ALTAIR

ONLY FORWARD

Altair Feko 2022.1.1

Errors, Warnings and Notes Reference Guide

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Altair One (https://altairone.com/) is Altair's customer portal giving you access to product downloads, a Knowledge Base, and customer support. We recommend that all users create an Altair One account and use it as their primary portal for everything Altair.

When your Altair One account is set up, you can access the Altair support page via this link: www.altair.com/customer-support/

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Participate in an online community where you can share insights, collaborate with colleagues and peers, and find more ways to take full advantage of Altair's products.

Visit the Altair Community (https://community.altair.com/community) where you can access online discussions, a knowledge base of product information, and an online form to contact Support. These valuable resources help you discover, learn and grow, all while having the opportunity to network with fellow explorers like yourself.

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If you are interested in training at your facility, contact your account manager for more details. If you do not know who your account manager is, contact your local support office and they will connect you with your account manager.

Telephone and E-mail

If you are unable to contact Altair support via the customer portal, you may reach out to technical support via phone or e-mail. Use the following table as a reference to locate the support office for your region.

When contacting Altair support, specify the product and version number you are using along with a detailed description of the problem. It is beneficial for the support engineer to know what type of workstation, operating system, RAM, and graphics board you have, so include that in your communication.

Location	Telephone	E-mail
Australia	+61 3 9866 5557	anzsupport@altair.com
Brazil	+55 113 884 0414	br_support@altair.com

Location	Telephone	E-mail
Canada	+1 416 447 6463	support@altairengineering.ca
China	+86 400 619 6186	support@altair.com.cn
France	+33 141 33 0992	francesupport@altair.com
Germany	+49 703 162 0822	hwsupport@altair.de
Greece	+30 231 047 3311	eesupport@altair.com
India	+91 806 629 4500 +1 800 425 0234 (toll free)	support@india.altair.com
Israel		israelsupport@altair.com
Italy	+39 800 905 595	support@altairengineering.it
Japan	+81 3 6225 5830	support@altairjp.co.jp
Malaysia	+60 32 742 7890	aseansupport@altair.com
Mexico	+52 55 5658 6808	mx-support@altair.com
New Zealand	+64 9 413 7981	anzsupport@altair.com
South Africa	+27 21 831 1500	support@altair.co.za
South Korea	+82 704 050 9200	support@altair.co.kr
Spain	+34 910 810 080	support-spain@altair.com
Sweden	+46 46 460 2828	support@altair.se
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If your company is being serviced by an Altair partner, you can find that information on our web site at https://www.altair.com/PartnerSearch/.

See www.altair.com for complete information on Altair, our team, and our products.

Contents

Introduction

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The Feko Errors, Warnings and Notes Reference Guide is a reference for messages that may be encountered in Feko. For each message, a cause is provided. Use this information to determine a corrective action and apply to the model.

This chapter covers the following:

1.1 How to Interpret Messages

Messages indicate fatal errors, inaccurate results or provide information regarding the model setup.

Where to Find Messages

- *`.out` file*

  Any errors and warnings encountered during the simulation, are written out to the `.out` file. Use a text editor or the **Output file viewer** tool in POSTFEKO to search for the phrase *Error* or *Warning* and view the message.

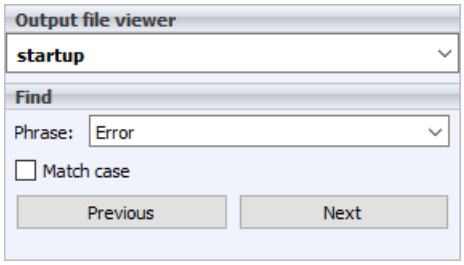


*Figure 1: The **Output file viewer tool** in POSTFEKO.*

- ***Executing prefeko** dialog*

  Any warnings or errors encountered during the execution of PREFEKO (when run from a Feko GUI component), will be displayed on the **Executing prefeko** dialog. The errors, warnings and notices are grouped by tab giving quick access to messages of the same type.

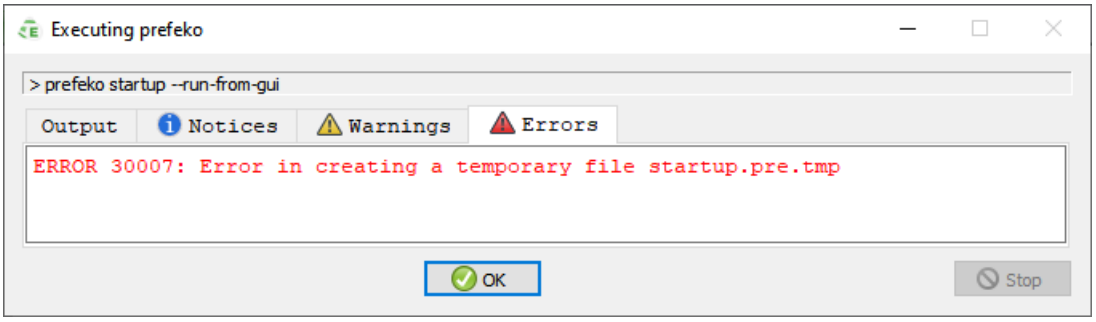


*Figure 2: The **Executing prefeko** dialog.*

- ***Executing optfeko** dialog*

  Any errors, warnings and notices encountered during the execution of OPTFEKO (when run from a Feko GUI component), will be displayed on the **Executing optfeko** dialog. The errors, warnings and notices are grouped by tab giving quick access to messages of the same type.

- ***Executing runfeko** dialog*

  Any errors, warnings and notices encountered during the execution of the Solver or ADAPTFEKO (when run from a Feko GUI component), will be displayed on the **Executing runfeko** dialog. The errors, warnings and notices are grouped by tab giving quick access to messages of the same type.

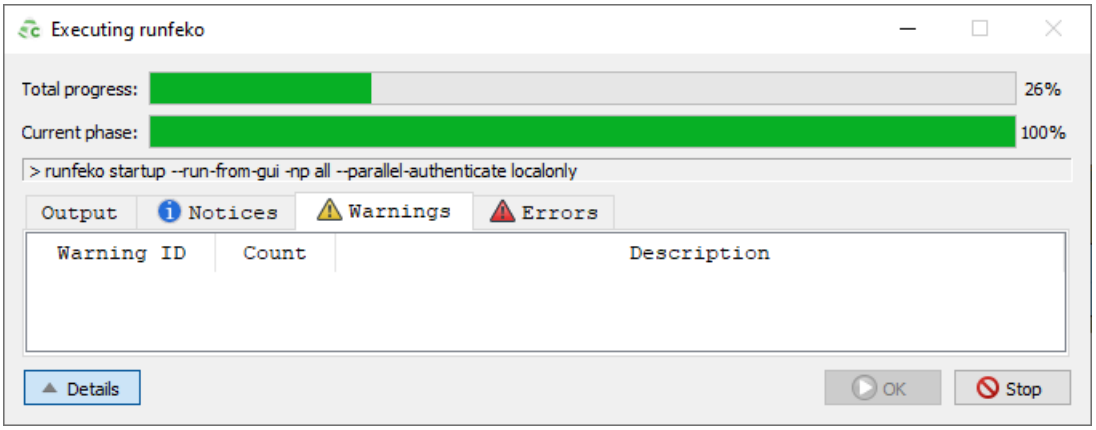


*Figure 3: The **Executing runfeko** dialog.*

- ***Importing file** dialog*

  When importing geometry in CADFEKO, any geometry faults encountered will be indicated on the **Importing file** dialog.

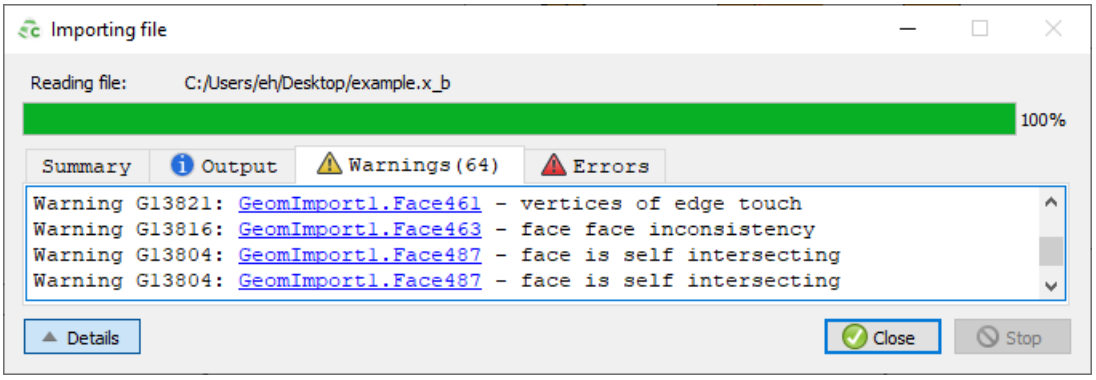


*Figure 4: The **Importing file** dialog that is displayed when importing geometry.*

- *Feko terminal*

  Any errors, warnings and notices encountered during the execution of a Feko component from the command terminal, will output the messages to screen.

Types of Messages

There are three type of messages that give feedback in Feko:

- *Errors*

  An error message alerts you that a fatal error occurred. The problem needs to be addressed before the simulation or process can continue.

- *Warnings*

  A warning message alerts you to a condition that might cause inaccurate results or a setting that is not allowed or was disabled.

- *Notes (notices)*
  A note message alerts you to potentially useful information.

1.2 Where to Get More Help

Did you find what you were looking for?

In addition to this Feko Errors, Warnings and Notes Reference Guide, you can find help at the following locations:

- Visit Altair Community where you can access online discussions, a knowledge base of product information, and an online form to contact Support.
- Contact Technical Support if you want to reach out to the support office of your region via phone or e-mail.

> **Note:** When contacting Technical Support, specify the product and version number you are using along with a detailed description of the problem. Include in your communication the type of workstation, operating system, RAM, and graphics board.

ADAPTFEKO

View the list of messages that may be reported by ADAPTFEKO.

Errors

Error 31000:
Please specify the integer 'x' after the option '--restart'.

Error 31001:
An integer value larger than zero must follow the command line option '--restart'.

Error 31002:
Unknown command line option '<text>'.

Error 31004:
Error while writing data to the *.bof file.

Error 31006:
Error opening the file '<text>'.

Error 31011:
The minimum frequency must be greater than zero.

Error 31012:
The maximum frequency must be larger than the minimum frequency.

Error 31013:
The number of frequency points must be greater than two.

Errors 31015, 31049, 31051, 31053, 31073:
Error opening file <text>.

Errors 31016, 31031:
Error opening file <text> (rc=<number>).

Error 31017:
The number of data blocks in the current bof file differs from that of the previous analysis.

Error 31018:
The file <text> seems to be corrupt (no end block found).

Error 31019:
Block version <number> not understood by this version of ADAPTFEKO (impedance data block, id=<number>).

Error 31020:
Block version <number> not understood by this version of ADAPTFEKO (S-parameter block, id=<number>).

Error 31021:
Block version <number> not understood by this version of ADAPTFEKO (far field data block, id=<number>).

Error 31022:
Block version <number> not understood by this version of ADAPTFEKO (near field data block, id=<number>).

Error 31023:
Block version <number> not understood by this version of ADAPTFEKO (current and charges data block, id=<number>).

Error 31024:
Block version <number> not understood by this version of ADAPTFEKO (power data block, id=<number>).

Error 31025:
Block version <number> not understood by this version of ADAPTFEKO (non-radiating network data block, id=<number>) .

Errors 31028, 31030, 31129:
Error occurred while trying to read from the file <text>.

Error 31032:
Internal error in subroutine bof_write_coeff_farfield.

Error 31042:
The frequency in the bof file differs from the current frequency.

Error 31043:
Structure of the bof file is not allowed to change over frequency.

Error 31045:
Using more than one AC-card is not supported.

Error 31046:
The number of frequency sampling points for the CableMod/Touchstone export must be greater than zero.

Error 31047:
Wrong value of the parameter I4 in the FR-card (must be 0 or 1).

Error 31052:
The number of frequency points in the *.rsd file must be greater than one.

Error 31054:
For CableMod please use a current version of PREFEKO (FEK-format >= 53).

Error 31055:
It is not allowed to have an FR card and an AC card at the same time (adaptive frequency sampling).

Error 31056:
Internal error: Requested CC_DATA_VERSION=2 not available.

Errors 31058, 31059:
Error while reading the currents from the *.rsd file.

Error 31060:
Block version <number> not understood by this version of ADAPTFEKO (header data block, id=<number>).

Errors 31061, 31074:
ADAPTFEKO run will terminate now due to error in RUNFEKO.

Error 31065:
Error while reading data from the *.bof file (rc=<number>).

Errors 31066, 31067:
Error when closing the file <text> (rc=<number>).

Errors 31003, 31033, 31034, 31035, 31036, 31037, 31041, 31057, 31069, 31070, 31071, 31075, 31076, 31082, 31128, 31130, 31136:
Error allocating memory for adaptive frequency interpolation.

Error 31081:
No S-parameter data was found in the *.bof file.

Error 31104:
Block version <number> not understood by this version of ADAPTFEKO (planar trans/refl data block, id=<number>).

Error 31106:
Block version <number> not understood by this version of ADAPTFEKO (SPICE probe data block, id=<number>).

Error 31109:
Initialising file compression failed.

Error 31110:
File compression failed.

Error 31111:
Time detected to run backwards (Feko time output is possibly not usable).

Error 31112:
Block version <number> not understood by this version of ADAPTFEKO (characteristic mode data block, id=<number>).

Error 31113:
Internal error in subroutine bof_merge_ada_files.

Error 31117:
Internal error in subroutine bof_merge_fr_files.

Error 31121:
Continuous frequency results are not yet supported in connection with the Finite Difference Time Domain (FDTD) solver. Please use a discrete frequency stepping instead..

Error 31122:
Block version <number> not understood by this version of ADAPTFEKO (interp. far field data block, id=<number>).

Error 31124:
Internal error: Error interpolating a function with infinite values.

Error 31126:
Block version <number> not understood by this version of ADAPTFEKO (modal port data block, id=<number>).

Errors 31131, 31132, 31133, 31134, 31135:
Error calculating the adaptive frequency interpolation.

Error 31138:
ADAPTFEKO will be terminated after waiting 10 minutes for the cleanup process to complete.

Errors 31142, 31144, :
Error opening file <text> for reading.

Errors 31014, 31026, 31027, 31040, 31064, 31072, 31077, 31080, 31141, 31143, :
Error creating file <text>.

Warnings

Warning 31005:
ADAPTFEKO terminated: The maximum number of sample points was reached.

Warning 31062:
ADAPTFEKO: Frequency subinterval <number> of <number> has not converged.

Warning 31068:
ADAPTFEKO requires *.fek file format 92 or newer to specify the termination accuracy, therefore using default value.

Warning 31083:
No calculation requests were made for adaptive frequency sampling.

Warning 31096:
ADAPTFEKO has reached minimum frequency stepping, results might not have converged.

Warning 31097:
ADAPTFEKO has at least once reached the minimum frequency stepping and terminated prematurely (possibly no convergence).

Warning 31102:
ADAPTFEKO requires *.fek file format 118 or newer to specify the quantity selection, therefore using default value.

Warning 31123:
Characteristic mode results are not used for adaptive frequency sampling.

Warning 31137:
ADAPTFEKO error detected during the cleanup process.

View the list of messages that may be reported by FEKO.

Errors, Notes or Warnings

Errors, Notes or Warnings 80, 81, 82, 83, 3685, 32103:
Singular field on the axis of a segment.

Error, Note or Warning 1765:
Wrong value of a singular integral, possibly observation point on a triangular surface.

Error, Note or Warning 1766:
Observation point may not be located inside a triangle.

Error, Note or Warning 2688:
The model tolerance is too large as compared to the length of one UTD edge.

Error, Note or Warning 2689:
The model tolerance is too small as compared to the length of one UTD edge.

Error, Note or Warning 2701:
A wire segment at a connection point is too thick as compared to the triangle size.

Errors, Notes or Warnings 3992, 37578:
Overflow for the exponential function.

Error, Note or Warning 4715:
Problem reading the *.mat, *.lud or *.ngf file related to incompatible single/double precision setting.

Error, Note or Warning 32945:
It is highly recommended to use the conventional MoM, since the MLFMM near field matrix fill exceeds 20% of the full MoM matrix.

Errors, Notes or Warnings 84, 85, 1763, 32948, 32949:
Singular field on the edge of a triangle.

Error, Note or Warning 33204:
Found a *.mat, *.ngf or *.lud file for a solution that has changed.

Error, Note or Warning 33206:
The *.mat, *.ngf or *.lud file does not match the current solution.

Error, Note or Warning 36002:
No convergence achieved during the iterative solution (residuum diverges, larger than maximum value).

Error, Note or Warning 36197:
The modes at a modal port are not orthogonal. This may affect accuracy.

Errors, Notes or Warnings 36564, 36565:
Singular field on the edge of a tetrahedron.

Error, Note or Warning 38191:
A direct connection across a cable shield(s) in a cable cross section is not supported.

Error, Note or Warning 38346:
A cable connection may only be used in a limited number of scenarios to interconnect different cable path sections.

Error, Note or Warning 39439:
A cable segment should run approximately parallel to a nearby conducting surface.

Error, Note or Warning 39442:
More than 10% of cable segments are badly oriented [30-75 degrees] w.r.t nearby geometry.

Error, Note or Warning 40181:
Error allocating device memory.

Error, Note or Warning 40182:
Error transferring data to the device.

Errors, Notes or Warnings 46100, 46101, 46102:
The *.mat, *.lud. or *.ngf file does not match the current solution.

Error, Note or Warning 46117:
Problem reading the *.ngf file related to incompatible single/double precision setting.

Errors, Notes or Warnings 46119, 46120, 46121, 46122:
The *.ngf file does not match the current solution.

Error, Note or Warning 52473:
More than 2% of cable segments are at an extreme orientation [60-75 degrees] w.r.t nearby geometry.

Errors

Error 8:
Only EFIE or PMCHW permitted with metals (CFFLAG_DIEL).

Error 15:
No source has been defined.

Error 16:
Undefined wire port segment.

Error 17:
Undefined wire port node/connection point.

Error 18:
A wire port definition is not allowed at this vertex.

Error 20:
Incorrect conductor radii for a magnetic frill excitation (outer radius less than inner radius).

Error 21:
The metallic edge for the edge port does not exist.

Error 22:
The A7 port definition supports a single edge only.

Error 24:
Unknown model card is used (before the EG card).

Errors 25, 33, 37, 41, 898:
Too many triangles (MAXNDR).

Error 26:
Wrong label of a triangular patch.

Errors 28, 31, 39, 893:
Too many segments (MAXNSEG).

Error 29:
Wrong label of a segment.

Error 30:
The label increment pertaining to the application of symmetry has to be positive.

Error 35:
Too many segments (MAXSEG).

Error 43:
Wrong label/start label for PO region.

Error 45:
Unknown control card is used (after the EG card).

Error 47:
Unsupported source type.

Errors 65, 69, 34348, 34402:
Inconsistent modelling at a connection point.

Errors 75, 1667:
Array for the matrix is too small (NMAT).

Error 77:
Too many edges with PO (MAXAPO).

Error 92:
Relative permittivity of coating must be specified.

Error 100:
Invalid linear equation solver selection.

Error 101:
Gauss elimination has to be used because there is an LU decomposition.

Error 103:
The MoM Matrix is singular, no solution possible.

Error 114:
Segmentation rules have been violated (wire segment is too long).

Error 116:
The ratio of the segment radius to length is too large.

Errors 120, 32971:
Segmentation rules have been violated (triangle is too large).

Error 134:
TEM-frill is not allowed near a segment in a dielectric.

Errors 174, 48234:
Frequency is too small or has not been defined.

Error 178:
A triangle has neither an edge nor a connection point.

Error 179:
A dielectric triangle does not have an edge.

Error 180:
A segment has neither a node nor a connection point.

This error is due to a single wire segment "floating" in free space. Connect the segment to another wire segment, triangle or ground plane.

Error 181:
The conductivity must be specified for a lossy conducting surface.

Errors 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 288, 289, 577, 578, 4745, 4746, 33355, 33356, 33571, 33572, 34723, 34724, 36612, 36613, 36614, 36615:
The excitation contradicts the specified symmetry.

Error 240:
A triangle is smaller than the model tolerance.

Error 241:
A segment is too short or the model tolerance is too large.

Error 245:
Triangles in different media are connected.

Error 246:
Connection point of wire and surface on the boundary of the media not allowed.

Error 252:
Too many cubical elements (MAXNQUA).

Errors 253, 254, 255:
Too many cuboidal elements (MAXNQUA).

Errors 257, 502:
Segmentation rules have been violated (cuboid is too large).

Error 259:
Dielectric surfaces and dielectric bodies are not permitted simultaneously.

Error 263:
No metal in the dielectric permitted with dielectric/magnetic cuboids.

Error 271:
Dielectric cannot be used with ground.

Error 292:

A plane wave is incident from below or in an infinite ground plane.

Errors 296, 297, 300, 303, 304, 305, 306, 307, 308, 309, 310, 314, 346, 347, 348, 350, 351, 354, 365, 367, 371, 373, 376, 378, 380, 383, 384, 388, 389, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 414, 415, 416, 417, 418, 419, 420, 421, 423, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 441, 442, 443, 444, 445, 446, 449, 450, 484, 487, 488, 489, 492, 513, 516, 517, 518, 519, 520, 521, 522, 551, 557, 560, 561, 566, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 694, 695, 696, 697, 698, 699, 700, 701, 784, 785, 786, 787, 788, 789, 828, 901, 989, 990, 991, 1674, 1676, 1677, 1685, 1707, 1773, 1777, 1778, 1796, 1989, 2377, 2403, 2413, 2414, 2415, 2416, 2417, 2463, 2534, 2705, 2706, 2707, 2708, 2796, 2824, 2826, 2827, 2828, 2829, 2830, 2878, 2993, 2994, 3099, 3226, 3237, 3238, 3251, 3252, 3270, 3271, 3287, 3288, 3306, 3350, 3483, 3484, 3485, 3568, 3569, 3572, 3574, 3575, 3576, 3577, 3582, 3583, 3585, 3588, 3589, 3590, 3591, 3592, 3602, 3626, 3775, 3783, 3809, 3829, 3830, 3831, 3832, 3833, 3834, 3852, 3857, 3891, 3918, 3939, 3948, 3950, 3985, 3986, 3998, 4002, 4005, 4007, 4008, 4025, 4026, 4027, 4028, 4029, 4032, 4033, 4045, 4131, 4139, 4141, 4163, 4170, 4210, 4222, 4227, 4232, 4233, 4234, 4236, 4237, 4238, 4243, 4244, 4245, 4249, 4251, 4252, 4258, 4260, 4263, 4275, 4283, 4290, 4294, 4295, 4297, 4299, 4314, 4316, 4319, 4363, 4398, 4407, 4411, 4420, 4425, 4426, 4427, 4428, 4519, 4520, 4539, 4540, 4545, 4549, 4566, 4569, 4575, 4586, 4587, 4592, 4612, 4613, 4614, 4695, 4696, 4697, 4698, 4699, 4700, 4701, 4703, 4704, 4713, 4717, 4735, 4744, 4769, 4806, 4821, 4848, 4849, 4850, 4938, 4940, 4976, 4985, 4987, 4988, 4989, 4992, 4993, 4994, 4995, 4998, 32007, 32045, 32091, 32121, 32122, 32123, 32125, 32126, 32128, 32129, 32140, 32148, 32149, 32150, 32151, 32152, 32155, 32156, 32157, 32158, 32162, 32166, 32168, 32169, 32227, 32228, 32229, 32230, 32232, 32233, 32234, 32355, 32373, 32378, 32421, 32424, 32425, 32426, 32427, 32463, 32464, 32465, 32466, 32467, 32469, 32470, 32471, 32472, 32473, 32475, 32476, 32499, 32500, 32503, 32527, 32528, 32529, 32538, 32540, 32543, 32545, 32547, 32548, 32552, 32553, 32558, 32560, 32561, 32652, 32653, 32655, 32656, 32663, 32707, 32708, 32709, 32714, 32774, 32775, 32781, 32785, 32792, 32793, 32796, 32803, 32816, 32817, 32823, 32830, 32857, 32859, 32860, 32861, 32862, 32863, 32864, 32867, 32894, 32895, 32899, 32926, 32927, 32940, 32943, 32952, 32953, 32989, 33041, 33067, 33087, 33101, 33106, 33142, 33159, 33160, 33161, 33227, 33291, 33348, 33391, 33408, 33415, 33416, 33417, 33418, 33420, 33421, 33422, 33423, 33424, 33425, 33440, 33441, 33454, 33466, 33467, 33471, 33475, 33567, 33568, 33569, 33570, 33609, 33712, 33722, 33736, 33737, 34011, 34012, 34013, 34014, 34015, 34016, 34026, 34027, 34089, 34097, 34099, 34191, 34192, 34193, 34194, 34195, 34196, 34197, 34198, 34199, 34200, 34201, 34202, 34203, 34204, 34205, 34400, 34441, 34442, 34444, 34453, 34483, 34484, 34488, 34489, 34500, 34501, 34502, 34503, 34530, 34674, 34679, 34680, 34681, 34683, 34684, 34685, 34695, 34696, 34703, 34704, 34705, 34706, 34708, 34709, 34710, 34712, 34713, 34825, 34826, 34827, 34828, 34829, 34830, 34831, 34832, 34833, 34834, 34835, 34836, 34837, 34838, 34839, 34840, 34841, 34842, 34843, 34844, 34846, 34848, 34849, 34850, 34851, 34852, 34853, 34858, 34859, 34860, 34861, 34862, 34863, 34864, 34865, 34866, 34867, 34868, 34869, 34870, 34871, 34872, 34873, 34874, 34875, 34876, 34877, 34881, 34882, 34883, 34884, 34885, 34886, 34887, 34916, 34917, 34918, 34919, 34920, 34921, 34925, 34926, 34931, 34932, 34933, 34934, 34949, 34954, 34955, 34956, 34975, 34979, 34980, 35099, 35100, 35101, 35102, 35103, 35104, 35105, 35106, 35107, 35108, 35109, 35110, 35111, 35112, 35113, 35114, 35115, 35116, 35117, 35118, 35119, 35120, 35121, 35128, 35129, 35130, 35131, 35132, 35133, 35134, 35137, 35138, 35139, 35140, 35396, 35399, 35401, 35444, 35445, 36004, 36005, 36015, 36018, 36019, 36020, 36070, 36071, 36072, 36085, 36087, 36092, 36109, 36137, 36138, 36140, 36141, 36142, 36151, 36152, 36153, 36172, 36179, 36180, 36181, 36200, 36202, 36206, 36212, 36217, 36220, 36221, 36222, 36225,

36226, 36227, 36228, 36229, 36230, 36231, 36235, 36241, 36244, 36256, 36257, 36260, 36261, 36266, 36268, 36284, 36285, 36286, 36287, 36288, 36289, 36290, 36300, 36301, 36302, 36303, 36304, 36305, 36312, 36319, 36321, 36323, 36388, 36389, 36415, 36419, 36420, 36421, 36422, 36423, 36424, 36435, 36437, 36441, 36443, 36446, 36448, 36450, 36452, 36453, 36454, 36455, 36456, 36457, 36458, 36459, 36460, 36467, 36468, 36469, 36470, 36475, 36482, 36483, 36484, 36485, 36488, 36535, 36572, 36618, 36634, 36635, 36636, 36637, 36638, 36639, 36642, 36644, 36652, 36653, 36659, 36673, 36691, 36692, 36697, 36698, 36723, 36725, 36726, 36729, 36732, 36734, 36735, 36746, 36747, 36772, 36810, 36859, 36860, 36868, 36869, 36870, 36873, 36874, 36875, 36876, 36877, 36909, 36912, 36913, 36917, 36926, 36930, 36931, 36933, 36934, 36935, 36938, 37126, 37131, 37132, 37133, 37137, 37138, 37139, 37140, 37172, 37174, 37175, 37188, 37189, 37200, 37203, 37257, 37258, 37276, 37277, 37278, 37288, 37296, 37297, 37329, 37333, 37336, 37338, 37365, 37366, 37378, 37379, 37382, 37387, 37391, 37392, 37393, 37398, 37399, 37415, 37416, 37417, 37423, 37448, 37449, 37450, 37451, 37452, 37453, 37454, 37455, 37456, 37457, 37460, 37461, 37462, 37463, 37464, 37465, 37466, 37470, 37500, 37529, 37531, 37533, 37539, 37540, 37542, 37545, 37547, 37548, 37552, 37553, 37557, 37565, 37572, 37573, 37574, 37619, 37621, 37625, 37626, 37627, 38016, 38019, 38221, 38240, 38241, 38244, 38246, 38247, 38248, 38274, 38280, 38281, 38289, 38290, 38293, 38334, 38434, 38438, 38439, 38450, 38454, 38458, 38459, 38460, 38463, 38464, 38466, 38482, 38485, 38501, 38502, 38511, 38680, 38727, 38730, 38841, 38879, 38882, 38883, 38887, 38895, 38896, 38897, 38900, 38921, 38958, 38959, 38960, 38961, 39018, 39020, 39033, 39104, 39160, 39161, 39162, 39166, 39172, 39175, 39176, 39177, 39178, 39179, 39180, 39182, 39183, 39184, 39186, 39194, 39196, 39197, 39199, 39200, 39212, 39213, 39215, 39285, 39311, 39312, 39313, 39327, 39345, 39346, 39348, 39349, 39350, 39352, 39422, 39423, 39424, 39425, 39426, 39427, 39428, 39437, 39444, 39445, 39471, 39477, 39478, 39481, 39482, 39488, 39492, 39498, 39499, 39532, 39538, 39543, 39546, 39548, 39559, 39560, 39561, 39562, 39563, 39564, 39565, 39566, 39567, 39569, 39570, 39571, 39572, 39573, 39577, 39635, 39642, 39644, 39645, 39646, 39647, 39649, 39666, 39667, 39669, 39677, 39678, 39679, 39680, 39681, 39682, 39683, 39686, 39691, 39692, 39704, 39711, 39713, 39716, 39717, 39718, 39744, 39746, 39747, 39748, 39750, 39751, 39752, 39754, 39755, 39756, 39757, 39758, 39759, 39760, 39761, 39764, 39765, 39766, 39767, 39768, 39769, 39770, 39771, 39772, 39773, 39775, 39776, 39779, 39780, 39781, 39784, 39785, 39786, 39798, 39799, 39805, 39806, 39807, 39808, 39813, 39816, 39817, 39818, 39820, 39821, 39822, 39823, 39824, 39825, 39826, 39827, 39828, 39829, 39830, 39833, 39834, 39835, 39843, 39856, 39859, 39861, 39863, 39868, 39870, 39876, 39878, 39887, 39888, 39901, 39917, 39918, 39919, 39922, 39924, 39926, 39938, 39949, 39956, 39957, 39975, 39980, 39988, 39993, 40036, 40037, 40038, 40039, 40040, 40050, 40051, 40052, 40053, 40059, 40060, 40061, 40062, 40063, 40064, 40095, 40096, 40097, 40098, 40139, 40140, 40141, 40142, 40143, 40144, 40158, 40225, 40227, 40239, 40273, 40274, 40276, 40295, 40298, 40300, 40302, 40311, 40313, 40315, 40316, 40317, 40318, 40319, 40322, 40324, 40328, 40364, 40365, 40366, 40368, 40373, 40374, 40375, 40383, 40418, 40439, 40475, 40485, 40501, 40541, 40548, 40549, 40550, 40551, 40552, 40553, 40554, 40555, 40556, 40568, 40569, 40572, 40586, 40587, 40599, 40603, 40604, 40605, 40615, 40632, 45021, 45301, 45315, 45316, 45451, 46006, 46007, 46008, 46009, 46010, 46011, 46012, 46017, 46036, 46053, 46054, 46055, 46056, 46057, 46081, 46083, 46085, 46103, 46125, 46144, 46172, 46253, 46254, 46255, 46256, 46293, 46294, 47003, 47103, 47165, 47275, 47276, 47277, 47278, 47440, 47441, 47508, 47509, 47548, 47549, 47550, 47552, 47587, 47592, 47637, 47638, 47789, 47790, 47791, 47792, 47800, 47801, 47802, 47803, 47804, 47811, 47812, 47813, 47815, 47816, 47817, 47818, 47819, 47895, 47898, 47901, 47902, 47914, 47915, 47923, 47924, 47925, 47939, 47982, 48080, 48083, 48085, 48093, 48114, 48130, 48171, 48192, 48243, 48244, 48254, 48261, 48262, 48263, 48264, 48266, 48268,

48280, 48282, 48292, 48293, 48295, 48309, 48310, 48325, 48330, 48331, 48332, 48356, 48358, 48362, 48363, 48367, 48368, 48372, 48379, 48380, 48381, 48385, 48386, 48408, 48410, 48411, 48421, 48423, 48429, 48431, 48432, 48441, 48442, 48444, 48445, 48457, 48459, 48460, 48461, 48467, 48469, 48476, 48512, 48515, 48523, 48538, 48539, 48542, 48546, 48547, 48590, 48602, 48603, 48604, 48605, 48606, 48607, 48613, 48614, 48615, 48621, 48646, 49007, 49010, 49017, 49018, 49024, 49027, 49028, 49055, 49058, 49059, 49068, 50009, 50010, 50034, 50035, 50062, 50063, 50077, 50078, 50079, 50081, 50090, 50094, 50096, 50100, 50109, 50144, 50197, 50199, 50201, 50203, 50205, 50207, 50209, 50211, 50215, 50217, 50219, 50221, 50223, 50225, 50227, 50229, 50230, 50232, 50236, 50249, 50251, 50253, 50280, 50281, 50283, 50284, 50290, 50291, 50296, 50299, 50324, 50357, 51006, 51009, 51011, 51013, 52010, 52011, 52019, 52020, 52036, 52038, 52040, 52042, 52044, 52047, 52048, 52050, 52052, 52053, 52054, 52056, 52060, 52062, 52064, 52066, 52067, 52068, 52070, 52072, 52074, 52080, 52087, 52088, 52089, 52090, 52093, 52094, 52105, 52108, 52112, 52113, 52116, 52121, 52128, 52132, 52135, 52148, 52149, 52151, 52175, 52184, 52185, 52190, 52206, 52223, 52224, 52229, 52230, 52231, 52248, 52282, 52285, 52286, 52289, 52290, 52296, 52297, 52328, 52329, 52330, 52341, 52345, 52346, 52347, 52348, 52352, 52360, 52362, 52373, 52374, 52376, 52386, 52392, 52394, 52396, 52414, 52424, 52452, 52453, 52455, 52461, 52464, 52475, 52481, 52483, 52503, 52504, 52508, 52509, 52520, 52521, 52522, 52530, 52531, 52532, 52534, 52536, 52538, 52540, 52542, 52544, 52545, 52588, 52589, 52591, 52602, 52608, 52609, 52616, 52617, 52623, 52625, 52626, 52627, 52629, 52631, 52632, 52633, 52634, 52635, 52637, 52638, 52639, 52646, 52647, 52656, 52665, 52668, 52674, 52676, 52686, 52692, 52714, 52719, 52723, 52725, 52726, 52739, 52741, 52744, 52748, 52752, 52765, 52771, 52772, 52779, 52780, 52783, 52794, 52799, 52800, 52802, 52803, 52804, 52810, 52813, 52824, 52825, 52827, 52830, 52831, 52836, 52837, 52838, 52842, 52843, 52844, 52845, 52846, 52848, 52852, 52857, 52858, 52860, 52863, 52876, 52883, 52886, 52890, 52899, 52917, 52921, 52937, 52938, 52944, 52947, 52948, 52949, 52955, 52956, 52957, 52958, 52959, 52965, 52968, 52974, 52975, 52983, 52984, 52990, 52996, 52997, 52998, 52999, 53000, 53008, 53013, 53014, 53015, 53016, 53017, 53018, 53019, 53020, 53021, 53022, 53023, 53024, 53025, 53026, 53027, 53028, 53031, 53032, 53039, 53040, 53041, 53051, 53052, 53053, 53055, 53056, 53057, 53058, 53068, 53069, 53075, 53076, 53082, 53087, 53092, 53122, 53123, 53142, 53159, 53160, 53162, 53174, 53177, 53181, 53182, 53186, 53189, 53195, 53215, 53216, 53220, 53221, 53228, 53229, 53230, 53231, 53232, 53233, 53234, 53235, 53236, 53238, 53240, 53242, 53243, 53244, 53252, 53277, 53279, 53289, 53295, 53297, 53299, 53300, 53311, 53315, 53327, 53330, 53332, 53336, 53337, 53338, 53342, 53366, 53371, 53376, 53377, 53383, 53386, 53387, 53388, 53389, 53390, 53391, 53392, 53393, 53394, 53395, 53396, 53397, 53399, 53411, 53463, 53464, 53466, 53469, 53511, 53513, 53519, 53527, 53560, 53563, 53564, 53568, 53571, 53574, 53575, 53576, 53585, 53589, 53591, 53595, 53598, 53599, 53601, 53603, 53604, 53605, 53607, 53611, 53612, 53614, 53615, 53619, 53623, 53625, 53626, 53630, 53632, 53634, 53635, 53637, 53641, 53642, 53645, 53657, 53661, 53664, 53667, 53668, 53669, 53671, 53672, 53674, 53684, 53687, 53688, 53689, 53690, 53694, 53697, 53702, 53703, 53704, 53705, 53706, 53707, 53719, 53720, 53721, 53725, 53727, 53728, 53730, 53732, 53733, 53735, 53750, 53752, 53754, 53755, 53758, 53760, 53762, 53763, 53765, 53766, 53769, 53773, 53783, 53802, 53817, 53818, 53823, 53824, 53825, 53831, 53833, 53838, 53839, 53840, 53844, 53852, 53869, 53872, 53876, 53877, 53878, 53879, 53886, 53887, 53896, 53897, 53899, 53900, 53903, 53908, 53910, 53911, 53913, 53914, 53917, 53921, 53923, 53926, 53927, 53928, 53929, 53931, 53933, 53935, 53940, 53950, 53953, 53954, 53959, 53991, 53992, 53994, 54000, 54001, 54008, 54016, 54017, 54019, 54020, 54023, 54024, 54026, 54027, 54028, 54029, 54030, 54031, 54035, 54040, 54046, 54049, 54050, 54051, 54052, 54053, 54054, 54055, 54058, 54059, 54061, 54067, 54068, 54069, 54070, 54071, 55002, 55004, 55010,

55014, 55015, 55018, 55019, 55023, 55024, 55025, 55026, 55027, 55028, 55029, 55030, 55032, 55035, 55036, 55037, 55038, 55039, 55040, 55041, 64072:
Not enough memory available for dynamic allocation.

Errors 493, 494, 495:
Dielectric/magnetic cuboid has not a right angle.

Error 499:
Two segments overlap.

Error 508:
A source is positioned in an infinite ground plane.

Error 514:
Skin effect losses are not allowed in the Fock region.

Error 523:
Too many edges in the PO/RL-GO region (MAXPOKA).

Errors 524, 525, 526, 985:
Too many edges in the PO region (MAXPOKA).

Error 527:
Two triangles must be located in the same plane and the normal vector must be identical.

Error 528:
Normal vector is not perpendicular to the edge.

Error 529:
Observation point is not on surface.

Error 543:
Two dielectric/magnetic cuboids overlap.

Error 552:
Metallic PO and dielectric are not allowed together.

Errors 558, 564, 1678, 1682, 4840, 4843, 33143, 33147, 37279, 37282, 37298, 37301:
An error has occurred while solving the matrix equation.

