIS Support

The FEAT/CPARLN statement is supported.

Application Notes

The CPARLN feature is implemented either as an auto round slot or square slot depending on the ROUND/FLAT flag. The SQUARE flag can also be used in place of FLAT for the same effect.

FEAT/CYLNDR

DMIS Description

Defines a nominal cylinder or constructs an actual cylinder, and assigns to it a label name.

PC-DMIS Support

The FEAT/CYLNDR statement is supported.

Application Notes

The CYLNDR feature is implemented either as a measured or auto cylinder depending on whether the feature is measured using MEAS or RMEAS respectively. Additionally if MODE/AUTO is in effect or the sensor type is a non-contact sensor, an auto cone is created.

FEAT/EDGEPT*

DMIS Description

Defines a nominal point or constructs an actual point on the edge of a surface, and assigns to it a label name.

PC-DMIS Support

The FEAT/EDGEPT statement is supported

Application Notes

The EDGEPT feature is implemented as an auto edge feature in PC-DMIS.

FEAT/ELLIPS

DMIS Description

Defines a nominal ellipse or constructs an actual ellipse, and assigns to it a label name.

PC-DMIS Support

The FEAT/ELLIPS statement is supported.

Application Notes

The ELLIPS feature is implemented as an auto ellipse in PC-DMIS.

FEAT/GCURVE

DMIS Description

Defines a generic curve, and assigns to it a label name.

PC-DMIS Support

The FEAT/GCURVE statement is supported.

Application Notes

The GCURVE feature is implemented as a measured set in PC-DMIS.

FEAT/GEOM

DMIS Description

Defines a nominal geometry feature from previously defined geometry data, and assigns to it a label name.

PC-DMIS Support

The FEAT/GEOM statement is not supported.

Application Notes

FEAT/GSURF

DMIS Description

Defines a nominal generic surface, and assigns to it a label name.

PC-DMIS Support

The FEAT/GSURF statement is supported.

Application Notes

The GSURF feature is implemented as a measured set in PC-DMIS.

FEAT/LINE

DMIS Description

Defines a nominal line or constructs an actual line, and assigns to it a label name.

PC-DMIS Support

The FEAT/LINE statement is supported.

Application Notes

The LINE feature is implemented as a measured line in PC-DMIS.

FEAT/OBJECT

DMIS Description

Defines a "user created" object that has definable characteristics in another file that the DME has the capability to measure, and assigns to it a label name. Identifies either a nominal object or constructs an actual object.

PC-DMIS Support

The FEAT/OBJECT statement is supported.

Application Notes

The OBJECT feature is implemented as a generic feature in PC-DMIS. Actual values are assigned to the feature using the appropriate Chorus NT CONST (FORMH) statement.

See also CONST (FORMH) in the Chorus NT extensions reference section.

FEAT/PARPLN

DMIS Description

Defines a feature nominal or constructs a feature actual with opposite parallel planes (slot, block), and assigns to it a label name.

PC-DMIS Support

The FEAT/PARPLN statement has partial support in PC-DMIS.

Application Notes

The PARPLN feature is implemented as an auto notch feature when the INNER/OUTER flag is set to INNER. The OUTER flag is not supported.

FEAT/PATERN

DMIS Description

Defines a nominal pattern using previously defined features, and assigns to it a label name.

PC-DMIS Support

The FEAT/PATERN statement is supported.

Application Notes

The PATERN feature is implemented as a constructed set.

FEAT/PLANE

DMIS Description

Defines a nominal plane or constructs an actual plane, and assigns to it a label name.

PC-DMIS Support

The FEAT/PLANE statement is supported.

Application Notes

The PLANE feature is implemented as a measured plane.

FEAT/POINT

DMIS Description

Defines a nominal point or constructs an actual point, and assigns to it a feature label.

PC-DMIS Support

The FEAT/POINT statement is supported.

Application Notes

The POINT feature is implemented either as an auto surface feature when RMEAS is used to measure the feature. If MODE/AUTO is in effect, or the sensor is a non-contact sensor an auto surface or vector feature will be created depending on whether RMEAS or MEAS is used respectively. It is implemented as a read point when the number of sample hits specified with the MEAS or RMEAS command is 0 (zero), or as a measured point when the number of sample hits specified with the MEAS command is anything other than 0 (zero).

A special case exists when a plane was previously measured with RMEAS followed by a point also measured with RMEAS to a specified FA(label). Under this condition, rather than creating an auto vector or surface feature, an auto edge feature is created with the plane representing the surface perpendicular to the edge and the point being the point on the edge.

FEAT/RCTNGL

DMIS Description

Defines a nominal right rectangular prism or constructs an actual right rectangular prism, and assigns to it a label name.

PC-DMIS Support

The FEAT/RCTNGL statement is not supported.

Application Notes

FEAT/SPHERE

DMIS Description

Defines a nominal sphere or constructs an actual sphere, and assigns to it a label name.

PC-DMIS Support

The FEAT/SPHERE statement is supported.

Application Notes

The SPHERE feature is implemented either as a measured or auto sphere depending on whether the feature is measured using MEAS or RMEAS respectively. Additionally if MODE/AUTO is in effect or the sensor type is a non-contact sensor, an auto sphere is created.

FEAT/TORUS

DMIS Description

Defines a nominal torus or constructs an actual torus, and assigns to it a label name.

PC-DMIS Support

The FEAT/TORUS statement is not supported.

Application Notes

FEDRAT

DMIS Description

Used to set the velocities for measurements, path-directed moves, and rotary tables.

PC-DMIS Support

The FEDRAT statement is partially supported

Application Notes

The MESVEL and POSVEL options are implemented as touch speed and move speed commands in PC-DMIS respectively. Note that the interpretation of the PCNT option depends on the setting of the DMISFedratPcntOfMaxMachineSpeed registry setting when translating the MESVEL speed. When DMISFedratPcntOfMaxMachineSpeed is set to 1, MESVEL,PCNT specifies a percentage of maximum machine speed. When DMISFedratPcntOfMaxMachineSpeed is set to 0, MESVEL,PCNT specifies a percentage of maximum touch speed.

FILDEF

DMIS Description

Defines a filter for use with a video DME, and assigns to it a label name.

PC-DMIS Support

The FILDEF statement is not supported.

Application Notes

FILNAM

DMIS Description

Specifies an internal identification within the DMIS file.

PC-DMIS Support

The FILNAM statement is supported

Application Notes

When the FILNAM statement is issued, PC-DMIS sets the filename of the DMO file to the name specified by FILNAM.

FINPOS

DMIS Description

Enables or disables the fine positioning feature. When enabled the sensor is positioned with high-resolution accuracy at a low velocity following the normal positioning move.

PC-DMIS Support

The FINPOS statement is not supported.

Application Notes

FIXTID

DMIS Description

Defines the identification of a part holding fixture, and assigns to it a label name.

PC-DMIS Support

The FIXTID statement is supported.

Application Notes

FIXTSN

DMIS Description

Defines the identification of a part holding fixture's serial number, and assigns to it a label name.

PC-DMIS Support

The FIXTSN statement is supported.

Application Notes

FLY

DMIS Description

Sets or disables the FLY mode of the controller for continuous motion via GOTO points specified or implied.

PC-DMIS Support

The FLY statement is supported.

Application Notes

FROM

DMIS Description

Defines the home position to be used by the GOHOME statement.

PC-DMIS Support

The FROM statement is supported.

Application Notes

GECOMP

DMIS Description

Causes machine geometrical compensation to be on or off at the DME.

PC-DMIS Support

The GECOMP statement is not supported.

Application Notes

GEOALG

DMIS Description

Defines and sets a substitute feature data fitting algorithm for a particular feature type.

PC-DMIS Support

The GEOALG statement is partially supported

Application Notes

Support for CIRCLE and CYLNDR …,LSTSQR, …,MINCIR, and ..,MAXINS options is available. The result is to set the corresponding PC-DMIS options for auto features created when these GEOALG settings are in effect.

See also the Chorus NT extension support section.

GEOM

DMIS Description

Defines the CAD geometry data associated with features, and assigns to it a label name.

PC-DMIS Support

The GEOM statement is not supported.

Application Notes

GOHOME

DMIS Description

Used to position the sensor at the coordinates defined in the previous FROM statement. The home position is relative to the current coordinate system in effect when FROM was executed.

PC-DMIS Support

The GOHOME statement is supported.

Application Notes

GOHOME is implemented as a MOVE/POINT command in PC-DMIS drawing its coordinates from a previously issued FROM statement.

See the Chorus NT extension reference for more information.

GOTARG

DMIS Description

Initiates execution of a path-directed move and defines the endpoint or destination to which the sensor will travel.

PC-DMIS Support

The GOTARG statement is not supported.

Application Notes

GOTO

DMIS Description

Executes a sensor move and defines the endpoint of the move.

PC-DMIS Support

The GOTO statement is partially supported.

Application Notes

The ARC and POL formats are not currently supported.

GROUP

DMIS Description

Builds a sensor group from previously calibrated sensors, and assigns to it a label name.

PC-DMIS Support

The GROUP statement is not supported.

Application Notes

IF

DMIS Description

Transfers the control of the program based upon the conditional execution of a logical expression. The expression can be comprised of previously defined variables, arithmetic expressions, or logical expressions. Nested IF...ENDIF blocks are also supported.

PC-DMIS Support

The IF statement is supported.

Application Notes

INCLUD

DMIS Description

Includes line-for-line external code into the DMIS program from an external file.

PC-DMIS Support

The INCLUD statement is supported.

Application Notes

Intrinsic Functions

DMIS Description

Used to implement numeric functions, character functions, and system functions.

PC-DMIS Support

The following intrinsic functions are supported.

