

## Appendix C

### RUN-TIME DIAGNOSTICS

#### 1) Messages.

Information messages are identified by message numbers 900-999.

ZYQ999 PSW = hhhhhhhh hhhhhhhh \*\*\*\*\*

Explanation: This is the first line printed after a program interruption, and gives the old Program Status Word at the interrupt. The succeeding line will give the reason for the interrupt.

ZYQ998 DDNAME = ccccccc

Explanation: This message identifies the file on which the error listed on the preceding line occurred.

ZYQ997 LENGTH = dddd POS = dddd CONTENTS: /\*ccc...c\*/

Explanation: This message gives length, pos and the first characters of a text on which a local standard procedure failed. The preceding line indicates the kind of error.

ZYQ996W dddd EDIT OVERFLOWS HAVE OCCURRED

Explanation: This message is printed at end of program execution if one or more edit overflows have occurred.

ZYQ995 SYNAD MESSAGE: ccc...

Explanation: This message is edited by the control program and gives the reason for an I/O error that has occurred (see (8)).

#### 2) Diagnostics

ZYQ000 INTERNAL ERROR

Explanation: An error has been detected that should not occur, possibly because of an error in the compiler or runtime system.

User response: If there are non-Simula external procedures in the program, these should be carefully checked, otherwise follow the standard report procedure.

ZYQ001 CALL VIRTUAL PRO

Explanation: A virtual procedure, called in the class body, had no match in the object in which it was called.

ZYQ002 CON. VIRT. PROC.

Explanation: A virtual procedure, called in a connection block, had no match in the connected object.

ZYQ003 REM. VIRT. PROC.

Explanation: A virtual procedure, called by remote referencing, had no match.

ZYQ004 RESUME TERMINATE

Explanation: The parameter of RESUME was a terminated object.

ZYQ005 NO VIRTUAL MATCH

Explanation: A virtual quantity, except for those identified by messages 1-4 and 9, had no match in the referenced object.

ZYQ006 CALL TERMINATED

Explanation: The parameter of CALL was a terminated object.

ZYQ007 UNDEFINED GOTO

Explanation: A goto statement led into an object not in the operating chain (e.g. a transfer from a procedure called by remote referencing or connection into the class object).

ZYQ008 ILLEGAL GOTO

Explanation: A goto statement led out of a detached object, but not out of the quasi-parallel system of that object (see (12), 9.4.2).

ZYQ009 VIRTUAL LABEL

Explanation: A virtual label mentioned in a goto statement had no match in the object.

ZYQ010 QUA ERROR

Explanation: An instantaneous qualification failed, i.e. the object expression was not identical to or a subclass of the class mentioned after QUA.

ZYQ011 REF ASSIGNMENT

Explanation: An implicit qua check in a reference assignment failed.

ZYQ012 CHAR OUT OF RANG

Explanation: The parameter to CHAR was <0 or >255, i.e. it did not correspond to any character.

ZYQ013 ARRAY DECL. L>U

Explanation: The upper bound was less than the lower bound in a bound pair of an array declaration.

ZYQ014 ARRAY BOUNDS ERR

Explanation: A subscripted variable referred to an address outside the array, i.e. one or more subscripts were out of range.

ZYQ015 CONVERSION RANGE

Explanation: A real quantity could not be converted to integer because it was out of integer range.

ZYQ016 TEXT VALUE ASSGN

Explanation: A text value assignment was illegal because the length of the right hand side was greater than the length of the left hand side.

ZYQ017 STORAGE EXHAUSTD

Explanation: More storages were requested than was available in the SIMULA working storage pool, i.e. the parameter q(3) to the object program was exceeded (2.2.3.1)

User response: Check whether the program seems to have executed correctly. If so, specify a smaller value for q(2) or request a larger partition with the REGION operand of the JOB or EXEC statement (MVT, MFT). One may have to request smaller and fewer I/O buffers to execute successfully if q(2) is decreased.

ZYQ018 DATA LIMIT

Explanation: The total size of the declared quantities exceeded the limit q(1) specified to the object program.

ZYQ019 FILES NOT CLOSED

Explanation: One or more files (except for sysout and sysin) were not closed when the program ended.

The last image of a sequential output file may be lost.