Error 562:
The MoM matrix is singular, no solution possible.

Error 574:
Dielectric (surface equivalence principle) and magnetic body not permitted simultaneously.

Errors 612, 613, 614, 986:
Too many wedges in the PO region (MAXPOKL).

Error 615:
Too many wedges in the PO/RL-GO region (MAXPOKL).

Error 617:
The normal vector N0 is not perpendicular to the edge.

Error 618:
Normal vector NN is not perpendicular to the edge.

Error 619:
Observation point does not lie on the wedge surface.

Error 620:
Observation point lies on the wrong side of the wedge.

Error 629:
The radius of a segment is zero.

Error 635:
Wrong type of the Green's function.

Error 636:
Material parameters of the dielectric sphere are the same as those of the free space.

Error 637:
Wrong value of GFFLAG.

Error 638:
Homogeneous sphere and magnetic cuboids are not allowed together.

Error 639:
Homogeneous sphere and PO are not allowed together.

Error 640:
Homogeneous sphere and dielectric bodies are not allowed together.

Error 642:
Homogeneous sphere and ground plane are not allowed together.

Errors 643, 1878, 1883:
Source is located inside the dielectric sphere.

Error 644:
Source is situated inside the dielectric sphere.

Error 646:
Excitation by a plane wave source is not supported with the spherical Green's function.

Error 647:
Scaling of the power is not supported with a plane wave source.

Errors 670, 749, 1508:
In the GF card a second row has to be entered for this sphere type.

Errors 671, 751, 752, 754, 1511:
The radii have to be interchanged for the layered dielectric sphere (GF card).

Error 672:
Material parameters of the dielectric sphere are the same as that of free space (layer 1).

Error 673:
Material parameters of the dielectric sphere are the same as that of free space (layer 2).

Errors 702, 703, 704, 705, 988:
Too many Fock regions (MAXFOGE).

Error 706:
Wrong type of the Fock region at the FG and/or FO card.

Error 708:
When mirroring Fock regions the label has to be incremented.

Error 709:
Wrong label in the FG card and/or FO card.

Error 724:
For a Fock cylinder the point source is located inside the cylinder.

Error 738:
For a Fock sphere the point source is located inside the sphere.

Error 740:
Wrong type of Fock region in the FG or FO card.

Error 744:
Material properties of the dielectric sphere are that of free space (layer 4).

Error 753:
In the GF card a fourth row has to be entered for this sphere type.

Errors 763, 765, 767, 1521:
Relative dielectric constant of the dielectric sphere is not allowed to be zero.

Errors 764, 766, 768, 1522:
Relative permeability constant of the dielectric sphere is not allowed to be zero.

Error 790:
Block Gauss algorithm has to be used.

Errors 799, 800, 801, 802, 992:
Too many polygonal surfaces (MAXPOLYF).

Error 803:
Too many corner points from the polygonal surfaces (MAXPOLYP).

Error 814:
Undefined distributed wire port.

Error 815:
No segments found with the correct label to apply coating.

Error 824:
The selected iterative method is only possible when the matrix is in main memory.

Error 832:
Segmentation rules have been violated (two triangles touch without a common edge).

Errors 833, 834:
Segmentation rules have been violated (invalid connection segment / triangle).

Error 835:
Segmentation rules have been violated (two segments touch without a common node).

Error 842:
An infinite ground plane and polygonal surfaces in the UTD region are not allowed simultaneously.

Error 847:
Wrong value of the ray types UTDFLAG at the UT card.

Error 849:
The number of UTD surfaces is zero.

Error 850:
Pointer for the number of corners is not set (InitGeometrie).

Errors 851, 32175:
The number of corners of a surface is less than three (InitGeometrie).

Error 854:
The specified corner points do not lie in a plane (InitGeometrie).

Errors 855, 32176:
An edge with a length of zero was found (InitGeometrie).

Error 857:
The maximum number of allowed reflections is less than zero.

Errors 859, 35061, 35062, 35063, 35064, 35065, 35066, 35069, 35070, 35071, 35072, 35073, 35074, 35075, 35076, 35077, 35078, 35079, 35080, 35081, 35082, 35083, 35084, 35085, 35086, 35087, 35088:
The section that should be checked has a null vector as direction, please verify the geometry.

Error 860:
Source and sink are located at the same position, please verify the geometry.

Errors 861, 35011:
Division by zero within the UTD, please verify the geometry.

Error 862:
A null vector for the normalisation has been provided while creating an edge, please verify the geometry.

Errors 863, 35059, 35060, 35067, 35068:
For the angle calculation one vector is a null vector, please verify the geometry.

Error 865:
Error while creating the debug file (DebugGeometry).

Error 866:
Error while closing the debug file (DebugGeometry).

Errors 867, 32177, 32178:
Error while opening the debug file (DebugStrahlen).

Errors 868, 32179, 32180:
Error while closing the debug file (DebugStrahlen).

Error 871:
Homogeneous sphere and UTD / RL-GO are not allowed together.

Error 875:
For observation points on a truncated cone, the number of points for Rho has to be 1 for a near field request.

Error 876:
Requested conical near field with zero increment along Z.

Error 877:
Invalid coordinate system for a near field request.

Error 879:
TEM Frill as excitation is not implemented for UTD/RL-GO.

Error 887:
Using GTD according to Keller.

Error 899:
Too many cuboids (MAXNQUA).

Error 900:
Different Feko versions running on master and server.

Error 975:
Master/Serverversion requires at least 2 processes.

Error 979:
The number of processes allowed has been exceeded.

Errors 987, 996:
Transformation should apply to both surfaces of a wedge.

Error 993:
With the TG card the label has to be increased.

Error 994:
The label has to be increased at the TG card.

Error 995:
The label at the TG card has to be incremented.

Errors 997, 1036:
Not enough memory available for the matrix.

Error 1016:
Error during the LU-decomposition of a block.

Error 1023:
Wrong value of the ray contribution selection for UTD.

Error 1029:
Error in writing the solution coefficients to the *.str file.

Error 1053:
Dielectric cuboids are not allowed with GFFLAG=5.

Error 1161:
No triangles/segments found with the correct label to apply the skin effect approximation.

Error 1177:
Smallest edgelength is too short (kleinsteKanLaenge).

Error 1186:
Unable to find the second diffraction point (DB3Punkte).

Error 1187:
All values of WDelta have the same sign (DB3BeugePunkte).

Error 1189:
Points are not in the same wedge area (SetzeInnenFlag).

Error 1504:
No metallic structures are allowed inside the dielectric sphere.

Error 1505:
Metallic structures in a forbidden layer.

Errors 750, 1509:
In the GF card the radii have to be interchanged.

Error 1510:
In the GF card a third row has to be entered for this sphere type.

Error 1513:
Do not specify a medium of the metallic structures for a dielectric sphere.

Error 1515:
Dielectric cuboids are not allowed with GFFLAG=6.

Errors 741, 1516:
Material properties of the dielectric sphere are that of free space (layer 1).

Errors 742, 1517:
Material properties of the dielectric sphere are that of free space (layer 2).

Errors 743, 1518:
Material properties of the dielectric sphere are that of free space (layer 3).

Errors 755, 1519:
Adjacent layers of the dielectric sphere must have different properties.

Errors 1557, 3953:
Far field computation for 3-layered sphere not possible, use near field far away.

Error 1662:
Dielectric cuboids and UTD are not allowed simultaneously.

Error 1668:
Not enough memory available for the PO coefficients.

Error 1669:
Not enough memory available for the PO array.

Error 1695:
Excitation by a magnetic dipole is not supported with the spherical Green's function.

Error 1731:
Edge of a polygonal plate is too short.

Errors 1772, 32196:
List of corners is not complete (EckeKeilSuche).

Error 1788:
Too many layers of the dielectric substrate.

Errors 1789, 34690:
Wrong number of continuation lines defining a multilayer substrate.

Error 1802:
Multilayer substrate and dielectric cuboids are not allowed together.

Error 1803:
Multilayer substrate and magnetic cuboids are not allowed together.

Error 1804:
Multilayer substrate and PO are not allowed together.

Error 1805:
Multilayer substrate and dielectric bodies are not allowed together.

Error 1806:
Multilayer substrate and extended integral kernel are not allowed together.

Error 1807:
Multilayer substrate and ground plane are not allowed together.

Error 1808:
Multilayer substrate and UTD are not allowed together.

Error 1832:
At least one layer must be used for the multilayer substrate.

Error 1875:
The *.gfe file with the interpolation table cannot be used.

Error 1888:
Wrong selection value at TG card.

Error 1909:
For the UTD the background region material must be lossless.

Errors 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 32200:
Convergence problems of the Green's function.

Error 1988:
Loss tangents of wire coating and surrounding medium must be identical.

Error 1991:
Specify a wire radius with the coating.

Error 1995:
The *.gfh file with the interpolation table cannot be used.

Error 1996:
The value of the variable #maxkanr=... is too large.

Error 2004:
Height of a cylinder is smaller than the model tolerance.

Error 2005:
Radius of cylinder is smaller than the model tolerance.

Errors 1997, 2007, 2008, 2009, 2010:
Too many cylinders in the UTD region (MAXUTDZYL).

Error 2026:
Coupling setting for MoM/PO must be identical for all PO/FO requests.

Error 2032:
Parameter for the PO/MoM coupling must be identical for all PO/FO cards.

Error 2034:
Invalid selection for MoM/PO coupling.

Error 2035:
With the FO/FG card only 0 or 1 allowed for the coupling.

Error 2100:
No UTD cylinders supported in this version of FEKO.

Error 2101:
Only one UTD cylinder is supported in this version of Feko.

Errors 2102, 3924:
Only full UTD cylinders (no sectors) are supported in this version of Feko.

Error 2103:
Points A and B are not distinct for a UTD cylinder.

Error 2104:
Points A and C are not distinct for a UTD cylinder.

Error 2105:
The angle between points A, B and C of a UTD cylinder is not ninety degrees.

Errors 2106, 2107, 2108, 2109:
The height of the end-cap is negative or zero for a UTD cylinder.

Errors 2110, 2111:
UTD cylinders with flat end-caps are currently not supported.

Errors 2112, 2113:
UTD cylinders with spherical end-caps are currently not supported.

Errors 2114, 2115:
UTD cylinders with ellipsoidal end-caps are currently not supported.

Errors 2116, 2117:
UTD cylinders with conical end-caps are currently not supported.

Errors 2118, 2119:
Invalid choice of end-cap for a UTD cylinder.

Error 2120:
The sum of the end-cap heights is larger than the distance from point A to point B for a UTD cylinder.

Errors 2150, 2151, 2152:
Source point lies inside or on the cylinder.

Error 2153:
Source point lies on or inside the cylinder.

Error 2155:
Source point lies on the end-cap.

Error 2200:
UTD polygonal plates and UTD cylinders are not allowed simultaneously in this version of Feko.

Error 2201:
Maximum number of UTD plates allowed in conjunction with UTD cylinders exceeded.

Error 2202:
Too many corner points on a UTD polygonal plate used together with a UTD cylinder.

Error 2303:
An HY card has been read, please call HYBFEKO first.

Error 2317:
For the dielectric body only the EFIE/PMCHW is allowed.

Error 2329:
PO for dielectric and metallic structures not allowed at the same time.

Error 2331:
Two triangular surface patches overlap.

Error 2341:
The environment variable FEKO_TMPDIR is too long.

Error 2345:
When setting the frequency either the end frequency or the increment may be specified, but not both.

Error 2346:
Starting frequency must not be zero for multiplicative frequency increment.

Error 2347:
When setting the frequency either the end frequency or the increment must be specified.

Error 2367:
A triangle is too large or the model tolerance is too small.

Error 2368:
A segment is too long or the model tolerance is too small.

Error 2376:
Preconditioning must be switched off.

Error 2379:
Thickness of a layer in a layered dielectric substrate is zero or negative.

Error 2380:
Relative permittivity of a layer is zero.

Error 2381:
Relative permeability of a layer is zero.

Error 2387:
Coated wires with the same label are located in different media.

Error 2388:
Invalid selection for application of a coating.

Error 2389:
Permeability of the wire coating and surrounding medium must be identical.

Error 2411:
QMR by R. Freund only permitted in the sequential version.

Error 2418:
$ 'QMR: Invalid reverse communication call of ZUQMR.

Error 2419:
$ 'QMR: Invalid inputs for ZUQMR.

Error 2421:
$ 'QMR: The last block could not be closed.

Error 2422:
$ 'QMR: An A-invariant subspace has been found.

Error 2423:
$ 'QMR: An A-transposed-invariant subspace has been found.

Error 2424:
$ 'QMR: Both subspaces have been found.

Error 2447:
Error while writing to file (out-of-core).

Error 2462:
QMR by R. Freund only permitted in the super user mode.

Error 2464:
Error while initialising the out-of-core array.

Error 2473:
Geometry transformation contradicts specification of symmetry (plane x=0 is electric/magnetic wall).

Error 2474:
Geometry transformation contradicts specification of symmetry (plane y=0 is electric/magnetic wall).

Error 2475:
Geometry transformation contradicts specification of symmetry (plane z=0 is electric/magnetic wall).

Error 2483:
Dielectric cover of wires not allowed with the multilayer substrate and different layers according to Popovic.

Error 2493:
For the substrate specify either the conductivity or the loss tangent, not both.

Error 2497:
Error during the inversion of a block.

Error 2498:
No continuation possible in debug mode 2.

Error 2502:
Error in determining the value of mpi_tag_ub.

Errors 2506, 2514:
Not enough memory for dynamic allocation.

Errors 2508, 2509, 2511, 2512:
Error while executing seek in the out-of-core file.

Error 2517:
Error during the out-of-core solution of the system of linear equations.

Error 2527:
Environment variable is too long.

Error 2530:
Error while extending the environment.

Error 2535:
A mesh element must be located within a single Green's function layer and may not intersect any ground plane defined in that layer.

This error message is given when a planar multilayer substrate (Green's functions) is used to model dielectrics, and a wire segment penetrates the different layers of the dielectric. The correct way to model the wire is to ensure that there is a vertex on the interface(s) between the different layers of the substrate.

For example, a feed pin is modelled for a microstrip antenna. Instead of drawing a line from the ground plane to the patch, a polyline can be drawn using point(s) on the interface(s) between the different layers.

Error 2558:
Size of the buffer for the matrix too small.

Error 2575:
FMM and ground not allowed.

Error 2577:
No electric/magnetic symmetry allowed with MLFMM.

Errors 2578, :
MLFMM and dielectric PO are not allowed in the same model.

Errors 2579, :
MLFMM and UTD / RL-GO are not allowed in the same model.

Error 2580:
No special Green's function such as the planar multilayer substrate may be activated with the MLFMM.

Error 2584:
Dielectric modelling: expecting a non-zero relative permittivity value.

Error 2585:
Dielectric modelling: expecting a non-zero relative permeability value.

Error 2696:
Error in comparing point coordinates, change the threshold EPSENT at the EG card.

Errors 2712, 39997, 52582:
Segmentation rules at a connection point have been violated.

Error 2715:
Invalid label for the CB card.

Error 2739:
Defining the imaginary part of the conductivity for the skin effect is obsolete, see manual.

Error 2740:
There are both triangles and segments with the label considered for the skin effect, please use different labels for triangles/segments.

Error 2743:
Use different labels for different wire radii when applying a lossy conductor approximation.

Error 2745:
Dielectric loss tangent must not be specified for a lossy conducting surface (skin effect).

Error 2746:
Relative permittivity must not be specified for a lossy conducting surface (skin effect).

Error 2747:
Surface thickness must be specified when applying a skin effect approximation.

Error 2748:
The relative permeability must be specified for the lossy conducting surface.

Error 2749:
Complex permeability of a thin dielectric sheet must be identical to the environment.

Error 2750:
The triangles of a thin dielectric sheet are not all located in the same medium.

Error 2751:
Complex permittivity for the thin dielectric sheet must be different from the environment.

Error 2753:
Error while computing Bessel functions for skin effect of a wire.

Error 2754:
The thin dielectric sheet approximation is not applicable to wires.

Errors 2760, 52769:
Error while reading the *.fek file (possibly DOS format under UNIX).

Error 2761:
Error while opening the *.out output file.

Error 2767:
A thin dielectric sheet can not be applied to metallic triangles that form the surface of a FEM dielectric body.

Error 2771:
The value of the variable #maxknonr=... is too large.

Error 2792:
An obsolete format of the *.fek file was read.

Errors 2793, 2794:
Inconsistent definition of a dielectric region (ME card).

Error 2800:
At mirroring the label is out of range.

Error 2802:
At rotation/translation the label is out of range.

Error 2803:
PO for dielectric bodies must be activated for all dielectric triangles.

Error 2804:
The PO for dielectric triangles must be activated with the PO card by using the label (and not -1).

Error 2805:
The application of Fock currents to dielectric bodies is not supported.

Error 2808:
The length of a PO-edge (KA card) is zero.

Error 2809:
The execution of a BLAS function failed.

Error 2813:
Source and observation point must be located above the bottom ground plane.

Errors 2969, :
Total field singular when source and observer coincide.

Error 3202:
Invalid specification of the box size for the PO approximation.

Error 3217:
The number of triangles per box for the PO approximation must be larger than 1 (or 0 = default).

Error 3221:
The number of PO reflections must be larger than zero.

Error 3225:
Currently multiple reflections on dielectric PO regions are not supported.

Error 3227:
Visibility information for multiple PO reflections cannot be stored in memory.

Errors 3231, 3250, 3261:
Error when reading from a temporary file.

Error 3235:
Too many triangles to construct the visibility list for multiple PO reflections.

Errors 3239, 3240:
Wrong label specification at the VS card.

Error 3247:
Invalid selection regarding saving the visibility data (*.vis file) for the PO approximation.

Error 3248:
The selection for saving visibility data (*.vis file) must be identical for all PO requests.

Error 3253:
Too many labels used in VS cards (MAXPOVS).

Error 3254:
Too many labels used in VS cards (overflow).

Error 3256:
Invalid value selection type at the VS card.

Error 3259:
Error in opening temporary file for visibility information.

Error 3262:
Error reading PO visibility information: *.vis file does not exist.

Error 3263:
Error reading PO visibility information from file.

Error 3264:
Unexpected version number in *.vis file, the file may be corrupt.

Error 3266:
The *.vis file does not match the current geometry.

Error 3281:
PO edge correction is not allowed for triangles coated with dielectric layers.

Error 3282:
PO wedge correction is not allowed for triangles coated with dielectric layers.

Error 3283:
The electrically thin surface coating with PO is too thick or losses are too high; try using the dielectric/magnetic surface coating.

Error 3284:
Multiple reflections are not allowed on thin dielectric sheets in the PO region.

Error 3285:
A triangle cannot be a coated conductor and a thin dielectric sheet at the same time.

Error 3289:
When a skin effect approximation is applied on triangles in the PO region, only the thin dielectric sheet is allowed.

Error 3290:
PO edge correction is not allowed for thin dielectric sheet surfaces.

Error 3291:
PO wedge correction is not allowed for thin dielectric sheet surfaces.

Error 3305:
Invalid selection for the shadowing option with the PO approximation.

Error 3307:
Invalid selection for the PTD option of the PO approximation.

Error 3338:
An infinite ground plane cannot be used together with a special Green's function.

Errors 3341, 3342:
Singular fields, please move the dipole slightly off the dielectric interface.

Error 3353:
Material parameters of all the planar substrate layers are identical.

Error 3356:
Error while writing a block to the out-of-core file (hard disk full?).

Errors 3357, 3358, 4759, 4760:
Error while opening a temporary out-of-core file.

Errors 3359, 32269, 32270:
Error while reading from a temporary file.

Errors 3360, :
Error creating the *.gfp file for the interpolation table.

Errors 3361, :
Error reading the interpolation table from the *.gfp file.

Errors 3362, :
Error writing the interpolation table to the *.gfp file.

Error 3371:
Strings FEKO_TMPDIR and the filename together occupy too many characters.

Errors 3258, 3372:
Strings FEKO_TMPDIR and the filename together occupy more than 255 characters.

Error 3375:
In the input file at most one SF card may be used (setting is global).

Error 3384:
Invalid specification for the type of an infinite ground plane.

Error 3388:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with a dipole source.

Error 3390:
No PO is used for a label that was specified at the KA card.

Error 3391:
No PO is used for a label that was specified at the KL card.

Error 3402:
Invalid type for a magnetic dipole.

Error 3403:
A dipole may not be positioned inside the dielectric layers of a spherical Green's function sphere.

Error 3427:
Error while reading a block from the out-of-core file (file corrupt?).

Error 3428:
Too many triangles (MAX_TRIANG_PATCHES).

Error 3429:
Too many polygonal surfaces (MAX_POLYG_PLATES).

Error 3442:
Invalid value for the element selection at the CN card.

Error 3443:
Invalid triangle number at the CN card.

Error 3444:
Invalid polygon number at the CN card.

Error 3445:
After the command line option --fek-file the filename must follow.

Error 3450:
Unknown command line option <text> is used.

Error 3461:
Specify either the conductivity or the dielectric loss tangent for coating, not both.

Errors 3462, 3463, 3464, 3465, 3466, 3467:
For the Green's function specify either the conductivity or the loss tangent, not both.

Errors 3468, 3469, 3470, 3471:
For the GF card specify either the conductivity or the loss tangent, not both.

Error 3472:
Unable to open the input file.

Error 3473:
Unable to automatically detect the format of the *"FEK_EXT_L" file (please try to re-create it with a current version of "PRESOLVER_NAME").

Error 3476:
The *"FEK_EXT_L" file is corrupt (for FTP use binary format!).

Error 3478:
Error while reading data from the *"FEK_EXT_L" file.

Error 3491:
Wrong format of the *.fek file is used.

Error 3492:
The name of the *.fek file must be specified as commandline parameter.

Error 3496:
Error in writing the right hand side to the *.rhs file.

Error 3502:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with an impressed current source.

Error 3503:
An impressed current source may not be positioned inside the dielectric layers of a spherical Green's function sphere.

Error 3509:
The length of an impressed current source is zero.

Error 3545:
Length of 4 Byte for an address is not sufficient.

Error 3551:
For a near field request at irregular points the number of observation points must be larger than zero.

Error 3552:
Invalid number of continuation lines when defining a near field request with irregular observation points.

Error 3556:
Unable to create file for field strength values.

Error 3557:
Unable to open file for field strength values.

Errors 2507, 3606:
Error in opening the out-of-core file.

Errors 2515, 2516, 3426, 3607:
Error while closing the out-of-core file.

Error 3608:
Error while deleting the out-of-core file.

Errors 2510, 3610:
Error while writing to the out-of-core file.

Error 3611:
Error while positioning in the out-of-core file.

Errors 2513, 3612:
Error while reading from the out-of-core file.

Error 3613:
Too many out-of-core files are used.

Error 3614:
Matrix is too large, one block of the out-of-core file does not fit into 2 GByte block (reduce #maxalloc or #maxnp).

Error 3615:
Error while deleting an existing out-of-core file.

Error 3632:
The ratio of the segment radius to length is too small.

Error 3656:
An impressed current source connected to a surface may only be used when there are metallic triangles in the model.

Error 3659:
A source must be located within a single Green's function layer and may not intersect any ground plane defined in that layer.

Error 3679:
The radius of an impressed current source is negative.

Error 3693:
An impressed current source connected to a surface is not supported with the spherical Green's function.

Errors 3697, 3698:
Inconsistent angles at the grid points for a far field pattern.

Errors 3707, 3709:
The angles defining a far field pattern must be specified in increasing order.

Error 3711:
Excitation by a far field point source is not supported with the spherical Green's function.

Error 3756:
S-parameter calculations are not supported for one of the active excitations.

Error 3759:
In an S-parameter configuration the label that defines a wire port should reference a single segment only.

Error 3760:
In an S-parameter configuration the label that defines a wire port segment should not be shared with a triangle.

Error 3767:
An S-parameter computation is not possible when the A7 port definition is used, please use the edge port instead.

Error 3776:
Wrong end label for PO region.

Error 3797:
PO for dielectrics can be used only with exactly two media.

Errors 3801, 3802:
Wrong medium of a triangular patch.

Error 3803:
Wrong medium of a wire segment.

Error 3846:
A near field source must be defined in a homogeneous environment.

Error 3847:
A cable/PCB source must be defined in a homogeneous environment.

Error 3848:
Wrong specification of the medium for a wire segment.

This error can occur if a wire segment is inside a dielectric but not unioned with the rest of the model.

It could also occur when the mesh of wire segments is imported and positioned inside a dielectric. In this case, the correct medium settings must be set in the details tree in CADFEKO for the wire segments.

Errors 3849, 4564, 53001:
Wrong specification of the medium for a metallic triangle.

Errors 3853, 3854:
PO is not supported for metallic triangles on the surface of a dielectric body.

Error 3855:
Invalid surface connection of mesh elements.

Error 3864:
Inconsistent specification of the media in connection with the orientation of the normal vectors at connected mesh elements.

Error 3866:
An edge port supports metallic edges only.

Error 3867:
Port definition at an edge is not supported.

Error 3883:
For this structure only PMCHW can be used.

Error 3884:
For multiple dielectric media only the PMCHW formulation can be used.

Errors 3922, 3923:
Choice of end-cap for a UTD cylinder not supported at the moment.

Errors 3927, 34686, 34687:
An infinite metallic ground plane with connected triangle or wire mesh elements must be defined consistently for all solutions.

Errors 3928, 3929, 34688, 34689:
An infinite metallic ground plane with connected mesh elements must be defined consistently for all solutions.

Error 3936:
Material parameters of a dielectric cuboid are identical to those of the surrounding medium.

Error 3959:
Invalid type defining an edge port.

Error 3971:
The length of the edge of an HA card is zero.

Error 3974:
Expecting a planar substrate definition when loading/exciting a microstrip edge port.

Error 3990:
After the command line option -e an expression ENV=value must follow.

Error 3999:
Too many labels are used.

Error 4003:
An invalid global node number was found.

Error 4009:
No degrees of freedom are associated with tetrahedra.

Errors 4013, 36716:
Invalid connection of mesh elements at FEM/MoM boundary.

Error 4018:
The selected solver is not available; using Gauss elimination.

Error 4039:
Dynamic memory allocation failed for the FEM S matrix.

Error 4043:
A tetrahedral element is too small or EPSENT is too large.

Error 4046:
A tetrahedral element is too large or EPSENT is too small.

Error 4104:
Wrong material index for tetrahedral volume element(s).

Error 4178:
The *.pcr file does not match the current solution.

Error 4331:
Error in reading the preconditioner from the *.pcr file.

Error 4334:
The licence does not allow the usage of advanced FEM preconditioners.

Error 4356:
A tetrahedral element has zero volume.

Error 4357:
Dynamic memory allocation failed for the sparse FEM matrix.

Errors 4408, 36278:
Preconditioner size exceeds 4-Byte integer storage (overflow).

Error 4423:
The volume of the SAR-cube is zero.

Error 4435:
An unconnected tetrahedral element was found.

Error 4440:
The material index may not be 0 for tetrahedra.

Errors 4441, 4444, 4517:
Tetrahedra overlap.

Error 4442:
Coincident tetrahedra were found.

Error 4443:
Boundary surfaces of the FEM region intersect.

Errors 4450, 4455, 4796:
Segmentation rules have been violated (tetrahedron is too large).

Error 4453:
Segmentation rules have been violated (a segment is inside a tetrahedron).

Error 4463:
Error in writing to the *_femv.mat temporary file.

Error 4465:
The relative name for a file is too long.

Error 4467:
Not enough memory available for the preconditioning (FEM).

Errors 4468, 4469:
Error while opening a temporary scratch file.

Error 4470:
Error in writing to a temporary scratch file.

Error 4471:
Error in reading from a temporary scratch file.

Errors 4472, 33144:
Not enough memory for MoM/FEM coupling arrays.

Errors 4475, 4476:
Not enough memory available for the FEM matrix.

Error 4494:
Error in reading the matrix elements from a *_fem.mat file.

Error 4496:
Unexpected version number in the *_fem.mat file, it might have been created with a newer Feko version.

Error 4537:
Too many non-zero entries in the sparse FEM matrix for 4-Byte integer storage (overflow), please try to reduce the size of your model.

Error 4538:
Too many non-zero entries in the sparse FEM matrix for 4-Byte integer storage (overflow), please try to reduce the size of your model or perform a parallel solution (with more processes).

Error 4550:
Inconsistency in symmetry of the FEM region.

Error 4558:
Segmentation rules have been violated (a triangle is inside a tetrahedron).

Error 4561:
Wrong specification of the media for a metallic triangle.

Error 4562:
Tetrahedral volume elements overlap.

Error 4563:
A triangular patch and a tetrahedral volume element overlap.

Errors 4571, 36390:
Lossy conducting surfaces are not supported on the boundary of the FEM region.

Error 4572:
Coating cannot be applied to metallic surfaces on the boundary of the FEM region.

Error 4576:
Inconsistency in symmetry of the FEM or VEP region.

Error 4599:
When computing SAR values for the planar Green's function, the mass density must be specified for each lossy layer.

Error 4611:
When computing SAR values for the Green's function for a sphere, the mass density must be specified for each lossy layer.

Error 4615:
Not enough memory available for the direct FEM solver.

Error 4620:
Inconsistent specification of the media at a metallic triangle on the boundary of a tetrahedron mesh.

Error 4621:
Invalid type for a waveguide port.

Error 4623:
A triangle of a waveguide port does not lie in the plane of the port.

Error 4628:
A TEM-mode does not exist in a circular waveguide.

Error 4629:
The modal indices for a TE-mode of a rectangular waveguide cannot both be zero.

Error 4630:
A modal index for a TM-mode of a rectangular waveguide cannot be zero.

Error 4631:
The radial modal index of a circular or coaxial waveguide mode must be larger than zero.

Error 4632:
The triangles for the waveguide port do not exist.

Error 4633:
Inconsistent specification of the medium for a triangle defining a waveguide port.

Error 4657:
The orientation of the normal vector of a triangle on a waveguide port is inconsistent with the direction of the port.

Error 4659:
The *.pcr file does not match the current solution (different FEM setup).

Error 4660:
Multiple excitations at a waveguide port do not have a consistent geometry specification.

Error 4663:
The impressed mode of a waveguide port is not included in the mode expansion of the port.

Error 4669:
Invalid geometry definition for a modal/waveguide port.

Error 4681:
Segmentation rules have been violated (triangle on a waveguide port is too large to represent the field distribution of the modes included in the mode expansion).

Error 4686:
A tetrahedron edge is too short or the model tolerance is too large.

Error 4687:
Connection of a tetrahedron with a PMC ground plane is not supported.

Error 4694:
Invalid mode type for a waveguide port.

Error 4720:
Error in writing to the *_femm.mat temporary file.

Error 4724:
The MoM matrix is singular, no solution possible. It is recommended to try double precision accuracy (solution settings).

Error 4726:
The MoM Matrix is singular, no solution possible. It is recommended to try double precision accuracy (solution settings).

Error 4730:
A FEM line port must be contained inside a FEM region.

Error 4732:
The length of a FEM line port is zero.

Error 4757:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with a far field point source.

Error 4758:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with a waveguide source.

Error 4782:
A FEM line port may not be short-circuited.

Error 4789:
A FEM line port is too long as compared to the wavelength.

Error 4791:
A triangle of a waveguide port is not confined within the geometrical boundary of the port.

Error 4792:
A triangle defining a waveguide port does not lie in the plane of the port.

Error 4793:
The surface area of the triangles of a waveguide port does not correspond with the waveguide port definition.

Error 4800:
A waveguide port may not be located inside or on the boundary of a FEM region.

Error 4802:
Invalid connection of a wire to a waveguide port.

Error 4803:
An invalid connection of triangular surfaces was found at a waveguide port.

Error 4804:
Connection of a tetrahedron to a waveguide port is not supported.

Error 4807:
When using the MFIE/CFIE for metallic surfaces then dielectric/magnetic cuboids are not allowed.

Error 4808:
The MFIE/CFIE cannot be applied to metallic surfaces on a dielectric interface between different media.

Error 4822:
An edge port may not be located inside a FEM region.

Error 4823:
Insufficient storage available for the sparse LU preconditioning.

Error 4835:
The application of PO/Fock currents to waveguide ports is not supported.

Error 4863:
Error in reading from a temporary file.

Error 4864:
Error in reading from the *_fem.mat file.

Error 4869:
Error in writing to *_fem.mat file.

Errors 4870, 4943:
Wrong format of the *_fem.mat file found, please delete and recreate.

Error 4871:
Problem reading the *.mat file related to single/double precision.

Errors 2425, 2426, 2427, 2428, 2432, 2433, 3222, 3223, 3230, 3267, 4580, 4581, 4929, 32028, 32271, 32272, 33153:
Error in writing to a temporary file.

Error 4971:
The normal vectors of the triangles representing a waveguide port must point in the same direction.

Error 4972:
Error in applying symmetry to an unsymmetrical waveguide port setup.

Error 4978:
Invalid aperture specification for a modal/waveguide port.

Error 4980:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with a FEM modal source.

Error 4982:
No degrees of freedom are associated with the modal port.

Error 4986:
A FEM modal port is not applied correctly.

This error could occur when using the FEM together with FEM modal port excitations, and the mesh elements to which the port is applied are not set to dielectric. For example, this error would be given when applying a FEM modal port to a PEC surface.

Error 4997:
The orientation of the normal vector of a triangle is inconsistent with the direction of the modal port.

Error 32000:
Too many media are used.

Error 32009:
The header of the *.fek file is corrupt and cannot be read.

Error 32010:
Source and observation point must be located below the top ground plane.

Errors 32021, :
Wrong format of the *.gfp file found, please delete, it will be recreated.

Error 32025:
Invalid selection for interpolation of the Green's function.

Error 32027:
A Fock cylinder of height zero is used.

Error 32057:
Non-radiating transmission line: expecting a non-zero characteristic impedance.

Errors 32062, 32063, 32064, 32065:
The sphere radius for the Green's function is zero.

Error 32086:
Admittance matrix of a non-radiating network is singular.

Error 32094:
Connection of a dielectric triangle with a UTD region is not allowed.

Error 32096:
With PO for dielectric bodies only one medium is supported.

Errors 32097, 32211:
Error while reading data from the *.fek file.

Errors 32098, 32099:
The input file is intended to be used with ADAPTFEKO, please execute RUNFEKO.

Error 32100:
A mesh element is in the plane of the ground.

Error 32131:
Near field arrays for magnetic dipole Green's functions are empty.

Error 32132:
Near field arrays for electric dipole Green's functions are empty.

Errors 32133, 32134:
Potential arrays for magnetic dipole Green's functions are empty.

Errors 32135, 32137:
The length of the edge of a cuboid is zero.

Error 32144:
Wrong number of continuation lines when defining triangles as a thin isotropic dielectric sheet.

Error 32153:
Only a single layer is allowed for the selected application of the skin effect.

Error 32154:
Wrong number of continuation lines when defining triangles as a thin anisotropic dielectric sheet.

Error 32161:
Complex permittivity for the thin dielectric sheet must be different from the environment (or some other problem with the material parameters, e.g. conductivity too high).

Error 32163:
Vector ZETA of the anisotropic thin dielectric sheet is perpendicular to a triangle, projection is zero.

Error 32164:
Error during the inversion of a matrix for the anisotropic thin dielectric sheet.

Errors 32171, 32172:
Unable to find the location of the surface (PruefeDBSWeg).

Error 32226:
Equal sign missing for the command line option -e ENV=value.

Error 32235:
Potentials cannot be computed when the UTD/RL-GO is used.

Error 32236:
Potentials can only be computed for the free space Green's function.

Error 32240:
Potentials are not available for an impressed far field point source.

Error 32247:
The potential grad(Phi) is not available for an impressed current source when a special Green's function is used.

Error 32248:
The potential grad(Phi) is not available for an impressed current source connected to a surface when a special Green's function is used.

Error 32264:
A metallic PO edge must be located in medium 0 (free space).

Error 32265:
A dielectric PO edge must be located in medium 0 (free space).

Error 32276:
PO for dielectrics cannot be used together with MoM for dielectrics.

Errors 32278, 32280:
Wrong value for CFFLAG (only 6 allowed).

Error 32288:
Not all processes are available for BLACS.

Error 32330:
Switching off interpolation tables is only possible in the superuser mode.

Errors 32353, 33234:
Error exporting the geometry to a *.nas file.

Error 32360:
Thickness of a thin dielectric sheet layer must not be zero (or a multiple of the wavelength).

Error 32364:
Invalid label for a thin dielectric sheet.

Errors 32365, 32366:
Thin dielectric sheet in connection with PO must be used consistently, i.e. switching this on and off is not possible.

Error 32369:
Invalid selection for a skin effect approximation with PO/UTD/RL-GO.

Error 32370:
Invalid selection for the skin effect (wires).

Error 32372:
A plane wave with a horizontal direction of incidence is not supported with a planar Green's function.

Error 32374:
Invalid label is used for a coating.

Errors 32375, 32376:
Dielectric coating must be used consistently, i.e. switching this on and off is not possible.

Error 32379:
The thickness of a coating layer is zero.

Error 32393:
Wrong number of continuation lines when specifying a coating.

Error 32394:
The thin dielectric sheet approximation in connection with PO must be used consistently, i.e. switching this on and off is not possible.

Error 32395:
Dielectric coating in connection with PO must be used consistently, i.e. switching this on and off is not possible.

Error 32396:
Triangles may not share a label with segments for which a wire coating will be applied.

Error 32398:
Coating cannot be used for metallic triangles that form the surface of a dielectric body.

Error 32399:
The triangles with a coating layer are not all located in the same medium.

Error 32400:
Relative permittivity must be specified for coating.

Error 32401:
Relative permeability must be specified for coating.

Error 32402:
Relative permittivity must be specified for a thin dielectric sheet.

Error 32403:
Relative permeability must be specified for a thin dielectric sheet.

Error 32404:
Cuboidal volume elements and PO on a thick coated surface or a thin dielectric sheet are not allowed simultaneously.

Error 32415:
The skin effect approximation is not supported for different metallic triangle types with the same label.

Error 32420:
Wrong label of a tetrahedral volume element.

Error 32431:
Source and diffraction point are identical, please check the geometry.

Error 32435:
Error exporting the geometry to a *.stl file.

Errors 32418, 32436, 32437, 32438, 32439:
Too many tetrahedral volume elements (MAXNTETRA).

Error 32445:
The phase constant beta is zero.

Errors 32454, 36273:
Dielectric/magnetic cuboids are not supported together with FEM.

Error 32455:
UTD / RL-GO and FEM are not allowed together.

Error 32456:
PO and FEM are not allowed together.

Error 32457:
Spherical Green's function and FEM are not allowed together.

Error 32458:
An infinite ground plane and FEM are not allowed together.

Error :
An infinite ground plane and the volume equivalence principle for tetrahedra are not allowed together.

Error 32460:
Not enough memory available for arrays for the FEM (only in-core solution supported).

Errors 32481, 49035:
Problem too large for the fast method box creation.

Error 32531:
When using dielectric bodies with the FMM these must be lossless.

Error 32532:
When using the MLFMM formulation for dielectric bodies, then the numbering of the media indices must be consecutive.

Error 32533:
Combined metallic / dielectric bodies cannot be solved yet with the FMM.

Error 32536:
Losses are too large when using dielectric bodies with the MLFMM.

Error 32544:
Dielectric surfaces and volumes are not permitted simultaneously.

Error 32675:
Periodic boundaries and dielectric cuboids are not allowed in the same model.

Error 32676:
Periodic boundaries and PO are not allowed in the same model.

Error 32677:
Periodic boundaries and UTD / RL-GO are not allowed in the same model.

Error 32678:
Periodic boundaries and VEP are not supported in the same model.

