List of the more likely error messages when running NAME III (version 3.4), provided as part of the EMARC upgrade project

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1 Introduction

There are a large number of potential error messages within NAME III (the majority of these are quite specialised and refer to internal errors, etc.). Note that a full list of error messages (with cross-references back to the NAME III code will become available as part of the NAME III documentation).

I have attempted below to list some of the more likely errors which may appear when running NAME III within EMARC. For each of these, I have given a possible cause (e.g. errors associated with being unable to update a flow module could be attributable to a missing/corrupt met file) and the action(s) required.

Four broad actions are identified, and are:

A) for the EMARC forecaster to check the input details and attempt resubmitting the model run,

B) for attention of Production (Operations/Steve Lankester) - met/IT problem,

C) for attention of TAS - interface problem,

D) for attention of ADG - NAME III problem.

Note that it is probably always worth the forecaster trying to re-submit a failed run just in case it was a temporary glitch on the first attempt!

The following list is not intended to be definitive, but might be useful in giving some idea of the likely cause of any problems.

All other error messages should be referred to ADG.

2 List of error messages

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Error/Warning message: 'ERROR: Particles and/or puffs are being lost due to lack of a valid flow module'
Possible cause:       i) If mesoscale met is being used, the most likely explanation is that particles
                         have left the mesoscale domain (esp. if the errors only commence later in the run).
                     ii) If global met is used, it is likely to indicate a missing met file(s).
Action:               i) Likely to be ok - but plume output results could be truncated!
                     ii) (B)

Error/Warning message: 'ERROR in reading dispersion options: Max # Full Particles should not exceed
                      Max # Particles'
Possible cause:       Incorrect Dispersion Options in input file
Action:               (C)
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Error/Warning message: 'ERROR in reading dispersion options: Max # Original Puffs should not exceed
                        Max # Puffs'
Possible cause:        Incorrect Dispersion Options in input file
Action:                (C)


Error/Warning message: 'Unable to update flow module "' // Trim(CommonFlow%FlowModName) // '.' //
                        Trim(CommonFlow%FlowName) // '"'
Possible cause:        Missing/corrupted met file(s)
Action:                (B)


Error/Warning message: 'Error in UpdateFlow', 'Error in UpdateFlows' (and similarly worded messages)
Possible cause:        Missing/corrupted met file(s)
Action:                (B)


Error/Warning message: 'FATAL ERROR: set of locations "' // Trim(Name) // '" not found'
Possible cause:        Error in input file referencing a 'Set of locations'
Action:                (C)


Error/Warning message: 'FATAL ERROR: location "' // Trim(Name) // '" not found'
Possible cause:        Error in input file referencing a 'Location'
Action:                (C)


Error/Warning message: 'FATAL ERROR in initialising the horizontal grid "' // Trim(Name) // '": the
                        locations do not all use the same coordinate system'
Possible cause:        Locations for time series output defined with different coord systems
                       (e.g. mixed lat-long and national grid)
Action:                (A)


Error/Warning message: 'FATAL ERROR in InitDomain: the start time of the domain is after the end time'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading file ' // Trim(HFState%FileNames(HFState%iFile)) // ': the
                        data item "' // Trim(AdjustL(Line(k1 + 1:k2 - 1))) // '" on a line in a block with
                        keyword "' // Trim(HFState%BlockKey) // '" is too long'
Possible cause:        Input entry has too many characters (e.g. a very long name) - unlikely!
Action:                (A)


Error/Warning message: 'FATAL ERROR in reading the horizontal grid "' // Trim(Tokens%Tokens(1)) // '" from
                        the input file(s): exactly two of dX, X Range, X Min, X Centre and X Max must be
                        specified, but not dX and X Range'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading the horizontal grid "' // Trim(Tokens%Tokens(1)) // '" from
                        the input file(s): exactly two of dY, Y Range, Y Min, Y Centre and Y Max must be
                        specified, but not dY and Y Range'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading the horizontal grid "' // Trim(Tokens%Tokens(1)) // '" from
                        the input file(s): one and only one of dX and X Range must be specified'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading the horizontal grid "' // Trim(Tokens%Tokens(1)) // '" from
                        the input file(s): one and only one of dY and Y Range must be specified'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading the horizontal grid "' // Trim(Tokens%Tokens(1)) // '" from
                        the input file(s): an incorrect combination of grid variables has been given'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                i) (A), ii) (C)
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Error/Warning message: 'FATAL ERROR in processing input for domain "' // Trim(Tokens%Tokens(1)) //
                       '":X Min, H-Coord etc should not be given for unbounded domains'
Possible cause:       Interface error
Action:               (C)