ZYQ020 NUMB OF PARAMS

Explanation: The number of actual parameters given in a call of a formal, external or virtual procedure was not the same as the number of formal parameters of the actual procedure, the external procedure or the virtual match.

ZYQ021 TEXT LENGTH

Explanation: BLANKS or INTEXT was called with a parameter which was negative or greater than the maximum length of a text, 2\*\*15 - 20.

ZYQ022 PARAM KINDS 1

Explanation: An actual parameter was a <type> PROCEDURE while the corresponding formal parameter was specified ARRAY, LABEL or SWITCH in a call on a formal, virtual or external procedure.

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ZYQ023 PARAM KINDS 2

Explanation: An actual parameter was not a <type> PROCEDURE and the kind of the corresponding formal parameter was incompatible with the actual kind in a call on a formal, virtual or external procedure.

ZYQ024 ACT.TYPE NONARIT

Explanation: A formal parameter was of arithmetic type but the corresponding actual parameter was not.

ZYQ025 PARAM TYPE

Explanation: A formal parameter type was incompatible with the type of the corresponding actual parameter.

ZYQ026 ARRAY TYPES

Explanation: Formal and actual type did not coincide for an arithmetic array parameter, or qualifications did not coincide for a reference mode REF array.

ZYQ027 ACT.NOT SUBORD.

Explanation: For a REF(...)PROCEDURE specified parameter, the actual type was not subordinate to the formal type.

ZYQ028 PARAM QUALIF.

Explanation: The qualification of an actual parameter was incompatible with the qualifications of the corresponding formal parameter.

ZYQ029 EXTERNAL TYPE

Explanation: The type of an external procedure declaration was not the same as that of the procedure.

ZYQ030 NOTEXT EDIT

Explanation: The text of a number editing procedure was notext.

ZYQ031 NUMB. OF SUBSCR.

Explanation: The number of subscripts given in a reference to a formal or virtual array was not the same as the number of subscripts in the actual array or virtual match.

ZYQ032 DDCARD MISSING

Explanation: There was no dd-statement in the job step matching a file that was opened.

User response: Check if the dd-card is there, if not add it. If it is there, check that its ddname is correctly spelled and that it has not been put after a DD \* data set if the system is PCP.

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ZYQ033 FILE WAS OPEN

Explanation: The parameter of OPEN was a file that was already open.

ZYQ034 FILE CLOSED

Explanation: The parameter of CLOSE was a file that was already closed.

ZYQ035 FILE NOT OPEN

Explanation: When an input or output request was issued on a file, it was not open.

ZYQ036 IMAGE.LENGTH>256

Explanation: The image of a printfile was longer than 256.

ZYQ037 I/O ERROR

Explanation: A permanent I/O error occurred on a file. The preceding line gives the kind of error.

User response: Check that the data set has the correct characteristics for the request, then check the operands of the dd-statement. If no error is found, consult a systems programmer.

ZYQ038 IMAGE TOO SHORT

Explanation: For an infile or a directfile the image was shorter than the record that was to be transmitted.

ZYQ039 END OF FILE

Explanation: The program tried to read past end of file on an infile, or two successive calls on OUTIMAGE/INIMAGE were issued with LDC out of range on a directfile.

ZYQ040 FIELD ERROR

Explanation: The field length parameter of an output procedure was non-positive or greater than the image length.

ZYQ041 EOF IN ININT

Explanation: End-of-file occurred in ININT before a non-blank character was found.

ZYQ042 EOF IN INFRAC

Explanation: Same as ZYQ041, but INFRAC was called.

ZYQ043 EOF IN INREAL

Explanation: Same as ZYQ041, but the INREAL was called.

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ZYQ044 IMAGE.NOTEXT

Explanation: When a file was accessed, the specific operation could not be performed because its image was NOTEXT.

ZYQ045 IMAGE TOO LONG

Explanation: When OUTIMAGE was called for an outfile connected to a data set with fixed record length, the image length was greater than the record length, or a directfile was used with an image longer than the blocksize.

ZYQ046 RECORD FORMAT

Explanation: A directfile was connected to a data set which had an illegal record format.

ZYQ047 SPACING ERROR

Explanation: The procedure SPACING was called with a negative parameter.