Error 32682:
Periodic boundaries and the Multi-level Fast Multipole Method are not allowed in the same model.

Error 32683:
For periodic boundaries the phase shift is determined from the plane wave excitation, therefore only a single plane wave is allowed.

Errors 32684, 32798:
The length of the periodic lattice cannot be zero.

Errors 32685, 32687:
The periodic lattice must be in the xy-plane if a BO-ground is used.

Error 32686:
The surface of the periodic lattice cannot be zero.

Error 32688:
Invalid value of periodic value PE_DIM.

Error 32696:
Feko does not currently support 3D periodic boundaries.

Error 32698:
no solution possible for this periodic phase shift.

Error 32701:
Invalid dimension for the periodic boundary condition.

Error 32702:
For periodic boundaries the user has specified the phase offset, but this phase is different to that of the plane wave excitation.

Error 32706:
The side length of the periodic lattice cannot be zero.

Error 32717:
Wrong value of parameter I1 at the FM card.

Errors 32727, 32728, 32729:
Near field points too close to the ground, please switch to the traditional near field integration scheme.

Error 32730:
A solution is not possible for this combination of frequency, periodic spacing and phase shift. &Please change one of these quantities slightly..

Error :
A solution is not possible for this combination \ of frequency, periodic spacing and phase shift. \ Please change one of these quantities slightly..

Errors 32735, 32745, 32750, 32762, 32876, 32981:
A solution is not possible for this combination of frequency, periodic spacing and phase shift. Please change one of these quantities slightly..

Error 32784:
Unsupported source type used with periodic boundaries.

Error 32795:
For periodic boundaries no geometry outside the unit cell is allowed.

Error 32801:
The label increment for symmetry must be zero when the old/new label list is specified.

Error 32802:
Only one plane of symmetry is allowed when the old/new label list is specified.

Error 32804:
Overflow detected in the spherical Neumann function.

Error 32805:
For periodic boundaries the phase shift is determined from the plane wave excitation, but there is no plane wave excitation defined.

Error 32807:
Too many far field sample points requested, please reduce the number of points.

Error 32814:
Skin effect for metallic triangles on the surface of a dielectric must be used consistently, i.e. switching this on and off is notpossible.

Errors 32825, 32826:
Apertures are not supported together with MLFMM.

Error 32833:
ACA compression cannot be used in parallel with an iterative solver.

Errors 32834, 32835:
Invalid iterative method selected.

Error 32843:
The ACA does not support this basis function.

Error 32849:
Insufficient storage available for the sparse LU preconditioner.

Error 32871:
Error while reading a temporary scratch file.

Error 32872:
For periodic boundaries the user has specified the squint angle, but this angle is different to that of the plane wave excitation.

Error 32873:
ACA and PO are not allowed in the same model.

Error 32874:
ACA and UTD / RL-GO are not allowed in the same model.

Error 32893:
Periodic boundaries and reflection coefficient ground are not allowed in the same model.

Error 32920:
Invalid label specified for higher order basis functions.

Error 32921:
Invalid order specified for higher order basis functions.

Error 32922:
Invalid accuracy setting specified for higher order basis functions.

Error 32942:
Higher order basis functions at the moment not allowed with exact skin effect on metallic triangles located at the surface of a dielectric, or with dielectric/magnetic surface coatings.

Error 32955:
Higher order basis functions are not supported with windscreen analyses.

Error 32957:
Only a single layer thin isotropic dielectric sheet allowed at the interface of a dielectric region.

Error 32963:
FEM triangles cannot be curvilinear.

Error 32975:
Curvilinear triangles are not supported with periodic boundary conditions (PBC).

Error 32978:
A solution is not possible for this combination of frequency, periodic spacing and phase shift. Please change one of these quantities slightly.

Errors 32986, 47732:
Ray tracing cannot be done when the surface impedance is specified. Please specify the layer properties and thickness.

Error 32988:
Iterative solution using FGMRES for ACA compression not supported.

Error 33042:
Corrupt header of a *.fek file has been read.

Error 33068:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with a spherical mode source.

Error 33069:
Excitation by a spherical mode source is only supported in free space (i.e. no special Green's function).

Error 33070:
Excitation by a spherical mode source is not supported with a real, infinite ground plane.

Error 33071:
Invalid propagation direction for an impressed spherical mode.

Error 33076:
In connection with UTD/RL-GO only spherical wave modes with outward propagation are allowed.

Error 33078:
The compressed index of a spherical mode must be larger than zero.

Error 33079:
Invalid spherical mode type.

Error 33080:
The traditional index n of a spherical mode must be larger than zero.

Error 33081:
The traditional index m of a spherical mode must be in the range -n..n.

Error 33100:
The maximum mode index at the far field request must not be negative.

Error 33107:
Inner conductor radius for a magnetic frill excitation is zero or was left unspecified.

Error 33108:
Outer conductor radius for a magnetic frill excitation is zero or was left unspecified.

Error 33109:
A triangle lies in the plane of a UTD region.

Errors 33110, 34775:
A triangle lies in the metallic ground plane.

Error 33111:
A segment lies in the plane of a UTD region.

Error 33112:
A segment lies in the metallic ground plane.

Error 33114:
Limits of the Feko Student Edition have been exceeded.

Errors 33118, 33649:
An empty loop over the angle of incidence at a plane wave source is not allowed.

Error 33126:
Wrong selection of USEHNFN for the FEM coupling (must be 1).

Error 33132:
Not enough memory available for an in-core solution. Out-of-core storage of the MoM matrix is not supported with the FEM.

Error 33133:
The priority value must follow after the option --priority.

Error 33134:
Invalid specification for the priority (expecting integer number).

Error 33135:
Priority must be in the range 0..4.

Error 33148:
Wrong medium of a tetrahedral volume element.

Error 33151:
No metallic triangle mesh vertex was found to connect the endpoint of an impressed current source.

Error 33181:
Invalid material parameters are used for a thin dielectric sheet, overflow.

Error 33185:
When using the MFIE/CFIE for metallic objects then symmetry is not allowed.

Errors 33208, 52187:
The *.lud file does not match the current solution, wrong preconditioning.

Error 33212:
Filename is too long.

Error 33217:
Error while evaluating the environment variable FEKO_MAXALLOCM.

Error 33222:
The *"FEK_EXT_L" file is not yet complete (please start "SOLVER_NAME" again later).

Error 33229:
Error while creating diffraction wedges, please verify the geometry.

Error 33238:
Not enough memory available on the hard disk for an out-of-core file.

Error 33240:
The mass density must be specified for each lossy medium when computing SAR values.

Errors 33247, :
MLFMM and dielectric bodies (surface equivalence method) are not allowed.

Errors 33250, 33251, 33252:
The edge length of a dielectric/magnetic cuboid is zero.

Error 33256:
Invalid selection regarding saving PO shadowing information to *.sha file.

Error 33257:
The selection for saving shadowing information (*.sha file) must be identical for all PO requests.

Errors 33259, 33267:
Error writing to the *.sha file (PO card).

Errors 33260, 33266:
Error reading from the *.sha file (PO card).

Errors 33258, 33265, 35000:
Error opening the *.sha file (PO card).

Error 33269:
The specified source power in the power settings must not be negative or zero.

Error 33270:
A triangle edge is too short or the model tolerance is too large.

EPSENT is the maximum identical distance in Feko - it is a distance value used to decide whether two vertices in the mesh fall together or not. The default value is 1e-6 metres, but the value is adjusted according to the model unit. For example, when working in mm, EPSENT will be 1e-9 metres.

The error refers to a problem in the mesh. Often the fault originates in the geometry; for example, an extremely narrow face meshed into triangles will cause this error. The best solution is to look up the triangle number in the OUT file and then use the Find tool in POSTFEKO to see where in the model this is located. Ideally, the geometry should be fixed to avoid meshing into these small elements.

Alternatively, try to fix the mesh using the mesh tools in CADFEKO (after unlinking the mesh), such as merge coincident vertices.

Error 33272:
The scaling factor at the SF card is zero.

Error 33282:
A source is not allowed inside a FEM region.

Error 33288:
When FEM is used, then the medium index in the MoM region must be zero (no dielectrics allowed in the MoM region).

Errors 33294, 33299:
Wrong definition of the geometry in connection with the medium indices.

Error 33303:
An unsupported connection between two metallic plates in different media was found.

The complete error message in the OUT file reads:

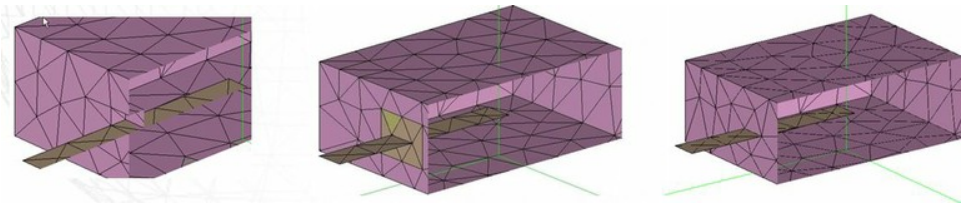
A connection between the following metallic triangles has been found, which is not allowed: Triangle 4 with media 1 and 1 (type 0) Triangle 92 with media 0 and 0 (type 0) Introduce metallic plate on dielectric surface as solution ERROR 33303: An unsupported connection of two metallic plates in different media was found.

This error message is given when a metallic strip directly penetrates a boundary between different media (dielectrics), and the model is solved with the FEM.

In the left image, we introduce a 'step' in the dielectric where the metallic triangles have dielectric below them and free space above them.

In the middle image, we introduce a few metallic triangles around the edge on the surface of the boundary.

On the right, we see the unsupported connection where metallic triangles are penetrating a dielectric cuboid directly.



Errors 33357, 33377:
Invalid usage of a range for labels/media (base string must be identical).

Errors 33362, 33364:
Error opening the *.pcr file (preconditioner).

Error 33363:
Error writing to the *.pcr file (preconditioner).

Error 33365:
Error reading from the *.pcr file (preconditioner).

Error 33366:
Outdated version of the *.pcr file which is no longer supported, please delete.

Error 33367:
New version of the *.pcr file found which cannot be processed by this version of Feko.

Error 33370:
Wrong type (dielectric/magnetic) of a cuboidal volume element.

Error 33371:
Wrong medium of a cuboidal volume element.

Error 33372:
Wrong label of a cuboidal volume element.

Error 33381:
Error during the *.sph file export.

Error 33384:
Invalid label is used at the CF card.

Error 33385:
When using the MFIE/CFIE for metallic objects then a special Green's function is not allowed.

Error 33387:
When using the MFIE/CFIE for metallic objects then PO is not allowed.

Error 33388:
When using the MFIE/CFIE for metallic objects then UTD/RL-GO is not allowed.

Error 33392:
Using the MFIE/CFIE is only possible for perfectly conducting surfaces, losses or coatings are not supported.

Error 33393:
Error in applying unsymmetrical loads/coatings for symmetrical wire segments.

Error 33394:
Error in applying unsymmetrical loads/coatings for symmetrical triangles.

Error 33396:
Error in applying unsymmetrical edge loads to symmetrical triangles.

Error 33397:
Symmetrical edge loads have unsymmetrical load values.

Error 33398:
Error in applying unsymmetrical PO settings for symmetrical triangles.

Error 33404:
Metallic triangles on the FEM surface must not be used when the MoM/FEM is decoupled.

Error 33433:
Missing buffer zone for the FEM region when decoupling MoM and FEM.

Error 33436:
The EFIE must be used for coated surfaces.

Error 33437:
The EFIE must be used for lossy surfaces and thin dielectric sheets.

Error 33438:
No metallic triangles found with the correct label to apply coating.

Error 33445:
Too many near field matrix elements are used (overflow), please try to reduce the size of your model.

Error 33446:
Too many elements in the Fourier transform (overflow), please try to reduce the size of your model.

Errors 33453, 34743:
Planar Green's function interpolation point outside bounding box.

Error 33456:
Invalid connection between MoM and FEM dielectric regions.

Error 33457:
Inconsistent normal vector specification used on an CFIE/MFIE/thick coating body.

Error 33462:
A dielectric body (FEM) does not have a closed surface. Results will be wrong if the fields at the opening are not zero.

Error 33472:
Error in SPAI preconditioner during least squares solve.

Error 33476:
An invalid label is used for a waveguide port.

Error 33478:
A waveguide port excitation must be defined consistently for all solutions.

Error 33479:
Waveguide ports and UTD are not allowed simultaneously.

Errors 33481, :
Waveguide ports and MLFMM not allowed simultaneously.

Error 33482:
Waveguide ports are not allowed in connection with cuboidal volume elements.

Error 33483:
Triangles at a waveguide port must be defined as perfectly conducting (no losses, no coatings etc.).

Error 33484:
The EFIE must be used at waveguide ports.

Error 33497:
The preconditioner matrix is too large (overflow), please try to reduce the size of your preconditioner.

Error 33498:
Maximum number of iterations reached without convergence.

This error message is encountered when using an iterative technique such as the MLFMM, FEM/MoM or FEM. It means the iterative solver failed to converge to a solution (the error in the solution is too large to compute reliable results).

See the How-Tos in the Feko User Guide for timps on how to improve convergence for the iterative solvers in Feko.

Error 33499:
Unexpected singularity (might indicate error in the model).

Error 33508:
Error opening the *.str file for writing.

Error 33509:
Error writing to the *.str file.

Error 33511:
Error opening the *.str file for reading.

Error 33518:
A diagonal element of the impedance matrix is zero.

Error 33520:
Invalid material properties for adjacent layers of a layered dielectric substrate.

Errors 33557, :
Cannot use a *.fmi file for parallel versions of Feko.

Error 33560:
In connection with PO only spherical wave modes with outward propagation are allowed.

Error 33564:
Waveguide ports and a special Green's function are not allowed simultaneously.

Error 33646:
An empty loop is used over the specified frequency setting.

Error 33661:
Using UTD / RL-GO and cable modelling together is not supported.

Error 33662:
Using a special Green's function and cable modelling together is not supported.

Error 33676:
RL-GO and metallic UTD cannot be used together.

Error 33685:
Error while writing the host list to file.

Error 33714:
An infinite ground plane and RL-GO are not allowed simultaneously.

Error 33717:
MoM wires must lie in free space when using the MoM/RL-GO hybrid method.

Error 33718:
Dielectric MoM triangles are not supported and metallic MoM triangles must lie in free space when using the MoM/RL-GO hybrid method.

Error 33719:
RL-GO has been requested, but no RL-GO triangles were found.

Error 33724:
An RL-GO triangle must be confined to the uppermost layer of of the planar Green's function definition.

Errors 33748, 33762:
RL-GO requested, but no feasible triangles found. Please check model.

Error 33757:
An obsolete format of the *"FEK_EXT_L" file was read.

Errors 33758, 33759:
An unknown format of the *"FEK_EXT_L" file was read, unable to process it (please try to re-create it with a current version of "PRESOLVER_NAME").

Error 33760:
Unsupported triangle type for RL-GO.

Error 33782:
Only additive frequency increment allowed for ARES-EMC.

Error 33783:
Only a single cable path is allowed for ARES-EMC.

Error 33784:
Error setting file pointer to start of XML file.

Error 33785:
Error opening the XML file.

Error 33788:
Only one continuous frequency range allowed for ARES-EMC.

Error 33794:
Only single anisotropic layer allowed with RL-GO.

Error 33795:
Reference direction of the anisotropic thin dielectric sheet is perpendicular to the surface, projection is zero.

Error 33837:
Port name exceeds maximum supported length of CHR file specification.

Error 33847:
Error while writing to the data output file.

Error 33852:
RL-GO/UTD radiating sources must be defined in the background free space region.

Error 33853:
Unsupported value for the data export format found in environment (allowed: "DA_EXPORT_FORMAT_ALLOWED_VALUES_STR").

Error 33854:
The format version value must follow after the option --data-export-format.

Error 33855:
Invalid specification for the data export format (expecting integer number).

Error 33856:
Unsupported value for the data export format (allowed: "DA_EXPORT_FORMAT_ALLOWED_VALUES_STR").

Error 33868:
Environment variable MKL_BLACS_MPI not set.

Error 34030:
The pattern from the previous far field point source must be used, but such a pattern was never defined.

Error 34036:
An ideal receiving antenna described by the last defined impressed far field pattern was requested, but such a pattern was never defined.

Error 34037:
The number of angles in the Theta and Phi directions defining a far field pattern must be larger than one.

Error 34056:
Reading a solution from a *.str file not possible (please recreate this file).

Error 34062:
Reading PO shadowing information from a *.sha file not possible (please recreate this file).

Errors 34071, 34072:
Invalid number of continuation lines when specifying a list of labels to define an edge port.

Error 34090:
Error while writing to the output file.

Error 34176:
Expecting a load to be attached to a non-radiating network port and not to a geometry port.

Error 34179:
Multiple sources defined at the same port are not allowed.

Error 34218:
Error during the cascading of two S-parameter networks.

Error 34223:
Non-radiating general network: expecting a non-zero reference impedance when parsing S-parameter network data.

Error 34225:
The matrix is singular, no solution possible.

Error 34228:
An edge port on the boundary of a CFIE/MFIE region is not supported.

Error 34235:
Expecting a non-zero network name index.

Error 34262:
Non-radiating transmission line: invalid number of continuation lines when specifying a list of labels to define an edge port.

Error 34309:
A wire port is not allowed at a node between segments that are defined in different material regions.

Error 34310:
In an S-parameter configuration the segment label and start/end point that defines a wire port should reference a single node/connection point.

Error 34311:
In an S-parameter configuration the label that defines a segment connected to a wire port vertex should not be shared with a triangle.

Error 34320:
Expecting a source to be attached to a non-radiating network port and not to a geometry port.

Error 34345:
Geometry transformation contradicts the symmetry specification (plane x=0 is electric/magnetic wall).

Error 34346:
Geometry transformation contradicts the symmetry specification (plane y=0 is electric/magnetic wall).

Error 34347:
Geometry transformation contradicts the symmetry specification (plane z=0 is electric/magnetic wall).

Error 34357:
A metallic triangle in a homogeneous region connected to a dielectric triangle requires at least a third triangle connection.

Error 34369:
The length of a transmission line cannot be calculated from position.

Error 34372:
Unsupported non-radiating network port type.

Errors 34394, 34395:
Dielectric surfaces not allowed to coincide with an interface of a multi-layer substrate.

Error 34401:
An S-parameter request was made, but no source has been defined.

Error 34407:
Connection of metallic/dielectric PO triangles in different media not supported.

Error 34411:
Unable to create a file for exporting near field data in the format used by SEMCAD.

Error 34429:
Homogeneous sphere together with other Green's functions not supported.

Error 34456:
RL-GO / UTD and windscreen reference plane triangles cannot share the same label.

Error 34457:
Invalid label is used specifying a windscreen reference.

Error 34458:
Wrong end label at a windscreen reference specification.

Error 34459:
Invalid label is used specifying a windscreen antenna.

Error 34460:
Wrong end label at a windscreen antenna specification.

Error 34461:
Windscreen modelling and dielectric cuboids are not allowed in the same model.

Error 34462:
Windscreen modelling and PO are not allowed in the same model.

Error 34463:
Windscreen modelling and UTD / RL-GO are not allowed in the same model.

Error 34464:
Windscreen modelling and VEP tetrahedra are not allowed in the same model.

Error 34466:
Windscreen modelling and the Multi-level Fast Multipole Method are not allowed in the same model.

Errors 34470, 34471:
Windscreen antenna and reference plane geometry cannot share the same label.

Error 34472:
Insufficient windscreen information - reference plane specification missing.

Error 34473:
Insufficient windscreen information - glass specification missing.

Error 34476:
Too many windscreen glass definitions (MAXWDNAMES).

Errors 34479, 34480:
Different windscreen antennas/reference planes not allowed to share the same label.

Error 34486:
Windscreen modelling and periodic boundaries are not allowed in the same model.

Errors 34487, 48412:
Periodic boundaries and windscreen modelling are not allowed in the same model.

Error 34491:
Excitation by a spherical mode source is not supported with windscreen antenna modelling.

Error 34492:
No reference plane was found for the windscreen antenna.

Error 34493:
Windscreen antenna segments should be tangential to the reference surface - please check geometry; try using finer reference plane mesh.

Errors 34494, 34495:
Windscreen antenna geometry not located at specified offset from reference - please check geometry; try using finer reference plane mesh.

Error 34496:
Windscreen antenna triangles should be tangential to the reference surface - please check geometry; try using finer reference plane mesh.

Error 34499:
Wrong orientation of the normal vector in connection with windscreen reference triangles.

Error 34576:
Excitation by a waveguide source is not supported in connection with windscreen antenna modelling.

Error 34578:
Excitation by a FEM modal source is not supported in connection with windscreen antenna modelling.

Errors 34595, 34596:
All elements describing a specific windscreen antenna must be located in the same medium.

Error 34597:
Windscreen antenna geometry must be metallic in a homogeneous medium.

Error 34619:
An S-parameter request was made, but no active source has been defined.

Error 34673:
The active excitation is not supported in S-parameter calculations.

Errors 34692, 34694:
A PEC and PMC ground plane cannot be defined at the same z-value.

Error 34716:
Invalid ground plane type specified in connection with the planar Green's function. PEC/PMC expected.

Error 34718:
Aperture triangles in a free-space region not supported.

Error 34719:
Wrong specification of the medium for an aperture triangle.

Error 34720:
An aperture triangle does not have an edge.

Error 34721:
An aperture triangle must coincide within a planar Green's function PEC ground plane.

Errors 34726, 36272:
Apertures with MoM are not supported together with FEM.

Errors 34727, 48323:
Periodic boundaries and apertures are not allowed in the same model.

Error 34730:
Windscreen modelling and aperture triangles are not allowed in the same model.

Error 34748:
Magnetic dipole and Green's function for sphere/substrate not possible.

Error 34773:
Connection of a junction of triangles with a PMC ground plane is not supported.

Error 34776:
Connection of a dielectric triangle with a PMC ground plane is not supported.

Error 34781:
Non-radiating general network: Unsupported data format.

Error 34789:
Error while closing a SPICE netlist file.

Error 34808:
Error while opening a SPICE netlist file.

Error 34817:
Error while opening a SPICE results file.

Error 34822:
A windscreen reference plane should be defined by a single sheet of triangles and not have more than two triangles connected at an edge.

Error 34823:
A windscreen reference plane should be defined by a single sheet of connected triangles.

Error 34907:
Invalid method when defining a dielectric model.

Error 34908:
Invalid method when defining a magnetic/metallic/surface impedance model.

Error 34927:
A layered dielectric should consist of at least one layer.

Errors 34928, 34952, 52619:
Too many layers when creating a layered dielectric.

Error 34929:
Wrong number of continuation lines when creating a layered dielectric.

Error 34930:
Wrong format used at dielectric/magnetic coating specification.

Error 34935:
Wrong format used for the skin effect.

Error 34936:
Number of coating layers must be larger than zero.

Error 34937:
Too many coating layers.

Error 34938:
Only a single layer coating is allowed with the MoM.

Error 34939:
Anisotropic surface coatings are not supported.

Error 34940:
Number of layers for the thin dielectric sheet or lossy conducting surface must be larger than zero.

Error 34941:
Too many layers at a thin dielectric sheet or lossy conducting surface.

Error 34942:
Isotropic dielectric sheet expected.

Error 34943:
Anisotropic dielectric sheet expected.

Error 34944:
Relative permeability and magnetic loss tangent should remain constant between the layers in a thin isotropic dielectric sheet.

Error 34945:
Relative permeability and magnetic loss tangent should remain constant between the layers in a thin anisotropic dielectric sheet.

Error 34948:
Unknown format defining windscreen dielectric layers.

Error 34950:
Wrong number of continuation lines when defining windscreen dielectric layers.

Error 34951:
Windscreen glass should consist of at least one layer.

Error 34967:
Specify points (interpolation): expecting x-values to be listed in increasing order.

Error 34968:
Dielectric modelling: specify either the electric conductivity or the dielectric loss tangent, not both.

Error 34969:
Dielectric modelling: expecting an attenuation factor in the range [0, 1).

Error 34971:
Havriliak-Negami: expecting a phase factor of larger than zero.

Error 34972:
Djordjevic-Sarkar: expecting the upper limit of angular frequency to be larger than the lower limit.

Error 34976:
A ribbon cable should consist of at least two wires.

Error 34978:
Ribbon cable wire separation should be larger than the sum of the core radius and insulation thickness.

Error 34981:
Braided shield: Invalid weave angle used, range=(0 degrees..90 degrees).

Error 35001:
Error finding the file-position indicator within the *.sha file (PO card).

Error 35002:
Error setting file-position indicator within the *.sha file (PO card).

Error 35003:
Layer of the substrate too thick or losses too high (exponent overflow).

Error 35004:
Error closing the out-of-core files.

Errors 35006, 35008:
The angles defining a far field pattern must be in the range theta = [0..180] degrees and phi = [0..360] degrees.

Error 35010:
Three consecutive points lie on the surface of a wedge, please change the geometry or excitation slightly to avoid this situation.

Errors 35012, 35013, 35014, 35015, 35016, 35017, 35018, 35019, 35020, 35021, 35022, 35023, 35024, 35025, 35026, 35027, 35028, 35029, 35030, 35031, 35032, 35033, 35034, 35035, 35036, 35037, 35038, 35039, 35040, 35041, 35042, 35043, 35044, 35045, 35046, 35047, 35048, 35049, 35050, 35051, 35052, 35053, 35054, 35055, 35056, 35089:
A null vector for the normalisation has been provided, please verify the geometry.

Errors 35090, 35091, 37600, 39900:
Error while closing a file.

Error 35124:
The complete geometry is not symmetrical while using electric or magnetic symmetry.

Error 35135:
The complete geometry must be symmetrical when electric or magnetic symmetry is applied.

Errors 35166, 35185:
Error during the calculation of the GPU based LU-decomposition.

Errors 35382, 39981, 39982:
A CFIE/MFIE/thick coating body does not have a closed surface.

Error 35386:
Invalid number of continuation lines when defining a label selective current/charges request.

Error 35387:
Invalid number of continuation lines when defining a label selective error estimation request.

Error 35391:
Invalid number of continuation lines when defining a label selective field calculation.

Error 35395:
Wrong number of continuation lines when defining the list of frequencies.

Error 35421:
The format version value must follow after the option --bof-format.

Error 35422:
Invalid specification for the bof file format (expecting integer number).

Error 35423:
Invalid value for '--bof-format': This version of Feko can only create *.bof file formats in the range 99 ... <number>.

Error 35431:
Unexpected state of multiple configurations for the FDTD solver.

Error 35439:
Out-of-core solution not allowed for the Feko Student Edition.

Error 36024:
Segments inside tetrahedra are not supported.

Error 36084:
Using a *.lud file to read the LU decomposition is not supported with PO.

Errors 36098, 36099, 36100, 36103:
Too many modes included at a circular waveguide port.

Errors 36101, 36104, 36105, 36106:
Too many modes included at a coaxial waveguide port.

Errors 36136, 36269:
Calculation of the eigensolution for a modal port failed.

Error 36143:
The observation point is not on a modal port.

Error 36171:
The modal port for the excitation does not exist.

Error 36194:
A modal port is only supported on the outer boundary of a FEM region.

Error 36195:
Modal ports can only be used on the boundary of a FEM region.

Errors 36189, 36196:
No valid mode expansion found for a modal port.

Error 36198:
Invalid FEM modal source specification. Undefined port.

Errors 36207, 36208, 36209, 36210, 36213, 36214, 36215, 36216:
An error occurred while solving the modal port eigensystem.

Error 36233:
Invalid model for a modal port.

Error 36238:
Single precision is not supported for a parallel direct sparse solution with FEM.

Error 36380:
A FEM dielectric region may not touch an infinite PEC ground plane along an edge only.

Errors 32808, 36385, 53070, 53071:
Invalid label for a lossy conducting surface.

Error 36387:
Imperfectly conducting surfaces in the FEM (thin dielectric sheet/skin effect/impedance sheet) must be used consistently, i.e. switching to perfectly conducting is not allowed in the same run.

Error 36391:
An invalid medium is used for a waveguide port.

Error 36393:
Incomplete specification of a waveguide port on the surface of a dielectric.

Error 36394:
Incorrect specification of a waveguide port on the surface of a dielectric.

Error 36396:
Inconsistent specification of the direction of a waveguide port on the surface of a dielectric.

Error 36397:
Unsupported triangle type for waveguide port.

Errors 36399, 36400:
A dielectric/magnetic surface coating cannot be used for metallic surfaces in the FEM region.

Error 36401:
An invalid label is used for a coating layer.

Error 36402:
Coated conducting surfaces in the FEM must be used consistently, i.e. switching to perfectly conducting is not allowed in the same run.

Errors 36407, 36408:
The direct sparse solver is not supported for the FEM together with the MLFMM.

Error 36418:
The selected preconditioner is not supported for the FEM together with the standard MoM, nor for a decoupled FEM solution.

Errors 36427, 36428:
A thin anisotropic dielectric sheet cannot be applied to metallic surfaces in the FEM region.

Error 36431:
Unable to create file for export of generalised scattering matrix for waveguide ports.

Errors 36434, 36771:
Preconditioner matrix exceeds 4-Byte integer limit (overflow).

Error 36436:
Incomplete LU-decomposition encountered a zero pivot.

Error 36451:
A diagonal element of the system matrix is zero.

Errors 36462, 36497:
The LU factorisation for the preconditioner is not stable, no solution possible. It is recommended to try double precision accuracy (solution settings).

Errors 36463, 36498:
The LU factorisation for the preconditioner is not stable, no solution possible. It is recommended to try the direct sparse solver (solution settings - FEM).

Error 36500:
A dielectric region treated with the MoM volume equivalence principle may not touch an infinite ground plane.

Error 36501:
A modal port cannot be applied to a dielectric region treated with the MoM volume equivalence principle.

Errors 36536, 36537, 36544:
PO cannot be used together with MoM volume equivalence principle with tetrahedral elements.

Error 36547:
The LU factorisation for the preconditioner is not stable, no solution possible.

Error 36549:
Solution methods FEM and VEP for dielectric regions are not supported in the same model.

Error 36553:
Large element PO not supported in connection with volume equivalence principle.

Error 36567:
The medium properties contradict the type of tetrahedron for the volume equivalence principle. Change the tetrahedron type.

Error 36571:
Multilayer substrate and dielectric bodies (VEP) are not allowed together.

Error 36587:
When using the MFIE/CFIE for metallic surfaces then dielectric/magnetic MoM volume regions are not allowed.

Error 36596:
Dielectric/magnetic cuboids are not supported together with tetrahedra.

Error 36597:
Dielectric/magnetic bodies with MoM surface equivalence principle are not supported together with MoM volume equivalence principle bodies.

Error 36598:
Apertures are not supported together with MoM volume equivalence principle for tetrahedra.

Error 36599:
UTD / RL-GO and MoM volume equivalence principle for tetrahedra are not allowed together.

Error 36600:
PO and MoM volume equivalence principle for tetrahedra are not allowed together.

Error 36601:
Special Green's function and MoM volume equivalence principle for tetrahedra are not allowed together.

Error 36609:
A mesh element may not be located in the ground.

Error 36621:
Contradiction in the specification of connected mesh elements on the boundary of a tetrahedron mesh.

Error 36626:
Too many parallel processes for the FEM modal port eigenanalysis.

Error 36628:
The triangles of a metal surface are not all located in the same medium.

Error 36640:
Inconsistency in symmetry of triangular elements.

Error 36689:
Unable to create a file for exporting near field data in the format used by SPARK3D.

Error 36774:
Error in opening temporary out-of-core files for the sparse LU factorisation.

Error 36775:
Error in accessing out-of-core data of the sparse LU factorisation.

Error 36776:
Not enough memory available for out-of-core sparse LU factorisation.

Error 36777:
Error while evaluating the environment variable MKL_PARDISO_OOC_MAX_CORE_SIZE.

Error 36781:
Low frequency stabilisation of the FEM is not supported with a line current source.

Error 36782:
Incompatible combination of FEM storage and low frequency stabilisation formulation.

Errors 36783, 36784:
Invalid selection for low frequency stabilisation of the MoM.

Error 36790:
Low frequency stabilisation of the FEM is not supported for higher order elements (FEM solution settings).

Errors 36794, 36795:
Low frequency stabilisation of the FEM is not supported with modal ports.

Errors 36798, 36799:
Voxel elements are not supported.

Error 36814:
Frequency independent dielectric model based on dielectric loss tangent is not supported for a broadband time domain analysis. Specify conductivity instead.

Error 36816:
FDTD is not supported together with the MoM.

Error 36817:
FDTD is not supported together with the FEM.

Error 36818:
UTD / RL-GO and FDTD are not supported together.

Error 36819:
PO and FDTD are not supported together.

Error 36820:
Special Green's function and FDTD are not supported together.

Error 36821:
An infinite ground plane is not supported with the FDTD.

Error 36822:
The Domain Green's Function Method is not supported for FDTD models.

Error 36823:
Finite array analysis is not supported for FDTD models.

Error 36824:
Application of symmetry is not supported for voxel elements (FDTD).

Error 36825:
Geometry transformation is not supported for voxel elements (FDTD).

Error 36826:
Incorrect application of periodic boundary conditions to an FDTD model.

Errors 36828, 36829:
Characteristic mode analysis is not supported for FDTD solutions.

Errors 36841, 36842, 36843:
A voxel dimension is too small or the mesh tolerance is too large.

Error 36845:
Wave admittance of a waveguide source impressed mode is zero.

Error 36856:
Invalid solver setting for FEM coupling.

Errors 36861, 36862:
The MoM excitation contradicts the specified symmetry.

Error 37000:
When using negative label increments then the resulting final label must be positive.

Error 37122:
The number of threads must follow after the option --num-threads.

Error 37123:
Invalid specification for the number of threads (expecting integer number).

Error 37147:
Too many DD-cards (MAXDDNAMES).

Error 37149:
Too many different domain decomposition names specified (MAXDDNAMES).

Error 37151:
Saving and/or reading the NGF to/from a *.ngf file is not supported for any technique other than the NGF. Computation will be enforced.

Error 37153:
Too many labels with domain decomposition (MAXDDLAB).

Error 37154:
Wrong number of continuation lines at the DD card.

Error 37160:
Invalid number of continuation lines defining impressed spherical modes.

Error 37169:
No electric/magnetic symmetry allowed with NGF.

Error 37170:
Invalid specification for the number of domains used with the NGF.

Errors 37179, 37180:
An error has occurred while factoring the static interaction matrix.

Error 37181:
The static interaction matrix is singular, no solution possible. It is recommended to try double precision accuracy (solution settings).

Error 37182:
The static interaction matrix is singular, no solution possible.

Errors 37193, 37194:
An error has occurred while factoring the dynamic interaction matrix.

Error 37195:
The dynamic interaction matrix is singular, no solution possible. It is recommended to try double precision accuracy (solution settings).

Error 37196:
The dynamic interaction matrix is singular, no solution possible.

Error 37208:
The static domain differs from that previously used.

Error 37256:
A static sub-domain is required when the Numerical Green's Function method is used.

Error 37259:
The NGF solution and PO are not allowed in the same model.

Error 37260:
The NGF solution and UTD / RL-GO are not allowed in the same model.

Error 37274:
Invalid number of continuation lines when specifying a plane wave source.

Errors 37186, 37201, 37202, 37293:
An error has occurred while solving the matrix equation with the NGF.

Error 37307:
Not enough memory available for an in-core solution. Out-of-core storage of the MoM matrix is not supported with the Numerical Green's Function solution method.

Error 37308:
The specified blocking size used for the parallel NGF solver is not supported. Increase the size of the static interaction matrix, or use the sequential NGF solver instead.

Error 37330:
The Numerical Green's Function and the Multi-level Fast Multipole Method are not allowed in the same model.

Error 37344:
Unsupported finite array analysis technique.

Error 37345:
Unsupported finite array geometry type.

Error 37347:
Invalid number of continuation lines when specifying a finite array.

Error 37351:
Using the DGFM solution in connection with FEM models is not supported.

Error 37352:
The DGFM solution and PO are not allowed in the same model.

Error 37353:
The DGFM solution and UTD / RL-GO are not allowed in the same model.

Error 37354:
The DGFM solution is currently not allowed for the geometry.

Error 37355:
The DGFM is not supported in connection with low frequency stabilisation.

Error 37356:
The DGFM and the Multi-level Fast Multipole Method are not allowed in the same model.

Error 37357:
ACA compression is not supported in connection with the DGFM.

Error 37358:
The Numerical Green's Function is not supported in connection with the DGFM.

Error 37359:
No electric/magnetic symmetry allowed with DGFM.

Error 37360:
The DGFM solution is currently not supported when using the spherical Green's function.

Error 37361:
Only one finite array analysis is currently supported in Feko.

Error 37368:
Unsupported source type used to construct a finite array.

Error 37370:
Periodic boundary conditions are not allowed in connection with finite array analysis.

Error 37374:
S-parameter calculation is currently not allowed for the domain Green's function method.

Error 37377:
Excitation by a dipole is not supported with the DGFM.

Error 37386:
Interconnected domains are not yet supported for the Domain Green's Function Method.

Error 37389:
The DGFM is only supported when solving the linear equation system in main memory.

Error 37403:
The *.lud/*.mat file does not match the current solution.

Error 37406:
Finite array analysis is not supported when there are non-radiating networks used in the model.

Error 37408:
Finite array analysis is not allowed when cable modelling is used in the model.

Error 37413:
Invalid value requested for the number of characteristic modes to be calculated with the CMA.

Error 37426:
Characteristic mode analysis is not yet supported for parallel Feko runs using LAPACK.

Error 37427:
Characteristic mode analysis in connection with FEM models is not supported.

Error 37428:
Characteristic mode analysis and PO are not allowed in the same model.

Error 37429:
Characteristic mode analysis and UTD are not allowed in the same model.

Error 37430:
Characteristic mode analysis is currently not allowed for the geometry.

Error 37431:
Characteristic mode analysis is not supported in connection with low frequency stabilisation.

Error 37432:
Characteristic mode analysis and the Multi-level Fast Multipole Method are not allowed in the same model.

Error 37433:
ACA compression is not supported in connection with characteristic mode analysis.

Error 37434:
The Numerical Green's Function is not supported in connection with characteristic mode analysis.

Error 37441:
Characteristic mode analysis is not allowed when cable modelling is used in the model.

Error 37476:
Characteristic Mode Analysis is not supported in connection with the DGFM.

Error 37490:
The Domain Green's Function Method is not supported in connection with characteristic mode analysis.

Error 37494:
Unsupported load type used to construct a finite array.

Errors 37503, 37504, 37505, 37506, 37507, 37508, 37509, 37510, 37511, 37512, 37513, 37514:
Additional geometry is not allowed after the finite array geometry has been created.

Error 37515:
A positive non-zero magnitude scaling factor is required for the element excitation when using the domain Green's function method.

Error 37516:
Characteristic mode analysis cannot be used when the number of MoM basis functions is zero.

Error 37520:
Characteristic mode analysis in combination with shielding applied to a thin isotropic dielectric sheet or dielectric/magnetic coating is not supported.

Error 37524:
Invalid label used to define a finite array vertex port.

Error 37558:
Characteristic mode analysis is not allowed in connection with waveguide ports.

Error 37580:
If a plane wave is used to excite the DGFM then it should also be the only source in the configuration.

Error 37583:
Not enough memory available for an in-core solution. Out-of-core storage of the MoM matrix is not supported with characteristic mode analysis.

Error 37587:
Fast array analysis using the DGFM is not supported in models with VEP dielectric regions or aperture triangles.

Error 37589:
The characteristic mode far field power could not be calculated.