Application Notes

```
ABS(x)                  LEN(str)
ACOS(x)                 LN(x)                   SQRT(x)
ASIN(x)                 LOG(x)                  STIME()
ATAN(x)                 MN(x,x var_2)
ATAN2(y,x)              MOD(x,y)                SUBSTR(str,x,y)
BADGT()                 MX(x,x var_2)           TAN(x)
BADPT()                                         VAL(str)
CHR(x)                  ORD(x)                  VCART(x,y,z)
                        RL(x)                   VCROSS(v1,v2)
COS(x)                  RTOD(x)                 VDOT(v1,v2)
DBLE(x)                                         VECX(v)
DTOR(x)                 SCSNS()                 VECY(v)
ELEMNT(x,char,str)      SDATE()                 VECZ(v)
EOF(DID(label1))                                VMAG(v)
                                                VMCS(v)
EXP(x)                  SIGN(x,y)               VPCS(v)
INDX(str,sstr)                                  VPOL(r,a,h)
INT(x)                  SIN(x)                  VUNIT(v)
```

ITERAT

DMIS Description

Provides the capability of repeating a sequence of instructions in order to perform an alignment on a CMM. The syntax is based on a single or series of convergence conditions being met before a maximum number of iterations have occurred.

PC-DMIS Support

The ITERAT statement is supported.

Application Notes

The ITERAT statement will create an iterative alignment command in PC-DMIS.

JUMPTO

DMIS Description

Used to transfer the control of the program to a labeled statement anywhere in the program.

PC-DMIS Support

The JUMPTO statement is supported.

Application Notes

LITDEF (input format 1)

DMIS Description

Defines the lighting arrangement to be used by a DME for taking measurements with a video device, and assigns to it a label name. There are two formats.

PC-DMIS Support

The LITDEF (input format 1) statement is not supported.

Application Notes

LITDEF (input format 2)

DMIS Description

Defines the lighting arrangement to be used by a DME for taking measurements with a video device, and assigns to it a label name. There are two formats.

PC-DMIS Support

The LITDEF (input format 2) statement is not supported.

Application Notes

LOCATE

DMIS Description

Creates a part coordinate system, which fits the nominals of a set of features to the actuals of a set of features, and assigns to it a label name.

PC-DMIS Support

The LOCATE statement is supported.

Application Notes

The LOCATE statement is translated as a 3D best fit alignment.

LOTID

DMIS Description

Defines the identification of the part lot identifier, and assigns to it a label name.

PC-DMIS Support

The LOTID statement is supported.

Application Notes

MACRO

DMIS Description

Defines a macro routine, and assigns to it a label name.

PC-DMIS Support

The MACRO statement is supported.

Application Notes

The MACRO command is implemented through inline expansion of the macro when the CALL command is encountered.

MATDEF

DMIS Description

Specifies the parameters for a functional mating between a feature actual and a feature nominal or geometry definition, and assigns to it a label name.

PC-DMIS Support

The MATDEF statement is not supported.

Application Notes

MEAS

DMIS Description

Causes the DME to measure a feature.

PC-DMIS Support

The MEAS statement is supported.

Application Notes

MFGDEV

DMIS Description

Defines a manufacturing device, and assigns to it a label name.

PC-DMIS Support

The MFGDEV statement is supported.

Application Notes

MODE

DMIS Description

Sets the mode in which the DME will execute the program.

PC-DMIS Support

The MODE statement is supported.

Application Notes

OBTAIN

DMIS Description

Sets a variable equal to any parameter of a definition.

PC-DMIS Support

The OBTAIN statement is partially supported

Application Notes

Support for OBTAIN is limited to F/FA, T/TA, S/SA (diam and tilt/rot), G(label) (gauges in Chorus NT).

OPEN

DMIS Description

Opens a previously defined system device or file and establishes the connection's input/output attributes.

PC-DMIS Support

The OPEN statement is supported.

Application Notes

Two options are supported, DIRECT and FDATA. When DIRECT is issued, the statement is translated as a FILE/OPEN command in PC-DMIS. When FDATA is issued, no PC-DMIS command is created but the statement controls the direction of

output data. When the DMIS option is used with FDATA, DMO output to the file specified by the DID(label) is enabled. Additionally, if the OVERWR minor word is issued, then the DMO file is overwritten each time the part program is executed. When V(label) is specified with FDATA, output to a file (vendor formatted) is enabled. The OVERWR minor word is used to control overwriting otherwise results will be appended to the file.

OPERID

DMIS Description

Defines the identification of the operator running the DME, and assigns to it a label name.

PC-DMIS Support

The OPERID statement is supported.

Application Notes

OUTPUT

DMIS Description

Causes evaluation and output of actuals or nominals, or a previously defined report.

PC-DMIS Support

The OUTPUT statement is supported.

Application Notes

PARTID

DMIS Description

Defines the identification of the part to be inspected, and assigns to it a label name.

PC-DMIS Support

The PARTID statement is supported.

Application Notes

PARTRV

DMIS Description

Defines the identification of the part's revision level, and assigns to it a label name.

PC-DMIS Support

The PARTRV statement is supported.

Application Notes

PARTSN

DMIS Description

Defines the identification of the part serial number, and assigns to it a label name.

PC-DMIS Support

The PARTSN statement is supported.

Application Notes

PLANID

DMIS Description

Defines the identification of the inspection plan, and assigns to it a label name.

PC-DMIS Support

The PLANID statement is supported.

Application Notes

POP

DMIS Description

Restores a selected portion of the DMIS environment from an internal stack, and removes that information from the stack. The POP statement has no effect if the stack contains no items of the selected portion. Each configuration group (such as ALGOR or DME) is maintained on a separate stack, and popping one group has no effect on the stack for any other configuration group.

PC-DMIS Support

The POP statement is not supported.

Application Notes

PRCOMP

DMIS Description

Causes automatic probe compensation to be enabled or disabled.

PC-DMIS Support

The PRCOMP statement is supported.

Application Notes

PREVOP

DMIS Description

Defines the identification of the previous operation, and assigns to it a label name.

PC-DMIS Support

The PREVOP statement is supported.

Application Notes

PROCID

DMIS Description

Defines the identification of the inspection procedure, and assigns to it a label name.

PC-DMIS Support

The PROCID statement is supported.

Application Notes

PROMPT

DMIS Description

To prompt the DME operator for one or more values to be assigned to high level variable(s).

PC-DMIS Support

The PROMPT statement is partially supported.

Application Notes

PSTHRU

DMIS Description

Passes statements in the inspection program through to the output file without interpretation or execution.

PC-DMIS Support

The PSTHRU statement is partially supported.

Application Notes

The only implementation for PSTHRU is a mechanism for enabling/disabling the FINDHOLE option in auto feature commands.

`PSTHRU/COMAND,'FINDHOLE,ON'` – enables the FINDHOLE option for subsequently created auto features.
`PSTHRU/COMAND,'FINDHOLD,OFF'` – disables the FINDHOLE option for subsequently created auto features.

Note that the string is explicit, there cannot be any spaces in the string.

PTBUFF

DMIS Description

To turn on/off the saving of individual point information from the measurement points of higher level features (for example, cylinder, plane). The points captured can be accessed by using the higher level feature name and subscripted arrays as stated in paragraph (feature data access).

PC-DMIS Support

The PTBUFF statement is supported.

Application Notes

When PTBUFF is ON, TEXTUAL ANALYSIS is enabled for all dimensions created. When BTBUFF is OFF, TEXTUAL ANALYSIS is disabled. PTBUFF is disabled by default.

PTMEAS

DMIS Description

Signifies that an automatic point measurement is to be performed.

PC-DMIS Support

The PTMEAS statement is supported.

Application Notes

PUSH

DMIS Description

Saves a selected portion of the DMIS environment on an internal stack. Each configuration group (such as ALGOR or DME) is maintained on a separate stack, and pushing one group has no effect on the stack for any other configuration group.

PC-DMIS Support

The PUSH statement is not supported.

Application Notes

QISDEF

DMIS Description

Defines a user specified QIS variable, and assigns to it a label name.

PC-DMIS Support

The QISDEF statement is supported.

Application Notes

RAPID

DMIS Description

Used to signify that the next move of the DME is to take place at the specified percentage of maximum speed. It is in effect for only one move.

PC-DMIS Support

The RAPID statement is not supported.

Application Notes

READ

DMIS Description

Used to transfer data from a system device or file to the program.

PC-DMIS Support

The READ statement is supported.

Application Notes

The READ statement is implemented as a DMISIO/ command in PC-DMIS.

RECALL

DMIS Description

Enables data stored with the SAVE statement to be recalled.

PC-DMIS Support

The RECALL statement is partially supported.

Application Notes

Only the D/DA option is supported.

REFMNT

DMIS Description

Defines the relationship of a reference mounting point to the last sensor for a sensor mount component, and assigns to it a label name. This function establishes a new sensor coordinate system for subsequent sensor components.

PC-DMIS Support

The REFMNT statement is not supported.

Application Notes

REPORT

DMIS Description

Specifies additional information to be put in the DME output file, and assigns to it a label name.

PC-DMIS Support

The REPORT statement is supported.

Application Notes

RESUME

DMIS Description

Used to resume program execution after recovery from DME error.

PC-DMIS Support

The RESUME statement is not supported.

Application Notes

RMEAS (input format 1)

DMIS Description

Causes the DME to measure an ARC, CIRCLE, ELLIPS or OBJECT feature relative to another defined/constructed feature.

PC-DMIS Support

The RMEAS (input format 1) statement is supported for ARC, CIRCLE, and ELLIPS.

Application Notes

RMEAS (input format 2)

DMIS Description

Causes the DME to measure a CONE, CYLNDR, PARPLN, PATERN or RCTNGL feature relative to another defined/constructed feature.

PC-DMIS Support

The RMEAS (input format 2) statement is supported for CONE, CYLNDR, PARPLN, and PATERN.

Application Notes

In the case of PATERN PC-DMIS will create a constructed set to represent this measurement. Also, as stated in the FEAT/PARPLN statement reference, only the INNER option is supported for PARPLN.

RMEAS (input format 3)

DMIS Description

Causes the DME to measure a closed ended parallel line, CPARLN, feature relative to another defined/constructed feature.

PC-DMIS Support

The RMEAS (input format 3) statement is supported.

Application Notes

RMEAS (input format 4)

DMIS Description

Causes the DME to measure a GCURVE or LINE feature relative to another defined feature and/or by approaching along a specific axis.

PC-DMIS Support

The RMEAS (input format 4) statement is supported.

Application Notes

PC-DMIS V3.5 does not have an RMEAS LINE type object and so a measured line will be created. A measured set command will be created in PC-DMIS to represent the GCURVE feature.