ZYQ048 POS ERR IN GETCH

Explanation: GETCHAR was called for a text in which pos=length+1.

ZYQ049 POS ERR PUTCHAR

Explanation: Same as ZYQ048 for PUTCHAR.

ZYQ050 NO DIGITS:GETINT

Explanation: GETINT or ININT was called, but the first non-blank character found was not a digit.

ZYQ051 INT RANGE:GETINT

Explanation: More than 15 significant digits were scanned by GETINT or ININT.

ZYQ052 NO DIGIT:GETFRAC

Explanation: GETFRAC or INFRAC was called, but the first non-blank character was not a digit.

ZYQ053 ILL. N:PUTFRAC

Explanation: The parameter n of putfrac was not in  $0 \leq n \leq 12$ .

ZYQ054 SHORT FIELD

Explanation: The parameter of PUTFRAC, OUTFRAC, PUTFIX or OUTFIX were such that the decimal point falls outside the text.

ZYQ055 ILL.N:PUTFIX

Explanation: Same as ZYQ058 for PUTFIX or OUTFIX.

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ZYQ056 LENGTH ERR: SUB

Explanation: The parameters of SUB specify a text that is not contained in the original text, or the specified length is negative.

ZYQ057 ILLEG I: SUB

Explanation: The first parameter of SUB specified a non-positive starting position for the subtext.

ZYQ058 ILLEG N:PUTREAL

Explanation: PUTREAL or OUTREAL was called with n not within  $0 \leq n \leq 15$ .

ZYQ059 NO DIGIT:GETREAL

Explanation: GETREAL or INREAL was called, but no digit was found.

ZYQ060 FORT/ASS PRM KND

Explanation: In a call on a Fortran or assembly procedure, an actual parameter was of illegal kind (PROCEDURE or SWITCH). See section 4.16.

ZYQ061 NON-LOCAL LABEL

Explanation: In a call on an assembly procedure, a non-local label was passed as parameter. See section 4.16.

ZYQ062 PARAMETER FORM

Explanation: A parameter to a Fortran or assembly procedure did not have a legal form (Section 4.16).

ZYQ063 TOO MANY PARAMS

Explanation: More than 18 parameters were passed to a Fortran or assembly procedure (Section 3.3).

ZYQ064 EVT OF TERM OBJ

Explanation: On a call Z.EVTIME, Z is a terminated object.

ZYQ065 EVT OF PASS OBJ

Explanation: On a call Z.EVTIME, Z is a passive object.

ZYQ066 PARAMETER TYPE

Explanation: A parameter passed to a Fortran procedure was of illegal type (Section 4.16).

ZYQ067 PASSIV SQS.LAST

Explanation: A call to passivate the last SQS member is illegal.

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ZYQ068 REMOVE SQS.LAST

Explanation: A call to remove the last SQS member is illegal.

ZYQ069 RE/ACT NON PROC

Explanation: The object to be activated or reactivated is not a PROCESS object.

ZYQ070 BEF/AFT NON PROC

Explanation: The objects in the BEFORE or AFTER clause of an activation statement is not qualified by PROCESS.

ZYQ071 WAIT: NON HEAD

Explanation: The object H passed as parameter in a call WAIT(H) is not qualified by HEAD.

ZYQ072 CANCEL: NON PROC

Explanation: The object P passed as parameter in a call CANCEL(P) is not qualified by PROCESS.

ZYQ073 RANDINT B<A

Explanation: The upper bound of the interval passed to RANDINT was less than the lower bound.

ZYQ074 ERLANG A<=0

Explanation: The first parameter to ERLANG was non-positive.

ZYQ075 ERLANG B<=0

Explanation: The second parameter to ERLANG was non-positive.

ZYQ076 LINEAR: ARRAYS

Explanation: The two arrays passed to LINEAR were not both REAL, one-dimensional arrays with equal subscript bounds.

ZYQ077 <interrupt cause>

Explanation: A program interrupt occurred. For an addressing interrupt the text 'OBJECT NONE' is supplied.

ZYQ080 POWER OP, BASE=0

Explanation: The base was zero and the exponent non-positive for an INTEGER to INTEGER exponentiation.

ZYQ081 POWER OP, BASE=0

Explanation: Same as ZYQ080 for a REAL to REAL exponentiation.