Error 37590:
The characteristic modes that were calculated are all non-radiating.

Error 37597:
Only lossless media are currently supported for characteristic mode analysis used in connection with the volume or surface equivalence principle.

Error 37598:
Only homogeneous media are currently supported for characteristic mode analysis used in connection with the volume equivalence principle.

Errors 37599, 37624, 39896:
Error while opening a file.

Error 37601:
Error while writing the header information to a file.

Error 37605:
Unexpected version number in the file, it might have been created with a newer Feko version.

Errors 37607, 37610:
Error while writing the matrix to a file.

Errors 37613, 37620, 37622, 46104:
Error while reading the matrix from a file.

Error 37633:
No sources have been defined for the finite array geometry.

Error 37634:
No geometry is associated with the finite array elements.

Error 38013:
Invalid value for PO large element selection flag.

Error 38014:
Segmentation rules have been violated (PO triangle is too large for large element PO with near field request).

Error 38022:
Large element PO not supported in a MoM/PO hybrid framework.

Error 38023:
Large element PO only supported with a single excitation '! '(e.g. plane wave, impressed far field point source).

Error 38024:
Large element PO not supported for dielectric PO triangles.

Error 38025:
Large element PO not supported for TDS or coatings (triangles must be PEC).

Error 38026:
Large element PO not supported in connection with multiple PO reflections.

Error 38027:
Large element PO not supported in connection with PO edge correction terms.

Error 38028:
Large element PO not supported in connection with PO wedge correction terms.

Error 38035:
Large element PO not supported in a MoM/PO hybrid framework with coupling of PO and MoM active. Switch coupling off.

Error 38042:
The option --num-threads is not supported for this version of Feko (platform does not support OpenMP threading).

Errors 38070, 52743, 52745:
Cable shield definition: expecting a continuation line when parsing frequency dependent shield properties.

Error 38079:
Coaxial cable: undefined definition type.

Error 38080:
Ribbon: undefined definition type.

Error 38081:
Coaxial cable: expecting at least one core insulating layer.

Error 38082:
Coaxial cable: expecting a continuation line when parsing core insulating layers.

Errors 38083, 39627:
Cable bundle: expecting at least one cable to be contained in a bundle.

Error 38093:
Specify coaxial cable characteristics: expecting a non-zero characteristic impedance.

Error 38094:
Specify coaxial cable characteristics: expecting a non-zero propagation constant.

Error 38097:
Ribbon: expecting at least two cores.

Error 38099:
Ribbon: expecting a core spacing of at least twice the core plus insulating layer radius.

Error 38136:
Cable bundle: a cable may not be contained recursively within itself.

Error 38137:
A harness circuit component should not be shorted out.

Errors 38139, 38178:
Cable height above ground is too small; touching the ground plane.

Error 38140:
Analytic solution of the per-unit-length parameters of a single conductor above ground only possible if no insulation around the conductor.

Error 38146:
Invalid value defining a new or additional cable path section.

Error 38148:
The number of cable section node points must be larger than one.

Errors 38153, 39630:
Inconsistent coaxial cable properties between different user-defined cable sections.

Error 38157:
Continuation line expected when parsing cable path section definitions.

Error 38165:
Two cable path sections are connected at the same start/end connector label, but the specified connector coordinates are different.

Error 38166:
Inconsistent cable cross section definitions used between two cable path sections joined at a straight connector connection.

Error 38169:
Cable path section: expecting non-zero path length.

Error 38176:
Approximate analytic solution of a mixed cable possible only when the bundle consists of single conductor cables.

Error 38177:
A cable is positioned such that its cross section exceeds the defined bundle boundary.

Error 38179:
Wires are too closely spaced to use wide-separation approximations.

Error 38180:
The wide-separation approximation requires that there is no insulation around the single conductor wires.

Error 38181:
Error while computing Bessel functions (transfer impedance Schelkunoff computation).

Errors 38207, 39607:
Cable cross section: an undefined cross section definition was referenced.

Error 38208:
Cable shield: an undefined shield was referenced.

Error 38213:
Solid shield: expecting a non-zero thickness.

Error 38223:
A cable path section may not terminate on itself to form a closed loop.

Error 38227:
A mesh element may not coincide with a planar Green's function PEC/PMC ground plane.

Error 38238:
Incorrect definition of a microstrip edge port.

Error 38260:
A cable cross section extends beyond its bundle boundary.

Error 38261:
Cable cross sections that are grouped in the same bundle should not overlap.

Error 38270:
Unsupported request for the analytical computation of per-unit-length parameters of a cable cross section.

Error 38287:
Multiconductor transmission line theory requires that a cable path be defined within 0.2 wavelengths from a conducting surface.

Error 38302:
No conducting surface/wire was found near the end point of a cable path section.

Error 38303:
A combined MoM/MTL cable end point connected directly to geometry should also coincide with the vertex of a metallic triangle/segment.

Error 38306:
The insulation thickness around a ribbon core must be larger than zero.

Errors 38314, 38315:
A cable that is solved with the combined MoM/MTL method has an influence on the geometry setup and thus its path may not be (re-)moved between different configurations.

Error 38318:
The combined MoM/MTL (shielded) solution method is not supported for this configuration: expecting the outermost signal to be either shielded/single conductor.

Error 38335:
A cable load/source/interconnect connection can only be used to terminate or join cable paths.

Error 38353:
Multiple cable sources defined at the same connector pin combination are not allowed.

Error 38355:
A voltage source may not be used to excite a harness with irradiating request.

Error 38386:
A distributed cable source must be defined in a homogeneous environment.

Error 38389:
Cable end point not allowed to coincide with a metallic triangle/segment/PEC ground plane.

Error 38486:
Low frequency stabilisation and apertures are not allowed in the same model.

Error 38487:
Low frequency stabilisation and PO are not allowed in the same model.

Error 38488:
Low frequency stabilisation and UTD/RL-GO are not allowed in the same model.

Error 38490:
Low frequency stabilisation and dielectric bodies (SEP) are not allowed in the same model.

Error 38491:
Low frequency stabilisation and FEM are not allowed in the same model.

Error 38492:
Low frequency stabilisation and periodic boundaries are not allowed in the same model.

Error 38493:
Low frequency stabilisation and the Multi-level Fast Multipole Method are not allowed in the same model.

Error 38495:
Low frequency stabilisation and waveguide ports are not allowed in the same model.

Error 38496:
Low frequency stabilisation in combination with the spherical Green's function is currently not supported.

Error 38498:
Low frequency stabilisation in combination with shielding applied to a thin isotropic dielectric sheet or dielectric/magnetic coating is not supported.

Error 38518:
Low frequency stabilisation and a microstrip excitation/load/non-radiating network port connection are not allowed in the same model.

Error 38522:
Low frequency stabilisation only supported when solving the linear equation system in main memory.

Errors 38523, 38524:
Metallic connections to different ground planes are not allowed when activating low frequency stabilisation.

Errors 38542, 39591:
Cable shield insulation layer: expecting a dielectric material definition.

Error 38545:
Djordjevic-Sarkar: expecting both lower and upper limits of angular frequency to be larger than zero.

Error 38546:
Dielectric modelling: expecting a relative static permittivity.

Error 38549:
Dielectric modelling: expecting a relative high frequency permittivity.

Error 38551:
Djordjevic-Sarkar: expecting a relative high frequency permittivity.

Error 38553:
Dielectric modelling: expecting a relaxation frequency of larger than zero.

Error 38555:
Metallic modelling: expecting a non-zero electric conductivity value.

Error 38557:
Metallic modelling: expecting a non-zero relative permeability value.

Error 38573:
Twisted pair: expecting a core spacing of at least twice the core plus insulating layer radius.

Error 38574:
Non-conducting element: undefined definition type.

Error 38590:
Twisted pair: undefined definition type.

Error 38593:
Braided shield: Number of carriers defining the weave pattern should be larger than zero.

Error 38594:
Braided shield: Number of filaments in each carrier should be larger than zero.

Error 38595:
Braided shield: Filament diameter should be larger than zero.

Error 38606:
Twist parameters: expecting either a left/right turn direction.

Error 38607:
Twist parameters: expecting a non-zero pitch length.

Error 38608:
Twist parameters: twist may only be applied to a bounded cross section.

Error 38624:
Invalid value defining a SPICE probe.

Error 38628:
A probe applied to a non-radiating SPICE network can monitor either current or voltage, but not both.

Error 38637:
A cable path should start and end in different connectors.

Error 38639:
More than one cable path section share the same name.

Error 38654:
Undefined SPICE probe placement type.

Error 38678:
No effective excitation exists for a cable harness with radiation request (add voltage source).

Error 38691:
Inconsistent cable solution method settings used between paths in the same cable harness.

Error 38692:
Inconsistent cable coupling request settings used between paths in the same cable harness.

Error 38722:
Cable path section: expecting all path segments to be embedded in the same material region.

Error 38726:
Error during the inversion of a cable circuit transformation matrix.

Error 38746:
Monitoring of a voltage/current within a general network is only permitted when the network data is loaded from a SPICE *.cir file.

Errors 38768, 38769, 38770, 53156, 53158:
Continuation line expected when parsing cable interconnect/termination network definitions.

Error 38771:
Unknown cable interconnect pin-to-pin connection type.

Error 38772:
The voltage across a short connection is zero and cannot be monitored.

Error 38775:
Invalid value defining a cable interconnect/termination network.

Error 38776:
A probe applied to a cable interconnect/termination SPICE network can monitor either current or voltage, but not both.

Error 38779:
Invalid cable series source definition. Missing load/parallel source/interconnect connection point to which this source can be added in series.

Error 38780:
Invalid cable series source definition. Missing cable path section to which this source can be added in series.

Error 38781:
A straight connector connection can only be used to join cable path sections.

Error 38782:
At a straight connector connection the number of pins on each of the ajoining cable path sections must be the same.

Error 38793:
Expecting at least one cable interconnect/termination pin-to-pin connection.

Error 38799:
Cable path sections joined by a straight connector connection must physically meet at the same node coordinates.

Error 38801:
A minimum of two pin connections are required using a cable interconnect/termination SPICE circuit.

Error 38802:
At least two connectors are required to describe a cable interconnect straight connector connection.

Error 38804:
A cable source should not be shorted out by a cable load/interconnect connection at DC.

Error 38807:
Combined MoM/MTL: A load/source/interconnect may not be added between two cable shield/return signals in the MoM part of the solution.

Error 38808:
Combined MoM/MTL: A circuit element must be used to terminate a cable path when used in the MoM part of the solution.

Error 38828:
Error while closing a SPICE results file.

Error 38853:
Invalid syntax at homogeneous Green's function specification.

Error 38854:
Invalid syntax used at spherical Green's function specification.

Error 38855:
Invalid syntax at spherical Green's function specification.

Error 38856:
Invalid syntax used at the spherical Green's function.

Error 38857:
Invalid syntax for the spherical Green's function specification.

Error 38877:
Cable connector pin out of range.

Error 38878:
Expecting two adjacent triangles at a junction to share a region medium. Please check the mesh for consistency in the triangle normals/media.

Error 38903:
PO cannot be used together with MoM planar Green's function aperture triangles.

Error 38925:
Stand-alone circuit elements (not connected to any cable harness) are not allowed.

Error 38927:
The highest pin number used in a connection at a straight connector connection may not exceed that of the cable path it is connected to.

Error 38929:
Cable series source definition not allowed at a straight connector connection.

Error 38930:
Combined MoM/MTL: Cable paths must be physically joined at the same node coordinates.

Error 38947:
A cable cross section with conducting boundary is too close to/extends beyond its conducting bundle boundary.

Error 38948:
Cable cross sections with conducting boundaries are too closely spaced/overlap.

Error 39028:
Continuation line expected when parsing cable signal details.

Error 39029:
Too many cable path section names (MAXCSNAMES).

Error 39030:
The signals within a cable path section must be uniquely named.

Error 39038:
The pins defining a cable connector must be uniquely named.

Errors 39039, 39159:
Continuation line expected when parsing cable connector details.

Error 39040:
Too many cable connector names (MAXKCNAMES).

Error 39046:
The number of signals defining a cable path section should match the number of conductors in the cross section definition applied to this path.

Error 39047:
A cable signal should be connected to at most two connector pins.

Error 39048:
A signal should should not start and terminate at the same cable connector.

Error 39049:
The ratio of the cable radius to length is too large.

Errors 39058, 39059:
Triangular mesh around connection points not fine enough to utilise low frequency stabilisation for MoM.

Error 39063:
Two cable path sections overlap. Cable paths should be split into non-overlapping sections.

Error 39066:
Two cable path sections partially overlap. Cable paths should be split into non-overlapping sections.

Error 39067:
Invalid value used when specifying the sampling point density for a combined MoM/MTL cable path.

Error 39068:
Invalid value used when specifying the sampling point density for a cable path section.

Error 39078:
Cable path section: expecting at least one signal to be associated with the path.

Error 39111:
Combined MoM/MTL: Expecting source devices to be confined under a one port network definition when used in the MoM part of the solution.

Error 39138:
Invalid specification of an infinite ground plane: geometry not allowed below the plane surface.

Error 39139:
The setup of multiple ground planes has changed. Please rerun using a newer version of PREFEKO (*.fek format 136 or higher).

Errors 39140, 39141:
Invalid configuration of ground planes - open dielectric SEP region.

Error 39142:
Multiple PEC/PMC ground planes are not allowed in the same configuration.

Error 39154:
Circuit connections between differently named harnesses are not allowed.

Error 39155:
Too many cable signal names (MAXKSNAMES).

Errors 32815, 39185:
Skin effect for metallic triangles on the surface of a dielectric must be used consistently, i.e. switching this on and off is not possible.

Error 39193:
Potentials are not available for a plane wave source.

Error 39203:
Problem too large.

Error 39236:
Unsupported type for modelling a receiving antenna.

Errors 39237, 39238:
Invalid axis definition for a Cartesian near field aperture.

Error 39239:
Invalid axis definition for a spherical near field aperture, expecting distances S1--S2 and S1--S3 to be equal.

Error 39240:
When sampling a near field aperture, it is expected that at least one sample point be defined along each axis.

Error 39241:
When sampling a near field aperture, also sampling along edges, it is expected that at least two sample points are defined along each axis.

Errors 39254, 39255, 39259, 53966:
Invalid number of continuation lines defining a near field aperture.

Error 39258:
Invalid number of continuation lines defining a far field pattern.

Errors 39260, 53043:
Invalid number of continuation lines when specifying a near field aperture.

Errors 34465, 39267:
Windscreen modelling and layered dielectrics are not allowed in the same model.

Error 39282:
Expecting all near field aperture samples to be defined in a homogeneous environment.

Error 39283:
A receiving antenna may only be described by spherical modes with an outward propagation direction.

Errors 39052, 39293:
The maximum solution frequency is zero.

Error 39294:
Curvilinear triangles are not supported with windscreen analyses, except when defining the windscreen reference plane.

Error 39295:
Curvilinear triangles are not supported with the planar Green's function.

Error 39296:
Curvilinear triangles are not supported with low frequency stabilisation.

Error 39298:
Curvilinear triangles and fully coupled PO are not allowed together.

Error 39304:
Error while closing an exported SPICE MTL circuit file.

Error 39305:
Error while opening an exported SPICE MTL circuit file.

Error 39308:
Braided shield: the filling factor should be less than one. Please check the shield parameters.

Error 39318:
The DGFM solution is not supported for windscreen modelling.

Error 39319:
Windscreen analysis and FDTD are not supported together.

Error 39324:
Low frequency stabilisation is not supported when using the MFIE/CFIE for metallic objects.

Error 39390:
Reflection coefficient ground plane material not defined.

Error 39391:
Reflection coefficient ground plane: expecting a dielectric/metallic material definition.

Error 39392:
Dielectric region: expecting a dielectric material definition.

Error 39393:
Dielectric region material not defined.

Error 39394:
Skin effect approximation: expecting a metallic material definition.

Error 39395:
Skin effect approximation: metallic material not defined.

Error 39396:
Isotropic dielectric sheet: expecting a dielectric material definition.

Error 39397:
Isotropic dielectric sheet material not defined.

Error 39398:
Anisotropic dielectric sheet: expecting a dielectric material definition.

Error 39399:
Anisotropic dielectric sheet material not defined.

Error 39400:
Surface impedance: expecting a surface impedance material definition.

Error 39401:
Surface impedance material not defined.

Error 39402:
Wire coating: expecting a dielectric material definition.

Error 39403:
Wire coating: dielectric material not defined.

Error 39404:
Electrically thin surface coating: expecting a dielectric material definition.

Error 39405:
Dielectric/magnetic surface coating: expecting a dielectric material definition.

Error 39406:
Surface coating: dielectric material not defined.

Error 39418:
Windscreen layers: expecting a dielectric material definition.

Error 39419:
Windscreen layers: dielectric material not defined.

Error 39420:
Only a single layer dielectric sheet is allowed for shielding.

Error 39430:
Non-radiating transmission line: invalid method for defining the background material of a transmission line.

Error 39434:
Non-radiating transmission line: velocity of propagation should be specified as a percentage in the range (0, 100].

Error 39438:
Geometry intersects with a cable cross section.

Error 39451:
The modal input power could not be calculated.

Error 39453:
Cable core: metallic material not defined.

Error 39455:
Cable insulation/embedding: dielectric material not defined.

Error 39460:
Static material parameters: use dielectric loss tangent rather than conductivity to specify losses for a cable insulating material.

Error 39465:
Layered dielectric sphere: expecting a dielectric material definition.

Error 39466:
Layered dielectric sphere: dielectric material not defined.

Error 39468:
Planar multilayer substrate: expecting a dielectric material definition.

Error 39469:
Planar multilayer substrate: dielectric material not defined.

Error 39473:
Spherical modes coefficients cannot be calculated due to the model extents requiring too many far field sample points.

Error 39475:
Invalid arguments for Wigner 3j symbol.

Error 39480:
Wigner 3j: Too large a prime number required.

Error 39489:
A cable path should be defined above a conducting surface.

Error 39495:
Move radiating/receiving structures further apart to avoid being in the cut-off region.

Error 39507:
Not enough memory for the far field summation of Huygens sources.

Error 39514:
All triangles connected to an edge port must have one of the edge port specified labels.

Error 39517:
For an edge port it is expected that all edges be defined in the same homogeneous material region.

Error 39518:
An edge port may not be defined on the surface of a dielectric body.

Error 39519:
Excitation by a voltage source at a non-radiating network port is not supported with the FDTD solver.

Error 39522:
Excitation by a voltage source at an edge port is not supported with the FDTD solver.

Error 39524:
Excitation by a TEM-frill at a wire port segment is not supported with the FDTD solver.

Error 39525:
Excitation by a voltage source at a wire port vertex is not supported with the FDTD solver.

Error 39526:
Excitation by a voltage source at a wire port segment is not supported with the FDTD solver.

Error 39528:
Source: expecting a dielectric material definition.

Error 39529:
Source: dielectric material not defined.

Error 39547:
Specify points (interpolation): expecting frequency values larger than DC.

Error 39552:
Define properties (interpolation): expecting frequency values larger than DC.

Error 39568:
Cable bundle: expecting a continuation line when parsing cables contained in a bundle.

Error 39586:
Define properties: expecting a non-zero thickness.

Error 39592:
Cable shield insulation layer: dielectric material not defined.

Error 39594:
Braided shield: expecting a metallic material definition.

Error 39595:
Braided shield: metallic material not defined.

Errors 39597, 39598:
Shield braid-fixing: expecting a dielectric material definition.

Errors 39599, 39600:
Shield braid-fixing: dielectric material not defined.

Error 39610:
Cable cross section: an undefined shield was referenced.

Error 39622:
Predefined coaxial cable definition: invalid index.

Error 39623:
Predefined coaxial cable: invalid index.

Error 39624:
Cable cross section shape: expecting non-zero dimensions.

Error 39663:
Coaxial cable: expecting a non-zero thickness insulating layer.

Error 39664:
A cable cross section layer should be fully embedded within its immediate outer boundary layer.

Error 39693:
A cable end point should be defined within 0.2 wavelengths of a metallic triangle/segment/PEC ground plane. Please use a finer mesh around such cable end points.

Error 39696:
Too many cable signal names grouped together (MAXCCPINS).

Errors 39454, 39728:
Cable insulation/embedding: expecting a dielectric material definition.

Errors 39452, 39729:
Cable core: expecting a metallic material definition.

Error 39788:
Specify coaxial cable characteristics: a travelling wave solution exists only for a series resistance per unit length parameter with value greater or equal to zero.

Error 39789:
Specify coaxial cable characteristics: a travelling wave solution exist only for a shunt conductance per unit length parameter with value greater or equal to zero.

Error 39790:
Specify coaxial cable characteristics: a travelling wave solution exist only for a series inductance per unit length parameter with value greater than zero.

Error 39791:
Specify coaxial cable characteristics: a travelling wave solution exist only for a shunt capacitance per unit length parameter with value greater than zero.

Error 39844:
PSPICE returned with an error (see possible *.log/*.out files).

Errors 34787, 39838, 39845, 39853, 52378:
Execution of SPICE failed.

Error 39915:
Invalid specification of the reference direction of a thin anisotropic dielectric sheet or a characterised surface.

Error 39916:
The complex permittivity of a thin dielectric sheet should differ from that of its environment.

Error 39920:
Dielectric modelling: specify either the magnetic conductivity or the magnetic loss tangent, not both.

Error 39928:
The current through an open connection is zero and cannot be monitored.

Error 39929:
Environment variable FEKO_WHICH_SPICE_ENGINE has been set to an invalid value.

Errors 39931, 39935:
Error opening temporary SPICE stdout file.

Error 39932:
Auto-detection of SPICE engine failed.

Error 39945:
Environment variable FEKO_RELAX_CABLE_LOAD_RESTRICTIONS has been set to an invalid value.

Error 39952:
Lower index out of bounds for n-based array.

Error 39969:
Invalid characteristic impedance and/or complex propagation constant. The parameter set should support a transmission line travelling wave solution.

Errors 39977, 39986:
A SEP body does not have a closed surface.

Error 39987:
Complex multi-region CFIE/MFIE/thick coating body. A consistent normal vector direction cannot be resolved.

Error 39994:
A CFIE/MFIE/thick coating body does not have a closed surface (SEP triangles).

Errors 40149, 40150, 40151, 40152:
The Student Edition of Feko does not support cable modelling.

Errors 40159, 40275:
An error occurred in the ARPACK eigensolver.

Error 40160:
Too many parallel processes for parallel ARPACK eigenanalysis.

Errors 40161, 53037:
An error occurred while initialising the eigensolver.

Error 40169:
The number of GPUs specified must be a valid integer.

Error 40170:
The specification of a specific GPU to use was invalid.

Error 40171:
A GPU with too high an index was specified using the --use-gpu option.

Error 40172:
A GPU should only be specified once when using the --use-gpu option.

Error 40173:
The number of GPUs specified and the number of specific devices specified must agree (--use-gpu).

Errors 40185, 40186, 40187:
Error while setting up the GPU-based eigensolver.

Errors 40188, 40189:
Error in the GPU eigensolver.

Error 40232:
A CUBLAS error occurred (<number>).

Error 40233:
A CUDA runtime error occurred (<number>).

Error 40238:
Only frequency independent material properties are supported with the FDTD solver.

Error 40249:
Specification of boundary conditions is only allowed with the FDTD solver.

Error 40250:
The FDTD solver must be enabled for a time domain plane wave source.

Error 40251:
Invalid time signal reference for an FDTD source.

Error 40262:
A time configuration requires the use of the FDTD solver.

Error 40263:
The specification of the number of samples in a time signal definition is not supported.

Error 40264:
The FDTD solver must be enabled for an FDTD source.

Error 40268:
Either a time or frequency domain configuration must be specified for a wideband solver.

Errors 40277, 40278, 40280, 40285:
An error occurred while solving the real eigensystem.

Error 40291:
The FDTD solver must be enabled for an FDTD load to be used.

Error 40387:
Invalid port direction specified.

Errors 40388, 40389:
Invalid direction specified.

Error 40392:
Voxel ports are only allowed with the FDTD solver.

Errors 40394, 40395:
The GPU implementation for the selected time signal is not available.

Error 40397:
Invalid FDTD source specification. Undefined port.

Error 40400:
An unrecoverable error occurred during the FDTD GPU update.

Error 40419:
Invalid load specification. Only one value may be specified for a discrete load.

Error 40423:
Invalid load specification. An imaginary impedance may not be specified for the load.

Error 40424:
Invalid load specification. Discrete and complex values used together.

Error 40426:
Either a time domain or frequency domain configuration must be specified for the FDTD solver.

Error 40427:
No valid frequency domain parameters were specified.

Error 40428:
The automatic signal could not be constructed from the information provided. The maximum frequency is zero.

Error 40429:
PEC boundaries and time domain far field calculations are not supported for the FDTD.

Error 40465:
The Courant factor must be between 0.0 and 1.0.

Error 40467:
The geometry extends into the scattered field region. Increase the size of the computational domain.

Error 40469:
Invalid FDTD solution setting specification.

Error 40476:
Invalid port specification.

Error 40479:
The port is specified outside the FDTD domain.

Error 40480:
The wire is specified outside the FDTD domain.

Error 40482:
Invalid voxel port definition.

Error 40483:
The bounding box of a voxel wire may only be 1-dimensional.

Error 40484:
S-Parameters can only be calculated for FDTD ports of the same type.

Error 40493:
A short-circuit or reactive load may not be used on the same port as a voltage source.

Error 40502:
An error occurred during the GPU-based FDTD time iterations.

Error 40503:
Insufficient GPU resources for FDTD computation. Adjusting the CUDA_CACHE_MAXSIZE environment variable may prevent this error.

Error 40504:
Error during GPU-based FDTD solution.

Error 40519:
The number of air cells for a boundary must be positive.

Errors 40557, 45173:
An error occurred while calculating a signal's waveform.

Error 40617:
Total area of PO/LE-PO triangles is too small for the high frequency PO approximation to be valid. Please use MoM instead.

Error 40641:
The minimum time interval for the time domain simulation cannot be negative.

Error 40680:
Faceted UTD does not support curvilinear triangles.

Error 40708:
Specified RL-GO ray limits are not supported..

Error 41568:
Invalid voxel specification.

Error 41569:
Invalid voxel vertex specification.

Error 45048:
Only perpendicular closed boundary conditions are supported for FDTD far field calculations.

Errors 45050, 45051, 45052, 45054, 48278, 48279:
Invalid orientation for an FDTD load element.

Error 45053:
Invalid orientation for an FDTD voltage source.

Error 45055:
Invalid orientation for a diode.

Error 45114:
Only electric and magnetic near fields are currently supported with FDTD.

Error 45116:
Error reading the voxel grid information.

Error 45133:
The FDTD solution has not been calculated.

Error 45142:
The total time interval for the time domain simulation cannot be negative.

Error 45145:
Invalid boundary type specification for an FDTD model.

Error 45146:
Invalid boundary face specification.

Error 45148:
Negative boundary specifications are not supported.

Errors 45156, 45157:
Invalid voxel face specification.

Errors 45158, 45159:
Invalid voxel wire specification.

Error 45162:
Invalid port dimension.

Error 45164:
A frequency domain source with a non-zero phase is only supported at a single frequency by the FDTD solver.

Error 45166:
Error reading the port information. Too few points specified.

Error 45171:
Invalid boundary specification.

Error 45174:
An error occurred while calculating a signal's Fourier transform.

Error 45183:
The FDTD domain is too small in the x-direction to support the total field/scattered field formulation.

Error 45184:
The FDTD domain is too small in the y-direction to support the total field/scattered field formulation.

Error 45185:
The FDTD domain is too small in the z-direction to support the total field/scattered field formulation.

Error 45190:
Invalid load specification. Undefined port.

Error 45191:
Invalid load specification. Invalid load type.

Error 45197:
An open-circuit load is not supported on a voxel port.

Error 45303:
Only far field and electric and magnetic nearfield requests aresupported..

Error 45369:
Reflected rays are not supported for plane wave sources with UTD.

Error :
Reflected plus one wedge rays are not supported for plane wave sources with UTD.

Error 45399:
An impressed point source laying exactly on the geometry surface is not allowed with UTD.

Error 45454:
Plane wave source is not supported with faceted UTD.

Error 45465:
An infinite ground plane and faceted UTD are not allowed simultaneously.

Error 45473:
Lossy metallic surfaces are not supported with faceted UTD.

Error 45474:
Thin dielectric sheets are not supported with faceted UTD.

Error 45475:
Anisotropic thin dielectric sheets are not supported with faceted UTD.

Error 45476:
Surface impedance sheets are not supported with faceted UTD.

Error 45477:
Coated PEC surfaces are not supported with faceted UTD.

Error 45478:
Coated wire segments in a model also using faceted UTD are not supported when using the same label for both regions; please use separate labels for the coated wires and the faceted UTD surface.

Error 45508:
PO and faceted UTD are not allowed simultaneously.

Error 45509:
Waveguide ports and faceted UTD (coupled) are not allowed simultaneously.

Errors 844, 45510:
Dielectric and metallic UTD are not allowed simultaneously.

Errors 45511, 51003:
Number of UTD ray interactions cannot be negative.

Error 45527:
A MoM basis function radiating into a UTD region cannot lay exactly on the UTD geometry surface.

Errors 45530, 47874:
Error while broadcasting rays for ray export.

Error 45531:
Error while exporting rays to .ray file.

Error 45532:
Error while exporting rays to .bof file.

Error 45536:
An invalid ray export mode is used at a UT card.

Error 45537:
Error while openning the ray file *.ray for the UTD/RL-GO.

Error 45538:
Error while closing the ray file for UTD/RL-GO.

Error 46005:
The time signal type is not supported.

Error 46016:
Signal must have a finite non-zero duration to use DFT.

Error 46026:
Illegal port geometry.

Error 46029:
Two ports overlap.

Error 46037:
Mesh information missing for a port.

Error 46039:
A port must be attached to metal, a PEC boundary, or another port.

Error 46046:
Port dimension is zero in the direction of polarity.

Errors 46068, 46069:
Could not start auxiliary thread.

Error 46070:
Could not initialize MPI for thread usage.

Error 46071:
Failing because MPI initialization would not allow general multi-threading.

Errors 46072, 46073:
Interpolation grids have not been set up.

Errors 46074, 46075:
Error finding spectral range.

Errors 46077, 46078:
Error finding spatial range.

Error 46091:
Error while writing the *.lud matrix to a file.

Error 46093:
Error while reading the *.lud matrix from a file.

Error 46094:
Error in reading the matrix elements from a missing or empty file.

Error 46096:
Error while writing header information to a *.mat, *.lud or *.ngf file.

Error 46107:
Error while deleting a file.

Error 46110:
Error while writing the *.ngf matrix to a file.

Error 46111:
Error while reading the *.ngf matrix from a file.

Error 46112:
Error while writing header information to a *.ngf file.

Errors 40577, 40598, 46065, 46164:
The mesh is too small for this many processes.

Error 46173:
Too many processes requested for the problem size..

Errors 46210, 46211, 53437, 53440:
ZGESVD failed.

Errors 46212, 46213:
CGESVD failed.

Errors 46214, 46215, 46216, 46217, 46222, 46223, 46224, 46225:
ZGEQRF failed.

Errors 46218, 46219, 46220, 46221, 46226, 46227, 46228, 46229:
ZUNMQR failed.

Error 46230:
Permute vector overrun.

Error 46231:
Already found a block here.

Error 46249:
Periodic boundaries and curvilinear segments are not allowed in the same model.

Error 46265:
Just find SVD and exit .

Errors 37604, 46098, 46115, 46274:
Error while reading the header information from a file.

Error 46287:
Error while writing header information to a *.acm file.

Error 47004:
Array of Huygens sources is too large for RL-GO; increase angular/spatial increment.

Error 47011:
Number of nodes in KD-Tree is too large.

Error 47020:
Ray launching spatial increment in U direction is too small for RL-GO.

Error 47021:
Ray launching spatial increment in V direction is too small for RL-GO.

Error 47022:
Ray launching angular increment in Theta direction is too small for RL-GO.

Error 47023:
Ray launching angular increment in Phi direction is too small for RL-GO.

Error 47042:
Wrong number of continuation lines at a UT card.

Errors 47043, 47044:
Face absorption index for RL-GO must be set between 0 and 3.

Error 47052:
Convergence accuracy label for RL-GO must be set to default when spatial/angular increments are defined.

Error 47091:
Absorbing face properties are not symmetrical for RL-GO symmetrical faces.

Error 47105:
Source not supported by RL-GO/UTD.

Error 47126:
Source not present in the asymptotic source list.

Error 47127:
The allowed number of vertex in a triangle is three or six.

Error 47138:
PO and UTD are not allowed simultaneously.

Error 47139:
PO and RL-GO are not allowed simultaneously.

Error 47166:
An incorrect triangle was detected on a curvilinear mesh. A finer mesh that more accurately represents the geometry could resolve the problem.

Error 47170:
Lossy metallic sheet, surface impedance, thin dielectric sheet or coating has too large losses or is too thick for PO/UTD/RL-GO.

Error 47179:
MoM triangles cannot be in contact with RL-GO triangles.

Error 47180:
MoM segments cannot be in contact with RL-GO triangles.

Errors 47181, :
Computation of the near field of a Hertzian dipole not possible at the dipole location.

Error 47220:
Coated wire segments in a model also using RL-GO are not supported when using the same label for both regions; please use separate labels for the coated wires and the RL-GO surface.

Error 47222:
Lossy metallic surfaces are not supported with RL-GO.

Error 47224:
Lossy metallic surfaces are not supported with PO.

Error 47225:
Lossy metallic surfaces are not supported with LE-PO.

Error 47226:
Thin dielectric sheets are not supported with LE-PO.

Error 47227:
Only single layered anisotropic thin dielectric sheet is allowed with RL-GO.

Error 47228:
Anisotropic thin dielectric sheets are not supported with UTD.

Error 47229:
Anisotropic thin dielectric sheets are not supported with PO.

Error 47230:
Anisotropic thin dielectric sheets are not supported with LE-PO.

Error 47231:
Surface impedance sheets are not supported with RL-GO.

Error 47232:
Surface impedance sheets are not supported with UTD.

Error 47233:
Surface impedance sheets are not supported with PO.

Error 47234:
Surface impedance sheets are not supported with LE-PO.

Error 47235:
Coated PEC surfaces are not supported with LE-PO.

Error 47236:
Lossy metallic surfaces are not supported with PO with a Fock region.

Error 47237:
Thin dielectric sheets are not supported with PO with a Fock region.

Error 47238:
Anisotropic thin dielectric sheets are not supported with PO with a Fock region.

Error 47239:
Surface impedance sheets are not supported with PO with a Fock region.

Error 47240:
Coated PEC surfaces are not supported with PO with a Fock region.

Error 47245:
Plane wave sources with elliptical polarisation are not supported with UTD.

Error 47254:
Segments may not share a label with triangles to which a coating will be applied.

Error 47258:
The selected engine type is not supported for RL-GO.

Error 47387:
Initial ray from source does not propagate in free space for RL-GO.

Error 47398:
A ray could not be traced correctly, please check geometry/medium (in CADFEKO ensure that geometry is correctly unioned).

Error 47410:
Number of source rays is too large for RL-GO; increase angular/spatial increment.

Errors 47403, 47412:
Distance of ray start point to RL-GO region is zero.

Error 47577:
Characterised surface material not defined.

Error 47578:
Characterised surface: expecting a characterised surface material definition.

Error 47588:
The number of polarization angle samples imported from a .tr file must be 2.

Error 47589:
The number of frequency samples imported from a .tr file must be greater than 0.

Error 47590:
The number of incident theta direction samples imported from a .tr file must be greater than 0.

Error 47591:
The number of incident phi direction samples imported from a .tr file must be greater than 0.

Error 47595:
The input frequency is out of the interpolation range for a characterised surface.

Error 47596:
The input angle of incidence is out of the interpolation range for a characterised surface.

Error 47597:
Inconsistent number of theta direction samples imported from a .tr file.

Error 47598:
Inconsistent number of phi direction samples imported from a .tr file.

Error 47599:
Reference direction of the characterised surface is perpendicular to the surface, projection is zero.

Error 47600:
Wrong lattice vector definition for a characterised surface.

Error 47601:
More than two polarisations encountered on the grid imported from a .tr file.

Error 47602:
The specified polarisations are not orthogonal to each other on the grid imported from a .tr file.

Error 47603:
The specified polarisations are not in ascending order on the grid imported from a .tr file.

Error 47604:
Inconsistent theta grid spacing imported from a .tr file.

Error 47605:
Inconsistent phi grid spacing imported from a .tr file.

Errors 47606, 47607:
Inconsistent theta grid sample imported from a .tr file..

Errors 47608, 47609:
Inconsistent phi grid sample imported from a .tr file..

Error 47610:
Inconsistent frequency grid spacing imported from a .tr file.

Error 47612:
In a .tr file that is used to define a characterised surface, only polarisation angles 0 and 90 degrees are allowed.

Error 47619:
GPU acceleration for RL-GO is not supported in combination with MPI.

Error 47633:
The number of polarization angle samples imported from a .dc file must be 2.

Error 47634:
The number of frequency samples importedfrom a .dc file must be greater than 0.

Error 47635:
The number of incident theta direction samples importedfrom a .dc file must be greater than 0.

Error 47636:
The number of incident phi direction samples importedfrom a .dc file must be greater than 0.

Error 47641:
More than two polarisations encountered on the grid imported from a .dc file.

Error 47642:
The specified polarisations are not orthogonal to each other on the grid imported from a .dc file.

Error 47643:
The specified polarisations are not in ascending order on the grid imported from a .dc file.

Error 47644:
In a .dc file that is used to define a characterised wedge, only polarisation angles 0 and 90 degrees are allowed.

Error 47645:
Inconsistent theta grid spacing imported from a .dc file.

Error 47646:
Inconsistent number of theta direction samples imported from a .dc file.

Error 47647:
Inconsistent phi grid spacing imported from a .dc file.

Error 47648:
Inconsistent number of phi direction samples imported from a .dc file.

Errors 47649, 47650:
Inconsistent theta grid sample imported from a .dc file..

Errors 47651, 47652:
Inconsistent phi grid sample imported from a .dc file.

Error 47653:
Inconsistent frequency grid spacing imported from a .dc file.

Error 47656:
The input frequency is out of the interpolation range for a characterised wedge.

Error 47657:
The input angle of incidence is out of the interpolation range for a characterised wedge.

Errors 47384, 47385, 47512, 47671:
The ray buffer is full.

Errors 47689, 47693:
The tube buffer is full.

Error 47727:
Waveguide ports and RL-GO (coupled) are not allowed simultaneously.

Error 47728:
Number of RL-GO ray interactions cannot be negative.

Error 47729:
Wrong value of the ray contribution selection for RL-GO.

Error 47730:
Reflected and transmitted ray contributions have to be activated for RL-GO.

Error 47806:
UTD has been requested, but no UTD triangles were found.

Error 47880:
Error while creating the ray file *.ray for the UTD/RL-GO.

Error 47904:
Ray data export to the *.bof file is only supported from BOF format 122.

Error 47910:
Curvilinear triangles are not supported with UTD.

Error 48088:
S-parameter computations are not supported in a time domain configuration.

Error 48097:
Time and frequency domain configurations are not supported together.

Error 48101:
Waveguide ports and planar Green's function apertures are not allowed simultaneously.

Error 48105:
Excitation by a spherical mode source is not supported with the FDTD solver.

Error 48106:
Excitation by a dipole is not supported with the FDTD solver.

Error 48108:
Excitation by an impressed current source is not supported with the FDTD solver.

Error 48109:
Excitation by a far field point source is not supported with the FDTD solver.