Error/Warning message: 'FATAL ERROR in reading the domain "' // Trim(Tokens%Tokens(1)) // '" from the
                       input file(s): exactly two of X Range, X Min, X Centre and X Max must be specified'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in reading the domain "' // Trim(Tokens%Tokens(1)) // '" from the input
                       file(s): exactly two of Y Range, Y Min, Y Centre and Y Max must be specified'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in processing input for domain "' // Trim(Tokens%Tokens(1)) // '": an
                       inappropriate combination of variables is given.'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               i) (A), ii) (C)


Error/Warning message: 'FATAL ERROR in processing input for domain "' // Trim(Tokens%Tokens(1)) //
                       '": Z Max, Z-Coord etc should not be given for unbounded domains'
Possible cause:       Interface error
Action:               (C)


Error/Warning message: 'FATAL ERROR: Domain start and end time and duration should not be given for
                       unbounded domains'
Possible cause:       Interface error
Action:               (C)


Error/Warning message: 'FATAL ERROR in reading the domain "' // Trim(Tokens%Tokens(1)) // '" from the
                       input file(s): exactly two of Start Time, End Time and Duration must be specified'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               i) (A), ii) (C)


Error/Warning message: 'Error in a source-block in the input file(s): the source location must be specified
                       by giving either "X", "Y" and "H-Coord" or "Set of locations" and "Location"'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               i) (A), ii) (C)


Error/Warning message: 'No input file found on command line - what file do you want to use?'
Possible cause:       Interface error
Action:               (C)


Error/Warning message: 'Error in Tokens2ZGrid: Av Z-Array should have the same number of entries as Z-Array'
Possible cause:       Interface error - setting up vertical grids
Action:               (C)


Error/Warning message: 'Error in Tokens2ZGrid: either nZ, dZ and Z0 or Names of Z and Av Z Arrays
                       (but not both) must be given in defining a Z Grid'
Possible cause:       Interface error - setting up vertical grids
Action:               (C)


Error/Warning message: 'Error in Tokens2TGrid: either nT, dT and T0 or Name of T Array (but not both)
                       must be given in defining a T Grid'
Possible cause:       Interface error - setting up time grids
Action:               (C)


Error/Warning message: 'Unable to update met module "' // Trim(CommonMet%MetModName) // '.' //
                       Trim(CommonMet%MetName) // '"'
Possible cause:       Missing/corrupted met file(s)
Action:               (B)


Error/Warning message: 'Error in UpdateMets', 'Error in UpdateMet' (and similarly worded messages)
Possible cause:       Missing/corrupted met file(s)
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Action:                   (B)

Error/Warning message:  "ERROR: Can't open met file " // Trim(M%MetFolder) // Trim(MetFile)
Possible cause:         Missing met file(s) or IT problem with file system
Action:                 (B)

Error/Warning message:  'ERROR: read error occured in reading field' // Trim(M%MetDefn2%FieldNames(iField))
                        // ' from the met file ' // Trim(MetFile) // ' for the ' // Trim(Int2Char(k))
                        // Int2Ordinal(k) // ' vertical level and the ' // Trim(Int2Char(iT))
                        // Int2Ordinal(iT) // ' time level in the file'
Possible cause:         Corrupted met file(s)
Action:                 (B)

Error/Warning message:  'ERROR: read error occured in reading field' // Trim(M%MetDefn2%FieldNames(iField))
                        // ' from the met file ' // Trim(MetFile) // ' for the ' // Trim(Int2Char(iT))
                        // Int2Ordinal(iT) // ' time level in the file'
Possible cause:         Corrupted met file(s)
Action:                 (B)

Error/Warning message:  'ERROR: Field ' // Trim(FieldNames3d(iField)) // ' missing from met file '
                        // Trim(MetFile) // ' at level ' // Trim(Int2Char(M%LowestPresent(iField) - 1))
                        // ' (and is required at this level).'
Possible cause:         Corrupted met file(s)
Action:                 (B)

Error/Warning message:  'ERROR: Field ' // Trim(FieldNames2d(iField)) // ' missing from met file '
                        // Trim(MetFile) // ' (and is a required field).'
Possible cause:         Corrupted met file(s)
Action:                 (B)

Error/Warning message:  'ERROR in reading met data for met module ' // Trim(M%C%MetModName) // '.'
                        // Trim(M%C%MetName)
Possible cause:         Missing/corrupted met file(s)
Action:                 (B)

Error/Warning message:  "ERROR: Can't open topography file " // Trim(M%TopogFolder)
                        // Trim(M%MetDefn%TopogFile)
Possible cause:         Missing topography file(s) or IT problem with file system
Action:                 (B), (C)

Error/Warning message:  'ERROR reading topography'
Possible cause:         Missing/corrupted topography file(s)
Action:                 (B), (C)