RMEAS (input format 5)

DMIS Description

Causes the DME to measure a PLANE, GSURF, SPHERE, or TORUS feature relative to another defined feature and/or by approaching along a specific axis.

PC-DMIS Support

The RMEAS (input format 5) statement is supported for PLANE, GSURF, and SPHERE.

Application Notes

PC-DMIS V3.5 does not have an RMEAS PLANE type object and so a measured plane will be created. A measured set command will be created in PC-DMIS to represent the GSURF feature.

RMEAS (input format 6)

DMIS Description

Causes the DME to measure a POINT feature relative to another defined/constructed feature and/or by approaching along a specific axis.

PC-DMIS Support

The RMEAS (input format 6) statement is supported.

Application Notes

RMEAS (input format 7)

DMIS Description

Causes the DME to measure an EDGEPT feature relative to another feature/measurement and/or by approaching along a specific axis/plane.

PC-DMIS Support

The RMEAS (input format 7) statement is supported.

Application Notes

ROTAB

DMIS Description

Explicitly controls the motion of a rotary table on a DME.

PC-DMIS Support

The ROTAB statement is partially supported.

Application Notes

The ROTTOT and ROTORG options are not supported.

ROTATE

DMIS Description

Rotates a part coordinate system about an axis, and assigns to it a label name.

PC-DMIS Support

The ROTATE statement is supported.

Application Notes

ROTDEF

DMIS Description

Defines a rotary table, and assigns to it a label name.

PC-DMIS Support

The ROTDEF statement is not supported.

Application Notes

ROTSET

DMIS Description

Resets the angular counter value for a rotary table.

PC-DMIS Support

The ROTSET statement is not supported.

Application Notes

SAVE

DMIS Description

Stores part coordinate system datum sets, sensor calibration data, rotary table data or measured feature actual data for later recall.

PC-DMIS Support

The SAVE statement is partially supported.

Application Notes

When PC-DMIS encounters a SAVE statement during translation, it inserts a SAVE/ALIGNMENT command. SAVE is only supported for the D and DA options.

SCAN

DMIS Description

Pauses or continues scanning within a feature MEAS block, to provide for interrupted scans of a given feature.

PC-DMIS Support

The SCAN statement is not supported.

Application Notes

SCNMOD

DMIS Description

Activates or deactivates scanning mode for subsequent feature measurements.

PC-DMIS Support

The SCNMOD statement is not supported.

Application Notes

SCNPLN

DMIS Description

Specifies the orientation of the plane in which the scan paths will lie when scanning. This applies to subsequent PTMEAS operations.

PC-DMIS Support

The SCNPLN statement is not supported.

Application Notes

SCNSET

DMIS Description

Specifies the sampling method and rate for scanning.

PC-DMIS Support

The SCNSET statement is not supported.

Application Notes

SELECT

DMIS Description

Executes statements according to the results of one or more Boolean tests.

PC-DMIS Support

The SELECT statement is supported.

Application Notes

SENSOR

DMIS Description

Defines a sensor component capable of making measurement, and assigns to it a label name.

PC-DMIS Support

The SENSOR statement is not supported.

Application Notes

SNSDEF (input format 1)

DMIS Description

Defines a probe sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 1) statement is supported.

Application Notes

SNSDEF (input format 2)

DMIS Description

Defines a video sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 2) statement is not supported.

Application Notes

SNSDEF (input format 3)

DMIS Description

Defines a laser sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 3) statement is not supported.

Application Notes

SNSDEF (input format 4)

DMIS Description

Defines an infrared sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 4) statement is not supported.

Application Notes

SNSDEF (input format 5)

DMIS Description

Defines a non-contact sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 5) statement is not supported.

Application Notes

SNSDEF (input format 6)

DMIS Description

Defines an X-ray sensor used by the DME in making measurements, and assigns to it a label name. Several formats are used to define sensor types.

PC-DMIS Support

The SNSDEF (input format 6) statement is not supported.

Application Notes

SNSDEF (input format 7)

DMIS Description

Builds a sensor from sensor components (such as wrists, extensions, reference mounts, sensors, and sensor component groups) used by the DME in making measurements, and assigns to it a label name.

PC-DMIS Support

The SNSDEF (input format 7) statement is not supported.

Application Notes

SNSET

DMIS Description

Specifies and activates sensor settings used on a DME.

PC-DMIS Support

The SNSET statement is partially supported.

Application Notes

Support exists for the following var_1 options: APPRCH, RETRCT, SEARCH, CLRSRF, and DEPTH. APPRCH, RETRCT, and SEARCH, options create PREHIT, RETRACT, and CHECK commands respectively.

When CLRSRF is specified a clearance plane command is created when F/FA/DAT are issued. Then subsequent auto features will be created with a MOVE/CLEARPLANE command before it. If a distance only is specified, then the auto move capabilities of subsequent auto features are enabled to move to the distance specified.

When DEPTH is specified, auto features that use depth are set to the value specified.

A unique SNSET statement should be issued as opposed to a single SNSET command with a comma delimited list of settings, which is not supported by the translator.

See also Chorus NT statement reference section for SNSET.

SNSGRP

DMIS Description

Defines a component group ending with a sensor, and assigns to it a label name.

PC-DMIS Support

The SNSGRP statement is not supported.

Application Notes

SNSLCT

DMIS Description

Selects the sensor(s) to be used for measurement.

PC-DMIS Support

This statement is supported per the application notes below. The DMIS 4.0 format additions are not yet supported.

Application Notes

In general, the idea behind supporting the SNSLCT statement is to reduce the statement into an A and B angle equivalent from which a tip within the specified probe file can be selected and inserted into the part program as a TIP/ command in PC-DMIS.

There are a variety of DMIS program generators that each have a unique way of specifying sensor selection with the SNSLCT statement. The following formats are supported:

1. DMIS 3.0 standard

```
SNSLCT/S(label)
SNSLCT/SA(label)
```

These formats will cause the translator to search for a SNSDEF statement defining the sensor indicated by S(label). When a SNSDEF statement for S(label) is found, PC-DMIS will then interpret the SNSDEF line to determine the A and B angles for the sensor. The POL format of the SNSDEF line is most straight forward since the A and B angles are specified directly. In the cases of the CART and VEC formats, the direction cosines of the specified vector are used to compute the A and B angles. Note that the resulting angles from these formats are dependent on the hardware mount orientation of the sensor. In order for these

angles to be computed correctly, the Probe Head Orientation must first be set up from the Part/CMM tab of the Setup Options dialog.

Under some circumstances the corresponding SNSDEF statement is not available in the DMIS program being translated. In these cases, it is not possible to determine the sensor angles from the information provided in the DMIS program alone. A mapping must be created between the sensor labels and the tips they represent within the probe file. This mapping can be made by either first translating a DMIS qualification program which contains the SNSDEF statements for the sensors or by manual entry of the sensor labels for each tip in the probe file. From this mapping when a sensor is selected for which there is no SNSDEF statement, PC-DMIS will search through all of the existing tips in the probe file and look for a match. When a match is found, that tip will be selected.

2. Chorus NT

```
SNSLCT/90.0,180.0
SNSLCT/F(label)
SNSLCT/FA(label)
```

The first of the three extension formats is straight forward, A becomes the first angle and B becomes the second angle. For the remaining two options, sensor selection is determined in a similar fashion to Auto PH9 from the sheet-metal dialogs. The vector of the feature is examined and the tip that most closely aligns itself with the feature vector is the tip that is selected.

3. AUDIMESS

```
SNSLCT/SA(KONFIX_1),1,SW(DSE),'Rot',-37.5000,'Tilt',7.5000
```

This format is relatively straight forward in that the rotation and tilt angles are readily available. However this method requires that the probe file be named the same as the label specified by SA(label), in this example, ‘KONFIX_1’. The numerical parameter following the probe file name is a tip index used to specify which tip of a star-probe configuration is to be selected. The SW(label) parameter is currently ignored.

SNSMNT

DMIS Description

Defines the relationship of the sensor coordinate system to the machine coordinate system. This function establishes a probe coordinate system for the SNSDEF statement.

PC-DMIS Support

This statement is not yet supported.

Application Notes

None.

TECOMP

DMIS Description

Causes temperature compensation to be turned on or off at the DME.

PC-DMIS Support

This statement is supported and is translated into a TEMPCOMP/ command in PC-DMIS.

Application Notes

Temperature compensation can be disabled by either passing OFF or by passing ON with a thermal compensation coefficient of 0.0.

TEXT

DMIS Description

Specifies various forms of text to be sent to the operator and/or, the output file.

PC-DMIS Support

The TEXT statement is supported.

Application Notes

The following table describes the translation of DMIS options to PC-DMIS comment types:

DMIS	PC-DMIS
OPER	OPER
MAN (MAN MODE)	OPER
MAN (AUTO MODE)	DOC
QUERY	INPUT
OUTFIL	REPT

If the MAN option is issued and the MODE/ is not MAN, then the comment is converted into a DOC command.

If multiple TEXT/OPER statements are sequential in a DMIS program, these are converted into a single, multi-lined comment in PC-DMIS. This allows the multi-lined text message to be displayed together.

THLDEF

DMIS Description

Defines an automatic tool or sensor holder/changer in terms of the sensors it carries, and assigns to it a label name.

PC-DMIS Support

The THLDEF statement is supported.

Application Notes

When using the THLDEF statement, you must first associate probe files with each slot that will be used by the tool changer and THLDEF statement.

TOL/ANGL

DMIS Description

Specifies an angular tolerance, and assigns to it a label name. This is a direct tolerance.

PC-DMIS Support

The TOL/ANGL statement is supported.

Application Notes

If the feature to which the tolerance is applied is a cone, then this statement will create an A-location dimension command in PC-DMIS. Otherwise, it will create a 2D angle dimension.

TOL/ANGLB

DMIS Description

Specifies an angle and a tolerance and assigns a label name to them. This is a direct tolerance.

PC-DMIS Support

The TOL/ANGLB statement is supported.

Application Notes

TOL/ANGLR

DMIS Description

Specifies an angularity tolerance, and assigns to it a label name. This is an orientation tolerance.

PC-DMIS Support

The TOL/ANGLR statement is supported.

Application Notes

TOL/CIRLTY

DMIS Description

Specifies a circularity tolerance, and assigns to it a label name. This is a tolerance of form.