Error 48110:
Excitation by a waveguide source is not supported with the FDTD solver.

Error 48111:
Excitation by a current source at a FEM line port is not supported with the FDTD solver.

Error 48112:
Excitation by a FEM modal source is not supported with the FDTD solver.

Error 48125:
The free space medium must have lossless material properties with the FDTD solver.

Error 48134:
Finite difference time domain solution diverges.

Error 48139:
A wire is too thick compared to its length.

Error 48140:
A wire is too thick compared to the voxel size.

Error 48141:
Too many time steps required for the FDTD solution.

Error 48147:
Finite difference time domain solution did not converge.

Error 48148:
Special surface medium properties are not yet supported in the FDTD solver.

Error 48149:
Special wire medium properties are not yet supported in the FDTD solver.

Error 48162:
No active source has been defined.

Error 48165:
A frequency configuration requires a frequency domain source definition.

Error 48166:
A time configuration requires a time domain source definition.

Error 48174:
The signal type is not supported.

Error 48209:
Negative mode indices are not supported at a waveguide port.

Error 48210:
The radial modal index of a circular or coaxial waveguide mode is too high.

Error 48216:
Surface and volume equivalence principle solution methods for dielectric regions are not supported in the same model.

Error 48217:
Work space requirement for the sparse LU factorisation exceeds the 32-bit integer limitation (overflow).

Error 48242:
The FDTD solver must be enabled for an FDTD load.

Error 48277:
Time domain far field calculations are not yet supported for the parallel FDTD.

Error 48290:
A parallel RLC load circuit is not supported on an S-parameter port for the FDTD solver.

Error 48297:
Expecting metallic surface triangles on the boundary of a metallic FEM region.

Error 48313:
Frequency value does not match a value in the discrete frequency definition.

Error 48321:
The sparse matrix is too large for 32-bit integer indexing. Sparse LU factorisation is not possible..

Error 48322:
Unsupported triangle type at windscreen reference plane.

Error 48355:
Dynamic memory allocation failed.

Error 48360:
An open-circuit load may not be applied to the same port as a voltage source.

Error 48361:
An open-circuit load is not supported on an S-parameter port.

Error 48375:
A TEM-mode does not exist in a rectangular waveguide.

Error 48382:
A triangle may not lie in the plane of the periodic boundary.

Errors 32723, 48383:
For periodic boundaries no geometry is allowed outside the unit cell.

Errors 48173, 48214, 48404, 48405:
Dynamic memory allocation failed in MUMPS.

Error 48416:
Error in out-of-core management of the sparse LU factorisation.

Errors 14, 23, 70, 95, 127, 129, 130, 131, 150, 151, 152, 183, 184, 185, 187, 190, 195, 196, 220, 231, 232, 233, 234, 235, 236, 256, 261, 262, 280, 282, 284, 286, 287, 413, 504, 531, 532, 533, 542, 547, 548, 571, 572, 575, 576, 586, 588, 590, 622, 623, 625, 626, 631, 653, 654, 655, 656, 657, 658, 659, 676, 677, 678, 680, 681, 682, 707, 710, 711, 714, 716, 717, 718, 719, 720, 721, 722, 723, 725, 726, 727, 728, 729, 730, 731, 734, 735, 736, 737, 739, 773, 774, 783, 825, 827, 829, 836, 837, 838, 839, 840, 841, 848, 864, 880, 886, 889, 902, 903, 904, 905, 909, 910, 920, 921, 931, 932, 933, 934, 935, 936, 939, 940, 941, 942, 943, 944, 945, 946, 950, 951, 952, 956, 957, 965, 966, 970, 971, 1011, 1017, 1018, 1019, 1020, 1021, 1022, 1039, 1047, 1050, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1540, 1541, 1542, 1543, 1544, 1555, 1556, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1567, 1568, 1569, 1570, 1571, 1573, 1574, 1575, 1576, 1577, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1630, 1631, 1635, 1641, 1643, 1644, 1645, 1647, 1649, 1651, 1653, 1655, 1656, 1659, 1660, 1665, 1688, 1689, 1701, 1730, 1740, 1741, 1742, 1779, 1783, 1784, 1785, 1786, 1787, 1797, 1861, 1862, 1863, 1865, 1876, 1879, 1880, 1881, 1884, 1885, 1890, 1899, 1945, 1984, 1985, 1992, 2028, 2029, 2030, 2033, 2036, 2037, 2039, 2318, 2321, 2323, 2333, 2334, 2335, 2372, 2397, 2404, 2405, 2434, 2445, 2446, 2482, 2484, 2501, 2526, 2531, 2532, 2559, 2560, 2561, 2655, 2678, 2692, 2697, 2698, 2704, 2762, 2763, 2764, 2765, 2766, 2776, 2777, 2778, 2779, 2782, 2790, 2810, 2815, 2842, 2843, 2844, 2968, 3044, 3063, 3070, 3086, 3088, 3200, 3210, 3211, 3215, 3216, 3276, 3277, 3278, 3280, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3339, 3340, 3355, 3366, 3369, 3393, 3405, 3406, 3407, 3409, 3412, 3413, 3417, 3418, 3419, 3434, 3446, 3448, 3449, 3451, 3452, 3453, 3454, 3455, 3456, 3481, 3482, 3486, 3487, 3488, 3544, 3555, 3559, 3599, 3600, 3609, 3629, 3633, 3648, 3650, 3651, 3652, 3653, 3654, 3655, 3664, 3665, 3666, 3671, 3689, 3691, 3695, 3706, 3712, 3719, 3724, 3726, 3727, 3728, 3750, 3751, 3752, 3753, 3791, 3792, 3793, 3807, 3816, 3817, 3818, 3819, 3820, 3821, 3826, 3827, 3828, 3836, 3837, 3839, 3840, 3856, 3858, 3868, 3869, 3870, 3871, 3873, 3875, 3876, 3877, 3878, 3879, 3880, 3881, 3882, 3886, 3887, 3912, 3917, 3921, 3940, 3942, 3954, 3956, 3958, 3982, 3983, 3984, 3987, 3988, 3989, 4012, 4015, 4021, 4030, 4041, 4047, 4050, 4051, 4061, 4081, 4082, 4129, 4152, 4159, 4161, 4162, 4171, 4180, 4184, 4186, 4188, 4189, 4206, 4218, 4219, 4240, 4242, 4267, 4311, 4341, 4344, 4345, 4348, 4351, 4352, 4361, 4367, 4373, 4376, 4405, 4415, 4431, 4432, 4437, 4447, 4448, 4449, 4473, 4474, 4491, 4492, 4493, 4502, 4505, 4510, 4511, 4512, 4513, 4514, 4518, 4521, 4524, 4535, 4543, 4544, 4547, 4548, 4568, 4570, 4582, 4588, 4589, 4591, 4593, 4594, 4595, 4597, 4603, 4609, 4619, 4634, 4635, 4636, 4637, 4638, 4640, 4641, 4642, 4643, 4645, 4647, 4648, 4649, 4650, 4651, 4653, 4662, 4667, 4670, 4674, 4680, 4688, 4690, 4691, 4692, 4693, 4702, 4714, 4721,

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Please notify the FEKO support team and provide the error number, preferably together with the FEKO input and output files.

Error 48448:

Direct solution is not valid. It is highly recommended to use double precision accuracy (solution settings).

Error 48449:

Large error for the direct solution. The solution is not valid.

Error 48516:

Dielectric surface impedance approximation of a dielectric region must be used consistently throughout the simulation, i.e. switching this on and off is not possible.

Error 48517:

Invalid medium specfication format for application of the dielectric surface impedance approximation of a lossy dielectric region.

Error 48519:

Dielectric surface impedance material not defined.

Error 48520:

Dielectric surface impedance: expecting a dielectric material definition.

Error 48521:

Invalid label for dielectric surface impedance approximation.

Error 48522:
Invalid medium for dielectric surface impedance approximation.

Error 48526:
Inconsistent specification of the media in connection with the dielectric surface impedance approximation.

Error 48530:
The dielectric surface impedance approximation is not applicable to metallic triangles.

Error 48531:
There are dielectric triangles with the label considered for the skin effect, please use different labels for these triangles.

Error 48532:
Dielectric surface impedance approximation for dielectric triangles must be used consistently, i.e. switching this on and off is not possible.

Error 48533:
The dielectric surface impedance approximation is only supported for simple dielectric regions in free space.

Error 48534:
Higher order basis functions are not yet supported for dielectric surface impedance approximation surfaces.

Error 48535:
The dielectric surface impedance approximation is not applicable to lossless media.

Error 48536:
Metallic triangles are not supported on the boundary of a dielectric surface impedance approximation region.

Error 48537:
A source should not be defined in a medium that is also used in a dielectric surface impedance approximation.

Errors 48540, 50367:
Decoupling MoM and FEM is not allowed with periodic boundaries.

Error 48596:
An S-parameter calculation is not supported with characteristic mode analysis.

Error 48597:
The FDTD solver does not support the execution of requests embedded in an S-parameter configuration.

Error 48601:
No convergence achieved during the iterative solution (residuum stagnated).

Error 48608:
Biconjugate Gradient Method (BCG) is supported in sequential version only.

Error 48609:
Conjugate Gradient Method (CGM) is supported in sequential version only.

Error 48610:
Block Gauss algorithm (matrix saved to disk) is supported in sequential version only.

Error 48611:
Invalid linear equation solver selection for the parallel version.

Error 48632:
Inhomogeneous medium specification for mesh elements of a waveguide port.

Error 48633:
Incorrect usage of a waveguide port.

Error 48634:
Invalid metallic connection to a waveguide port.

Error 48635:
Segmentation rules have been violated (mesh size on a waveguide port is too large to represent the field distribution of the modes included in the mode expansion).

Error 48637:
The option --ares-emc is not allowed with protected model content.

Error 48638:
The option --mtl-circuit-export is not allowed with protected model content.

Error 48642:
Calculation of radiation source image data is not allowed since model protection is active.

Errors 36699, 49000:
Too many parallel processes for the distributed preconditioner.

Error 49003:
Please decrease the size of the MoM region in the fully coupled MoM and PO solution..

Errors 32681, 49008:
Periodic boundaries and the multilayered planar Green's function are not allowed in the same model.

Error 49011:
Incorrect value of USE_CURVIL in the FEK file header.

Errors 49019, 52518:
Periodic boundaries and RL-GO are not allowed in the same model.

Error 49020:
Curvilinear segments are not supported with windscreen analyses.

Error 49031:
Active materials are currently not supported.

Error 49033:
For periodic boundaries no segment is allowed inside the boundary.

Error 49039:
The coaxial pin feed approximation is no longer supported. Please model the feed pin with a wire or strip to obtain accurate results.

Error 49040:
The coaxial pin load approximation is no longer supported. Please model the feed pin with a wire or strip to obtain accurate results.

Error 49053:
Curvilinear PO triangles are not supported.

Error 49070:
Thick coatings and shielding are not allowed on the same label.

Errors 49072, 49073:
Characterised surfaces on the surface of a dielectric must be used consistently, i.e. switching this on and off is notpossible.

Error 49074:
Invalid label for a characterised surface.

Error 50017:
A plane wave is impinging from behind a closed boundary in FDTD computational space.

Error 50021:
Parallel PEC boundary conditions are not supported with a plane wave excitation.

Error 50022:
Parallel PMC boundary conditions are not supported with a plane wave excitation.

Error 50027:
Near field calculations on FDTD boundary surfaces are not supported in a time configuration.

Error 50029:
PMC boundaries and time domain far field calculations are not supported for the FDTD.

Error 50040:
Parallel PEC/PMC boundary conditions are not supported with a plane wave excitation.

Errors 50042, 50043:
Anisotropic material (tensor component): expecting a dielectric material definition.

Error 50044:
Anisotropic material (tensor component): dielectric material not defined.

Error 50050:
Only biaxial anisotropic materials are supported with the FDTD solver.

Errors 50051, 50120:
Permeability tensor used in anisotropic FEM is not invertible.

Error 50053:
Missing buffer zone for the anisotropic FEM region when decoupling MoM and FEM.

Error 50058:
Missing buffer zone for the anisotropic FEM region when coupling MoM and FEM.

Error 50061:
Anisotropic medium properties are not supported on FEM modal ports.

Error 50070:
Only global Cartesian coordinate systems are supported as orientation of an anisotropic material with the FDTD solver.

Error 50073:
Only frequency independent anisotropic material properties are supported with the FDTD solver.

Error 50074:
A frequency independent dielectric model based on dielectric loss tangent is not supported for a broadband time domain analysis. Specify conductivity instead.

Error 50075:
Unsupported coordinate system type.

Error 50098:
Polder tensor applied to an anisotropic medium is not supported with the FDTD solver.

Error 50099:
Only global Cartesian coordinate systems are supported as orientation of a Polder tensor (ferrite).

Error 50102:
Only x, y, or z-oriented static magnetic field are supported.

Error 50105:
A ferrite anisotropic material can be biased only along x, y, or z-axis.

Error 50107:
A Polder tensor must be magnetised by a static magnetic field.

Errors 50110, 50111, 50112, 50113, 50114:
Invalid number of continuation lines when specifying a complex-valued tensor.

Error 50128:
Anisotropic region properties are not supported for the volume equivalence principle.

Error 50129:
Anisotropic region properties are not supported for the surface equivalence principle.

Error 50130:
Anisotropic region properties are not supported for cuboids.

Error 50131:
Anisotropic region properties are not supported for the planar Green's function.

Error 50132:
Anisotropic region properties are not supported for the spherical Green's function.

Error 50133:
Electric and/or magnetic symmetry is not supported with anisotropic regions.

Error 50134:
Anisotropic region properties are not supported with RL-GO.

Error 50135:
Anisotropic region properties are not supported with UTD.

Error 50136:
Anisotropic region properties are not supported with PO.

Error 50137:
The permittivity tensor does not adhere to passive conditions.

Error 50138:
The permeability tensor does not adhere to passive conditions.

Error 50140:
Negative permittivity is not supported with the FDTD method.

Error 50141:
Permittivity tensor with negative entries is not supported with the FDTD method.

Error 50142:
Permeability tensor with negative entries is not supported with the FDTD method.

Error 50145:
Invalid medium is used for an anisotropic material.

Error 50147:
Error in deallocating the entire GPU memory.

Error 50150:
Elliptically polarised plane wave is only supported at a single frequency by the FDTD solver.

Error 50193:
GPU acceleration for RL-GO is not supported for automatic mode settings, curvilinear triangle meshes, receiving antennas and when coupled to a MoM region.

Error 50228:
The boundary mesh elements of the unit cell are not consistent with the periodic boundary condition.

Error 50241:
Periodic boundary conditions excited at grazing incidence are not allowed.

Error 50244:
A FEM region touching only one side of the unit cell is not allowed.

Error 50293:
A FEM line port with a non-radiating network should align with edges of the mesh.

Errors 50302, 50304:
Faceted UTD requested, but no feasible triangles found. Please check model.

Error 50303:
Unsupported triangle type for faceted UTD.

Error 50323:
The SVD is supported only in double precision.

Error 50325:
The algorithm computing the SVD failed to converge.

Error 50345:
Unsupported high frequency solver.

Error 50348:
The surface roughness parameter should not be negative.

Error 50358:
A FEM line port with non-radiating networks should always be coincident with the edges of the mesh.

Error 50359:
A FEM line port with non-radiating networks should always be spanned by edges of the mesh.

Error 50380:
Cannot open DDM file with triangles list.

Error :
RWGs over DDM domains are not allowed.

Error 50384:
Unsupported Matrix Market type.

Error :
DDM supports only EFIE.

Error 50385:
Error in reading the MTX arrays size.

Error :
Non supported DDM option.

Error 50386:
Error in reading the MTX sparse size.

Error :
DDM was selected but nonconformal interior edges are not present.

Error 51004:
Characteristic Mode Analysis is not supported with the CFIE/MFIE.

Error 51005:
Characteristic mode analysis is not supported for models with periodic boundary conditions.

Error 51007:
The correlation could not be calculated.

Error 52000:
The normal vectors on a CFIE/MFIE/thick coating body must consistently point outwards towards the source region.

Error 52001:
The normal vectors on a CFIE/MFIE/thick coating body point outwards. All sources should consistently be defined outside of this body.

Error 52002:
The normal vectors on a CFIE/MFIE/thick coating body point inwards. All sources should consistently be defined inside of this body.

Error 52003:
The normal vectors on a CFIE/MFIE/thick coating body must consistently point inwards towards the source region.

Error 52006:
Voxel ports are not supported when using the MFIE/CFIE for metallic surfaces.

Errors 3395, 52017:
Unable to create file for segment currents.

Errors 52059, 52065:
Invalid number of continuation lines when specifying a waveguide source.

Errors 52075, 52416:
Unsupported load type.

Errors 52145, 52146:
Invalid number of continuation lines when specifying an impressed current source.

Error 52178:
Excitation by an impressed current is not supported with the DGFM.

Error 52179:
Excitation by a far field point source is not supported with the DGFM.

Error 52180:
Excitation by a spherical mode source is not supported with the DGFM.

Error 52188:
Invalid number of continuation lines when specifying a modal port.

Error 52189:
Specify points (interpolation): expecting at least one point in the list.

Error 52191:
Invalid number of continuation lines when specifying a list of points to define a time dependent signal.

Error 52202:
Error while writing the .lud matrix to a file.

Error 52204:
Error while reading the .lud matrix from a file.

Error 52211:
Unsupported port type.

Error 52216:
Invalid number of continuation lines when specifying an impressed current source connected to a surface.

Errors 52258, 52259:
A FEM body does not have a closed surface.

Error 52260:
A CFIE/MFIE/thick coating body does not have a closed surface (FEM surface).

Error 52276:
Potentials are not available for an impressed spherical mode source.

Errors 52291, 52292, 52293, 52294, 52295:
Invalid number of continuation lines parsing Touchstone data.

Errors 52317, 52318:
Invalid number of continuation lines parsing SPICE subcircuit data.

Error 52369:
Error loading symbol <text> from library: <text>.

Errors 34785, 34786, 38868, 39847, 39848, 39850, 39851, 52380:
Error while reading a SPICE results file.

Error 52385:
A near field aperture with irregular grid specification is allowed in Cartesian coordinates only.

Error 52397:
Invalid load specification. Invalid load type applied to a cable port.

Errors 52119, 52411:
Invalid number of continuation lines when specifying a FEM line port.

Error 52412:
Invalid load specification. Invalid load type applied to a FEM line port.

Errors 52425, 52782:
Error writing to file.

Error 52427:
Error opening the file: <text>.

Error 52429:
Error rewinding the file: <text>.

Error 52476:
FDTD is not supported together with radiating cable harnesses.

Error 52477:
The FDTD domain does not extend far enough to include all field request points placed along irradiating cable harness paths.

Errors 3396, 52478:
Unable to open file for segment currents.

Errors 38078, 52490:
Cable cross section definition: undefined type.

Error 52550:
Error loading symbol <text> from file: <text>.

Error 52573:
The voltage at an unknown node (<text>) was requested.

Errors 38954, 39837, 52574, 52579:
An error has occurred while parsing a SPICE netlist.

Error 52586:
Multiconductor transmission line theory requires that a cable path be defined within the static domain open boundary from a conducting surface to correctly capture LC coupling.

Error 52596:
Approximate analytic solution of multiple widely separated single conductors only possible if positioned above a ground plane.

Error 52618:
A windscreen glass definition should consist of at least one layer.

Error 52657:
At least two pin connections per port are required when defining a cable interconnect/termination Touchstone network.

Error 52658:
A Touchstone network should be considered a black box description where currents/voltages within the network cannot be monitored.

Error 52659:
The simultaneous definition of a SPICE circuit, Touchstone network parameters and/or metallic surface connection is not allowed at a single cable interconnect/termination.

Error 52667:
Exporting netlist to file: Missing Touchstone filename.

Errors 52548, 52669, 53268:
Error loading dynamic library file: <text>.

Error 52670:
Error loading symbol fekocablemesher_<text> from file: <text>.

Error 52680:
An ellipticity value of between 0 and 1 is expected.

Error 52693:
Invalid load specification. Invalid load type applied to an edge port.

Error 52694:
Every cable cross section subproblem should consist of at least two signals (inclusive of the return signal) to be able to successfully calculate the associated per-unit-length parameters.

Error 52695:
The Cable Mesher failed to return a valid mesh - zero triangles.

Error 52696:
The Cable Mesher failed to return a valid mesh - missing signal markers.

Error 52712:
A cable path should not be terminated by a load/source/interconnect connection onto itself.

Error 52721:
A cable shield may consist of a maximum of two layers.

Error 52722:
Cable shield: expecting a continuation line when parsing a multilayered shield.

Error 52728:
Invalid weave option.

Error 52736:
Cable shield: an undefined impedance definition was referenced.

Error 52737:
Cable shield: an undefined admittance definition was referenced.

Error 52749:
Define properties: an impedance definition should consist of both Zt and Zs specifications.

Error 52750:
Define properties: expecting either/both impedance/admittance specifications.

Error 52755:
Cable shield: impedance/admittance definitions should reference the same layer thickness.

Error 52756:
Cable shield: impedance/admittance definitions should reference the same material definition.

Error 52759:
Cable shield: expecting a shield definition that supports calculation of impedance quantities.

Error 52760:
Cable shield: expecting a shield definition that supports calculation of admittance quantities.

Error 52762:
Define properties: metallic material not defined.

Error 52763:
Define properties: expecting a metallic material definition.

Error 52767:
Transfer capacitance: expecting a positive/zero transfer capacitance value.

Error 52774:
Two cable cross sections each with a conducting boundary are not allowed to touch. LAPLACE 2D mesh contains extremely small triangle features.

Error 52775:
Solid shield: expecting a metallic material definition.

Error 52776:
Solid shield: metallic material not defined.

Error 52789:
Expecting a non-zero reference impedance value when parsing S-parameter Touchstone data.

Error 52791:
The low frequency braid approximation Zs = Zt is invalid when the real part of the surface impedance becomes negative.

Error 52792:
Invalid surface impedance points definition when the real part becomes negative.

Error 52818:
A non-radiating network and a source attached to the same port are expected to use the same port orientation.

Error 52820:
Unsupported network type.

Error 52823:
Non-radiating transmission line: invalid number of continuation lines.

Error 52826:
Multiple non-radiating networks attached to the same port are expected to use the same port orientation.

Error 52834:
Non-radiating general network: invalid number of continuation lines.

Error 52835:
Non-radiating general network: invalid number of continuation lines when specifying a list of labels to define an edge port.

Error 52839:
Non-radiating general network: invalid number of continuation lines parsing S-parameter network data.

Error 52840:
Non-radiating general network: invalid number of continuation lines parsing S/Z/Y-parameter network data.

Error 52841:
Non-radiating general network: For network data to follow in the *.pre file a maximum of 4 ports is allowed.

Error 52855:
Calculation of the global impedance matrix for non-radiating networks resulted in a singular matrix.

Error 52864:
Expecting a non-zero network port number.

Error 52865:
Network source: a source is connected to a nonexistent non-radiating network port.

Error 52866:
Network source: an undefined network was referenced.

Error 52869:
Network load: a load is connected to a nonexistent non-radiating network port.

Error 52870:
Network load: an undefined network was referenced.

Error 52874:
Expecting a non-radiating network to be attached to this load port.

Error 52880:
Expecting a source to be attached to a non-radiating network port and not a geometry port.

Errors 52884, 52885:
Expecting a microstrip edge port to be consistently defined and loaded/excited for all solutions.

Error 52887:
Invalid load specification. Invalid load type applied to a vertex port.

Error 52888:
Invalid load specification. Invalid load type applied to a network port.

Error 52891:
Expecting the external nodes to a .subckt line definition to not be the global ground '0' node.

Error 52892:
Expecting the external nodes to a .subckt line definition to be unique.

Errors 52893, 53981, 53984:
Expecting a .subckt line to have the general form .SUBCKT <name> <node>* [[PARAMS:] < <name> = <value> >*].

Error 52894:
Invalid option defining a load at a network port.

Error 52895:
Non-radiating transmission line: invalid number of continuation lines when defining a FEM line port by start/end position.

Error 52901:
Undefined circuit definition.

Error 52903:
An edge port may not be loaded with an infinite impedance.

Error 52912:
A cable path intersects with a conducting surface.

Error 52913:
A vertex port may not be loaded with an infinite impedance.

Error 52914:
A segment port may not be loaded with an infinite impedance.

Error 52915:
A cable path may not be routed through, terminate on or be defined inside an infinite ground.

Error 52916:
The SPICE engine does not support direct modelling of network parameters.

Error 52925:
An error has occured while retrieving the number of ports.

Error 52926:
Invalid far field request option.

Error 52932:
Far field sample points defined in a Cartesian coordinate system must lie within the unit circle.

Error 52933:
Cartesian far field coordinate system only supported in data export format 6 or later.

Error 52934:
An error has occured while retrieving the number of frequencies.

Error 52941:
A non-radiating network cannot be used to connect MoM and FEM regions.

Error 52951:
Non-radiating transmission line: expecting a transmission line name.

Error 52952:
A FEM line port may not be short-circuited by a network.

Error 52954:
Calculation of the global admittance matrix for non-radiating networks resulted in a singular matrix.

Error 52960:
Invalid selection for a skin effect approximation.

Error 52961:
Cable shield: expecting a zero/positive gap between the layers of a multi-layered shield.

Error 52964:
Touchstone admittance parameters evaluate to a singular matrix.

Error 52967:
The current through an unknown device (<text>) was requested.

Error 52981:
Negative permeability is not supported with the FDTD method.

Error 53009:
Error in writing to the *_fem.rhs temporary file.

Error 53033:
Unsupported source type for an S-parameter request.

Error 53042:
Invalid number of continuation lines when specifying a list of points to define a frequency dependent material.

Error 53048:
Large element PO not supported in connection with PBC (periodic boundary conditions).

Error 53059:
Finite array analysis in connection with FEM models is not supported.

Error 53064:
Segmentation rules have been violated (distorted voxels).

Errors 36815, 53065:
Magnetic losses are not supported in the FDTD model.

Error 53074:
Unknown format defining a reflective ground.

Error 53088:
Error in writing to the *_fem.ecoef temporary file.

Errors 53093, 53094, 53095, 53096, 53097, 53098, 53099, 53100, 53101, 53102, 53103, 53104, 53105, 53106, 53107:
No memory for the allocation of the data element available (GoeAlloc).

Error 53116:
Invalid load specification. Invalid load type applied to a segment port.

Error 53143:
A dielectric triangle may not be located on an interface between two layers of the planar Green's function definition.

Error 53153:
Expecting at least one cable interconnect/termination transformer connection.

Error 53154:
Expecting at least one cable interconnect/termination voltage controlled voltage source (VCVS) connection.

Error 53169:
Expecting the coefficient of coupling to be greater than 0 and less than or equal to 1.

Error 53170:
Expecting the two coupled inductors to have non-zero inductance values.

Error 53171:
The controlling nodes to a voltage controlled voltage source definition are expected to correspond to actual circuit nodes.

Error 53172:
The voltage to a VCVS may not be regulated by the nodes spanning the source definition.

Error 53173:
Combined MoM/MTL: A coupled component (VCVS should not be defined in its entirety in the MoM part of the solution.

Error 53180:
Invalid phase dot position specified at a transformer connection.

Errors 53203, 53207:
Combined MoM/MTL: Expecting source devices to be defined contiguously between the shield and ground pins when used in the MoM part of the solution.

Error 53206:
Combined MoM/MTL: Circuit combination not supported when used in the MoM part of the solution.

Errors 53208, 53211, 53223:
Combined MoM/MTL: Circuit combination not yet supported when used in the MoM part of the solution.

Error 53209:
Combined MoM/MTL: Expecting source devices to be defined contiguously when used in the MoM part of the solution.

Error 53210:
Combined MoM/MTL: Multiple source devices loaded by a one port network definition not allowed when used in the MoM part of the solution.

Error 53224:
The coupled inductors to a transformer should not be defined between the same nodes.

Error 53226:
Invalid number of continuation lines when defining a far field request.

Error 53227:
Expecting the overriding resolution to radiation source images to be non-zero.

Error 53247:
The Combined MoM/MTL solution method is not supported when requesting a circuit crosstalk calculation.

Error 53248:
No effective excitation exists for a cable harness with circuit crosstalk request (add voltage source).

Error 53250:
Specify coaxial cable characteristics: expecting a constant per unit length L and C parameter definition over frequency.

Error 53260:
Expecting a microstrip edge port to be defined within a single layer substrate above/below an infinite PEC ground plane.

Error 53261:
Expecting a microstrip edge port to be defined parallel to the planar substrate ground plane.

Error 53262:
A microstrip edge port should not coincide with a planar substrate infinite ground plane.

Error 53274:
Specify coaxial cable characteristics: velocity of propagation should be specified as a percentage in the range (0, 100].

Error 53293:
Unexpected state of multiple configurations for the broadband SPICE solver.

Error 53314:
Expecting the number of external nodes to a .subckt line definition to match the number of circuit nodes used in the subcircuit call.

Error 53321:
Invalid number of continuation lines defining a PCB.

Error 53322:
A PCB should have current data defined for at least a single frequency.

Error 53323:
A PCB should consist of one or more layers.

Error 53324:
A PCB should have at least one trace/via definition.

Error 53325:
Invalid number of continuation lines defining a PCB outline.

Error 53326:
A minimum of 3 coordinates are needed to define a PCB polygonal outline.

Error 53328:
Invalid number of continuation lines defining a PCB polygonal outline.

Error 53331:
Invalid number of continuation lines defining a PCB layer stack.

Error 53333:
Invalid number of continuation lines defining PCB segment data.

Error 53340:
Invalid number of continuation lines defining PCB frequency data.

Error 53346:
Current data from the previous PCB source must be used, but such current data was never defined.

Error 53354:
The combined MoM/MTL (unshielded) solution method is not supported for this configuration: expecting the reference signal to be a single conductor.

Error 53359:
To prepare a reasonable multiconductor transmission line model, the expectation is that the cable path be defined within a maximum range of a conducting surface as determined by the extent of metallic surfaces in the model.

Error 53361:
Expecting the reference signal to be continuously present along all connected cable paths in a harness.

Error 53362:
Combined MoM/MTL: Expecting the reference signal to be geometrically continuous/connected passing through the connector groupings at the cable path terminals.

Error 53365:
The combined MoM/MTL solution method is not supported for this configuration: invalid outer cross section definition.

Error 53380:
A near field aperture defining a Cartesian boundary cannot be combined with an open Cartesian face.

Error 53410:
It is not possible to enforce the standard and fast far field method at the same time..

Error 53445:
Wrong end label in UTD / RL-GO specification.

Error 53446:
Invalid label is used in UTD / RL-GO specification.

Error 53459:
Continuation line expected when parsing cable interconnect/termination metallic surface definitions.

Error 53460:
The metallic surface to which a cable harness connects should be defined by at least one triangle label.

Error 53461:
At least one pin connection is required using a cable interconnect/termination metallic surface connection.

Error 53467:
Expecting all triangles with matching label that define a cable interconnect closed surface to be of metallic type.

Error 53468:
No metallic triangles were found in the model to define a cable interconnect closed surface.

Error 53470:
The triangles with matching label that define a cable interconnect do not form a single simple closed metallic surface.

Error 53471:
The triangles with matching label that define a cable interconnect do not form a simple closed metallic surface.

Error 53472:
A cable interconnect defining a closed metallic surface can only be used in a harness that is solved with the Combined MoM/MTL method.

Error 53473:
Expecting the Combined MoM/MTL cable path to terminate on/close to the cable interconnect metallic surface defined by label.

Error 53475:
Unexpected number of Combined MoM/MTL cable paths terminating on the cable interconnect metallic surface defined by label.

Error 53476:
It is expected that within any cable harness connector grouping at most a single metallic interconnect surface can be defined.

Error 53477:
A connection to a cable interconnect metallic surface must be defined using the local device (i.e. zero.th) ground pin.

Error 53478:
A connection to the device/installation ground is not allowed in a connector grouping where a cable interconnect metallic surface connection is active.

Error 53504:
Invalid PCB definition: segment data coincide with upper ground layer.

Error 53506:
Invalid near field data definition: when combining multiple apertures into one it is expected that the valid field region be consistently defined as either outside/inside the final aperture.

Errors 53514, 53515:
Combined MoM/MTL (unshielded solution): expecting the reference signal in the cross section to coincide with the path origin when the path starts/terminates directly on the installation.

Error 53522:
An impressed current source connected to a wire segment may only be used when there are segments in the model.

Error 53523:
Invalid number of continuation lines when specifying an impressed current source connected to a wire segment.

Error 53524:
An impressed current connected to a wire segment must be defined in a homogeneous environment.

Error 53529:
Multiple Combined MoM/MTL cable paths terminating at a node that is also coincident with a metallic surface defined by label are not allowed.

Error 53565:
Invalid number of continuation lines when defining a label selective model and solution coefficient (*.sol) file export.

Error 53578:
Excitation by an impressed solution coefficients source is only supported in free space (i.e. no special Green's function).

Error 53579:
Excitation by an impressed solution coefficients source is not supported with the FDTD solver.

Error 53580:
Excitation by an impressed solution coefficients source is not supported with the DGFM.

Error 53581:
The selected scaling of the power (internal impedance or transmission line impedance) is not supported with an impressed solution coefficients source.

Errors 53583, 53584:
An impressed solution coefficients source must be defined in a homogeneous environment.

Errors 53590, 53592, 53593, 53594, 53596, 53597, 53602:
Invalid number of continuation lines defining impressed solution coefficients data.

Error 53624:
Invalid near field data definition: when combining multiple apertures into one it is expected that efficiency be uniquely defined for the aperture as a whole.

Error 53628:
Excitation by an impressed solution coefficients source is not supported with windscreen antenna modelling.

Error 53639:
Expecting all impressed solution coefficient triangle half edge basis functions to be attached to a PEC/PMC infinite ground plane.

Error 53640:
Based on the basis function input, the impressed solution coefficients source is expected to be connected to either the model geometry or an infinite ground plane.

Error 53666:
The material indices on opposite sides of a periodic unit cell boundary should match.

Error 53677:
Invalid connection of an impressed solution coefficient triangle to a PEC/PMC infinite ground plane. Unexpected magnetic/electric current flow into a PEC/PMC plane.

Errors 52057, 53718:
Invalid number of continuation lines defining a spherical mode source.

Error 53826:
A receiving antenna may only be described by a near field aperture with outward pointing normals.

Errors 53827, 53828:
Invalid axis definition for a cylindrical near field aperture.

Errors 53829, 53830:
Invalid axis definition for a spherical near field aperture.

Error 53834:
Invalid near field data definition: when combining multiple apertures into one it is expected that the field data is available for the same number of frequencies.

Error 53849:
A near field aperture defining a full sphere cannot be combined with an open spherical dome surface.

Error 53850:
One or both of the near field aperture faces that should be combined into a single surface does not constitute a spherical dome.

Error 53851:
The radii of two spherical dome faces should match to allow for these apertures to be combined into a single surface.

Error 53853:
To allow for two spherical dome faces to be combined into one, they should bound the same plane, but from different sides.

Error 53855:
A closed near field aperture surface cannot be be combined with an open cylindrical/spherical surface.

Error 53856:
One or both of the near field aperture faces that should be combined into a single surface does not constitute a cylinder or a spherical dome.

Errors 53857, 53862:
The radius of a spherical dome and a cylindrical aperture should match to allow for these faces to be combined into a single surface.

Errors 53858, 53865:
Invalid combination of a spherical dome and a cylinder aperture.

Errors 53863, 53864:
To allow for a spherical dome and a cylinder aperture to be combined into one, they should bound the same plane, but from different sides.

Error 53882:
Invalid near field data definition: when combining multiple apertures into one it is expected that a unique field normalisation by gain/directivity/none be applied to the aperture as a whole.

Error 53884:
Invalid near field source definition: when combining multiple apertures into one it is expected that all dipoles be scaled consistently.

Error 53958:
Invalid near field data definition: when combining multiple apertures into one it is expected that the field data is available at the same list of frequency samples.

Error 53965:
Characteristic mode analysis and UTD / RL-GO are not allowed in the same model.

Error 53970:
Invalid model setup: the connection pins in a VCVS should not be negative.

Error 53971:
Invalid model setup: the control pins in a VCVS should not be negative.

Error 53972:
Invalid model setup: the connecting pins in a pin-to-pin connection should not be negative.

Error 53973:
Invalid model setup: the connecting pins in a network circuit connection should not be negative.

Error 53976:
General non-radiating network: a network is connected to a nonexistent non-radiating network port.

Error 53977:
General non-radiating network: an undefined network was referenced.

Error 53978:
A relative permittivity of zero is not supported.

Error 53979:
A relative permeability of zero is not supported.

Error 53980:
The SPICE engine does not support parameter definitions in the .subckt line. Expecting the general form .SUBCKT <name> <node>*.

Error 53982:
An error has occurred while parsing a SPICE netlist. Missing left curly bracket..

Error 53983:
An error has occurred while parsing a SPICE netlist. Missing right curly bracket..

Error 53993:
Twisted pair: expecting a twist pitch length that would result in loosely wounded wires.

Error 53998:
Error opening an MDP configuration file.

Error 53999:
Error opening an MDP manifest file.

Error 54013:
Heterogeneous system. Simulation aborted..

Error 55000:
Error closing an MDP configuration file.

Error 55001:
Error closing an MDP manifest file.

Error 55007:
Unexpected negative inductance value, possibly due to a corrupt mesh.

Errors 53335, 55020:
Invalid number of continuation lines defining PCB current data.

Error 55021:
Invalid PCB definition: segment data coincide with lower ground layer.

Error 55089:
A source may not coincide with a planar Green's function PEC/PMC ground plane.

Error 55090:
The *"FEK_EXT_L" file protection initialisation vector is invalid (please try to re-create it with a current version of "PRESOLVER_NAME").

Error 56001:
Wedge diffracted rays are not supported for plane wave sources with UTD.

Error 56028:
Corner diffracted rays are not supported for plane wave sources with UTD.

Errors 56068, 56069:
Types other than reflected and diffracted are not supported.

Error Signals

Error Signal 3616:
Feko process was terminated by the user by pressing Ctrl-C.

Error Signal 3617:
Feko process was terminated by kill.

Error Signal 3618:
CPU time limit has been exceeded.

Error Signal 3619:
File size limit has been exceeded.

Error Signal 3622:
Feko process was terminated by the user by pressing Ctrl-Break.

Error Signal 3623:
Feko caught an illegal instruction, code is not running on this processor.

Error Signal 3624:
Memory size limit has been exceeded.

Error Signal 3625:
Data size limit has been exceeded.

Error Signal 33228:
Connection via a PIPE broken.

Error Signal 34017:
Feko process was terminated due to a licence error.

Notes

Note 154:
Usage of symmetry only possible in part since matrix is in a file.

Note 249:
No optimal usage of the symmetry possible.

Notes 539, 540:
Optimal usage of symmetry is not possible.

Note 891:
The TG card prevents the usage of the specified symmetry.

Note 1028:
Error in reading the solution coefficients from the *.str file.

Note 2025:
Coupling MoM-RL-GO is not taken into account.

Note :
Coupling MoM-UTD is not taken into account.

Note 2027:
Coupling PO-MoM is not taken into account.

Note 2547:
The *.mat file is closed now, a subsequent reading/writing starts from the beginning.

Note 2548:
The *.str file is closed now, a subsequent reading/writing starts from the beginning.

Note 2691:
Using symmetry in connection with the MLFMM will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Notes 3090, 3091, 3092:
Direct field computation since no interpolation tables available.

Note 3399:
No output of messages to the screen, see *.out file.

Note 3425:
Special Feko mode --check-only to check the geometry.