Error/Warning message:  'FATAL ERROR in reading Output Requirements - Fields: ...' (various messages
                        of this form)
Possible cause:         i) Incorrect input or ii) error in interface calculation
Action:                 (C), (D)

Error/Warning message:  'FATAL ERROR: too many puffs'
Possible cause:         Total number of puffs allocated has been exceeded (do any EMARC runs use puffs - FMD?)
Action:                 (A) - try a shorter run, (C) - increase the number of puffs in the dispersion options,
                        (D) - other solutions

Error/Warning message:  'FATAL ERROR: too many original puffs'
Possible cause:         Total number of original puffs released by the source has been exceeded
                        (do any EMARC runs use puffs - FMD?)
Action:                 (A) - try a shorter run, (C) - increase the number of puffs in the dispersion
                        options, (D) - other solutions

Error/Warning message:  'Warning: The start time is greater than the stop time for source "'
                        // Trim(Source%Name) // '". The source will be ignored.'
Possible cause:         i) Incorrect input or ii) error in interface calculation
Action:                 (A), (C)
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Error/Warning message: 'Warning: Max travel time for source "' // Trim(Source%Name) // '" is zero.
                        The source will be ignored.'
Possible cause:        Error in source definition in input file - interface error?
Action:                (C)

Error/Warning message: 'Warning: All source strengths for source "' // Trim(Source%Name) // '" are zero
                        (possibly because its specified as a rate for an instantaneous source or
                        as total amount released for an infinite duration source).
                        The source will be ignored.'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'Warning: No particles are due to be released for source "' // Trim(Source%Name)
                        // '". The source will be ignored.'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'Warning: No particles are due to be released for source "' // Trim(Source%Name)
                        // '" (possibly because "# particles" is specified as a rate for an instantaneous
                        source or as a total for an infinite duration source). The source will be ignored.'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'FATAL ERROR: Source shape is not "Ellipsoid" or "Cuboid"'
Possible cause:        Error in source definition in input file - interface error?
Action:                (C)

Error/Warning message: 'FATAL ERROR: The max travel time of source "' // Trim(Name) // '" is < 0'
Possible cause:        Error in source definition in input file - interface error?
Action:                (C)

Error/Warning message: 'FATAL ERROR: # Particles for source "' // Trim(Name) // '" is < 0'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'FATAL ERROR: No source strengths are specified for source "' // Trim(Name) // '"'
Possible cause:        Error in source definition in input file - interface error?
Action:                (C)

Error/Warning message: 'FATAL ERROR: Too many source strengths specified for source "' // Trim(Name) // '"'
Possible cause:        Error in source definition in input file - interface error?
Action:                (C)

Error/Warning message: 'FATAL ERROR: A negative source strength has been specified for source "'
                        // Trim(Name) // '"'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'FATAL ERROR: source "' // Trim(Name) // '" not found'
Possible cause:        Error in input file referencing a 'Source'
Action:                (C)

Error/Warning message: 'FATAL ERROR: The material unit given for source strength must match that given
                        for the species'
Possible cause:        Discrepancy between units used for species definition and source strength
Action:                (C)

Error/Warning message: 'Error in parsing # particles: string too long'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)

Error/Warning message: 'Error in parsing # particles'
Possible cause:        i) Incorrect input or ii) error in interface calculation
Action:                (A), (C)
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Error/Warning message: 'Error in parsing source strength: string too long'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               (A), (C)


Error/Warning message: 'Error in parsing source strength'
Possible cause:       i) Incorrect input or ii) error in interface calculation
Action:               (A), (C)


Error/Warning message: 'Error in Char2Int'
Possible cause:       Integer input is expected but is not given - i) Incorrect input or ii) Interface error
Action:               (A), (C), (D) - can be difficult to identify this type of error


Error/Warning message: 'Error in Char2Std'
Possible cause:       Real input is expected but is not given - i) Incorrect input or ii) Interface error
Action:               (A), (C), (D) - can be difficult to identify this type of error


Error/Warning message: 'Error in Char2Log'
Possible cause:       Logical input is expected (Yes/No) but is not given - i) Incorrect input or
                      ii) Interface error
Action:               (A), (C), (D) - can be difficult to identify this type of error


Error/Warning message: 'FATAL ERROR in opening ' // Trim(FileDescription) // ' "'
                      // Trim(ConvertFileName(File)) // '" (possibly because the file is expected to
                      exist but does not or is not in the appropriate directory).'
Possible cause:       Missing file or folder - i) IT problem with file system, ii) error in interface
Action:               (B), (C)


Error/Warning message: 'FATAL ERROR in opening file "' // Trim(ConvertFileName(File))
                      // '" (possibly because the file is expected to exist but does not or is not in
                      the appropriate directory).'
Possible cause:       Missing file or folder - i) IT problem with file system, ii) error in interface
Action:               (B), (C)
```