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ZYQ082 POWER OP, BASE=0

Explanation: Same as ZYQ080 for a LONG REAL to LONG REAL exponentiation.

ZYQ083 POWER OP, BASE=0

Explanation: Same as ZYQ080 for a REAL to INTEGER exponentiation.

ZYQ084 POWER OP, BASE=0

Explanation: Same as ZYQ080 for a LONG REAL to INTEGER exponentiation.

ZYQ085 ARCSIN/COS abs(X)>1

Explanation: The double precision parameter passed to ARCSIN or ARCCOS had a modulus greater than 1.

ZYQ086 SINH/COSH X>MAX

Explanation: The parameter of SINH or COSH was too large to be representable as a real quantity (Section 3.1). The argument was in double precision.

ZYQ087 SQRT NEG ARG

Explanation: The double precision parameter to SQRT was negative.

ZYQ088 TAN/COT abs(X)>MAX

Explanation: The double precision parameter to TAN or COT was too large to permit accurate computation of the function value.

ZYQ089 TAN/COT INFINITE

Explanation: The function value of TAN or COT with double precision argument was too large or infinite (Section 3.1).

ZYQ090 ARCSIN/COS abs(X)>1

Explanation: Same as ZYQ085 but argument was in single precision.

ZYQ091 SINH/COSH X>MAX

Explanation: Same as ZYQ086 but argument was in single precision.

ZYQ092 SQRT NEG ARG

Explanation: Same as ZYQ087 but argument was in single precision.

ZYQ093 TAN/COT abs(X)>MAX

Explanation: Same as ZYQ088 but argument was in single precision.

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ZYQ094 TAN/COT INFINITE

Explanation: Same as ZYQ089 but argument was in single precision.

ZYQ095 EXP ARG>174.673

Explanation: The value of EXP could not be represented (Section 3.1). Argument was in double precision.

ZYQ096 LOG ARG<=0

Explanation: The double precision argument of LOG was non-positive.

ZYQ097 SIN/COS ARG>MAX

Explanation: The double precision argument of SIN or COS was too large to permit computation of the function value.

ZYQ098 EXP ARG>174.673

Explanation: Same as ZYQ095 with single precision argument.

ZYQ099 LOG ARG<=0

Explanation: Same as ZYQ096 with single precision argument.

ZYQ100 SIN/COS ARG>MAX

Explanation: Same as ZYQ097 with single precision argument.

ZYQ101 ACT.PARAM STRING

Explanation: A found text parameter called by name occurs in a reference context with the actual parameter being a string.

ZYQ102 UNIFORM LB > UB

ZYQ103 TIME LIMIT OVFLW

ZYQ104 FORCED ERROR

ZYQ105 POWER OP, BASE<0

Explanation: The base was negative for a (long) real to (long) real exponentiation.

ZYQ106 MAXPAGES LIMIT

User response: Increase the value of the run time parameter MAXPAGES if more printed output is required.

ZYQ107 EJECT PARM LE 0

Explanation: The procedure EJECT was called with a negative parameter.

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ZYQ108 INVALID DDNAME

Explanation: A text parameter to file object does not conform to the operation system conventions for a DDname. Most likely the value is notext.

ZYQ109 TRANSPLANTATION

Explanation: The qualifying class of a reference actual parameter to a virtual, formal or external procedure was declared in another block instance than that of the corresponding formal parameter specification.

ZYQ110 NEGEXP : A<=0

Explanation: First parameter to standard random drawing procedure Negexp was nonpositive.

ZYQ111 RANDOM SEED IS 0

Explanation: Last parameter to a random drawing procedure has value zero and cannot thus be used as a random stream base.

ZYQ112 DETACH INACTIVE

Explanation: The standard procedure Detach was called on behalf on a class object which was not on the operation chain.

ZYQ113 CALL OPERATING

Explanation: The standard procedure Call had as a parameter a reference to an operating class object.

ZYQ114 NESTED SIMSET

Explanation: The SIMSET or SIMULATION environment occurs simultaneously at several block levels due to dynamic nesting of procedure calls. The implementation is not geared to handle several SIMSET/SIMULATION contexts at the same time.

(NB: permitted restriction of the Common Base).