Note 3725:
Usage of symmetry only possible in part since not enough main memory.

Note 3790:
At a near field request it is no longer necessary to specify that points are inside the dielectric medium.

Note 3916:
Note that since Feko version 41.50 the attachment of wires to UTD plates has changed, check the documentation.

Note 4054:
The *_fem.mat file was closed, a subsequent reading/writing starts from the beginning.

Note 4574:
Not enough memory for the FEM preconditioning, MoM matrix will be released from memory.

Note 4616:
Not enough memory for the direct FEM solver, MoM matrix will be released from memory.

Note 4617:
Not enough memory for the direct FEM solver, swapping some arrays to disk now.

Note 4826:
Only the fundamental mode is included in the mode expansion of a waveguide port.

Note 4973:
Iterative solution of the system of linear equations not sufficiently converged at the stopping residuum, continuing with the iterations.

Note 32008:
The *.fek file was not created with a current version of PREFEKO.

Note 32312:
Unexpected version number in the *.str file, it might have been created with a newer Feko version.

Note 32313:
The *.str file is not valid for the current solution (checksum mismatch).

Note 32700:
Using symmetry in connection with periodic boundaries will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 32719:
Insufficient memory, please switch to the classical near field calculation at the FM card.

Note 32844:
Using symmetry in connection with the ACA will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 32847:
Switching to standard MoM since ACA only suitable for models with sufficient unknowns (more than 10000).

Note 32852:
Switching from sparse LU to ILU preconditioner since the MLFMM near field matrix is too large.

Note 32924:
Using symmetry in connection with higher order basis functions will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 32929:
Higher order basis functions are not supported with the planar Green's function. Using low order basis functions.

Note 32930:
Higher order basis functions are not supported with low frequency stabilisation. Using low order basis functions.

Note 32933:
Switching from higher order basis functions to standard linear RWG basis functions.

Note 32936:
Higher order basis functions and fully coupled PO are not allowed together. Using low order basis functions.

Note 32954:
Higher order basis functions are not supported with windscreen analyses. Using low order basis functions.

Note 32958:
HOBF currents and charges are not written to *.out, *.os or *.ol files.

Note 32961:
Skin effect and planar Green's function use only electric currents and will ignore magnetic currents.

Note 32962:
MoM higher order basis functions are not supported with error estimation.

Note 32974:
For the MLFMM and Higher Order Basis Functions (HOBF) the order should not be larger than 1.5. Using orders higher that 1.5 could result in poor performance and convergence.

Note 32976:
Higher order basis functions are not supported with periodic boundary conditions (PBC). Using low order basis functions.

Note 32997:
Switching to iterative hybrid MoM and large element PO coupling.

Notes 32998, :
Switching to iterative hybrid MLFMM and PO coupling.

Note 33113:
This is a Student Version of Feko with some restrictions.

Note 33168:
Cannot read the *.str file since obsolete basis functions for cuboidal volume elements.

Note 33175:
Not enough memory for the FEM matrix, MoM matrix will be released from memory.

Note 33178:
Not enough memory for the FEM preconditioning, swapping some arrays to disk now.

Note 33196:
The *.lud file is closed now, a subsequent reading/writing starts from the beginning.

Notes 33242, :
For the MLFMM there is the possibility to save memory by switching to single precision, this is normally recommended.

Note 33243:
The following memory allocation error can possibly be avoided when switching to single precision.

Note 33373:
Only the scattered field is computed, note that in connection with UTD this is the total field less the incident field of the excitation, also in the shadow region.

Note 33374:
Only the scattered field is computed, note that in connection with a special Green's function the incident field takes the presence of the Green's function into account.

Note 33375:
Only the scattered field is computed, note that in connection with the surface equivalence principle of the MoM the incident field is defined only in the medium where the source is located, in other media the scattered field is equal to the total field.

Note 33376:
Only the scattered field is computed. Note that in connection with the MoM/FEM hybrid method the incident field is defined only in the medium where the source is located; in other media the scattered field is equal to the total field.

Note 33402:
FEM region is terminated by absorbing boundary condition, not by MoM radiation boundary condition.

Note 33403:
Coupling MoM-FEM is not taken into account. FEM region is terminated by absorbing boundary condition.

Note 33444:
Memory requirement for a regular Feko run (without --check-only) is higher.

Note 33458:
Iterative solution: Please repeat termination to really terminate Feko (otherwise only the iterations will be terminated and Feko continues with the current solution).

Note 33503:
Reduced accuracy of FEM by using first order elements.

Note 33644:
Single frequency inside a loop over angles of plane wave incidence not allowed due to backwards compatibility reasons, plane wave loop ending.

Notes 34052, 34053:
Output of near field results to the *.out file deactivated.

Note 34058:
Reading a solution from a *.str file not possible (file will be deleted and newly created).

Note 34094:
Reading the FEM solution coefficients from the present *.str file not possible since defect (file format version 5 is defect).

Note 34620:
Redundant one-port S-parameter request. S11 is available from source data. Check documentation for backwards compatibility w.r.t. loading.

Note 35127:
You are running a sequential version of Altair Feko, but it was detected that your machine has more than one core. For best performance, it would be recommended to run the parallel Feko Solver.

Notes 35157, 40183:
GPU does not support double precision calculations, switching to non-GPU implementation.

Note 35179:
Compatible graphics card (GPU) found on this machine for possible hardware acceleration (your Feko license allows GPU usage). Please use the command line option --use-gpu to use or enable the checkbox in the GUI.

Note 35195:
The radiated far field power is zero as the background medium is lossy. Rather compute the near fields at a finite distance.

Notes 32314, 35440:
The *.str file does not match the current solution (different number of basis functions).

Notes 33047, 35441:
The *.str file does not match the current solution (different FEM region).

Notes 35442, 40148:
The *.str file does not match the current solution (different LE-PO region).

Note 36000:
A corrupt *.str file has been recovered successfully.

Note 36001:
A corrupt *.str file could not be recovered.

Note 36558:
Export of generalised scattering matrix to *.chr file is suppressed since there are no waveguide ports in the model.

Note 36559:
Export of generalised scattering matrix to *.chr file is suppressed since there are no waveguide ports included in the S-parameter calculation.

Note :
Error estimates are not available for dielectric cuboids.

Note 36616:
Error estimates are not available for magnetic cuboids.

Note 36671:
Metallic medium properties are not taken into account on a modal port. Metal on the port is modelled as perfectly conducting.

Note 36751:
FEM region is completely enclosed by PBC/PEC/modal port boundary surfaces.

Note 36754:
No translation or rotation will be applied to near fields requested in a tetrahedral mesh.

Note 36761:
There are no open boundary triangles on the boundary of the FEM region.

Note 36762:
Switching from distributed sparse LU to SPAI preconditioner since the MLFMM near field matrix is too large.

Note 36767:
Low frequency stabilisation is activated for the FEM.

Note 36802:
Usage of a *.lud file does not apply to FDTD.

Note 36803:
Usage of a *.mat file does not apply to FDTD.

Note 36804:
Saving/reading solution coefficients to/from a *.str file is not supported for FDTD.

Note 36808:
Label selective field calculation does not apply to FDTD models. Field calculation includes all structures.

Note 37152:
The *.ngf file is closed now, a subsequent reading/writing starts from the beginning.

Note 37156:
Symmetry in connection with domain decomposition is not exploited to reduce memory or run-time, only the geometry is mirrored.

Note 37438:
Single frequency inside a loop over characteristic modes currently not allowed. Characteristic mode loop ending.

Note 37478:
Additional timing data only given by process 0.

Note 37479:
Coupling between domains is ignored for the DGFM.

Note 37482:
Using symmetry in connection with characteristic mode analysis will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 37483:
The number of characteristic modes requested exceeded the number of unknowns in the MoM matrix.

Note 37484:
The number of characteristic modes that will be calculated in the parallel Feko run was reduced.

Note 37486:
Unsupported data export format used for currents and charges data related to characteristic mode analysis. Mode data will not be written to the *.os / *.ol files.

Note 37487:
Unsupported data export format used for far field data related to characteristic mode analysis. Mode data will not be written to the *.ffe file..

Note 37488:
Unsupported data export format used for electric/magnetic near field data related to characteristic mode analysis. Mode data will not be written to the *.efe/*.hfe files.

Note 37498:
The writing/reading of current coefficients to/from the *.str file is currently not supported for characteristic mode analysis.

Note 37502:
Using symmetry in connection with finite array analysis will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 37536:
For the characteristic mode analysis less than 95% of the power was captured. Increase the number of modes requested.

Note 37561:
Characteristic mode analysis may require a finer mesh compared to standard full-wave solution techniques, to accurately capture higher order mode behaviour.

Note 37571:
Characteristic mode tracking is disabled.

Note 38046:
The number of threads specified for OpenMP threading exceeds the number of available cores, using only one thread per core.

Note 38344:
Combined MoM/MTL: undefined transfer admittance when non-transmission line mode currents exist; assume transfer admittance to be zero.

Notes 36788, 38519:
Using symmetry in connection with low frequency stabilisation will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 38677:
Radiating harnesses do not take irradiation coupling into account. See documentation for detail on how to include such coupling effects.

Note 39027:
Continuous far field data is not supported when using UTD / RL-GO. Switching to the classical integration scheme.

Note 39167:
The *.str file does not match the current solution (cable analysis).

Note 39206:
Continuous far field data is not supported when using a special Green's function. Switching to the classical integration scheme.

Note 39210:
Continuous far field data is not supported when using a reflection coefficient ground plane. Switching to the classical integration scheme.

Note 39266:
Continuous far field data is not supported when running the FDTD solver. Switching to the classical integration scheme.

Note 39288:
Continuous far field data is not supported when the background medium is lossy. Switching to the classical integration scheme.

Note 39314:
Coupling between cable paths that are defined in the same harness, but are not connected, is not taken into account.

Note 39323:
Total power balance may be inaccurate for radiating cable analysis.

Note 40231:
Further GPU computation has been disabled.

Note 40253:
Output of time domain near field results to text files (*.out/*.efe/*.hfe) is not supported.

Note 40402:
GPU acceleration of the FDTD is currently not supported for Liao absorbing boundaries. GPU computing deactivated.

Note 40405:
GPU acceleration of the FDTD is only supported for CPML boundaries of less than 16 cells. GPU computing deactivated.

Note 40431:
Output of time domain far field results to text files (*.out/*.ffe) is not supported.

Note 40477:
The FDTD solver does not support GPU acceleration. GPU computing deactivated.

Note 40499:
GPU acceleration of the FDTD is currently not supported for the selected time signal. GPU computing deactivated.

Note 40666:
An ideal receiving antenna is positioned too close to the geometry or other radiating sources so that the far field pattern approximation for the receiving antenna might not yield accurate results.

Note 45000:
Setting ScaLAPACK parameters at the SU card is obsolete, and will be ignored.

Notes 45001, 45002, 45003, 45004, 45005:
Setting the LU decomposition block size is obsolete, and will be ignored.

Note 45026:
GPU computation not supported.

Note 45152:
Settings loaded from the *.prj file may affect the simulation results.

Note 45500:
Not enough memory to allocate triangle visibility structure, will not be used.

Note 45533:
Exporting ray data to a file is activated for RL-GO; this may affect the simulation time.

Notes 45534, 45535:
Exporting ray data to a file is activated for UTD; this may affect the simulation time.

Note 46257:
Enforcing the use of ACA regardless of problem size is only possible in superuser mode.

Note 46259:
Switching off ACA compression of RHS due to lack of memory.

Note 46270:
Efficient matrix fill cannot be used with ACA and higher order basis functions, switching to inefficient fill.

Notes 46281, 46282:
The *.acl file is closed now, a subsequent reading/writing starts from the beginning.

Note 47411:
Number of source rays is very large for RL-GO; note that ray launching/tracing phase could take a long time.

Note 47496:
Label selective field calculation does not apply to RL-GO models. Field calculation includes all structures.

Note 47497:
Label selective field calculation does not apply to UTD models. Field calculation includes all structures.

Note 47670:
When developer mode is active, warning 47268 is displayed if any rays are discarded (ignoring the threshold limit)..

Note 48117:
Output of time domain source results to the *.out file suppressed.

Note 48118:
Time domain source data is not yet exported to the *.bof file.

Note 48120:
Time domain near field result is not yet exported to the *.bof file.

Note 48121:
Time domain results are not yet exported to the *.bof file.

Note 48136:
Deactivated MLFMM since it is not applied in FDTD solutions.

Note 48137:
Deactivated ACA since it is not applied in FDTD solutions.

Note 48143:
Further warnings regarding wire thickness relative to voxel size will not be shown.

Note 48260:
Reading a solution from the existing *.str file is not possible due to a potential solution mismatch at modal ports.

Note 48265:
Sparse matrix representation export format not recognised.

Note 48267:
GPU acceleration of the FDTD is currently not supported for time domain far field requests. GPU computing deactivated.

Note :
Switching to MUMPS since the sparse matrix is too large for 32-bit integer indexing.

Note 48324:
Reading a solution from the existing *.str file is not possible due to a potential solution mismatch at periodic boundaries.

Note 48378:
Calculation of modal port modes is suppressed in --check-only mode.

Note 48414:
Memory requirement for a regular Feko run (without --estimate-resource-requirements-only) is higher.

Note 48415:
Special Feko mode --estimate-resource-requirements-only to estimate resource requirements. Geometry checking disabled.

Note 48434:
Cartesian near field request data export to the *.bof file is only supported from BOF format 121.

Note 48505:
Special Feko mode --check-only and --estimate-resource-requirements-only to check the geometry and estimate resource requirements.

Note 48595:
Fast-forwarding a frequency setting without requests.

Note 48599:
Power scaling setting is not effective in an S-parameter configuration.

Note 48639:
Export of geometry data to file (*.out, *.nas, *.stl) is disabled since model protection is active.

Note 48640:
Writing currents and charges to *.out, *.os *.ol and *.rsd files is disabled since model protection is active.

Note 48641:
Export of files for thermal analysis is disabled since model protection is active.

Note 48643:
Export of ray data to file (*.bof, *.ray) is disabled since model protection is active.

Note 48644:
Request for near fields on a tetrahedron mesh is disabled since model protection is active.

Note 48645:
Export of model decomposition data to files (*.sol) is disabled since model protection is active.

Note 48647:
Request for near fields is disabled since model protection is active.

Note 48648:
Request for currents and charges is disabled since model protection is active.

Note 48649:
Request for SAR is disabled since model protection is active.

Notes 49023, :
MLFMM stabilisation disabled for iterative hybrid MLFMM and PO coupling.

Notes 49029, :
MLFMM stabilisation disabled for FEM.

Note 49030:
You are using the stabilised MLFMM and have CFIE surfaces in your model. Please note that the MLFMM stabilisation scheme is applied only to surfaces treated with EFIE and not CFIE. If convergence is critical consider solving all with EFIE..

Note 49038:
The stabilised MLFMM will be disabled since the CFIE is applied to all metallic surfaces..

Note 50103:
Simulating a lossless ferrite anisotropic material at gyromagnetic resonance may produce an unbounded response.

Note 50104:
Simulating a ferrite material with high loss.

Note 50146:
Electric and/or magnetic symmetry is not supported with anisotropic regions, only the geometry is mirrored.

Note 50294:
Using symmetry in connection with non-radiating networks will not lead to a reduction of memory or run-time, only the geometry is mirrored.

Note 51012:
Reading a solution from the existing *.str file is not possible due to a potential reordering of connection basis functions.

Note 52205:
The matrix file is missing or empty. Re-creating file.

Note 52433:
Unexpected version number in the *.pul file.

Note 52434:
The *.pul file is not valid for the current solution (checksum mismatch).

Note 52437:
A corrupt *.pul file has been recovered successfully, continue to calculate and append next solution.

Note 52438:
Failure to create *.pul file, switching to normal execution mode.

Note 52440:
The solution is not yet available for reading from the *.pul file, continue to calculate and append next solution.

Note 52444:
Reading a solution from a *.pul file is not possible (file will be deleted and newly created).

Note 52484:
Failure to recover a corrupt *.pul file, switching to normal execution mode.

Note 52528:
Continuous far field data is not supported when deactivating fast far field calculations in superuser mode.

Note 52697:
Small triangle features removed to improve LAPLACE 2D solver mesh.

Note 52902:
Currents probed along a cable path represent the differential part of the total current solution only.

Note 52929:
Continuous far field data is not supported when requesting far field samples in a Cartesian grid.

Note 53128:
Continuous far field data is not supported when requesting 2D radiation source image export.

Note :
Continuous far field data is not supported when requesting 2D radiation source image export. Switching to the classical integration scheme.

Note 53259:
Radiation source imaging calculations will not be performed (usage is not licensed).

Note 53670:
There are no MoM triangle basis functions associated with the specified label for export to a *.sol file.

Note 55006:
The contribution of a plane wave is not considered when computing the spherical modes of the transmit antenna (finite scatterer) and total fields have been requested. This is due to the spherical modes being computed in the far field..

Warnings

Warning 1:
The solution X is assumed as zero.

Warnings 2, 3, 5, 6:
Reached maximum number of iterations.

Warning 4:
Solution is assumed zero since right-hand side is zero.

Warning 9:
Solution was set to zero since right-hand side is zero.

Warnings 10, 12:
Maximum number of iterations has been reached.

Warning 11:
Solution was set to zero.

Warning 64:
The magnetic field for a TEM-frill excitation is not available.

Warning 78:
Preconditioning is not applied because matrix has been stored in a file.

Warning 104:
Matrix is numerically singular, solution very critical.

Warnings 106, 107:
Wrong value of BCGFLAG, being set to 1.

Warning 108:
Use same pre-conditioning as with the LU decomposition.

Warning 115:
Coarse segmentation for wire segments.

Warning 121:
Coarse segmentation for triangular patches.

Warning 122:
Field strength of a plane wave source is zero.

Warnings 123, 124:
Amplitude of a voltage source at a wire port is zero.

Warning 125:
Amplitude of a TEM-frill at a wire port is zero.

Warning 126:
Amplitude of a voltage source at an edge port is zero.

Warning 135:
The YZ-plane has been defined twice as a plane of symmetry.

Warning 136:
The XZ-plane has been defined twice as a plane of symmetry.

Warning 137:
The XY-plane has been defined twice as a plane of symmetry.

Warning 161:
Symmetry can only be used for EFIE or PMCHW.

Warning 168:
The superuser password is incorrect.

Warning 172:
Efficient calculation can only be switched off in the superuser mode.

Warning 173:
Switching off symmetry at the SY card is only possible in the superuser mode.

Warnings 238, 239:
Possibly an error while using symmetry in connection with PO.

Warning 242:
Output of detailed messages is only allowed in the superuser mode.

Warnings 258, 503:
Coarse segmentation for cuboidal elements.

Warnings 273, :
Gain is not defined because the radiated power is zero.

Warning 274:
A dielectric body does not have a closed surface. Results will be wrong if the fields at the opening are not zero.

This warning is given when a dielectric solved with the surface equivalence principle (SEP) is not entirely closed. The formulation of the SEP requires that the dielectric does not contain any openings and that the mesh of this dielectric contains no free edges (all the triangle edges are correctly joined together).

If the above two requirements are not met, this warning will be given and the results could be wrong.

An easy way to see if these requirements are met is to check if a region is reported in the detail tree. In addition, unconnected triangle edges can be displayed using the Connectivity tool in CADFEKO or POSTFEKO.

Warnings 496, 498:
Observation point in/below ground plane ignored.

Warning 505:
Amplitude of a dipole is zero.

Warning 509:
Reactive power large thus real power is inaccurate.

Warning 510:
Imaginary part of the impedance is large thus the real part will be inaccurate.

Warnings 511, 512, 3647, 3649, 34403:
Singular field at a connection point.

Warning 537:
Observation point lies on the edge of the PO region.

Warning 555:
Connection between a segment and a triangle that are in different media.

Warning 563:
The MoM matrix is numerically singular, solution very critical.

A primary cause for this warning is when the geometry is electrically very small. This causes the MoM matrix to be numerically close to singular.

It is implied that the problem is being solved at a frequency that is too low. One solution is to use double precision memory storage. This is set in CADFEKO under Solver Settings, or if the user is using only EDITFEKO for the model setup, in the EG card.

Double precision is also useful when very sensitive results are required. For example in an EMC problem where isolation values of several tens of dBs are expected. Another option is to use low frequency stabilisation, but this will increase the runtime.

Warning 593:
The observation point of a field calculation is not allowed to be in the vicinity of the surface of a cube .

Warning 594:
Due to rounding errors the solution may be totally invalid.

The complete warning message in the OUT file will look similar the one below. This is typically given when dielectrics are present in the model and modelled with the surface equivalence principle (SEP) PMCHW formulation. When the model is electrically extremely small, this warning will be given. It could of course be that a user has set the frequency too low.

Warnings 621, 627:
Observation point lies on the edge of a wedge in the PO region.

Warning 651:
Scaling of the power has been deactivated due to zero or negative real power.

Warnings 652, 674, 675, 745, 746, 747, 748, 1523, 1524, 1525:
Losses of the sphere are possibly too large.

Warnings 660, 661, 662, 663, 664, 665, 666, 1045, 1046, 1048, 1049, 1051, 1052, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 32195:
Convergence criterion has not been attained.

Warning 669:
A source is positioned close to an infinite ground plane.

Warnings 683, 684, 685, 686, 687, 688, 689, 1565, 1566, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590:
Convergence criterion has not been satisfied.

Warning 713:
A basis function has been defined over two different Fock regions.

Warning 760:
Not enough memory available for the array PO coefficients.

Warning 793:
Incident plane wave illuminates a wedge from the inside.

Warnings 808, 809:
High frequency approximation of the skin effect is not valid for a lossy conductor.

Warnings 810, 811:
Low frequency approximation of the skin effect is not valid for a lossy conductor.

Warning 830:
Maximum number of iterations reached without convergence, using in the following the solution with the smallest residuum.

Warning 831:
No convergence achieved during the iterative solution.

Warnings 882, 32181:
Ray on wedge surface for wedge diffraction (InnenKeilGebiet).

Warning 888:
Two neighbouring polygons fall together in one plane.

Warning 890:
When calculating matrix elements it is not possible not to consider the direct ray.

Warning 976:
Bad ratio of buffer memory/number of processes.

Warning 982:
Dimension of the base for RGMRES too big.

Warnings 983, 50347:
Dimension of the base for RBICGSTAB too big.

Warning 984:
Dimension of the base for RGMRESEV too big.

Warning 1006:
Wrong sort-parameter at the call of GAlloc.

Warning 1007:
Wrong sort-parameter at the call of GFree.

Warning 1008:
Error in the dynamic memory management. Memory has not been de-allocated correctly.

Warning 1010:
Assumptions of UTD not fulfilled.

For edge diffraction within the UTD context, a largeness parameter K is defined as

K = BETA * L * SIN(Alpha_i)^2

with

BETA
wavenumber 2*pi/lambda

Alpha_i
angle of the diffraction cone (i.e. angle between incident ray and edge)

L
distance parameter, which for a spherical wavefront can be computed from

L = R*S/(R+S) * sin(Alpha_i)^2

with

R = radius of the spherical wavefront

S = distance of the wave between the diffraction point and the observation point (for double diffraction then the distance between first and second diffraction point).

For the UTD diffraction formulas to be valid, the largeness parameter K must be larger than 1. If it is too small, then typically the separation distances for double diffractions are too short, or a MoM region is too close to a UTD edge.

Normally this warning 1010 is not very serious, since the other ray contributions (direct, reflected ray) would dominate.

Warning 1014:
No further output of warning 1010.

Warning 1025:
Edge and wedge diffraction are considered for UTD but no direct and reflected ray contributions.

Warning 1026:
Corner diffraction is considered for UTD but no direct and reflected ray contributions.

Warning 1027:
Corner diffraction is considered for UTD but no edge and wedge diffraction.

Warning 1037:
Double diffraction is considered for UTD but no edge and wedge diffraction.

Warning 1038:
Double diffraction is not considered for UTD, since maximum number of ray interactions is one.

Warning 1159:
Debugmode of the UTD not possible with parallel processing.

Warning 1162:
Observation point after corner diffraction on edge.

Warning 1163:
Source point before corner diffraction on edge.

Warning 1164:
Application of UTD possibly inaccurate (frequency too small).

Warning 1176:
Source or observation point are located on a corner.

Warning 1178:
List of corners is not complete (EckenCheck), please verify the model.

Warning 1188:
Distance between two consecutive UTD ray points too small.

Warnings 1663, 33131:
Inhomogeneous segmentation for triangles.

Warning 1664:
Inhomogeneous segmentation for segments.

Warning 1673:
Distributed matrix storage requires SCALAPACK or PIM solution methods.

Warning 1686:
There exist segments with the label of the PO region.

Warning 1699:
No further output of warning 1188.

Warning 1700:
Some ray paths have not been taken into account for the field computation.

Warning 1769:
No pre-calculation possible.

Warning 1872:
Using interpolation tables with the spherical Green's function is currently not supported for the parallel version.

Warning 1873:
No interpolation is used for the evaluation of the Green's function.

Warning 1874:
Unfortunately for this value of GFFLAG no interpolation is available.

Warnings 1877, 1882:
Field calculation in the origin is not allowed.

Warning 1887:
Interpolation for the Green's function will not be used.

Warning 1929:
Output of errors/warnings of the server processes is to stdout.

Warning 1931:
No effective excitation for the MoM is present (right hand side vector is zero).

Warning 1983:
Substrate layer is possibly too thick (convergence problems).

Warning 1993:
Directivity cannot be computed for far field calculations involving the planar multilayer Green's function with losses in the dielectric layers, gain will be computed instead.

This warning is given because the planar multilayer Green's function represents an infinite dielectric and thus the total amount of dielectric loss power cannot be computed. In FEKO the gain is computed directly from the source power and the directivity is derived from the gain by subtracting the loss power. Therefore the directivity cannot be calculated if the losses are not known.

Warning 1999:
Creeping waves are considered for UTD but no direct and reflected ray contributions.

Warning 2000:
For curved surfaces only the UTD, not GTD is available.

Warning 2006:
Application of the UTD for a cylinder possibly inaccurate (frequency too small).

Warning 2156:
The source or field point lies on the end-cap rim. UTD diffraction is not possible and therefore ignored. The resulting field may be inaccurate.

Warning 2157:
The field point lies on the cylinder. Currently creeping waves are not considered if this is the case.

Warning 2158:
The field point lies on the end-cap rim. UTD diffraction is not possible and therefore ignored.

Warning 2160:
Too many iterations in attempting to find the specular point on the cylinder side.

Warning 2164:
The ratio between the incident and reflected ray lengths and the incident plane radius of curvature of the cylinder are becoming too small for accurate calculation of the creeping wave contribution..

Warnings 2165, 2166:
Creeping wave diffraction coefficients not fully converged. The results near the shadow boundary may be inaccurate.

Warning 2170:
Diffraction fails when both source and field point lie on the axis. Equivalent currents are not implemented. This component is therefore ignored and the resulting fields may be inaccurate.

Warning 2180:
The diffracted field has to be evaluated at a caustic. This component is therefore ignored and the resulting field may be inaccurate.

Warning 2181:
The diffracted field has to be evaluated in a direction parallel to the edge. Currently this is not possible. This component therefore ignored and the resulting field may be inaccurate.

Warning 2182:
The diffracted field has to be evaluated at near grazing incidence at a curved edge. Currently this is not possible. This component is therefore ignored and the resulting field may be inaccurate.

Warning 2304:
Preconditioning switched off since diagonal element is zero.

Warning 2339:
No further output of warning 793.

Warning 2340:
No further output of warnings and hints.

Warnings 2355, 2356, 36863:
No further output of warnings concerning symmetry.

Warnings 2358, 2359, 2360:
A basis function over wire segments is located in an electric plane of symmetry.

Warnings 2361, 2362, 2363:
A basis function over triangles is located in an electric plane of symmetry.

Warning 2370:
Do not specify block Gauss with the CG card, this is selected automatically.

Warnings 2305, 2375:
Preconditioning switched off since row sum is zero.

Warning 2390:
Due to a lack of memory no losses can be computed.

Warning 2394:
Simultaneous coating of a wire and ohmic losses/skin effect.

Warning 2395:
Coating layer of a wire possibly too thick.

Warning 2396:
For coating based on volume method no determination of losses in the coating possible.

Warning 2398:
Making the matrix symmetric is not allowed in the parallel version. The preconditioning has been switched off.

Warning 2399:
Neumann preconditioning is not allowed in the parallel version. The preconditioning has been switched off.

Warning 2420:
$ 'QMR: Algorithm failed to converge.

Warnings 2465, 2466:
Field calculation close to the z axis is not allowed (source point).

Warnings 2467, 2468:
Field calculation close to the z axis is not allowed (observation point).

Warning 2470:
No mesh elements with the specified label(s)/label range were found to output currents/charges.

Warning 2472:
Block-Jacobi with PCGLAG=8 is not allowed in the parallel version. The preconditioning has been switched off.

Warnings 2476, 2481:
Geometry rotation potentially contradicts the symmetry specification (plane y=0 is electric/magnetic wall).

Warnings 2477, 2479:
Geometry rotation potentially contradicts the symmetry specification (plane z=0 is electric/magnetic wall).

Warnings 2478, 2480:
Geometry rotation potentially contradicts the symmetry specification (plane x=0 is electric/magnetic wall).

Warning 2485:
Neumann preconditioning only useful for iterative methods from PIM.

Warning 2486:
Block-Jacobi preconditioning only useful for iterative methods from PIM.

Warning 2487:
Preconditioning PCFLAG=8 only allowed in the superuser mode.

Warnings 2488, 2489:
Matrix cannot be restored, next solution is wrong.

Warning 2490:
Preconditioning PCFLAG=16 only allowed in the superuser mode.

Warning 2496:
Nearfield computation at a large distance with the excitation of a plane wave is inaccurate.

Warning 2500:
Far field computation with a plane wave as excitation and an infinitely long cylinder does not make sense (3D field for 2D object is infinite).

Warning 2522:
Filetype interlaced is not recommended.

Warning 2553:
In order to determine the radiated far field power, a non-zero grid of far field points must be specified.

Warning 2557:
Due to insufficient memory no output of the surface currents possible.

Warning 2582:
This type of preconditioning not possible for the MLFMM, preconditioning will be switched off.

Warning 2583:
Invalid choice for the method of PIM for the MLFMM.

Warning 2690:
Short and long edges for the UTD.

Warning 2702:
For the MLFMM it is not possible to specify the block size for the Block-Jacobi preconditioner.

Warning 2725:
From a performance point of view, it is recommended to use Block-Jacobi preconditioning.

Warning 2728:
Neumann preconditioning is switched off.

Warnings 2729, 2730:
Block-Jacobi preconditioning is switched off.

Warning 2744:
Condition for a good conductor is violated for a lossy conducting surface.

Warning 2752:
Specify either conductivity or dielectric loss tangent for a thin dielectric sheet.

Warning 2755:
Surface thickness does not apply to wires, it is ignored in the skin effect approximation.

Warning 2756:
Triangles are too thick as compared to the free space wavelength for application of the skin effect approximation.

Warning 2757:

A triangle is too thick as compared to the lateral dimensions for application of the skin effect approximation.

This warning occurs when, for example, using the skin effect (lossy metallic surface) or thin dielectric sheet. For accuracy reasons it is necessary that the lateral dimension (square root of the area of a triangle) be larger than its thickness. The thickness is that specified when using a lossy metallic surface (skin effect) or thin dielectric sheet. Users familiar with EDITFEKO will recognize these options as those of the SK card.

FEKO will give this warning when the lateral dimension is equal to or smaller than the triangle thickness. It is recommended for accuracy to keep the lateral dimension several times larger than the thickness.

The lateral dimension is controlled directly by the triangle mesh size (which is based on the frequency). Therefore it implies that an upper frequency limit exists for which FEKO can accurately model the skin effect. This upper limit is of course strongly dependent on the thickness and conductivity of the lossy metal.

Warning 2758:

The current at the port is zero, input impedance cannot be computed.

Warning 2759:

The voltage at the port is zero, input admittance cannot be computed.

Warning 2783:

Not enough memory available for averaging the surface current density, trying without averaging.

Warnings 2806, :

The amplitude of the incident wave is zero, RCS cannot be computed.

Warning 2811:

Possible convergence problems: Radial distance too large.

Warning 2812:

Possible convergence problems: Vertical distance ABS(ZOBSERVER-ZSOURCE) too large.

Warnings 2832, 2833:

The integrand diverges for large KP on the real axis.

Warning 2837:

No interpolation tables are used.

Warning 2841:

Singular field at the source point.

Warning 3201:

Obsolete specification of the box size is used at the PO card.

Warning 3213:

Not enough memory for the multi-level boxing PO ray tracing algorithm.

Warning 3214:

Shadowing coefficients cannot be kept in memory.

Warning 3236:
Could not find any PO edges supporting multiple reflections that are visible to each other.

Warning 3260:
Error writing PO visibility information to *.vis file.

Warning 3265:
Using a *.vis file for a geometry that may have changed.

Warning 3286:
The electrically thin surface coating with PO is thick or losses are too high.

Warning 3387:
The infinite ground plane will be deactivated since it has medium properties matching the surrounding medium.

Warning 3397:
The power loss is larger than the active power.

Warning 3411:
No accurate power calculation possible if two non-orthogonal elementary dipoles of the same type are at the same position.

Warning 3423:
One or more mesh elements are close to the ground.

Warning 3489:
Too many integration intervals are required for the potentials.

Warnings :
Too many integration intervals are required.

Warning 3490:
Too many integration intervals are required for the fields.

Warning 3495:
The output of the right-hand side with FEKO_WRITE_RHS is not supported for the parallel version.

Warning 3511:
An impressed current source is long compared to the wavelength.

Warning 3536:
Possibly inaccurate radiated power for multiple impressed current elements.

Warnings 3595, 3604, :
Too many interpolation points for the substrate.

Warning 3630:
The KE card to select an integral kernel for wires is no longer supported, kernel is selected automatically.

Warning 3660:
No accurate power computation possible for an excitation with an impressed current connected to a surface/wire segment.

Warning 3672:
No accurate power computation possible for an impressed current excitation with a planar substrate.

Warning 3680:
No segments with the specified label range were found to output currents/charges to a *.rsd file.

Warning 3705:
Scaling factor for a far field point source is zero.

Warning 3715:
Computation of the near field at the origin of a far field point source not possible.

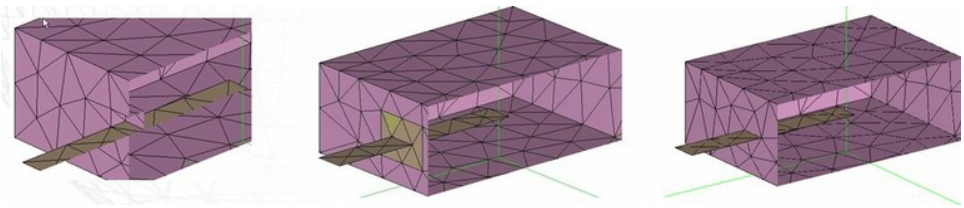
Warning 3718:
Far field condition not met for near field computation of a far field point source.

This warning occurs when a radiation pattern point source is used too close to neighbouring geometry. A far field condition distance is calculated for the radiation pattern point source. This varies of course with the antenna size and geometry. In FEKO two distances are calculated.

Firstly, when the distance D is large, the far field condition is calculated as 2*D^2/lambda and the warning is printed when the geometry is within distance D.

Secondly, for small D, the far field condition is calculated as lambda/(2*pi) and the warning is printed when the geometry is within this distance.

When the warning is given, users should be aware that results could be inaccurate.



Warning 3721:
Feed power is infinite since perfect mismatch at the feed line.

Warning 3804:
Automatic determination of the medium of the observation point deactivated.

Warning 3805:
Obsolete file format of the *.out file for near field computations is used.

Warning 3806:
Automatic determination of the observation point can be switched off only in superuser mode.

Warnings 3843, :
Directivity is not defined because the radiated power is equal to the power loss.

Warning 3865:
Parameters of a dielectric region material are identical to vacuum, perhaps the material definition was forgotten.

Warning 3911:
Mutual coupling of impressed sources and coupling of these sources with other objects will not be considered during the power computations.

Warning 3915:
Too extreme length ratio of two wire segments at a node.

Warning 3976:
Directivity cannot be computed for far field calculations involving real ground with losses, gain will be computed instead.

Warning 4017:
The selected solver is not available; using Bi-CGSTAB (PIM).

Warning 4326:
The selected preconditioner cannot be used with first order tetrahedral elements. LU preconditioner (type 5) will be used.

Warning 4327:
The selected preconditioner cannot be used with first order tetrahedral elements. Incomplete LU preconditioner (type 256) will be used.

Warning 4328:
Incomplete LU preconditioner (type 256) might not give good performance with higher order FEM elements.

Warning 4419:
The mass of the SAR-cube is zero.

Warning 4430:
Maximum number of SAR-cube iterations reached.

Warning 4433:
The selected preconditioner may result in poor or no convergence for lossless dielectrics.

Warning 4436:
The selected preconditioner is not available for the FEM/MoM; a suitable default will be used.

Warning 4445:
Flat tetrahedra may compromise FEM accuracy.

Warnings 4451, 4456, 4797:
Coarse segmentation for tetrahedra.

Warning 4495:
Using a *_fem.mat file for a solution that may have changed.

Warning 4497:
Average SAR will not be computed since a dielectric body does not have a closed surface.

Warning 4498:
Spatial-peak SAR extraction does not include cuboid regions.

Warning 4500:
Spatial-peak SAR computation and output as a function of the label is not possible for the MoM with the surface equivalence principle.

Warning 4501:
Spatial-peak SAR will not be computed since the selected region has no electric loss.

Warning 4503:
The search algorithm for the spatial-peak SAR extraction failed to search the FEM region.

Warning 4504:
The search algorithm for the spatial-peak SAR extraction failed to search the MoM region (surface equivalence principle).

This warning could be given when 1 or 10 g SAR is requested and the dielectric volume is too small to fit the cuboid into. More often the warning is given for 10 g SAR.

Warning 4516:
The averaging cube for SAR could not be adapted to the specified mass.

Warning 4542:
Surface of a FEM region is not consistent (e.g. not closed).

Warning 4546:
The incomplete LU factorisation is not stable. Changing the preconditioning.

Warning 4577:
Spatial-peak SAR will not be computed since there are no regions to search.

Warning 4578:
Spatial-average SAR will not be computed since the specified position is in a lossless medium.

Warning 4579:
Spatial-average SAR at a specified position is only available for a 1 g or 10 g cube.

Warning 4583:
Export of the Multilevel ILU/ILU preconditioner to a *.pcr file is not supported. Using and exporting the Multilevel ILU/Diagonal preconditioner instead.

Warning 4584:
Export of the selected preconditioner to a *.pcr file is not supported.

Warning 4585:
The preconditioner imported from the *.pcr file may result in poor or no convergence for the lossless problem.

Warning 4600:
Spatial-peak SAR computation and output as a function of the medium or label is not possible for the MoM with special Green's function.

Warning 4604:
The search algorithm for the spatial-peak SAR extraction failed to search the layered dielectric sphere in the MoM region.

Warning 4606:
The search algorithm for the spatial-peak SAR extraction failed to search the planar multilayer MoM region.

Warning 4607:
Spatial-peak SAR computation and output as a function of the Green's function layer does not apply to the FEM.

Warning 4608:
Average SAR computation and output as a function of the Green's function layer is not possible.

Warning 4610:
Average SAR computation for MoM with planar multilayer Green's function is not possible.

Warning 4618:
The setting for the fill-in per row of the ILU preconditioning may cause slow or even no convergence in the iterative solution.