PC-DMIS Support

The TOL/CIRLTY statement is supported.

Application Notes

TOL/COMPOS

DMIS Description

Specifies a composite positional tolerance for use with patterns, and assigns to it a label name. This is a location tolerance.

PC-DMIS Support

The TOL/COMPOS statement is supported.

Application Notes

TOL/CONCEN

DMIS Description

Specifies a concentricity tolerance, and assigns to it a label name. This is a location tolerance.

PC-DMIS Support

The TOL/CONCEN statement is supported.

Application Notes

TOL/CORTOL

DMIS Description

Specifies bilateral positional tolerancing of features in Cartesian or polar coordinates relative to the current coordinate system at the time of usage, and assigns to it a label name.

PC-DMIS Support

The TOL/CORTOL statement is supported.

Application Notes

TOL/CPROFS

DMIS Description

Specifies a composite profile tolerance, and assigns to it a label name. This is a profile tolerance.

PC-DMIS Support

The TOL/CPROFS statement is not supported.

Application Notes

TOL/CRNOUT

DMIS Description

Specifies a circular runout tolerance, and assigns to it a label name. This is a runout tolerance.

PC-DMIS Support

The TOL/CRNOUT statement is supported.

Application Notes

TOL/CYLCTY

DMIS Description

Specifies a cylindricity tolerance, and assigns to it a label name. This is a tolerance of form.

PC-DMIS Support

The TOL/CYLCTY statement is supported.

Application Notes

TOL/DIAM

DMIS Description

Specifies a diameter tolerance, and assigns to it a label name. This is a direct tolerance.

PC-DMIS Support

The TOL/DIAM statement is supported.

Application Notes

TOL/DISTB

DMIS Description

Specifies a distance and a tolerance and assigns a label name to them. This is a direct tolerance.

PC-DMIS Support

The TOL/DISTB statement is supported.

Application Notes

TOL/FLAT

DMIS Description

Specifies a flatness tolerance, and assigns to it a label name. This is a tolerance of form.

PC-DMIS Support

The TOL/FLAT statement is supported.

Application Notes

TOL/GTOL

DMIS Description

Specifies the parameters associated with soft functional gauging, and assigns to it a label name.

PC-DMIS Support

The TOL/GTOL statement is not supported.

Application Notes

TOL/PARLEL

DMIS Description

Specifies a parallelism tolerance, and assigns to it a label name. This is an orientation tolerance.

PC-DMIS Support

The TOL/PARLEL statement is supported.

Application Notes

TOL/PERP

DMIS Description

Specifies a perpendicularity tolerance, and assigns to it a label name. This is an orientation tolerance.

PC-DMIS Support

The TOL/PERP statement is supported.

Application Notes

TOL/POS

DMIS Description

Specifies a position tolerance, and assigns to it a label name. This is a location tolerance.

PC-DMIS Support

The TOL/POS statement is supported.

Application Notes

TOL/PROFL

DMIS Description

Specifies a profile of a line (curve) tolerance, and assigns to it a label name. This is a profile tolerance.

PC-DMIS Support

The TOL/PROFL statement is supported.

Application Notes

TOL/PROFP

DMIS Description

Specifies a profile tolerance applied to a point along the normal of the point's corresponding line (curve) or surface, and assigns to it a label name. This is a profile tolerance.

PC-DMIS Support

The TOL/PROFP statement is supported.

Application Notes

TOL/PROFS

DMIS Description

Specifies a profile of a surface tolerance, and assigns to it a label name. This is a profile tolerance.

PC-DMIS Support

The TOL/PROFS statement is supported.

Application Notes

TOL/RAD

DMIS Description

Specifies a radial tolerance, and assigns to it a label name. This is a direct tolerance.

PC-DMIS Support

The TOL/RAD statement is supported.

Application Notes

TOL/STRGHT

DMIS Description

Specifies a straightness tolerance, and assigns to it a label name. This is a tolerance of form.

PC-DMIS Support

The TOL/STRGHT statement is supported.

Application Notes

TOL/SYM

DMIS Description

Specifies a symmetry tolerance, and assigns to it a label name. This is a location tolerance.

PC-DMIS Support

The TOL/SYM statement is supported.

Application Notes

TOL/TRNOUT

DMIS Description

Specifies a total runout tolerance, and assigns to it a label name. This is a runout tolerance.

PC-DMIS Support

The TOL/TRNOUT statement is supported.

Application Notes

TOL/USETOL

DMIS Description

Used to identify a "user created" tolerance that may have definable characteristics in another file that the DME has the capability to measure, and assigns to it a label name.

PC-DMIS Support

The TOL/USETOL statement is not supported.

Application Notes

TOL/WIDTH

DMIS Description

Specifies a linear size tolerance, and assigns to it a label name. This is a direct tolerance.

PC-DMIS Support

The TOL/WIDTH statement is supported.

Application Notes

TOOLDF

DMIS Description

Defines a tool used on a manufacturing device, and assigns to it a label name.

PC-DMIS Support

The TOOLDF statement is supported.

Application Notes

TRANS

DMIS Description

Translates a part coordinate system along an axis, and assigns to it a label name.

PC-DMIS Support

The TRANS statement is supported.

Application Notes

UNITS

DMIS Description

Specify the units that will be active throughout the program.

PC-DMIS Support

The UNITS statement is partially supported (single instance only).

Application Notes

PC-DMIS V3.5 units are not changeable during part program execution. However, it is possible to change the units of dimensions. So if the units are changed at points throughout the DMIS program, the result is that the units option of subsequent dimensions is changed.

During translation of a DMIS program, PC-DMIS needs to know what the units are for the program for initialization purposes. The first UNITS statement encountered in the DMIS program will dictate the PC-DMIS part program units. If the part program units specified during program creation are not consistent with the DMIS program units the user will be prompted to either cancel translation or change the current units to the units specified.

VALUE

DMIS Description

Sets a user variable equal to the value of a DMIS variable or setting.

PC-DMIS Support

The VALUE statement is partially supported.

Application Notes

Support for TA(label), var_19 is the option supported by PC-DMIS for VALUE. var_19 must be one of ACT, DEV, AMT, INTOL, OUTOL. var_21 is not supported.

See also the Chorus NT extension reference for VALUE for additionally supported Chorus specific parameters.

VFORM

DMIS Description

Specifies the data content of vendor output, and assigns to it a label name.

PC-DMIS Support

The VFORM statement is supported.

Application Notes

The VFORM statement is used to format the information reported by dimensions via a FORMAT/ command in PC-DMIS. This is accomplish by issuing a DISPLY/TERM statement with a V(label) reference. If a DISPLY/STOR statement is issued and if the V(label) reference contains the DME option, then statistical report is enabled.

See also the DISPLY statement reference.

WINDEF (input format 1)

DMIS Description

Defines a window used to limit the area of a video sensor's field of view, and assigns to it a label name. There are two formats.

PC-DMIS Support

The WINDEF (input format 1) statement is not supported.

Application Notes

WINDEF (input format 2)

DMIS Description

Defines a window used to limit the area of a video sensor's field of view, and assigns to it a label name. There are two formats.

PC-DMIS Support

The WINDEF (input format 2) statement is not supported.

Application Notes

WKPLAN

DMIS Description

Used to explicitly declare or change a working plane.

PC-DMIS Support

The WKPLAN statement is supported.

Application Notes

WRIST

DMIS Description

Defines an articulating wrist sensor component, and assigns to it a label name.

PC-DMIS Support

The WRIST statement is not supported.

Application Notes

WRITE

DMIS Description

Transfers data from the program to a system device or file.

PC-DMIS Support

The WRITE statement is supported.

Application Notes

XTERN

DMIS Description

Starts an external declaration definition block. The XTERN...ENDXTN external declaration block is used to declare programs, scripts, and macros that are used within the local DMIS program but are defined in other external files.

PC-DMIS Support

The XTERN statement is not supported.

Application Notes

XTRACT

DMIS Description

Provides the ability to extract bounded DMIS features from DMIS FEAT/GCURVE or FEAT/GSURF features.

PC-DMIS Support

The XTRACT statement is supported.

Application Notes

Chorus NT Extension Reference

ALIGMT

DMIS Description

Assigns the part alignment description to a name, to be used in the REPORT instruction.

PC-DMIS Support

This extension is supported.

Application Notes

BADTST

DMIS Description

Defines a program section in which a software check for a “bad measurement” error (BADMEA) or for a movement break (BADMOV) is activated. Instead of generating emergencies, variables BADPT and BADGT are set.

PC-DMIS Support

The BADTST statement is supported.

Application Notes

BSTFIT

DMIS Description

Creates a reference system as a best fit of the features stored in the main memory (or in a file).

PC-DMIS Support

The BSTFIT statement extension is supported.

Application Notes

CALIB

DMIS Description

Calibrates a probe against a gauge.

PC-DMIS Support

The CALIB statement is partially supported.

Application Notes

The method behind supporting the CALIB statement from DMIS is to create a CALIBRATE ACTIVE TIP command. If a feature is specified, this feature should be a sphere, no other feature types are supported. Since the CALIBRATE ACTIVE TIP command in PC-DMIS uses the currently selected tip, a TIP/ statement is inserted as needed so that the active tip calibrated corresponds to the sensor specified by S(label). The label of the gauge should be the same as one of the calibration tools previously defined from the Measure Probe dialog. If a sphere feature does not exist in the part program with the same label as the specified gauge in the CALIB statement, an AUTOSPHERE/ command will be created and measured with the number of hits specified.

The following format is supported:

```
CALIB/SENS,S(label),G(label),n
```

The RTAB form is not supported.

CALL

DMIS Description

Invokes the execution of a macro (used to replace characters) or of a procedure. See also the PROCED and ENDPRO instructions.

PC-DMIS Support

The CALL statement extension is supported.

Application Notes

Only Chorus NT procedures are translated into PC-DMIS subroutines, which are then formally called by CALL_SUBROUTINE commands created from CALL statements.

CLOSE

DMIS Description

Disconnects the identification label of a specific device from a system device or file.

PC-DMIS Support

This extension is supported.