Warning 4682:
Coarse triangular mesh of a waveguide port for representing the field distribution of the modes included in the mode expansion.

Warnings 4722, 4723, 4727, 34008, 37184, 37198:
It is highly recommended to use double precision accuracy (solution settings).

Warning 4725:
It is highly recommended to use double precision accuracy (solution settings).

This warning can be given together with 'WARNING 563: The MoM matrix is numerically singular, solution very critical.

A primary cause for this warning is when the geometry is electrically very small. This causes the MoM matrix to be almost numerically singular.

It is implied that the problem is being solved at a frequency that is too low. One solution is to use double precision memory storage. This is set in CADFEKO under Solver Settings, or if the user is using only EDITFEKO for the model setup, in the EG card.

Double precision is also useful when very sensitive results are required. For example in an EMC problem where isolation values of several tens of dBs are expected.

Another option is to use low frequency stabilisation, but this will increase the runtime.

Warning 4747:
No further output of warnings regarding excitations and symmetry.

Warning 4750:
Spatial-average SAR will not be computed since the cube at the specified position is behind a ground plane.

Warning 4752:
Spatial-average SAR at the specified position will not be computed since a valid cube for the averaging could not be constructed.

Warning 4753:
The spatial-peak SAR is zero.

Warning 4790:
A FEM line port is long as compared to the wavelength.

Warning 4836:
Processing of the *.fei file is not supported in parallel.

Warning 4981:
Invalid setting for the hierarchical order of the 2D FEM vector basis functions. First order elements will be used.

Warning 32051:
The start and end points of a transmission line are in different media.

Warning 32159:
Error during the LU decomposition of a matrix.

Warning 32160:
Error during the inversion of a matrix.

Warning 32231:
The input impedance is undefined due to both the port current and voltage being zero.

Warning 32239:
The potentials for a TEM-frill excitation are not available.

Warning 32259:
There exist cuboids with the label of the PO region.

Warning 32292:
The licence does not allow to switch into superuser mode.

Warning 32299:
Incomplete LU preconditioning only useful for iterative methods from PIM.

Warning 32300:
Incomplete LU preconditioning only available for MLFMM.

Warning 32304:
Incomplete LU preconditioning is switched off.

Warning 32339:
Replace adjacent layers with identical dielectric properties with one equivalent layer.

Warning 32354:
Polygonal plates cannot be exported to the NASTRAN file.

Warning 32380:
Coating is too thick as compared to the free space wavelength.

Warning 32381:
Coating layer of a triangle is too thick as compared to the lateral dimensions.

Warning 32382:
Normally specify either the conductivity or the dielectric loss tangent for coating, not both.

Warning 32383:
Further warnings 2757 will be suppressed.

Warning 32384:
Further warnings 2395 will be suppressed.

Warning 32385:
Further warnings 32381 will be suppressed.

Warning 32412:
Conditions for a lossy conducting surface model are violated (conductivity too low or permeability too high).

Warning 32414:
Permeability of a lossy conducting surface differs from the environment, this is possible, however no magnetic currents are considered in FEKO.

Warning 32417:
Transmission through a lossy metallic boundary of a dielectric body is not considered. Use the exact expression for finite conductivity to model this.

Warning 32434:
Export of the geometry to an STL file supports only triangular patches, other elements will not be exported.

Warning 32482:
No far field groups were found for the MLFMM.

Warning 32502:
Preconditioning switched off since ILU factorisation encountered a zero pivot.

Warning 32517:
Block-Jacobi one-level-up only for the MLFMM. Preconditioning switched off.

Warning 32539:
Only SPAI/Sparse LU preconditioning allowed for the parallel version of the MLFMM, preconditioning will be switched off.

Warning 32541:
MLFMM box size at finest level too small; using default value.

Warning 32550:
Cannot use fast near field computation with MLFMM (not enough memory available). Switching to traditional scheme.

Warnings 32549, 32551:
Not enough memory available for the fast near field computation with MLFMM, using classical scheme (slower).

Warnings 32695, 32704, 32739, 32752:
The recurrence relation for the exponential integral has not converged.

Warning 32800:
When computing the far field of a finite array, the number of elements specified cannot be negative. In this case the far field of the unit element will be computed.

Warning 32806:
Due to cancellation effects the RL-GO might be inaccurate for dielectric bodies with large losses.

Warning 32840:
Sparse LU preconditioning is switched off.

Warning 32841:
Preconditioning switched off since an error was encountered during the sparse LU decomposition.

Warning 32850:
Invalid choice for the method of PIM for the ACA.

Warning 32851:
Sparse LU preconditioner only available for the MLFMM. Preconditioning switched off.

Warnings 32738, 32746, 32751, 32875, 32979, 32982:
The Ewald sum for the periodic lattice has not converged.

Warning 32878:
Reflection/transmission can only be computed for 2D periodic boundaries or planar Green's function.

Warning 32879:
Reflection/transmission can only be computed for planar Green's function without any additional geometry.

Warning 32880:
Reflection/transmission can only be computed for 2D periodic boundaries.

Warning 32881:
Reflection/transmission can only be computed for a single plane wave excitation.

Warning 32938:
The segmentation of a triangle connected to an impressed current source is too large.

Warning 32960:
Transmitted rays are not considered when modelling thin dielectric sheets with UTD.

Warning 32996:
Maximum number of iterations reached for the hybrid MoM and PO method without convergence.

Warning 33046:
Possibly wrong use of the specification "additional" for a source, please verify active sources.

Warning 33049:
The outdated solution methods FMM and FSSMM are no longer available, switching to the MLFMM.

Warning 33056:
Not enough memory to store the iterative solution at the minimum residuum.

Warning 33090:
Computation of the near field of an impressed spherical mode not possible at the source location.

Warnings 33092, :
A *.fmi file with special MLFMM parameters was found, however, the file will be ignored (no superuser mode).

Warning 33104:
Total power of all modes is zero, power of each mode in percent cannot be computed.

Warning 33105:
For the far field modal analysis less than 95% of the power was captured. Increase the maximum mode index N or use the automatic mode selection option.

Warning 33115:
Substrate layer is thin compared to the wavelength (possible convergence problems).

Warning :
Possible convergence problems: Dielectric layer too thin as compared to the wavelength.

Warning 33124:
Determination of the CPU-time failed, value invalid (use the run-time).

Warning 33130:
An invalid medium index is used at a DI card.

Warning 33136:
Setting the requested priority failed (only superuser can increase priority).

Warnings 33150, 38880:
Overflow when trying to evaluate far field data (field strength too large).

Warning 33155:
Iterative solution is set to zero since right-hand side is zero.

Warning 33163:
Skipping SAR computation since there are no losses.

Warning 33190:
The creation of a *.sar debug file is only possible on a Feko development platform.

Warning 33193:
Negative vertex coordinates found in the geometry, STL export will not be conformal to the standard, one might consider moving the geometry to make all coordinates positive.

Warning 33209:
Using a *.lud file to write/read the LU decomposition is only possible for an LU decomposition as solution method (solution settings).

Warning 33220:
Activation of the MLFMM at the EG card is outdated, please use the FM card.

Warning 33223:
Average SAR computation for MoM with special Green's function for a sphere is not available.

Warning 33226:
Average SAR computation and output as a function of the label is not possible for the MoM with the surface equivalence principle.

Warning 33230:
Average SAR is not computed in the exterior region.

Warning 33232:
Spatial-peak SAR search domain does not include the exterior (free space) region.

Warning 33233:
Spatial-peak SAR computation is not supported for the MoM with cuboidal volume elements.

Warning 33245:
The memory limits as set by #maxallocm or FEKO_MAXALLOCM are higher than what is physically available, the computation might possibly swap using virtual memory.

Warning 33253:
Distributed load capacitance is not a parallel capacitance per unit length but a fictitious negative series reactance. See Feko User's Manual.

Warning 33254:
Further warnings 888 will be suppressed.

Warning 33261:
Unexpected version number in the *.sha file, it might have been created with a newer Feko version.

Warning 33262:
Using a *.sha file for a geometry that may have changed (checksum mismatch).

Warning 33263:
The *.sha file does not match the current solution (number of PO basis functions).

Warning 33264:
The *.sha file does not match the current solution (number of MoM basis functions and excitations).

Warning 33268:
The parallel version of Feko does not support the usage of *.sha files (PO shadowing information).

Warning 33277:
The weighting scheme for MFIE/CFIE is not sufficient (more samples required).

Warning 33278:
Not enough memory available for the fast far field computation with MLFMM, using classical scheme (slower).

Warning 33279:
Not enough memory available for the fast far field computation with MLFMM, switching to the classical scheme (slower).

Warning 33321:
When applying the CB card no element with a matching label was found.

Warning 33323:
The selected preconditioner is not available; the FEM solution settings will be ignored.

Warning 33344:
For the field computation in connection with a multilayer planar Green's function the surface wave contribution is not included.

Warning 33383:
The type of integral equation for dielectric bodies can be set at the CF card only in the superuser mode.

Warning 33395:
When using symmetry it must be ensured that the direction of anisotropic fibres is also symmetrical.

Warning 33449:
Spatial-peak SAR computation and output as a function of the Green'Spatial-peak SAR computation and output as a function of the surface or volume equivalence principle.

Warning 33459:
Iterations terminated manually, Feko continues computation with the current solution (note, this could be wrong).

Warning 33463:
An old syntax for the level-of-fill is used at the CG card.

Warning 33465:
SPAI preconditioner available only for the MLFMM. Preconditioning switched off.

Warning 33510:
Error reading from the *.str file.

Warning 33521:
Forward travelling power for an active modal/waveguide port is zero, cannot compute reflection coefficient.

Warning 33526:
Cannot use fast far field computation for MLFMM (memory not available).

Warning 33563:
Frequency independent geometry checking (mesh overlaps etc.) is switched off.

Warning 33651:
Loop over frequency inside a loop over angles of plane wave incidence not allowed due to backwards compatibility reasons, plane wave loop ending.

Warning 33715:
Field point(s) inside the dielectric region not valid for RL-GO.

Warning 33768:
Directivity cannot be computed for far field calculations involving the RL-GO applied to lossy dielectric bodies, gain will be computed instead.

Warning 33859:
Unsupported version of Intel MKL detected at runtime: The version of Intel MKL that is currently loaded (<number>.<number>.<number>) does not match the expected version (<number>.<number>.<number>) that was used for testing and thus the correctness of any results cannot be guaranteed. - Use on your own risk..

Warning 34018:
Wrong value of the environment variable FEKO_PRECISION.

Warning 34024:
Not enough memory to allocate hash lookup tables, will not be used.

Warning 34034:
Far field computation in direction of incidence, but no plane wave present (using default direction).

Warning 34035:
Far field computation in direction of incidence, but multiple plane waves present (using direction of last one).

Warning 34057:
Error while deleting an existing *.str solution file.

Warning 34060:
A receiving antenna cannot be used together with the spherical Green's function.

Warning 34061:
A receiving antenna must not be located inside a FEM region.

Warning 34063:
Reading PO shadowing information from a *.sha file not possible (file will be deleted and newly created).

Warning 34064:
Error while deleting an existing *.sha PO shadowing file.

Warning 34065:
Setting the orientation of a vertex port to the direction of a wire segment is not possible when the port was specified by position.

Warning 34083:
UTD far field calculation when exciting with a plane wave is inaccurate (caustic problem of the UTD).

The warning is given when a plane wave is used together with the UTD solver. The caustics for the UTD causes the far field to be inaccurate. The plane wave is, however, allowed with the UTD when calculating near fields or the received power into an ideal receiving antenna.

Where it is required to use a plane wave and calculate the far field for an electrically huge problem, the RL-GO solver could be used.

Warning 34084:
A loop over observation points is used for the near field calculation but the increment is zero.

Warning 34085:
A grid of far field sample points was requested, but the specified increment is zero.

Warning 34086:
The increment at a frequency loop is zero, i.e. identical frequencies will be used.

Warning 34087:
The factor at a frequency loop is one, i.e. identical frequencies will be used.

Warning 34088:
Solution already progressed too far, cannot write the *.str file any more (will be created automatically when running Feko again).

Warning 34095:
Export of S-parameters with different port reference impedances to a Touchstone file possibly not compatible with other applications.

Warning 34170:
The current frequency lies outside the Touchstone frequency range. Network parameter data at the mininum/maximum frequency will be assumed.

Warning 34180:
Amplitude of a voltage source at a non-radiating network port is zero.

Warning 34224:
An error has occurred while computing the condition number of a matrix.

Warning 34226:
A near-singular matrix was encountered while computing the global impedance matrix for non-radiating networks.

Warning 34227:
Admittance matrix of a non-radiating network is near-singular.

Warning 34354:
Note that the computation of S-parameters when using a voltage source at a node has changed, possibly breaking backwards compatibility when loading a segment with a complex impedance. Please check the documentation.

Warning 34412:
The requested near field data samples do not describe a 3-D box. Use the Cartesian coordinate system with the number of sample points greater than one in each of the x-, y- and z-directions.

Warning 34413:
The SEMCAD export of field values requires calculation of both the electric and magnetic field values. Please request the correct near field types.

Warning 34414:
Field values already exported to SEMCAD file, keeping the original file.

Warning 34478:
A wire segment cannot be used to define a windscreen reference plane. These segments will be treated as conducting wires.

Warning 34481:
No further output of warnings because of invalid curvature computations.

Warning 34482:
The distance between a windscreen antenna element and the top glass layer is more than ten times the total glass thickness - check geometry.

Warning 34506:
The computed curvature length is shorter than the actual distance between the source and observer - please use finer reference plane mesh.

Warning 34509:
The computed curvature length is more than 1.1 times the actual distance between the source and observer - use finer reference plane mesh.

Warning 34535:
Directivity cannot be computed for far field calculations involving the windscreen modelling technique with losses in the glass layers, gain will be computed instead.

Warning 34571:
A windscreen reference plane with no windscreen solution elements defined will not be considered.

Warning 34691:
Duplicate definition of a ground plane at a single z-value. Ignoring redundant ground plane.

Warning 34693:
Double definition of a ground plane at a single z-value. Ignoring redundant ground plane.

Warning 34711:
The distance between the reference plane geometry and top glass layer is more than ten times the total glass thickness - check geometry.

Warning 34761:
The current through the load is zero, thus the voltage across the load cannot be computed.

Warning 34762:
The voltage across the load is zero, thus the current through the load cannot be computed.

Warning 35145:
Unable to enumerate the available NVIDIA GPUs.

Warning 35146:
No compatible NVIDIA GPUs were detected to use for GPU acceleration.

Warning 35147:
NVIDIA GPU CUDA BLAS could not be initialised.

Warning 35149:
Error while retrieving NVIDIA GPU device information.

Warning 35151:
Error while retrieving NVIDIA GPU memory.

Warning 35152:
NVIDIA GPU emulation is not supported.

Warning 35156:
NVIDIA GPU does not support minimum compute capabilities 1.0.

Warning 35204:
Command line option --use-gpu was used but no NVIDIA driver " #ifdef SRCPP__WINDOWS "DLL 'nvcuda.dll'" #else "shared library 'libcuda.so'" #endif " was found. Please check your NVIDIA driver installation..

Warning 35205:
Unable to detect NVIDIA GPU runtime API version.

Warnings 35219, 35220:
NVIDIA GPU initialisation error during LU-decomposition, switching to traditional LU-decomposition.

Warning 35424:
Unable to use a *.lud file for the MLFMM.

Warning 36003:
No further output of warning 593 .

Warning 36035:
Unable to use the *_fem.mat file with a distributed, parallel solution.

Warning 36110:
The selected preconditioner is not available for the parallel FEM/MoM; a suitable default will be used.

Warning 36111:
Not enough memory available for the pre-calculation of waveguide port weighting integrals.

Warnings 36146, 37443, 37445, 37447:
Zero-approximation eigenmodes are ignored.

Warning 36149:
The modes at a modal port are all evanescent.

Warning 36176:
No export of S-parameter results since no active ports are defined.

Warning 36237:
Medium losses at a modal port may affect quality of port termination.

Warning 36274:
Orientation of the fundamental mode at a modal port is potentially not unique. S-parameter and other results may be influenced by this.

Warning 36275:
The modal port eigensolver encountered a problem with calculation of evanescent modes.

Warnings 36276, 36277:
Preconditioner size exceeds 4-Byte integer storage. Lowering the ILU fill-in parameter.

Warning 36309:
No mesh elements with the specified label(s)/label range were found to perform error estimation.

Warning 36425:
The incomplete LU factorisation for the preconditioner is not stable. Changing the preconditioning.

Warning 36496:
Stopping criterion for the iterative solution might not be sufficient for a converged solution (results could be wrong).

Warning 36566:
The medium properties of a volume equivalence principle region are identical to those of the surrounding medium.

Warning 36568:
No further output of warning 36566.

Warning 36569:
The medium properties of a volume equivalence principle region is purely dielectric or magnetic. Change the tetrahedron type for a more efficient solution with the MoM.

Warning 36570:
No further output of warning 36569.

Warning 36602:
Non-optimal symmetry for VEP tetrahedra.

Warning 36625:
The modal port eigensolver encountered a problem with calculation of higher order modes.

Warning 36669:
Memory requirement for preconditioner could not be determined.

Warning 36672:
Sampling distance for a loop over near field observation points is zero. Calculation deactivated.

Warning 36679:
Calculation of potentials is not supported at observation points inside a FEM region.

Warning 36688:
The SPARK3D export of field values requires calculation of both the electric and magnetic field values. Please modify the near field calculation request.

Warning 36739:
The selected preconditioner is not supported after the previous preconditioner setting; a suitable default will be used.

Warning 36740:
The direct sparse solver is not available after the previous preconditioner setting; a suitable default will be used.

Warning 36752:
No further output of warning 3489.

Warning 36753:
No further output of warning 3490.

Warning 36766:
Work space requirements for the sparse LU factorisation may exceed the 4-Byte integer limit (overflow). Consider to reduce the problem size.

Warning 36789:
Deactivating low frequency stabilisation of the FEM since it is not supported for the hybrid FEM/MoM.

Warning 36791:
Direct solution may not be accurate. It is highly recommended to use double precision accuracy (solution settings).

Warning 36792:
Direct solution may not be accurate. Verify results.

Warning 36811:
Spatial-peak SAR extraction is not currently supported for the FDTD solver.

Warnings 36812, 36813:
Average SAR computation is not currently supported for the FDTD solver.

Warning 36827:
Error estimation is not available on voxels.

Warning 37087:
No further output of warning 4682.

Warning 37088:
No further output of warnings 115/117/39050.

Warning 37089:
No further output of warnings 121/38015.

Warning 37090:
No further output of warnings 258/503.

Warning 37091:
No further output of warning 1164.

Warning 37121:
Unable to use the *_fem.mat file when doing distributed storage of matrix for a parallel solution.

Warning 37146:
Currently, only a single DD-card is supported in Feko. Using only the last one specified.

Warning 37148:
Invalid domain decomposition method selected. Only the NGF technique is supported at the moment in Feko. Using standard MoM instead.

Warning 37164:
Using a *.ngf file to write/read the LU decomposition of the NGF is only possible for an LU decomposition as solution method (solution settings).

Warning 37165:
Using the NGF solution is not available in this version of Feko yet. Using standard MoM instead.

Warning 37167:
Using the NGF solution in connection with FEM models is not supported. Using standard MoM instead.

Warning 37168:
The NGF solution is currently not allowed for this geometry. Using standard MoM instead.

Warning 37183:
The static interaction matrix is numerically singular, solution very critical.

Warning 37197:
Dynamic interaction matrix is numerically singular, solution very critical.

Warning 37204:
Unable to use *.ngf file for an MLFMM solution.

Warning 37205:
Unable to use *.ngf file for a FEM solution.

Warning 37331:
ACA compression is not supported in connection with the Numerical Green's Function.

Warning 37339:
Unable to use a *.lud file for a domain decomposition solution.

Warning 37340:
Unable to use a *.mat file for a domain decomposition solution.

Warning 37341:
The far field is requested in a different coordinate axis than that of the incident plane wave source. The field will be calculated in the coordinate axis of the source.

Warning 37437:
Loop over frequency inside a loop over characteristic modes currently not allowed. Characteristic mode loop ending.

Warnings 37440, 37480:
An empty loop over the eigencurrents is specified for the characteristic mode analysis request.

Warning 37517:
Unable to use a *.lud file for the domain Green's function method.

Warning 37518:
Unable to use a *.mat file for the domain Green's function method.

Warning 37534:
Excitation vector not set up to calculate the modal excitation coefficients.

Warning 37535:
Total power of all characteristic modes is zero, power of each mode in percent cannot be computed.

Warning 37544:
Duplicate eigencurrents are mapping to the same index.

Warning 37562:
A junction of triangles is not allowed on the boundary between the static and dynamic domains for the Numerical Green's Function method.

Warnings 37585, 53049:
Symmetrising the MoM impedance matrix for CMA is not allowed for parallel runs.

Warning 37591:
Non-radiating characteristic modes were removed.

Warning 37630:
The eigenmodes calculated for CMA are not all orthogonal.

Warning 37631:
The number of requested eigenmodes for CMA is more than the number of modes that could be calculated.

Warning 37641:
The use of equivalent spherical mode sources to replace a near field source can only be deactivated in superuser mode.

Warning 38015:
Coarse segmentation for PO triangular patches (large element PO with near field request).

Warning 38029:
Output and export of surface current and charge densities are not supported for large element PO regions.

Warning 38037:
GPU acceleration not supported yet for parallel Feko runs.

Warning 38038:
Usage of GPU acceleration was requested through command line option --use-gpu, but your Feko licence does not allow this, thus deactivating GPU usage.

Warnings 38039, 38040:
Consistency check failed during global percent progress computation, please notify Feko Support.

Warning 38142:
Predefined coaxial cable: expecting a frequency in the specified range for the shield measurement data. Revert to using parameters at the lowest/highest frequency.

Warning 38163:
Cable node point defined in duplicate.

Warning 38249:
A receiving antenna cannot be modelled when using periodic boundary conditions.

Warning 38323:
Combined MoM/MTL cable is possibly in contradiction to the specified x=0 plane electr./magnet. symmetry wall. Switching to geometrical symmetry.

Warning 38324:
Combined MoM/MTL cable is possibly in contradiction to the specified y=0 plane electr./magnet. symmetry wall. Switching to geometrical symmetry.

Warning 38325:
Combined MoM/MTL cable is possibly in contradiction to the specified z=0 plane electr./magnet. symmetry wall. Switching to geometrical symmetry.

Warning 38327:
No cable load found connecting the combined MoM/MTL cable shield to ground. Assuming a high impedance connection to ground.

Warning 38347:
Amplitude of a voltage source at a cable port is zero.

Warnings 38494, 38520:
ACA compression is not supported in connection with low frequency stabilisation, switching to standard MoM.

Warnings 37309, 38497:
The Numerical Green's Function is not supported in connection with low frequency stabilisation, switching to standard MoM.

Warning 38525:
The selected type of preconditioning is not possible with low frequency stabilisation; a suitable default will be used.

Warning 38526:
A windscreen has been defined but with no solution elements (metallic triangles/segments). Windscreen properties will not be considered.

Warning 38625:
One or more cable segments are defined at a distance larger than 0.1 wavelengths from a conducting surface.

Warning 38641:
SPICE probe applied at a position outside the cable path section length limits.

Warning 38719:
A negative resistor modeling an active element can cause convergence problems. If possible please avoid it.

Warning 38721:
Switching to the approximate analytical solutions for the per-unit-length cable parameters is only possible in the superuser mode.

Warning 38881:
The effect of the ground plane is taken into account when doing a spherical mode analysis. A high number of modes may be required to extract accurate coefficients.

Warning 38923:
Using a "T" lumped element circuit to model a per-unit-length section of cable is only possible in the superuser mode.

Warning 38926:
A SPICE interconnect circuit applied to a cable harness has connectors separated by more than 5% of the total harness length.

Warning 38935:
A SPICE circuit element has an unconnected floating terminal. Please verify circuit connections.

Warning 38936:
No further output of notes 38677/39314/39323 or warning 38926.

Warning 38953:
One or more cable segments are defined at a distance larger than 0.1 wavelengths from a conducting surface. MTL theory, based on the propagation of a quasi-TEM mode, may be violated..

Warning 39054:
Execution of SPICE failed (retry using .option rshunt = 1.0e12).

Warning 39055:
No further output of warning 39054.

Warning 39064:
Two cable path sections intersect. Please confirm that these sections are defined along the correct route.

Warning 39065:
No further output of warning 39064.

Warning 39097:
No further output of warning 38327.

Warning 39133:
No further output of warning 38935.

Warning 39170:
Not enough memory available for the fast far field computation, switching to the classical scheme (slower).

Warning 39205:
Continuous far field data not available.

Warning 39253:
The transmit power of a receiving antenna described by near field aperture(s) is zero, no power will be received.

Warning 39268:
The radiated power of a receiving antenna described by a far field pattern is zero, no power will be received.

Warning 39269:
A receiving antenna described by a far field pattern should not coincide with a source location.

Warning 39270:
A receiving antenna described by a far field pattern is positioned too close to a scatterer, far field condition not met.

Warning 39287:
A high number of modes may be required to extract accurate coefficients due to the far field being zero in a lossy background medium.

Warning 39300:
The --check-only option takes preference over the --mtl-circuit-export option. Please change the command line options if SPICE MTL circuit file export is required.

Warning 39301:
The options --mtl-circuit-export and --ares-emc cannot be used simultaneously. Please change the command line options accordingly.

Warning 39303:
Harnesses solved with the combined MoM/MTL method are excluded from SPICE circuit file export. A circuit description for the external most problem does not exist.

Warning 39310:
S-parameter requests may not be used to trigger the export of SPICE circuit files.

Warning 39470:
For the far field modal analysis the maximum requested mode index N is higher than the estimate of what the model should support. Reduce the maximum mode index or use the automatic mode selection option to reduce runtime.

Warning 39490:
The radiated power of a receiving antenna described by spherical modes is zero, no power will be received.

Warning 39491:
The radiated power of the transmit antenna is zero, no power will be received.

Warning 39494:
The transmit and receive antennas should both be located in the background environment.

Warning 39509:
Not enough memory available for the fast far field computation with RL-GO, switching to the classical scheme.

Warning 39584:
Calculating a finite bounding box not possible when modelling an infinitely long cylinder. A possibly too low order prediction of the model will be assumed.

Warning 39839:
Execution of SPICE failed (retry using .option gshunt = 1.0e-12).

Warning 39840:
No further output of warning 39839.

Warning 39894:
Execution of SPICE failed (retry using .options rshunt = 1.0e12).

Warning 39895:
No further output of warning 39894.

Warning 39933:
There may be a mismatch in the specified SPICE executable and engine. Please verify SPICE environment settings.

Warnings 40105, 40106:
Invalid preconditioner selected when using ACA. Preconditioning switched off.

Warning 40109:
Invalid preconditioner selected (ACA pre-conditioner for non-ACA run). Preconditioning switched off.

Warning 40110:
Error while initialising the CUDA driver. Please check your NVIDIA driver installation..

This warning indicates that the GPU will not be used during the simulation.

It could occur on Microsoft Windows when running FEKO through remote desktop and requesting to use GPU processing.This is a Windows Remote Desktop limitation that stems from the fact that a different display driver is used for the remote desktop session. This means that the CUDA driver cannot be initialised by FEKO – since it is not available – and the error results. Users can try VNC or GotoMyPC or RemotelyAnywhere etc. instead of the Windows Remote Desktop for remotely connecting into Windows machines.

If the computer has a dedicated CUDA device (not used for graphics rendering), then this can be put into TCC mode and should then also be detected under Windows Remote Desktop.

Warning 40111:
Error initialising NVIDIA CUDA, deactivating GPU usage.

Warning 40112:
ACA compression is not supported in connection with FEM models, using standard MoM.

Warning 40113:
GPU computing for ACA not supported yet, using normal CPU.

Warning 40146:
GPU acceleration is not supported for this platform.

Warning 40147:
Near fields for spherical modes are computed in the cut-off region beta*R < N, reduce spherical wave order N or increase distance R.

Warning 40174:
Error while initialising the CUDA driver. This may be due to an incorrect list of devices following the --use-gpu option..

Warning 40175:
Error setting the CUDA_VISIBLE_DEVICES environment variable..

Warning 40176:
More GPUs were requested using the --use-gpu command line option than what are installed. Using the number of installed devices instead..

Warning 40177:
An error occurred setting the number of GPUs to use..

Warning 40178:
FEKO_GPU_DEBUG must be specified using an integer value..

Warnings 40179, 40180:
The GPU-based LU decomposition failed. Attempting to use the CPU implementation.

Warning 40270:
Unsupported CUDA device version. Deactivating GPU computing.

Warning 40271:
No compatible CUDA device was found. Deactivating GPU computing.

Warnings 36203, 36204, 40281, 40286:
Maximum number of iterations reached during eigenvalue calculation.

Warning 40396:
The time signal in a frequency domain configuration can only be customised in superuser mode.

Warning 40401:
FDTD process could not continue on the GPU: insufficient GPU memory. Switching to CPU.

Warning 40505:
Calculation of currents and charges using the FDTD is not supported.

Warning 40506:
Further warnings such as this will be suppressed.

Warning 40510:
An automatic far field request will be disabled due to the presence of parallel closed boundaries. This may mean that some quantities will not be calculated.

Warning 40511:
An error occurred setting a CUDA environment variable.

Warning 40645:
Dielectric and PEC wedges with coatings or skin effects "\ "are not considered for RL-GO diffraction.

Warning 40709:
A *.json file with special parameters was found, the default and model settings will be overwritten by these values.

Warning 40710:
A *.json file with special parameters was found, however, the file will be ignored.

Warning 43002:
Further warnings 2756 will be suppressed.

Warning 45010:
Frequency dependent mesh element size checking is switched off.

Warning 45147:
Multiple boundary specifications. Using the last specification.

Warning 45153:
Automatic boundary specification. Adding a single cell.

Warning 45181:
The FDTD domain does not extend far enough to include all field request points. Fields beyond the boundary will be set to zero..

Warning 45199:
Less than one period was requested for the signal time interval. The solution may not converge.

Warning 45337:
Direct ray field is computed at a caustic line or point.

Warnings 45366, 45367:
Creeping rays are not computed for observation points on the geometry surface with UTD.

Warnings 45376, 56053, :
Reflected ray field is computed at a caustic line or point.

Warning 45397:
Surface transmission is not supported with UTD.

Warnings 45429, 56054:
Reflected ray field UTD approximation inaccurate; ray segment length is too small.

Warning 45430:
No further output of warning 45429.

Warning 45447:
Possible inaccurate UTD creeping ray path found: minimum error not reached.

Warning 45448:
UTD creeping ray field is possibly computed at a caustic line or point.

Warning 45471:
GPU computing for faceted UTD not supported yet, using normal CPU.

Warning 45482:
No further output of warning 45448.

Warning 46000:
Deactivating interpolation for periodic boundary conditions is only possible in superuser mode.

Warning 46015:
The courant factor can only be specified in superuser mode.

Warning 46019:
Analytical Fourier transform is not defined.

Warning 46020:
Modulated Gaussian signal has modulating frequency of zero.

Warning 46049:
The FDTD solution may not be stable for the specified inductor load.

Warning 46089:
Unable to use *.lud file for an out-of-core solution.

Warning 46130:
The *.mat, *.lud, or *.ngf file seems to be corrupt. It will be deleted and recalculated.

Warning 46165:
Not enough memory available on the hard disk for a *.mat file.

Warning 46166:
Not enough memory available on the hard disk for a *.lud file.

Warning 46167:
Not enough memory available on the hard disk for a *.ngf file.

Warning 46168:
*.mat file write disabled in earlier configuration for lack of disk space.

Warning 46169:
*.lud file write disabled in earlier configuration for lack of disk space.

Warning 46170:
*.ngf file write disabled in earlier configuration for lack of disk space.

Warning 46171:
It is recommended to use double precision accuracy (solution settings).

Warning 46174:
Not enough memory available on the hard disk for a *.acl file.

Warning 46175:
*.acm file write disabled in earlier configuration for lack of disk space.

Warning 46247:
Do not use preconditioner with direct ACA solver -- has been reset.

Warning 46248:
The direct sparse solver is only a valid choice for the ACA.

Warning 46267:
Compression of a loop over plane wave directions of incidence was unsuccessful. Continuing with compression disabled.

Warnings 46095, 46272:
Unable to use *.mat file for an out-of-core solution.

Warning 46279:
Not enough memory available on the hard disk for a *.acm file.

Warning 46284:
*.acl file write disabled in earlier configuration for lack of disk space.

Warning 47012:
Some triangles are treated as planar due to a very small edge length compared with the wavelength; this may lead to inaccurate results for RL-GO/UTD, please check the mesh..

Warning 47018:
Ray launching angular increment does not contain positive real values in both directions for RL-GO in 'manual' mode. Switching to 'automatic' mode..

Warning 47019:
Ray launching spatial increment does not contain positive real values in both directions for RL-GO in 'manual' mode. Switching to 'automatic' mode..

Warning 47035:
Cone tip diffraction is considered for UTD but no direct and reflected ray contributions.

Warning 47061:
PO with an infinite ground plane does not consider illumination on the PO region from the reflection on the ground plane.

Warning 47092:
Curvilinear triangles will be treated as flat triangles during export to the STL file.

Warning 47101:
A *.json file with special RL-GO parameters was found, the ray-launching settings will be overwritten.

Warning 47102:
A *.json file with special RL-GO parameters was found, however, the file will be ignored.

Warning 47145:
Output and export of surface current and charge densities are not supported for RL-GO regions.

Warning 47146:
Output and export of surface current and charge densities are not supported for UTD regions.

Warning 47223:
Lossy metallic surfaces with low or high frequency skin effect approximation are not supported with UTD; the exact expression of the skin effect will be used instead.

Warning 47262:
No secondary sources created during ray-launching, check that rays actually hit the geometry.

Warning 47265:
Requirements for applying the RL-GO approximation are not met (distance from source to first interaction point too small).

Warning 47266:
Requirements for applying the RL-GO approximation are not met (uniform ray-launching angular increment too coarse).

Warning 47267:
Requirements for applying the RL-GO approximation are not met (uniform ray-launching spatial increment too coarse).

Warning 47268:
Some rays could not be traced correctly and were discarded, please check geometry/medium and ray information in output file.

Warning 47620:
Diffraction effects are not supported for RL-GO coupled to a MoM region..

Warning 47665:
Diffraction effects are not supported for RL-GO with the current configuration..

Warnings 47666, 47667:
Requirements for applying the RL-GO approximation are not met (adaptive ray-launching angular increment too coarse.

Warnings 47668, 47669:
Requirements for applying the RL-GO approximation are not met (adaptive ray-launching spatial increment too coarse.

Warning 47731:
Only reflected and transmitted ray contributions are considered for RL-GO; other ray contributions will be ignored for RL-GO.

Warnings 47782, 47783:
Requirements for applying the RL-GO approximation are not met (adaptive ray-launching spatial/ angular increment too coarse.

Warning 47857:
Field point inside the dielectric region not valid for UTD.

Warnings 45446, 47985:
Creeping ray paths are not computed for observation points close to a point source location.

Warnings 47998, 56015:
Creeping ray field is computed at a caustic line or point.

Warning 48087:
Amplitude of a voltage source at a voxel port is zero.

Warning 48090:
All waveform signals should match for the computation of the frequency domain response from a time domain analysis.

Warning 48104:
No excitation has been defined for the FDTD solver.

Warning 48126:
Large voxel aspect ratio may influence numerical accuracy.

Warning 48127:
No further output of warning 48126.

Warning 48128:
The current at the active port is zero, S-parameters cannot be computed.

Warning 48135:
Finite difference time domain solution may not be converged.

Warning 48142:
A wire is thick compared to the voxel size.

Warning 48151:
Export of signal spectrum not possible due to invalid spectrum.

Warning 48155:
A receiving antenna is not supported with an FDTD solution.

Warning 48157:
Power loss calculation in dielectric media is not supported in a lossy environment.

Warning 48158:
Power loss calculation in dielectric media is not supported with a plane wave excitation.

Warning 48159:
A wire is too thin compared to the voxel size.

Warning 48160:
The boundary layer extends into the interior voxel space, extending objects touching the open boundary to infinity. This is supported, but not intended for production usage.

Warning 48161:
The modes at a waveguide port are all evanescent.

Warning 48193:
Input from a *.prj file is not supported in parallel.

Warnings 48352, 48353:
Integer overflow during the multiplication.

Warning 48413:
The --estimate-resource-requirements-only option takes preference over the --mtl-circuit-export option. Please change the command line options if SPICE MTL circuit file export is required.

Warning 48446:
Recovering from an inadequate compression of multiple right-hand sides.

Warning 48543:
Too many parallel processes for a balanced FEM matrix distribution.

Warning 48593:
No solution will be computed due to a missing frequency definition.

Warning 48600:
Iterations terminated due to stagnation in convergence progress, using in the following the solution with the smallest residuum.

Warning 48636:
Coarse mesh of a waveguide port for representing the field distribution of the modes included in the mode expansion.

Warning 49004:
Switching to the hybrid iterative MoM and PO method since the MoM region is too large for the fully coupled method.

Warning 49005:
Reflection/transmission not defined due to possible grating lobes.

Warning 49016:
Magnetic near field inside the coating layer of the dielectric sphere might be inaccurate.

Warning 49026:
Maximum number of iterations reached for the stabilised MLFMM method without convergence.

Warning 49032:
Large element physical optics triangles at wire connections not allowed. Converting them to normal PO triangles..

Warning 49034:
Penetration depth of the skin effect is less than the surface thickness.

Warning 49047:
The MLFMM might be inaccurate for high shielding or coatings.

Warning 49066:
Higher order basis functions cannot be used at connection points or junctions. Switching to standard RWG order..

Warning 49067:
Disable preconditioning when using DEBUG_OUTPUT_AMN_FMM.

Warning 49069:
Uncoupled domain Green's function method (DGFM) is only supported for models consisting of metallic triangles in a homogeneous region (coupling will now be enabled).

Warning 50116:
Unsupported version of CUDA detected at runtime: The CUDA version that is currently loaded (<number>.<number>) does not match the expected version (<number>.<number>). The correctness of any results cannot be guaranteed. - Use on your own risk..

Warning 50194:
The RL-GO on multiple GPUs was requested while the solver supports only a single GPU.

Warning 50242:
In the plane wave loop, one plane wave is impinging at grazing angle. Results may be inaccurate..

Warning 50305:
Dimension of the base for FGMRES is too big.

Warning 50306:
Dimension of the base for FGMRES should be equal to restart.

Warning 50326:
The MoM matrix is too big for computing the SVD..

Warning 50327:
A fixed number of restarts may lead to slower convergence or divergence for the iterative solver.

Warning 50349:
The surface roughness parameter should be between 50 nm and 100 um.

Warning 51000:
An invalid number of points were specified for one or more of the dimensions of the near field request (defaults to 1).

Warning 51001:
An invalid number of points were specified for one or more of the dimensions of the far field request (defaults to 1).

Warning 52426:
Error reading from file.

Warning 52428:
Error deleting an existing file: <text>.

Warning 52527:
Fast far field calculations can only be deactivated in superuser mode.

Warning 52687:
Short lossy transmission line extensions were cascaded to the Touchstone network parameters to avoid calculating a singular admittance matrix.

Warning 52939:
A near-singular matrix was encountered while computing the global admittance matrix for non-radiating networks.

Warning 52978:
No further output of warnings that sources are close to an infinite ground.

Warning 52979:
The input impedance is infinite due to the port current being zero.

Warning 52989:
The reflection and transmission coefficients of a multilayer substrate might be inaccurate because the two side mediums are different.