Application Notes

The following formats are supported:

```
CLOSE/1,STOR
CLOSE/1,COMM
CLOSE/1,DELETE
```

The Chorus NT form of this command is treated the same as that of standard DMIS when the DELETE parameter is specified. The differences here are the specification of the file identifier, which is a numerical index, and two new parameters, STOR and COMM. When CLOSE/1,STOR is specified, PC-DMIS creates a PRINTREPORT/ command in PC-DMIS to direct the output generated up to that point to the specified file. When CLOSE/1,COMM is specified, PC-DMIS creates a STATISTICS command for turning off the capture of statistical analysis.

COMENT

DMIS Description

Assigns a comment string to a name to be used in the REPORT instruction.

PC-DMIS Support

The COMENT statement extension is supported.

Application Notes

CONST (FORMA)

DMIS Description

Constructs a feature as a best fit of other features.

PC-DMIS Support

The CONST (FORMA) statement extension is supported.

Application Notes

See also CONST (format 1) in the DMIS statement reference section of this document.

CONST (FORMH)

DMIS Description

Constructs a measured object using the theoretical values provided by the user.

PC-DMIS Support

The CONST (FORMH) statement extension is supported.

Application Notes

CONST (FORMD)

DMIS Description

Constructs a point by means of a geometric relationship between elements.

PC-DMIS Support

The CONST (FORMD) statement extension is supported.

Application Notes

CPYOBJ

DMIS Description

Enables the part program to refer to objects (sensors, gauges and reference systems) using text type variables.

PC-DMIS Support

The CPYOBJ statement extension is not supported in PC-DMIS V3.5.

Application Notes

CRGDEF

DMIS Description

Defines an arm (in the case of a multi-arm robot) and assigns it to a label.

PC-DMIS Support

The CRGDEF statement is supported

Application Notes

CR(<label>)=CRGDEF/1 is associated with the ‘Master’ arm in PC-DMIS.
CR(<label>)=CRGDEF/2 is associated with the ‘Slave’ arm in PC-DMIS.

CRSLCT

DMIS Description

Selects the current arm (in the case of a multi-arm robot), which will execute the next part program instructions.

PC-DMIS Support

The CRSLCT statement is supported.

Application Notes

DECL

DMIS Description

Declares the name and the type of the variables used in the program.

PC-DMIS Support

The DECL statement is supported.

Application Notes

PC-DMIS does not require that variables be declared prior to their use and so the DECL statement may be omitted.

DEFGRF

DMIS Description

Defines MOTIF style windows, which can be used in the part program to interact with the user.

PC-DMIS Support

The DEFGRF statement is not supported.

Application Notes

DELETE

DMIS Description

Deletes an element from a user file (a gauge, probe or reference system file).

PC-DMIS Support

The DELETE statement is not supported.

Application Notes

DISPLY

DMIS Description

Specifies the current device to which output data will be transmitted, and the output format.

PC-DMIS Support

The DISPLY statement is supported.

Application Notes

The DISPLY/EXTERN statement is supported and creates a STATS/ command in PC-DMIS causing output to statistics to be enabled. All other options are supported as described in the DISPLY section of the standard DMIS support section.

ENDBST

DMIS Description

Closes the block for the self-teaching of the best –fitting elements.

PC-DMIS Support

The ENDBST statement is supported.

Application Notes

ENDPRO

DMIS Description

Ends a procedure. See also the PROCED and CALL instructions.

PC-DMIS Support

The ENDPRO statement is supported.

Application Notes

EOF

DMIS Description

Checks for the End Of File on a file opened using the OPEN instruction.

PC-DMIS Support

The EOF statement is supported.

Application Notes

PC-DMIS V3.5 does not have an EOF() intrinsic function and so supports the EOF() intrinsic as shown in the following example:

DMIS code:

```
OPEN/1,'CUBE_USER:I8S1RC.DAT', OLD
OPEN/2,'CUBE_USER:I8S1RC.OUT', NEW
(LABEL1)
     READ/1,XT,YT,ZT,CSXT,CSYT,CSZT
     if (eof(1))
        jumpto/(LABEL2)
     else

WRITE/2,Xt:9:3,Yt:9:3,Zt:9:3,csXT:9:3,csYT:9:3,csZT:9:3,chr(10)
     endif
jumpto/(LABEL1)
(LABEL2)
CLOSE/1,KEEP
CLOSE/2,KEEP
```

PC-DMIS equivalent:

```
1          =FILE/OPEN,"CUBE_USER:I8S1RC.DAT",READ
2          =FILE/OPEN,"CUBE_USER:I8S1RC.OUT",WRITE
LABEL1     =LABEL/

DMISFILEIO/READ,1,XT,0,0,YT,0,0,ZT,0,0,CSXT,0,0,CSYT,0,0,CSZT,0,0
,,
            ASSIGN/EOFRES_1 = CSZT
            IF/((EOFRES_1== "EOF"))
            GOTO/LABEL2
            END_IF/
            ELSE/

DMISFILEIO/WRITE,2,XT,9,3,YT,9,3,ZT,9,3,CSXT,9,3,CSYT,9,3,CSZT,9,
3,CHR(10),0,0,,
            END_ELSE/
            GOTO/LABEL1
LABEL2     =LABEL/
            FILE/CLOSE,1
```

```
FILE/CLOSE,2
```

FEAT/CHRPNT (format 1)

DMIS Description

Defines a set of two nominal characteristic points placed at the distance specified by the characteristic line and assigns it to a label.

PC-DMIS Support

The FEAT/CHRPNT (format 1) statement extension is supported.

Application Notes

FEAT/CHRPNT (format 2)

DMIS Description

Defines a nominal characteristic point placed on a characteristic line and assigns it to a label.

PC-DMIS Support

The FEAT/CHRPNT (format 2) statement extension is supported.

Application Notes

FEAT/CRVRAD

DMIS Description

Defines the nominal curvature radius of an edge and assigns it to a label. The curvature radius is the bending radius between the two planes that form the edge.

PC-DMIS Support

The FEAT/CRVRAD statement extension is not supported.

Application Notes

FEAT/EDGE

DMIS Description

Defines and edge (characterized by an edge direction and a characteristic point) and assigns it to a label.

PC-DMIS Support

The FEAT/EDGE statement extension is supported.

Application Notes

FEAT/EDGE support is limited to DELTAZ and HOLEDG options. MDIR is not supported.

FEAT/GAP

DMIS Description

Defines a nominal gap feature (characterized by the gap and flush distances) and assigns it to a label.

PC-DMIS Support

The FEAT/GAP statement extension is supported.

Application Notes

FEAT/HOLE

DMIS Description

Defines a nominal hole and assigns it to a label.

PC-DMIS Support

The FEAT/HOLE statement extension is supported.

Application Notes

FEAT/OBJECT

DMIS Description

Defines a theoretical object created by the user.

PC-DMIS Support

The FEAT/OBJECT statement extension is supported.

Application Notes

FEAT/PATERN

DMIS Description

Defines a pattern of equal elements.

PC-DMIS Support

The FEAT/PATERN statement extension is supported.

Application Notes

FEAT/PLANE3

DMIS Description

Defines a theoretical plane at specified distances from 3 points, and assigns it to a label. The theoretical feature defined in this manner is recognized in the MEAS, CONST, BF, and RMEAS instructions.

PC-DMIS Support

The FEAT/PLANE3 statement extension is supported.

Application Notes

FLY

DMIS Description

Toggles the fly motion mode on/off.

PC-DMIS Support

The FLY statement extension is supported.

Application Notes

GAUGE

DMIS Description

Defines a sphere gauge to be used to calibrate touch probes or a video gauge to be used to calibrate video probes.

PC-DMIS Support

The GAUGE statement reference is supported.

Application Notes

When the GAUGE statement is issued, an auto sphere is created in PC-DMIS.

GECOMP

DMIS Description

Toggles on/off the geometric compensation of machine errors.

PC-DMIS Support

The GECOMP statement is not supported.

Application Notes

GEOALG

DMIS Description

Defines and activates alternative algorithms for the construction of a circle by best fitting (GEOALG/CIRCLE), the tolerance of a coordinate (GEOALG/CORTOL) and the measurement of a slot (GEOALG/CPARLN).

PC-DMIS Support

PC-DMIS supports the GEOALG/CORTOL and GEOALG/CPARLN formats in addition to that described in the GEOALG standard DMIS section.

Application Notes

For GEOALG/CORTOL, only modes 0 and 1 are supported. For GEOALG/CPARLN, only the SHORT option is supported. If LONG is issued, a warning message is generated to inform the user that their CPARLN features will still execute as if SHORT were enabled.

GETFCT

DMIS Description

Reads the scale factor for temperature compensation.

PC-DMIS Support

The GETFCT statement extension is not supported.

Application Notes

GETNTC

DMIS Description

Reads the temperature values detected by the temperature compensation sensor.

PC-DMIS Support

The GETNTC statement extension is not supported.

Application Notes

GOHOME

DMIS Description

Used to position the sensor at the coordinates defined in the previous FROM statement. The home position is relative to the current coordinate system in effect when FROM was executed.

PC-DMIS Support

The GOHOME statement as implemented by Chorus NT is supported.

Application Notes

GOHOME is implemented as a MOVE/POINT command in PC-DMIS drawing its coordinates from a previously issued FROM statement, where these coordinates indicate the position of the sensor mount, not the end of tip.

GOTO/NONE

DMIS Description

Executes a sensors move and defines the endpoint of the move.

PC-DMIS Support

The GOTO/NONE statement extension is not supported in PC-DMIS V3.5.

Application Notes

LOADF

DMIS Description

Loads a user file in a system file (gauge, probe or reference system file).

PC-DMIS Support

The LOADF statement extension is not supported.

Application Notes

MANCSY

DMIS Description

Assigns the description of the starting alignment to a name, to be used in the REPORT instruction.

PC-DMIS Support

The MANCSY statement extension is not supported.

Application Notes

MAPUPD

DMIS Description

Updates the temperature compensation map of the control system.

PC-DMIS Support

The MAPUPD statement extension is not supported.

Application Notes

MFCLIN

DMIS Description

Defines the name of the production line.

PC-DMIS Support

The MFCLIN statement extension is supported.

Application Notes

MMEDIA

DMIS Description

Starts the execution of a multimedia application, whose format (picture or sound) is specified by the extension of the associated file.

PC-DMIS Support

The MMEDIA statement extension is supported.

Application Notes

MRRPCS

DMIS Description

Defines the reference system to be used in a part program processed with the MIRROR auxiliary.

PC-DMIS Support

The MRRPCS statement extension is not supported in PC-DMIS V3.5.

Application Notes

NBLOCK

DMIS Description

Identifies a section of the part program as a block.

PC-DMIS Support

The NBLOCK statement extension is not supported.

Application Notes

OPEN

DMIS Description

Opens the specified file and assigns it an identification number.

PC-DMIS Support

The OPEN statement extension is supported.

Application Notes

OPSTEP

DMIS Description

Assigns a step of the dimensional control process to a name, to be used in the REPORT instruction.

PC-DMIS Support

The OPSTEP statement extension is supported.

Application Notes

OUTPUT

DMIS Description

Sends the results of a feature measurement or construction to enabled output peripherals.

PC-DMIS Support

The OUTPUT statement extension is supported.

Application Notes

PGROUP

DMIS Description

Assigns the description of a group of parts to a name, to be used in the REPORT instruction.

PC-DMIS Support

The PGROUP statement extension is supported.

Application Notes

PROCED

DMIS Description

Defines a procedure. See also the ENDPRO and CALL instructions.

PC-DMIS Support

The PROCED statement extension is supported.

Application Notes

When importing a Chorus NT DMIS program it may be necessary to specify external .DMI or .DMS to resolve the calls to procedures. When a procedure is found defined in either the local DMIS program or an external program, the procedure is still added to the current part program. In other words, no external call to procedures is available. This may change in future versions of PC-DMIS.

When a procedure is defined in a DMIS program, PC-DMIS creates subroutine commands for the translation.

PRTVLM

DMIS Description

Defines the volume (planes) of tool retraction from the part.

PC-DMIS Support

The PRTVLM statement extension is not supported.

Application Notes

PTMEAS/NONE

DMIS Description

Signifies that an automatic point measurement is to be performed.

PC-DMIS Support

The PTMEAS/NONE statement extension is not supported in PC-DMIS V3.5.

Application Notes

PTMEAS/VIDEO

DMIS Description

Signifies that an automatic point measurement is to be performed using a video probe.

PC-DMIS Support

The PTMEAS/VIDEO statement extension is not supported.

Application Notes

READ

DMIS Description

Reads data from a file to the program.

PC-DMIS Support

The READ statement extension is supported.

Application Notes

READLN

DMIS Description

Reads a line or unformatted data from a file and makes it available to the part program. The string read begins at the start of the current line and ends at the next EOL character.

PC-DMIS Support

The READLN statement extension is supported.

Application Notes

REPMES

DMIS Description

Assigns the number of measurement repetitions to a name, to be used in the REPORT instruction.

PC-DMIS Support

The REPMES statement is supported.

Application Notes

ROTSET

DMIS Description

Enables or disables the rotary table.

PC-DMIS Support

The ROTSET statement extension is supported

Application Notes

Rotary table management can be set ON or OFF with this command. However, the preset angle is not supported through this command. This angle must be configured through CMM machine setup.

SNSDEF

DMIS Description

Defines a probe used by the DME in making measurements.

PC-DMIS Support

The SNSDEF statement is supported.

Application Notes

See SNSDEF in the standard DMIS statement reference section of this document.

SNSDEF/VIDEO

DMIS Description

Defines a video probe used by the DME in making measurements.

PC-DMIS Support

The SNSDEF/VIDEO statement extension is not supported.

Application Notes

SNSET

DMIS Description

Assigns a value to a system variable and activates it.

PC-DMIS Support

The SNSET statement extensions are supported as described.

Application Notes

When the VL option is issued, PC-DMIS creates a video setup command in PC-DMIS.
The TFMODE option has partial support. PC-DMIS is able to support modes 0 and 2.
When 0 is specified, an IGNOREMOTIONERRORS command is created and set to OFF.
When 2 is specified, an IGNOREMOTIONERRORS command is created and set to ON.

SNSLCT

DMIS Description

Selects the probe to be used during subsequent measurements.

PC-DMIS Support

The SNSLCT statement is supported

Application Notes

See SNSLCT in the standard DMIS statement reference section of this document.

STOREF

DMIS Description

Copies a system file (gauges, probes or reference systems) to a user file.

PC-DMIS Support

The STOREF statement extension is not supported.

Application Notes

TECOMP

DMIS Description

Toggles on/off thermal expansion compensation.

PC-DMIS Support

The TECOMP statement extension is supported.

Application Notes

TEFACT

DMIS Description

Defines the scale factor, due to temperature compensation, to be applied to the coordinates of the points picked up.

PC-DMIS Support

The TEFACT statement extension is not supported.

Application Notes

TEXT

DMIS Description

Defines the different forms of text to be sent to the operator and/or to the output file.

PC-DMIS Support

The TEXT statement is supported

Application Notes

See TEXT in the standard DMIS statement reference section of this document.

TOL/WIDTH

DMIS Description

Defines a linear size tolerance (thickness) and assigns it to a label.

PC-DMIS Support

The TOL/WIDTH statement is supported.

Application Notes

VALUE

DMIS Description

Assigns a system value to a user variable.

PC-DMIS Support

The VALUE statement extensions are partially supported.

Application Notes

APPRCH, RETRCT, and SEARCH are supported. TFMODE is only partially supported since only modes 0 and 2 are available in PC-DMIS. TA is supported. FA and DEPTH are not supported.

VFORM

DMIS Description

Defines the Vendor Output Format and assigns it to a name, to be used in the DISPLY instruction.

PC-DMIS Support

The VFORM statement is supported.

Application Notes

See the VFORM statement reference is the DMIS reference section of this document.

WRITE

DMIS Description

Writes data to a file.

PC-DMIS Support

The WRITE statement is supported.

Application Notes

Volvo DMIS Extension Reference

GET and PUT

DMIS Description

The GET and PUT instructions allow independent DMIS programs designed to be executed in a duplex environment to exchange feature and coordinate system references between the DME processors.

PC-DMIS Support

The GET and PUT statement extensions are supported.

Application Notes

Since PC-DMIS duplex programs run within a single part program, independent duplex programs containing GET and PUT instructions must be merged into a single part program. When translating programs of this nature, you should supply the first of two for translation. When PC-DMIS encounters a GET or PUT instruction, the user will be prompted to specify the second program at which point the DMIS programs are merged.

RMEAS Mode

DMIS Description

Volvo requires that all RMEAS mathematics be performed using the ABSOLUTE algorithm mode.

PC-DMIS Support

This is supported for all auto features for which RMEAS is available.

Application Notes

The registry entry DMISUseVolvoConvension must be set to 1.

FEAT/ARC Output Format

DMIS Description

```
Output Formats:
```

```
can be: F(label)=FEAT/ARC,var_1,var_2,i,j,k,rad,ang1,ang2 var_3
    or: FA(label)=FEAT/ARC,var_1,var_2,i,j,k,rad,ang1,ang2 var_3
```

PC-DMIS Support

This is supported when DMISUseVolvoConvension is set to 1.

Application Notes

Because ARC features translated from DMIS are all converted to circle feature in PC-DMIS, there is no explicit representation of ARC. Instead, PC-DMIS defines arc regions using start and end angles. When these features are output to the DMO file, they are normally output as CIRCLE features in DMIS output syntax. Volvo has requested that circles with ABS(start angle - end angle) < 360.0 degrees be output with the DMIS FEAT/ARC format.

CONST/LINE from INTOF

DMIS Description

Since every constructed feature has a feature nominal definition; for example, F(label2) specified in the program, there should be no ambiguities in the construction. When more than one result is possible from a given construction, the desired result is that which most closely agrees with the feature definition nominal.

PC-DMIS Support

This is supported when DMISUseVolvoConvension is set to 1.

Application Notes

If the line is bounded then the vector goes from the computed start point to the computed end point. If the line is unbounded then the vector follows the sense of the nominal feature definition. When DMISUseVolvoConvension is not set to 1, this behavior may or may not happen by default in PC-DMIS.

FILNAM/’<filename>’

DMIS Description

Specifies an internal identification within the DMIS file.

PC-DMIS Support

The FILNAM statement is supported for all DMIS output files

Application Notes

When the DMISUseVolvoConvension flag is set to 1, <filename> will be the name of the file to which the DMO is written. When the DMISUseVolvoConvension flag is not set, <filename> is the part name of the PC-DMIS part program.

WKPLAN/

DMIS Description

Used to explicitly declare or change a working plane.

PC-DMIS Support

The WKPLAN statement is supported.

Application Notes

Volvo has requested that any WKPLAN statements output to the DMO file are commented with $$. When the DMISUseVolvoConvension flag is set to 1, $$ are added to the beginning of the WKPLAN/ output line. When DMISUseVolvoConvension is not set, WKPLAN/ is output according to the DMIS specification.

SNSDEF/OFFSET

DMIS Description

Defines a probe sensor used by the DME in making measurements, and assigns to it a label name.

PC-DMIS Support

The SNSDEF/OFFSET statement is supported in the DMO output.

Application Notes

Volvo has requested that any SNSDEF/OFFSET statements output to the DMO file are commented with $$. When the DMISUseVolvoConvension flag is set to 1, $$ are added to the beginning of the SNSDEF/OFFSET output line. When DMISUseVolvoConvension is not set, SNSDEF/OFFSET is output according to the DMIS specification.

TEXT/OUTFIL

DMIS Description

Specifies various forms of text to be sent to the operator and/or, the output file.

PC-DMIS Support

The TEXT/OUTFIL statement is supported in the DMO output.

Application Notes

Volvo has requested that any TEXT/OUTFIL comments be output to the DMO excluding the TEXT/OUTFIL portion of the comment and excluding the single quotes. For example when DMISUseVolvoConvension is not set an OUTFIL comment will appear as:

```
TEXT/OUTFIL,'This is the output text'
```

When DMISUseVolvoConvension is set to 1, this example output will be

```
This is the output text
```

Volkswagen DMIS Extension Reference

FEAT/SPHERE

DMIS Description

Defines a nominal sphere or constructs an actual sphere, and assigns to it a label name.

PC-DMIS Support

Output for FEAT/SPHERE is supported.

Application Notes

Volkswagen has requested that the vector I,J,K be excluded from the output format when reporting measured sphere results. When DMISUseVolkswagonConvension is set to 1, the I,J,K is omitted. When DMISUseVolkswagonConvension is not set, the I,J,K is included.

CONST/LINE from INTOF

DMIS Description

Since every constructed feature has a feature nominal definition; for example, F(label2) specified in the program, there should be no ambiguities in the construction. When more than one result is possible from a given construction, the desired result is that which most closely agrees with the feature definition nominal.

PC-DMIS Support

This is supported when DMISUseVolkswagonConvension is set to 1.

Application Notes

If the line is bounded then the vector goes from the computed start point to the computed end point. If the line is unbounded then the vector follows the sense of the nominal feature definition. When DMISUseVolkswagonConvension is not set to 1, this behavior may or may not happen by default in PC-DMIS.

TOL/PROFS

DMIS Description

Specifies a profile of a surface tolerance, and assigns to it a label name. This is a profile tolerance.

PC-DMIS Support

Output for TOL/PROFS is supported.

Application Notes

Volkswagen has requested that all PROFP output be written as PROFS. When DMISUseVolkswagonConvension is set to 1, the T, S, RT, and RS location dimensions are output as PROFS. When DMISUseVolkswagonConvension is not set, the T, S, RT, and RS location dimensions are output as PROFP.

SNSLCT

DMIS Description

Selects the sensor(s) to be used for measurement.

PC-DMIS Support

This statement is supported per the requests from Volkswagen.

Application Notes

See also the application notes in the SNSLCT section of the standard DMIS statement reference section.

```
SNSLCT / SA(KONFIX_1),1,SW(DSE), 'Rot',-37.5000, 'Tilt',7.5000
```

The SNSLCT statement format above is supported only when DMISUseVolkswagonConvension is set to 1.

FILNAM/’<filename>’

DMIS Description

Specifies an internal identification within the DMIS file.

PC-DMIS Support

The FILNAM statement is supported for all DMIS output files

Application Notes

When the DMISUseVolkswagonConvension flag is set to 1, <filename> will be the name of the file to which the DMO is written. When the DMISUseVolkswagonConvension flag is not set, <filename> is the part name of the PC-DMIS part program.

Characterization File

```
$$ Characterization file for PC-DMIS V4.4
$$ Note that only those commands that are supported in the
$$ current release of PC-DMIS V4.4 are documented here.
$$
$$ For more information contact:
$$ Dave Petrizze
$$ Wilcox Associates, Inc
$$ 801.794.0409
$$ dave.petrizze@hexagonmetrology.com
$$
$$ Rex W. Heagy
$$ Wilcox Associates, Inc
$$ 937.287.4620
$$ rex.heagy@hexagonmetrology.com
$$
$$ Compiled 11/20/2008

CHFILE/INPUT
CHFIL1

ACLRAT/NONE
ALGDEF/NONE
ASSIGN/FULL
BADTST/FULL
BOUND/[F()],[F(),FA()],NS
CALIB/FULL
CALL/[M(),P()]
CASE/FULL
CLMPID/FULL
CLMPSN/FULL
CLOSE/DID(),[KEEP,DELETE]
CMPNTGRP/NONE
CONST/FORMA,[ARC,CIRCLE,CONE,LINE,PATERN,PLANE,SPHERE,CYLNDR],F(),$
      BF,FA(),[F(),FA()]
CONST/FORMB,LINE,F(),[MIDLI,PROJLI],FA(),[F(),FA()]
CONST/FORMC,PLANE,F(),MIDPL,FA(),[F(),FA()]
CONST/FORMD,POINT,F(),[MIDPT,PIERCE,PROJPT,MOVEPT],FA(),FULL
CONST/FORME,[CIRCLE],F(),PROJCT,FA(),[F(),FA()]
CONST/FORMF,[CIRCLE,LINE,POINT],F(),[INTOF],FA(),[F(),FA()]
CONST/FORMG,[LINE,PLANE],F(),[PERPTO,PARTO],FULL
CONST/FORMH,[LINE,PLANE],F(),OFFSET,FA(),[F(),FA()]
CONST/FORMI,NONE
CONST/FORMJ,NONE
CONST/FORMK,NONE
CONST/FORML,NONE
CONST/FORMM,NONE
CONST/[CIRCLE,CONE,CYLNDR,ELLIPS,LINE,PLANE,SPHERE],F(),TR,FA()
CRGDEF/FULL
CRMODE/[SEQNTL,SIMUL]
CROSCL/NONE
CRSLCT/FULL
CUTCOM/MD(),USERDF,CHAR
CZONE/NONE
```

```
CZSLCT/NONE
DATDEF/[F(),FA()],DAT()
DATSET/FULL
DECL/FULL
DECLP/NONE
DELETE/NONE
DEVICE/STOR,CHAR
DFTCAS/FULL
DISPLY/FULL
DMEHW/NONE
DMEID/FULL
DMESW/[COMAND]
DMESWI/FULL
DMESWV/FULL
DMIS/NONE
DMISMD/FULL
DMISMN/FULL
DO/FULL
ELSE/FULL
ENDAT/FULL
ENDCAS/FULL
ENDDO/FULL
ENDFIL/FULL
ENDGO/NONE
ENDIF/FULL
ENDMAC/FULL
ENDMES/FULL
ENDSEL/FULL
ENDTXN/NONE
EQUATE/FULL
ERROR/[(jumptarget),OFF],[ILLEGALTOUCH,NOTOUCH]
EVAL/PART
EXTENS/NONE
EXTFIL/NONE
FEAT/ARC,[INNER,OUTER],[CART,POL]
FEAT/ARC,4POINT,NONE
FEAT/CIRCLE,[INNER,OUTER],[CART,POL]
FEAT/CONE,[INNER,OUTER],[CART,POL]
FEAT/CPARLN,[INNER,OUTER],[ROUND,FLAT],[CART,POL]
FEAT/CYLNDR,[INNER,OUTER],[CART,POL]
FEAT/EDGEPT,[CART,POL]
FEAT/ELLIPS,[INNER,OUTER],[CART,POL],[MAJOR,MINOR]
FEAT/GCURVE,FULL
FEAT/GEOM,NONE
FEAT/GSURF,FULL
FEAT/LINE,[UNBND,BND],[CART,POL]
FEAT/OBJECT,FULL
FEAT/PARPLN,[INNER],[CART,POL]
FEAT/PATERN,FULL
FEAT/PLANE,[CART,POL]
FEAT/POINT,[CART,POL]
FEAT/RCTNGL,NONE
FEAT/SPHERE,[INNER,OUTER],[CART,POL]
FEAT/TORUS,NONE
FEDRAT/[MESVEL,POSVEL],[MPM,IPM,PCENT,HIGH,LOW,DEFAULT]
FILDEF/NONE
FILNAM/FULL
```

```
FINPOS/NONE
FIXTID/FULL
FIXTSN/FULL
FLY/[ON,OFF],NS
FROM/FULL
GECOMP/NONE
GEOALG/[CIRCLE,CYLNDR],[LSTSQR,MAXINS,MINCIR]
GEOM/NONE
GOHOME/FULL
GOTARG/NONE
GOTO/[(x,y,z),INCR]
GROUP/NONE
IF/FULL
INCLUD/FULL
ITERAT/FULL
JUMPTO/FULL
LITDEF/NONE
LOCATE/FULL
LOTID/FULL
MACRO/FULL
MATDEF/NONE
MEAS/[ARC,CIRCLE,CONE,CPARLN,CYLNDR,GCURVE,GSURF,ELLIPS,LINE,$
      PARPLN,PATERN,PLANE,POINT,SPHERE]
MFGDEV/FULL
MODE/FULL
OBTAIN/[F(),FA(),T(),TA(),S(),SA(),G()]
OPEN/[DIRECT,FDATA],FULL
OPERID/FULL
OUTPUT/F(),T()
OUTPUT/F(),T(),R()
OUTPUT/F(),F(),T(),R()
OUTPUT/FA(),TA()
OUTPUT/FA(),TA(),R()
OUTPUT/FA(),FA(),TA(),R()
OUTPUT/R()
PARTID/FULL
PARTRV/FULL
PARTSN/FULL
PLANID/FULL
POP/NONE
PRCOMP/[ON,OFF]
PREVOP/FULL
PROCID/FULL
PROMPT/[CHAR],ENDSPT
PSTHRU/COMAND,CHAR
PTBUFF/FULL
PTMEAS/[CART,POL]
PUSH/NONE
QISDEF/FULL
RAPID/NONE
READ/FULL
RECALL/[D(),DA()]
REFMNT/NONE
REPORT/FULL
RESUME/NONE
RMEAS/[ARC,CIRCLE,CYLNDR,ELLIPS],F(),INTGR,[FA(),VECBLD]
RMEAS/[PARPLN,PATERN],F(),INTGR,FA()
```

```
RMEAS/CPARLN,F(),INTGR,[FA(),VECBLD]
RMEAS/[GCURVE,GSURF,LINE],NONE
RMEAS/[SPHERE],F(),INTGR,[FA(),XAXIS,YAXIS,ZAXIS],[XAXIS,YAXIS,ZAXIS]
RMEAS/POINT,F(),INTGR,[FA(),VECBLD,XAXIS,YAXIS,ZAXIS],[XAXIS,YAXIS,$
      ZAXIS]
RMEAS/EDGEPT,NONE
ROTAB/[ABSL,INCR],[CW,CCW,SHORT],[ROTTOT],REAL
ROTATE/[XAXIS,YAXIS,ZAXIS],[REAL,F(),FA(),DAT()],$
       [XDIR,-XDIR,YDIR,-YDIR,ZDIR,-ZDIR]
ROTDEF/NONE
ROTSET/NONE
SAVE/[D(),DA()]
SCAN/NONE
SCNMOD/NONE
SCNPLN/NONE
SCNSET/NONE
SELECT/FULL
SENSOR/NONE
SNSDEF/PROBE,[FIXED,INDEX],[CART,POL,VEC],[SPHERE]
SNSET/[APPRCH,RETRCT,SEARCH]
SNSET/[CLRSRF,DEPTH],[REAL,F(),FA(),DAT()]
SNSGRP/NONE
SNSLCT/[S(),SA()],ENDSPT
SNSMNT/NONE
TECOMP/FULL
TEXT/FULL
THLDEF/[S()]
TOL/ANGL,FULL
TOL/ANGLB,FULL
TOL/ANGLR,REAL,REAL,[RFS],[F(),FA(),DAT()]
TOL/CIRLTY,FULL
TOL/COMPOS,FULL
TOL/CONCEN,FULL
TOL/CORTOL,FULL
TOL/CPROFS,NONE
TOL/CRNOUT,REAL,DAT()
TOL/CYLCTY,FULL
TOL/DIAM,REAL,REAL
TOL/DISTB,FULL
TOL/FLAT,REAL,ENDSPT
TOL/GTOL,NONE
TOL/PARLEL,REAL,[RFS],[F(),FA(),DAT()]
TOL/PERP,REAL,[RFS],[F(),FA(),DAT()]
TOL/POS,FULL
TOL/PROFL,REAL,REAL,[F(),FA()]
TOL/PROFP,REAL,REAL,[F(),FA()]
TOL/PROFS,REAL,REAL,[F(),FA()]
TOL/RAD,REAL,REAL
TOL/STRGHT,REAL,[RFS]
TOL/SYM,NONE
TOL/TRNOUT,REAL,DAT()
TOL/USETOL,NONE
TOL/WIDTH,REAL,REAL,[SHORT,LONG]
TOOLDF/FULL
TRANS/[XORIG,YORIG,ZORIG],[F(),FA(),DAT()]
UNITS/[INCH,MM],[ANGDEC,ANGDMS]
VALUE/TA(),[ACT,DEV,AMT,INTOL,OUTOL]
```

```
VFORM/[NOM,ACT,DEV,AMT,STAT,ALL,DME]
WINDEF/NONE
WKPLAN/[XYPLAN,YZPLAN,ZXPLAN]
WRIST/NONE
WRITE/FULL
XTERN/NONE
XTRACT/FULL
ENDCH1

CHFIL2
ENDCH2

CHFIL3
ENDCH3

ENDCHF

$$ OUTPUT section

CHFILE/OUTPUT
CHFIL1

ACLRAT/NONE
ALGDEF/NONE
ASSIGN/NONE
BOUND/NONE
CALIB/NONE
CALL/NONE
CASE/NONE
CLMPID/NONE
CLMPSN/NONE
CLOSE/NONE
CONST/FORMA,[CIRCLE,CONE,LINE,PLANE,SPHERE,CYLNDR],F(),BF,FA(),$
      [F(),FA()]
CONST/FORMB,LINE,F(),[MIDLI,PROJLI],FA(),[F(),FA()]
CONST/FORMC,PLANE,F(),MIDPL,FA(),[F(),FA()]
CONST/FORMD,POINT,F(),[MIDPT,PROJPT],[F(),FA()]
CONST/FORMD,POINT,F(),[MOVEPT],FA(),REAL,REAL,REAL
CONST/FORME,[CIRCLE],F(),PROJCT,FA(),[F(),FA()]
CONST/FORMF,[CIRCLE,LINE,POINT],F(),[INTOF],FA(),[F(),FA()]
CONST/FORMG,[LINE,PLANE],F(),[PERPTO,PARTO],FULL
CONST/FORMH,[LINE,PLANE],F(),OFFSET,FA(),[F(),FA()]
CONST/FORMI,NONE
CONST/FORMJ,NONE
CONST/FORMK,NONE
CONST/FORML,NONE
CONST/FORMM,NONE
CONST/[CIRCLE,CONE,CYLNDR,ELLIPS,LINE,PLANE,SPHERE],F(),TR,FA()
CRGDEF/NONE
CRMODE/NONE
CRSLCT/NONE
CUTCOM/NONE
CZONE/NONE
CZSLCT/NONE
DATDEF/FA(),DAT()
DATSET/FULL
DECL/NONE
```

```
DELETE/NONE
DEVICE/NONE
DFTCAS/FULL
DISPLY/NONE
DMEHW/NONE
DMEID/NONE
DMESW/NONE
DMESWI/NONE
DMESWV/NONE
DMIS/NONE
DMISMD/NONE
DMISMN/FULL
DO/FULL
ELSE/FULL
ENDAT/NONE
ENDCAS/FULL
ENDDO/FULL
ENDFIL/FULL
ENDGO/FULL
ENDIF/FULL
ENDMAC/NONE
ENDMES/FULL
ENDSEL/FULL
ENDTXN/NONE
ERROR/FULL
EVAL/NONE
EXTFIL/NONE
FEAT/ARC,[INNER,OUTER],[CART,POL]
FEAT/ARC,4POINT,NONE
FEAT/CIRCLE,[INNER,OUTER],[CART,POL]
FEAT/CONE,[INNER,OUTER],[CART,POL]
FEAT/CPARLN,[INNER,OUTER],[ROUND,FLAT],[CART,POL]
FEAT/CYLNDR,[INNER,OUTER],[CART,POL]
FEAT/ELLIPS,[INNER,OUTER],[CART,POL],[MAJOR,MINOR]
FEAT/GCURVE,NONE
FEAT/GSURF,FULL
FEAT/LINE,[UNBND,BND],[CART,POL]
FEAT/OBJECT,NONE
FEAT/PARPLN,[INNER],[CART,POL]
FEAT/PATERN,FULL
FEAT/PLANE,[CART,POL]
FEAT/POINT,[CART,POL]
FEAT/RCTNGL,NONE
FEAT/SPHERE,[INNER,OUTER],[CART,POL]
FEDRAT/[MESVEL,POSVEL],[MPM,PCENT]
FILDEF/NONE
FILNAM/NONE
FINPOS/NONE
FIXTID/NONE
FIXTSN/NONE
FROM/NONE
GEOALG/NONE
GOHOME/NONE
GOTARG/NONE
GOTO/FULL
IF/FULL
INCLUD/NONE
```

```
JUMPTO/NONE
LITDEF/NONE
LOTID/NONE
MACRO/NONE
MEAS/[ARC,CIRCLE,CONE,CPARLN,CYLNDR,GCURVE,GSURF,ELLIPS,LINE,PARPLN,$
      PATERN,PLANE,POINT,SPHERE]
MFGDEV/NONE
MODE/FULL
OBTAIN/NONE
OPEN/NONE
OPERID/NONE
OUTPUT/F(),T()
OUTPUT/F(),F(),T()
OUTPUT/FA(),TA()
OUTPUT/FA(),FA(),TA()
PARTID/NONE
PARTRV/NONE
PARTSN/NONE
PLANID/NONE
PRCOMP/[ON,OFF]
PREVOP/NONE
PROCID/NONE
PSTHRU/NONE
PTBUFF/NONE
PTMEAS/[CART,POL]
RAPID/NONE
READ/NONE
RECALL/D()
REPORT/NONE
RMEAS/[ARC,CIRCLE,CYLNDR,ELLIPS],F(),INTGR,[FA(),VECBLD]
RMEAS/[PARPLN,PATERN],F(),INTGR,FA()
RMEAS/CPARLN,F(),INTGR,[FA(),VECBLD]
RMEAS/[GCURVE,GSURF,LINE],NONE
RMEAS/[SPHERE],F(),INTGR,[FA(),XAXIS,YAXIS,ZAXIS],[XAXIS,YAXIS,ZAXIS]
RMEAS/POINT,F(),INTGR,[FA(),VECBLD,XAXIS,YAXIS,ZAXIS],$
      [XAXIS,YAXIS,ZAXIS]
ROTAB/NONE
ROTATE/[XAXIS,YAXIS,ZAXIS],[REAL,F(),FA(),DAT()],$
      [XDIR,-XDIR,YDIR,-YDIR,ZDIR,-ZDIR]
ROTDEF/NONE
ROTSET/NONE
SAVE/NONE
SCAN/NONE
SCNMOD/FULL
SCNPLN/VEC,REAL,REAL,REAL
SCNPLN/[F(),FA()]
SCNSET/[FULL],[DIST],REAL,[XAXIS,YAXIS,ZAXIS]
SELECT/FULL
SNSDEF/PROBE,[FIXED,INDEX],[CART,POL,VEC],[SPHERE]
SNSET/[SEARCH]
SNSET/[CLRSRF,DEPTH],[REAL,F(),FA(),DAT()]
SNSLCT/FULL
SNSMNT/NONE
TECOMP/NONE
TEXT/FULL
THLDEF/NONE
TOL/ANGL,FULL
```

```
TOL/ANGLB,FULL
TOL/ANGLR,REAL,REAL,[RFS],[F(),FA(),DAT()]
TOL/CIRLTY,FULL
TOL/COMPOS,NONE
TOL/CONCEN,FULL
TOL/CORTOL,FULL
TOL/CPROFS,NONE
TOL/CRNOUT,REAL,DAT()
TOL/CYLCTY,FULL
TOL/DIAM,REAL,REAL
TOL/DISTB,FULL
TOL/FLAT,FULL
TOL/PARLEL,REAL,[RFS],[F(),FA(),DAT()]
TOL/PERP,REAL,[RFS],[F(),FA(),DAT()]
TOL/POS,FULL
TOL/PROFL,REAL,REAL
TOL/PROFP,REAL,REAL
TOL/PROFS,REAL,REAL
TOL/RAD,REAL,REAL
TOL/STRGHT,REAL,[RFS]
TOL/SYM,NONE
TOL/TRNOUT,REAL,DAT()
TOL/USETOL,NONE
TOL/WIDTH,REAL,REAL
TOOLDF/NONE
TRANS/[XORIG,YORIG,ZORIG],[F(),FA(),DAT()]
UNITS/[INCH,MM],[ANGDEC]
VALUE/NONE
VFORM/NONE
WINDEF/NONE
WKPLAN/[XYPLAN,YZPLAN,ZXPLAN]
WRITE/NONE
XTERN/NONE

ENDCH1

CHFIL2
ERROR
$$ During translation into PC-DMIS, the following error codes can
$$ be generated
ERROR/CODE,101
101,’a non-feature label has been redefined’
ENDCH2

CHFIL3
ENDCH3

ENDCHF
```