Warning 53045:
SPICE probe applied to a non-existing/inactive cable path section.

Warning 53066:
The search algorithm for the spatial-peak SAR extraction failed to search the MoM region (volume equivalence principle).

Warning 53119:

Possibly inaccurate active power (far field gain) when using equivalent sources in a coupled environment.

The assumption with any equivalent impressed source (far field pattern, near field aperture and spherical mode source), is that the equivalent source is uncoupled from the environment. Meaning the impressed field of the equivalent source is not changed / influenced by geometry or other equivalent sources. This assumption also applies to equivalent receivers

The total E-field and H-field in a coupled environment is calculated via complex vector addition of the impressed fields of each equivalent source and the field contribution from the geometry.

To show this consider a 7-element dipole array where the element radiation pattern is calculated for each dipole and an array pattern where the main beam is scanned to (theta, phi} = {90, 94} degrees., see Figure 1. The element pattern is calculated by exciting each dipole in the array with a voltage source with unit amplitude and zero phase. All the dipoles are loaded with 50Ohm

In the equivalent source model, the element radiation patterns are used to reproduce the scanned array pattern. The scan pattern E-field matches exactly between the two models, see Figure 2, as the element pattern includes the coupling to the other dipoles.

Given that the impressed field of an equivalent source is uncoupled from the environment and other equivalent sources, the source power is calculated in isolation in the background medium (free space). Meaning no other structures or equivalent sources are considered.

If the physical sources are not uncoupled from the environment, then generally the source power from the equivalent sources will be inconsistent with the total radiated power of the combined solution. To highlight this inconsistency Feko gives: "WARNING 53119: Possibly inaccurate active power (far field gain) when using equivalent sources in a coupled environment".

Far field directivity could also be inaccurate as the total radiation efficiency of the equivalent sources in the environment is also calculated without coupling.

The total field (near field and far field) of the equivalent impressed sources in the coupled environment is correct. The true directivity can be recovered by integrating the far-field power density over a full sphere to obtain radiated power (P_radiated_FF). With P_radiated_FF you can scale the linear directivity (Directivity_eqv) obtained with the equivalent source solution by:

Directivity = Directivity_eqv*(P_source*eta)/P_radiated_FF

where P_source is the total active source power and eta is the radiation efficiency. Both these quantities are for the equivalent source model in the environment.

In a coupled environment the far-field gain of the equivalent source model can’t generally be recovered as the antenna source power (input reflection coefficient) can change when it is placed in the environment.

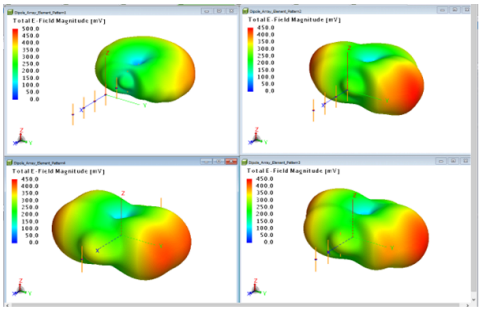


Figure 1: Element radiation patterns of dipoles 1 to 4 (clockwise from top left). The element patterns of dipoles 5,6 and 7 are mirror images of dipole patterns 3, 2 and 1.

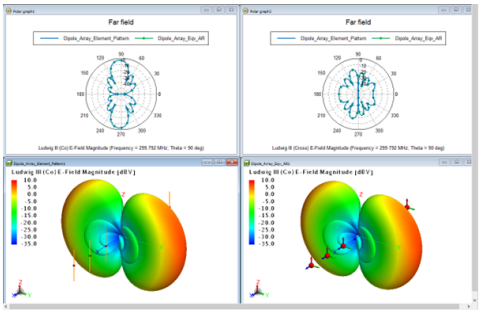


Figure 2: E-field scan pattern comparison between the full and equivalent source representation

Warning 53251:
The option to specify a coaxial cable by constant propagation constant is no longer supported. The parameter will be mapped to an equivalent attenuation and velocity of propagation at 1kHz.

Warning 53263:
The approximation used to model a microstrip edge port may not be accurate when the port is defined in close vicinity to the aperture.

Warnings 53305, 53307, 53349, 53351:
When using Romberg integration M has to be increased.

Warning 53320:
Possibly inaccurate active power when using near field sources with open apertures.

Warning 53369:
Coating layer applied to a cable cross section is possibly too thick.

Warning 53406:
Radiation source imaging calculations will not be performed when RL-GO and MoM solutions are decoupled and the MoM solution is read from the *.str file.

Warning 53512:
The sum of all inflowing/outgoing currents at an impressed current end point is not zero. Point charges at these terminations are not considered.

Warning 53582:
Scaling factor for an impressed solution coefficients source is zero.

Warning 53660:
Impressed solution coefficient data: expecting a frequency in the interpolation range. Revert to using parameters at the lowest/highest frequency.

Warning 53691:
Spherical mode data: expecting a frequency in the interpolation range. Revert to using parameters at the lowest/highest frequency.

Warning 53692:
Spherical mode data: interpolation deactivated due to a change in the number of modes over frequency. Revert to using parameters at the closest frequency.

Warning 53699:
Spherical mode data: mismatch between the operating frequency and the frequency for which the data was defined.

Warning 53736:
PCB current data: expecting a frequency in the interpolation range. Revert to using parameters at the lowest/highest frequency.

Warning 53748:
PCB current data: mismatch between the operating frequency and the frequency for which the data was defined.

Warning 53751:
Impressed solution coefficient data: mismatch between the operating frequency and the frequency for which the data was defined.

Warning 53756:
Far field data: mismatch between the operating frequency and the frequency for which the data was defined.

Warning 53757:
Far field data: expecting a frequency in the interpolation range. Revert to using parameters at the lowest/highest frequency.

Warning 53816:
Calculation of potentials is not supported in combination with RL-GO/UTD.

Warning 53820:
Near field data: mismatch between the operating frequency and the frequency for which the data was defined.

Warning 53821:
Near field data: expecting a frequency in the interpolation range. Revert to using parameters at the lowest/highest frequency.

Warning 53883:
Scaling factor for a near field source is zero.

Warning 53941:
Failure to compute the spherical modes of the transmit antenna, no power will be received.

Warnings 33093, 53968:
Unable to use *.mat file for an MLFMM solution.

Warning 53969:
Braided shield: the transfer impedance is defined by an empirical formula that was derived by fitting the formula to measurement data, which is typically valid for frequencies below 500 MHz.

Warning 53974:
One or more cross-sectional dimensions, such as the conductor separation distances, are not electrically small. MTL theory, based on the propagation of a quasi-TEM mode, may be violated..

Warning 53975:
The cross-sectional circumference of a cable is not electrically small. MTL theory, based on the propagation of a quasi-TEM mode, may be violated..

Warning 55087:
Export of multiport data package manifest/configuration data to *.mdm/*.mcc files requires all ports to be active in the S-parameter configuration.

Warning 56022:
Triangles with normal vectors pointing in opposite directions.

Warning 56023:
Distance from a source to a wedge diffraction point is very small for UTD approximations to remain valid; this ray is discarded.

Warning 56024:
Distance from a observation point to a wedge diffraction point is very small for UTD approximations to remain valid.

Warning 56025:
No further output of warning 56023.

Warning 56026:
No further output of warning 56024.

Warning 56029:
Distance from a source to a corner diffraction point is very small for UTD approximations to remain valid; this ray is discarded.

Warning 56030:
No further output of warning 56029.

Warning 56031:
Distance from a observation point to a corner diffraction point is very small for UTD approximations to remain valid.

Warning 56032:
No further output of warning 56031.

Warning 56035:
Corner ray field is computed at a caustic line or point.

Warning 56036:
Corner ray diffracted field UTD approximation inaccurate; frequency too low, source or observer close to diffraction point, or incident ray close to paraxial wedge region.

Warning 56038:
No further output of warning 56036.

Warning 56055:
No further output of warning 56054.

Warning 56059:
Wedge ray field is computed at a caustic line or point.

Warning 56060:
Wedge ray diffracted field UTD approximation inaccurate; frequency too low, source or observer close to diffraction point, or incident ray close to paraxial wedge region.

Warning 56062:
No further output of warning 56060.

Warning 56070:

Multiple interactions are only supported with UTD for reflected rays and reflected plus one wedge diffracted rays.

OPTFEKO

4

View the list of messages that may be reported by OPTFEKO.

Errors

Error 21010:
File '<text>' not found.

Error 21018:
Error writing the file '<text>'. .

Errors 21000, 21001, 21002, 21003, 21004, 21005, 21006, 21025, 21034, 21085, 21086, 21097, 21349, 21369, 21370:
Error at allocation of memory.

Errors 21033, 21385:
Error reading from the file '<text>'.

Error 21295:
Invalid number of parallel processes obtained from the machines file.

Error 21324:
GA specified population size should be at least 2.

Error 21325:
PSO specified population size should be at least 1.

Errors 21347, 21348, 21352, 21353, 21357, 21358, 21371:
Terminating due to errors when adding entries to the OPTFEKO buffer (see previous detailed error message).

Error 21368:
Method not yet supported with HyperOpt.

Errors 21041, 21087, 21350, 21351, 21362, 21375, 21381:
Internal error.

Errors 21354, 21355, 21356, 21363, 21364, 21365, 21366, 21378:
Terminating OPTFEKO due to errors (see previous detailed error message).

Error 33866:
HyperOpt interface not supported for this platform..

Warnings

Warnings 21049, 21051, 21367:
Maximum number of analyses reached (possible premature convergence).

Warnings 21062, 21063:
Insufficient data for computation of standard deviation.

Warning 21098:
The Simplex Nelder-Mead algorithm will run sequentially while moving the simplex. Farming will only be utilised when a new simplex is being constructed.

Warning 21293:
Optimisation will only use <number> parallel processes due to the PSO population size.

Warning 21294:
Optimisation will only use <number> parallel processes due to the GA population size.

Warning 21327:
Grid Search may be inefficient due to the large number of analyses requested.

Warning 21382:
ARSM does not support farming, OPTFEKO will continue running sequentially.

Warning 21383:
The GRSM algorithm requires a minimum number of iterations to find an optimum solution. The number of farming processes will be reduced in order to increase the number of iterations. Increase the maximum number of solver runs to avoid limiting the number of farming processes.

PREFEKO

View the list of messages that may be reported by PREFEKO.

Errors

Error 23004:
Wrong syntax of a cable interconnect/termination: Connection name is missing.

Errors 23005, 23010, 23011, 23012, 23384, 23391, 23405:
Continuation line expected for a cable interconnect/termination.

Errors 23006, 23013, 23294, 23403:
When defining a cable connection the connector name should not be empty.

Errors 23008, 23009:
Wrong syntax defining a cable interconnect/termination pin-to-pin connection: Connector name is missing.

Error 23014:
Number of cable interconnect/termination pin connections (in *.pre file) expected to be greater than zero.

Error 23015:
Wrong syntax defining a cable interconnect/termination: Filename is missing (*.cir).

Error 23016:
Number of cable interconnect/termination straight connector connections expected to be greater than one.

Error 23017:
Number of cable interconnect/termination pin connections (SPICE circuit) expected to be greater than one.

Error 23018:
Wrong number of continuation lines for the OF card.

Error 23020:
Invalid usage of a Finite Array Analysis specification.

Error 23022:
Adding a voltage source in series to a cable load requires FEKO file format 125 or later.

Error 23023:
Adding a voltage source in parallel w.r.t a cable load requires FEKO file format 125 or later.

Errors 23024, 23025, :
Wrong syntax adding a voltage source to a radiating cable: Connector name is missing.

Error 23026:
The change of labels (CB card) must be used before the EG card.

Errors 23027, 23028, 23029:
Wrong number of continuation lines for the FR card.

Error 23030:
Wrong syntax of the FA card: Incorrect value for the number of elements.

Error 23031:
Wrong syntax of the OM card: Incorrect value for the number of elements.

Errors 23034, 23035:
An error occurred while parsing a numeric attribute value from MFA file.

Error 23036:
Unsupported MFA file version.

Error 23037:
An error occurred while parsing a MFA file.

Error 23038:
Internal error while creating schema for MFA import.

Error 23039:
Error while opening file for MFA import.

Error 23040:
Internal error while attaching schema validator for MFA import.

Error 23041:
Wrong syntax of the FA card: Filename is missing.

Error 23042:
Wrong syntax for configuration change: Configuration name is missing.

Error 23045:
The configuration name #<text> is used but has never been defined..

Error 23052:
Internal PREFEKO error (ncname list <number> <number>).

Error 23053:
Expecting a continuation line when parsing a SPICE circuit definition from the *.pre file.

Error 23054:
Expecting a continuation line when parsing SPICE circuit data from the *.pre file.

Error 23056:
SPICE circuit file content specified directly in the PRE file requires FEKO file format 132 or later.

Error 23057:
Wrong syntax for .INCLUDE filename: Closing quotation mark is missing.

Error 23058:
Internal PREFEKO error (ksname list <number> <number>).

Error 23059:
Internal PREFEKO error (kcname list <number> <number>).

Error 23060:
Internal PREFEKO error (kpname list <number> <number>).

Error 23064:
The cable signal name #<text> is used but has never been defined..

Error 23065:
The cable connector name #<text> is used but has never been defined..

Error 23066:
The cable connector pin name #<text> is used but has never been defined..

Error 23071:
Too many different '<text>' names are used (a maximum of <number> are supported).

Error 23073:
Invalid character '<character>' in the name, '<text>' (acceptable characters are letters A-Z, digits 0-9, the underscore _ as well as the dot .).

Error 23078:
Wrong syntax when specifying a modal port: Modal port name is missing.

Error 23079:
Wrong syntax when specifying a modal port excitation: Modal port name is missing.

Error 23080:
Cable signal details may only be added in FEKO file format 133 or later.

Error 23081:
Wrong syntax defining cable signal details: Cable path name is missing.

Error 23083:
Wrong number of continuation lines when specifying cable signal details.

Error 23084:
Wrong syntax defining cable signal details: Signal name is missing.

Errors 23085, 23103:
Wrong number of continuation lines when specifying cable connector details.

Error 23086:
Cable connector details may only be added in FEKO file format 133 or later.

Error 23087:
Wrong syntax defining cable connector details: Connector name is missing.

Error 23088:
Wrong syntax defining cable connector details: Pin name is missing.

Error 23089:
Integer number too long for ASCII *.fek file format, please use BINARY format.

Error 23090:
A sheath insulated bundle may not be shielded.

Error 23091:
A sheath insulated bundle must be embedded in the background medium.

Error 23092:
The radius of a sheath insulated bundle should be larger than zero.

Error 23093:
A sheath insulated bundle requires FEK file format 135 or higher.

Error 23094:
The thickness of a sheath around a bundle should be larger than zero.

Error 23095:
The cable harness name #<text> is used but has never been defined..

Error 23099:
Internal PREFEKO error (chname list <number> <number>).

Error 23100:
Wrong syntax defining cable signal details: Expecting at least one signal.

Error 23101:
Wrong syntax defining cable connector details: Expecting at least one pin.

Errors 23102, 23104:
Wrong syntax defining cable connector details: Signal name is missing.

Error 23106:
Internal error in dr_out.

Error 23108:
Remeshing of curvilinear triangles not supported.

Error 23109:
Meshing of FEM curvilinear triangles not supported.

Error 23110:
Conversion of curvilinear triangles not supported.

Error 23111:
There was an error while reading the voxel mesh.

Error 23112:
The voxel grid must be specified before the voxels.

Error 23113:
The voxel grid must be specified before the voxel faces.

Error 23114:
The voxel grid must be specified before the voxel edges.

Error 23115:
The voxel grid is incorrectly defined.

Error 23116:
An invalid coordinate index has been specified for the voxel mesh.

Errors 23117, 23122, 23123:
Only a single voxel mesh is supported.

Error 23118:
An out of bounds voxel mesh entity was detected.

Error 23119:
The number of voxel entities exceeds the amount allowed for the defined grid.

Error 23120:
There was an error reading the voxel face information.

Error 23121:
There was an error reading the voxel edge information.

Error 23125:
The FDTD solver requires FEK file format 147 or later.

Error 23127:
The time signal name #<text> is used but has never been defined..

Error 23130:
Internal PREFEKO error (tsname list <number> <number>).

Error 23131:
Wrong syntax defining a time signal: Signal name is missing.

Error 23132:
Wrong syntax defining a time signal: The number of samples used to represent the signal should be larger than one.

Error 23134:
A plane wave that uses a time signal requires FEK file format 145 or later.

Error 23136:
Wrong syntax defining a plane wave: Time signal name is missing.

Error 23137:
Wrong syntax defining a generic source: Signal name is missing.

Error 23139:
Duplicate node detected in the block.

Error 23140:
Invalid format of the ANSYS CDB Import CMBLOCK.

Error 23143:
Invalid data type specified for a general network.

Error 23145:
Mismatch between the specified data type (S/Z/Y) and the actual data available in the Touchstone file.

Error 23146:
The background material defining a transmission line should not be empty.

Error 23147:
Different options for defining the background material of a transmission line are only supported in *.fek format 146 or higher.

Error 23148:
The generic port name #<text> is used but has never been defined..

Error 23151:
Internal PREFEKO error (ptname list <number> <number>).

Error 23154:
Wrong syntax defining a generic source: port name is missing.

Error 23155:
Wrong syntax defining a generic load: port name is missing.

Error 23156:
Wrong syntax defining a generic port: port name is missing.

Error 23157:
Wrong number of continuation lines when specifying a port.

Errors 23161, 23163:
Near field aperture: An error occurred while parsing field data (file <text>, block id <number>, data point <number>) [<text>].

Error 23165:
Near field aperture: An error occurred while parsing current density data (file <text>, data point <number>, block id <number>) [<text>].

Error 23170:
Near field aperture: Error positioning data file(s) for import.

Error 23171:
Could not (re-)allocate memory.

Error 23172:
Invalid data found while parsing the file <text>, line <number> <text>.

Error 23174:
Invalid data found while parsing the file '<text>', line <number> <text>.

Error 23175:
Error while processing the file '<text>' - EMPTY FILE.

Error 23176:
Error while processing the file '<text>' - ABORTING FILE OPERATION.

Error 23179:
Unexpected end of file in file <text>.

Error 23181:
Unsupported file version for MFXML import.

Error 23182:
Unsupported file format type for MFXML import.

Error 23183:
Internal error: Unexpected element position.

Error 23185:
Error allocating a sting buffer.

Error 23187:
An error occurred while parsing a xml file.

Error 23189:
Internal error while creating schema for xml import.

Error 23191:
Error while opening xml file for import.

Error 23192:
Internal error while attaching schema validator for xml reading.

Error 23193:
Internal error while configuring schema for xml import.

Error 23194:
Data file for field component <character><character> and face id <number> could not be found for CST NFS import.

Error 23195:
Error in opening the data file '<text>' for CST NFS import.

Errors 23197, 23255, 23256:
Cannot create secondary XSD file for CST NFS import: (<number>) <text>.

Error 23199:
Could not (re-)allocate memory for CST NFS import.

Error 23200:
Unsupported NFS file version for CST NFS import.

Error 23201:
Unsupported XML file version for CST NFS import.

Error 23202:
Identical gridlines found in xml file for CST NFS import.

Error 23203:
Irregular grid found in xml file for CST NFS import. Only supported in FEK file format 155 or later.

Error 23204:
Not enough gridlines found in xml file for CST NFS import.

Error 23205:
Inconsistent number of data blocks (frequencies) for CST NFS import.

Error 23207:
Unable to determine face type for a xml file of CST NFS import.

Error 23208:
Unable to determine current working directory.

Error 23211:
Not the expected number of XML file(s) found for CST NFS import.

Error 23213:
The dimensions could not be extracted from the xml files (or there was inconsistent information found) for CST NFS import.

Error 23214:
The grid settings could not be extracted from the xml files (or there was inconsistent information found) for CST NFS import.

Errors 23173, 23216:
File I/O error <number> while parsing the file '<text>'.

Error 23217:
Invalid data found while parsing the file <text>, line <number> [unknown line found].

Errors 23178, 23222:
Error in opening the file '<text>'.

Errors 23223, 23224, 23225:
Internal error: Allocation failed.

Errors 23032, 23234, 30905:
Error at allocation of memory: " #VAL_LIST_PTR.

Error 23236:
Wrong number of continuation line for a UT card.

Error 23250:
An error occurred while reading spherical mode coefficients (file <text>, line <number>): incorrect header length.

Error 23251:
Internal error in se_out.

Error 23253:
Remeshing of curvilinear segments not supported.

Error 23254:
Unsupported coordinate type found while processing a CST NFS import. Coordinates must lie on a rectangular axis-aligned 'xyz' grid. (See above parser error for details.).

Error 23257:
Coordinate reference system is missing.

Errors 23260:
The label defining the material of the uu-component of the anisotropic material tensor should not be empty.

Errors 23258, 23264:
Invalid coordinate system specified.

Errors 23261:
The label defining the material of the vv-component of the anisotropic material tensor should not be empty.

Errors 23259, 23262:
The label defining the material of the zz-component of the anisotropic material tensor should not be empty.

Error 23263:
Not enough memory available for the nodes when processing the UNV include file.

Error 23265:
Node index less than one when importing a UNV file.

Error 23266:
Node index larger than read indices when importing a UNV file.

Error 23267:
A node with this index has not been read when importing a UNV file.

Error 23268:
Unsupported element type in the UNV file.

Error 23269:
Invalid number of nodes for linear tetrahedron type element.

Error 23270:
Expected floating point number.

Error 23271:
Not enough memory available for the segment cross sections when processing the UNV include file.

Errors 23272, :
Invalid segment diameter index.

Error 23274:
Loading a cable harness with 1-port Touchstone file data requires FEK file format 153 or later.

Error 23277:
The zz-component of the complex-valued permeability tensor should not be empty or zero.

Error :
Wrong syntax defining a cable interconnect/termination pin-to-pin connection: Filename is missing (Touchstone).

Error 23280:
Near field aperture: Could not retrieve the U and V direction vectors from file [<text>].

Error 23285:
No valid active section set for CST NFS import.

Error 23286:
Not enough memory available for a list (DI).

Errors 23287, 23288:
Error reading the input FIM-file..

Error 23289:
The simultaneous definition of a SPICE circuit, Touchstone network parameters and/or labeled geometry is not supported at a single cable interconnect/termination definition.

Error 23290:
Number of cable interconnect/termination ports (Touchstone network parameters) expected to be at least one.

Error 23293:
The termination/interconnection of cable harness paths with n-port Touchstone network parameters requires FEK file format 160 or later.

Error 23295:
Specifying a reference direction to orientate a cable cross section along its path and within its environment requires FEK file format 161 or later.

Error 23296:
Wrong number of continuation lines when specifying a cable reference direction.

Error 23297:
Filename for characterised surface external data file is missing.

Error 23298:
Error while opening and parsing the file <text> for import of characterised surface.

Errors 23299, 23310:
Error allocating data buffer.

Errors 23300, 23301, 23302, 23303:
Characterised surface import: An error occurred while reading reflection/transmission coefficient data (file <text>, data point <number>) [<text>].

Errors 23304, 23305:
Not enough memory available for data list.

Errors 23306, :
Not enough memory available for a list.

Errors 23307, 30105:
Invalid syntax in a line (continuation line without card above).

Error 23308:
Filename for characterised wedge external data file is missing.

Error 23309:
Error while opening and parsing the file <text> for import of characterised wedge.

Errors 23311, 23312, 23313, 23314:
Characterised wedge import: An error occurred while reading diffraction coefficient data (file <text>, data point <number>) [<text>].

Error 23315:
Invalid option defining a shield.

Error 23316:
A cable single/double shield definition may only be added in FEKO file format 162 or later.

Error 23317:
Cable shields definitions may only be added in FEKO file format 162 or later.

Error 23318:
Cable shields may only be added in FEKO file format 107 or later.

Error 23319:
Wrong number of continuation lines when specifying a cable shield usage type.

Error 23321:
Invalid option used to define shield transfer impedance/admittance properties.

Error 23322:
Invalid option used to define shield properties.

Error 23327:
Wrong number of continuation lines when specifying a cable shield definition.

Error 23330:
Wrong syntax of a cable shield definition: Filename is missing.

Errors 23329, 23331:
Reference to the shield impedance (Zt/Zs) definition should not be empty.

Errors 23325, 23332:
Reference to the shield admittance (Yt) definition should not be empty.

Error 23334:
The cable shield definition label should not be empty.

Error 23335:
The variable #<text> is used in a cable shield definition name but has never been defined..

Error 23338:
Internal PREFEKO error (sdname list <number> <number>).

Error 23340:
An error occurred while parsing a cable shielding attribute value from a XML file (missing value).

Errors 23341, 23342:
An error occurred while parsing cable shielding data point from a XML file (magnitude and phase must be given).

Error 23343:
An error occurred while parsing cable shielding attribute " #QUANTITY " from a XML file (multiple definition not allowed).

Error 23344:
An error occurred while parsing cable shielding data point from a XML file (frequency missing).

Error 23346:
Error loading symbols from file: <text>.

Error 23351:
Non-radiating networks: Unsupported data format.

Errors 23353, 23354:
Connecting a transmission line to a FEM line port is only supported in *.fek format 165 or higher.

Error 23355:
Connecting a non-radiating network to a FEM line port is only supported in *.fek format 165 or higher.

Error 23357:
Invalid syntax defining a SPICE circuit: circuit name is missing.

Error 23358:
Defining a SPICE circuit requires FEKO file format 164 or later.

Error 23359:
Invalid syntax defining a SPICE circuit: Filename is missing (*.cir).

Error 23360:
Invalid syntax loading a vertex port: circuit name is missing.

Error 23361:
Invalid syntax loading an edge port: circuit name is missing.

Error 23362:
Invalid syntax loading a cable port: circuit name is missing.

Error 23363:
Invalid syntax loading a segment port: circuit name is missing.

Error 23364:
Invalid syntax loading a network port: circuit name is missing.

Error 23365:
Invalid syntax loading a FEM line port: circuit name is missing.

Error 23366:
Expecting a continuation line when defining a load at a FEM line port.

Error 23367:
File format could not be determined for file <text> - ABORTING FILE OPERATION.

Error 23368:
Data block map could not be determined for file <text> - ABORTING FILE OPERATION.

Error 23369:
Incorrect coordinate system (<text>) found in far field import data block #<number> of file <text> - ABORTING FILE OPERATION.

Error 23370:
No coordinate system specified for far field import data block #<number> (default 'Cartesian' not allowed) in file <text> - ABORTING FILE OPERATION.

Error 23372:
Wrong syntax loading a vertex port: Filename is missing (Touchstone).

Error 23373:
Loading a vertex port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23376:
Loading a segment port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23377:
Wrong syntax loading a segment port: Filename is missing (Touchstone).

Error 23380:
Loading a FEM line port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23381:
Wrong syntax loading a FEM line port: Filename is missing (Touchstone).

Error 23382:
Loading an edge port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23383:
Wrong syntax loading an edge port: Filename is missing (Touchstone).

Errors 23385, 23386:
Wrong syntax defining a transformer connection: Connector name is missing.

Error 23387:
Using a SPICE transformer in a cable harness circuit requires FEK file format 167 or later.

Error 23388:
Using a SPICE voltage controlled voltage source in a cable harness circuit requires FEK file format 167 or later.

Errors 23389, 23390:
Wrong syntax defining a voltage controlled voltage source: Controlling connector name is missing.

Errors 23392, 23393:
Wrong syntax defining a voltage controlled voltage source: Connector name is missing.

Error 23394:
A user may only set the radiation source image resolution in *.fek format 168 or higher.

Error 23395:
Expecting a continuation line when parsing a far field request.

Error 23396:
Wrong syntax of a PCB source definition: Filename is missing.

Error 23398:
Undefined PCB board outline definition.

Error 23399:
A PCB source definition may only be added in FEKO file format 172 or later.

Error 23404:
Expecting a label name when defining a metallic cable connection.

Error 23406:
Unsupported XML file version for PollEx radiated emission import.

Error 23407:
XmlPcb: Import: Frequency IDs are not in ascending consecutive order.

Error 23408:
XmlPcb: Import: Frequency IDs are not in ascending order.

Error 23413:
The material describing the dielectric surface impedance should not be empty.

Error 23414:
A model and solution coefficient definition may only be added in FEKO file format 177 or later.

Error 23416:
Wrong syntax of a model and solution coefficient definition: Filename is missing.

Error 23417:
The export of model and solution coefficient data may only be requested in FEKO file format 177 or later.

Error 23418:
Expecting a continuation line when parsing a list of labels.

Error 23419:
UT card supports only UTD with polygons and cylinders, faceted UTD or RL-GO.

Error 23420:
XML solution file parser error (found unexpected node).

Error 23421:
Unsupported XML file version for XML solution coefficients import.

Errors 23422, 23424:
Memory allocation error during XML solution coefficients import.

Error 23423:
Error initialising XML solution coefficients import.

Errors 23425, 23426, 23427:
Unexpected element ID found.

Error 23428:
Solution block ID not found.

Error 23429:
Unexpected ID found for element 'xsol.

Error 23430:
The solution block has not been setup correctly.

Error 23431:
Unexpected element ID found while parsing XML solution data file.

Error 23432:
Invalid receiving antenna source type.

Error 23434:
Invalid method for defining the background material of a transmission line.

Error 23435:
Reference to a 3D anisotropic medium is missing.

Error 23436:
Invalid DC bias field.

Error 23437:
Invalid direction for the DC bias field.

Error 23438:
The xx-component of the complex-valued permittivity tensor should not be empty or zero.

Errors 23273, 23275, 23276, 23439:
For the complex-valued 3D anisotropic material (DI card) a continuation line must follow.

Error 23440:
The yy-component of the complex-valued permittivity tensor should not be empty or zero.

Error 23441:
For the complex-valued 3D anisotropic material a continuation line must follow.

Error 23442:
The zz-component of the complex-valued permittivity tensor should not be empty or zero.

Error 23443:
The xx-component of the complex-valued permeability tensor should not be empty or zero.

Error 23444:
The yy-component of the complex-valued permeability tensor should not be empty or zero.

Error 23445:
Wrong syntax defining a cable interconnect/termination: Filename is missing (Touchstone).

Error 23446:
When using a SY Card the label increment has to be positive.

Error 23447:
Node index larger than read indices when importing a NASTRAN file.

Error 23448:
A node with this index has not been read when importing a NASTRAN file.

Error 23449:
End of file encountered while reading from the *.pre file (NU card).

Error 23450:
Syntax error at the IN card (too many options after file_name).

Error 23451:
It is not possible to apply a label specific selection when importing a *.pre file.

Errors 23452, 30375:
Error reading the header line from the include file.

Error 23454:
Unsupported cable type.

Error 23455:
Specifying the rotation of the plane wave excitation in terms of Kardan angles require FEK file format 117 or later.

Error 23456:
Internal PREFEKO error (scname list <number> <number>).

Errors 23457, :
Error switching context to the file <text>.

Error 23459:
Invalid number of nodes for linear segment (beam) type element.

Error 23460:
Invalid number of nodes for curvilinear segment (beam) type element.

Error 23461:
Invalid number of nodes for planar triangle type element.

Error 23462:
Not enough memory available for the nodes when processing the NASTRAN include file.

Error 23463:
Wideband support for spherical mode data requires FEK file format 178 or later.

Error 23466:
To allow wideband support for spherical mode data a frequency definition per data block is required.

Error 23468:
Far field pattern: the line number of the first line to read from file must be larger than zero.

Errors 23467, 23469:
Invalid data block number requested from file <text> (data block number range: 1..<number>).

Error 23470:
Expecting the number of angles in the Theta and Phi directions to remain unchanged between data blocks.

Error 23480:
Near field aperture: Inconsistent number of samples along the U direction in the data file [<text>].

Error 23489:
Data block support for defining a far field pattern is not supported with the external ASCII file format.

Errors 23410, 23490, 23492:
Near field aperture: An error occurred while retrieving block attributes (file <text>).

Error 23493:
Frequency unit not yet supported.

Error 23497:
XmlPcb: Import: Missing segment current definition.

Error 23498:
XmlPcb: Import: Frequency ID out of range.

Error 23499:
A user may only set the radiation source image viewing angle in *.fek format 185 or higher.

Error 23502:
Protected content was detected in the file '<text>'. Expecting the PRE file to indicate use of model protection..

Error 23504:
Model protection is supported in *.fek format 186 or higher.

Errors 23511, 23513:
Error converting an integer to string.

Errors 23512, 23514:
Error converting a double to string.

Error 23515:
Error while writing to file (disk full?).

Error 23774:
Loading a cable port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23775:
Wrong syntax loading a cable port: Filename is missing (Touchstone).

Error 23778:
Loading a network port with 1-port Touchstone file data requires FEK file format 166 or later.

Error 23779:
Wrong syntax loading a network port: Filename is missing (Touchstone).

Error 30000:
Please specify the file format after --fek-format.

Error 30001:
The line number must be specified after the option --eval-vars-only.

Error 30005:
Filename must not be specified with path.

Error 30006:
The filename <text> is too long.

Errors 23055, 30007, 30524:
Error in creating a temporary file <text>.

Error 30023:
Line number after the option --eval-vars-only must be positive.

Error 30024:
not enough memory available (realloc(sites)).

Error 30025:
not enough memory available for site <number> (<number> bytes allocated).

Error 30026:
not enough memory available (at realloc(nallocated)).

Error 30027:
Not enough memory available (s_delaun).

Error 30028:
The variable #<text> is used in a node name but has never been defined..

Error 30029:
Expanded node name is too long.

Error 30030:
The node <text> is used within a <text> card but has never been defined.

Error 30031:
Wrong syntax for filename: Closing quotation mark is missing.

Error 30033:
The columns 3 to 5 must be empty.

Error 30034:
Internal error in divide_line_colon_separation.

Error 30035:
The string '<text>' in the input line between two colons is too long (max. <number> characters).

Error 30036:
Degenerated surface, area of a triangle is zero.

Error 30037:
Label <number> for a triangle must be in the range 0...<number>.

Error 30038:
Radius of a wire segment is zero.

Error 30039:
Length of a wire segment is zero.

Error 30040:
Label <number> for a segment must be in the range 0...<number>.

Error 30041:
For cuboidal volume elements either the relative permittivity may be specified (dielectic body) or the relative permeability (magnetic body) but not both at the same time..

Error 30042:
Label <number> for a cuboid must be in the range 0...<number>.

Error 30043:
Label <number> for a tetrahedral element must be in the range 0...<number>.

Error 30044:
Label <number> for a polygonal plate must be in the range 0...<number>.

Error 30045:
Internal prefeko error in strcpy_substr.

Error 30046:
Please use an IP card above this line, so that the maximum segment and edge lengths are set.

Error 30047:
Maximum segment- or edge length is zero (IP card).

Error 30048:
The edge length for the meshing must be larger than zero.

Error 30049:
Overflow when computing the number of subdivisions.

Error 30050:
Maximum segment- or edge length for curved elements is zero.

Error 30051:
Radius of a curved arc is zero.

Error 30052:
Angle of a curved arc is zero.

Error 30053:
The edge length must be larger than zero for curved elements.

Error 30054:
Overflow when computing the number of subdivisions of a circular arc.

Error 30055:
Undefined angle between three vertex points.

Errors 30056, 30070:
Maximum edgelength for triangles is zero (IP card).

Error 30057:
Internal error in divide_triangle_traditional.

Error 30058:
Two points for a triangle are identical.

Error 30059:
Degenerated surface of size zero while meshing.

Error 30060:
Internal error in out_2specquad (na).

Error 30061:
Internal error in out_2specquad (nd).

Error 30062:
Internal error in out_2specquad (nb).

Error 30063:
Internal error in out_2specquad (nc).

Error 30065:
Internal error in out_2specquad (no right hand system).

Error 30066:
Internal error in out_specquad.

Error 30069:
Internal error (no right hand system).

Error 30075:
Internal error in extract_variable_name.

Error 30076:
Name of a variable must not exceed <number> characters.

Error 30077:
Missing closing bracket] for an array of variables or points.

Error 30078:
Nested used of arrays as index of another array not supported, please use an auxiliary variable.

Error 30079:
Missing expression inside [] for an array of variables or points.

Error 30080:
Name of array variable or point array must not be longer than <number> characters.

Error 30081:
Invalid name of a variable.

Error 30082:
Invalid variable name or missing equal sign.

Error 30083:
Expression is missing at a variable assignment.

Error 30086:
Missing opening bracket '(' of the 'defined' function.

Error 30087:
Missing variable in the 'defined' function.

Error 30088:
Missing closing bracket ')' of the 'defined' function.

Error 30089:
The variable #<text> is used in an expression but has never been defined..

Error 30090:
The variable #<text> is used in an expression but its value is invalid.

Error 30091:
Near field aperture: Another <number> lines with data must follow.

Error 30092:
Only one EG card may be used in the input file.

Error 30093:
Only one EN card may be used in the input file, at the very end.

Error 30094:
Top metallic ground plane for the planar Green's function only supported in version 40 or later of the *.fek file.

Error 30095:
The SA card is only supported in version 60 or later of the *.fek file.

Error 30098:
Inconsistency at ADAPTFEKO (variable #adaptfreq not set).

Error 30099:
Wrong syntax of the A5 card, field I2 must not be used.

Error 30100:
Wrong syntax of the A5 card, field I3 must not be used.

Error 30101:
Wrong syntax of the AV card, field I3 must not be used.

Error 30102:
The input field I2 the FE card for the coordinate system type 6 must be empty.

Errors 30104, 30787:
Not enough memory available for a list (CO).

Error 30107:
Error while writing to the *"FEK_EXT_L".tmp file (disk full?).

Error 30108:
This version of PREFEKO can only create *"FEK_EXT_L" file formats in the range 32 ... <number>.

Error 30110:
The tabulator character must not be used in the input file.

Error 30111:
The weight of a node point must be larger than zero.

Errors 30112, 30116:
The 4 nodes <text>, <text>, <text> and <text> don't form a plane parallelogram.

Error 30113:
The 4 nodes <text>, <text>, <text> and <text> don't form a plane quadrangle.

Error 30114:
The quadrangle of the 4 nodes <text>, <text>, <text> and <text> is crossed or not convex (interior angle: %7.2f degree). Consider using the PM card for concave quadrangles. .

Error 30115:
At the WG card the number of subdivisions must be larger than zero.

Errors 30117, 30118:
For the wire grid the line <text> - <text> is subdivided into <number> segments. A wire grid with <number> segments is not possible, as <number> cannot be divided by <number>..

Error 30119:
The wire segment radius at the IP card must not be negative.

Error 30120:
The maximum edge length for triangles at the IP card must not be negative.

Error 30121:
The maximum segment length at the IP card must not be negative.

Error 30122:
The maximum edge length for cuboids at the IP card must not be negative.

Error 30123:
The maximum edge length for tetrahedral elements at the IP card must not be negative.

Error 30124:
Wrong label at LA card: <text>.

Error 30125:
Label <number> must be in the range 0...<number>.

Error 30126:
Medium information at the ME card must not be empty.

Error 30128:
There is no right angle between the points <text>, <text> and <text> (HE/CL card).

Error 30129:
The number of turns for the HE card must not be zero.

Error 30132:
The height of a cylinder is zero (ZY card).

Error 30133:
There is no right angle between the points <text>, <text> and <text> (KR card).

Errors 30135, 30137:
KR card: The point <text> must be located between the points <text> and <text>.

Error 30136:
KR card: The point <text> falls together with the point <text>. Do not specify a 4.th point for a circle without hole..

Error 30139:
At the KK card the bottom radius of the cone is zero.

Error 30141:
For the KK card the line between the points <text> and <text> must be parallel to the line <text> <text>.

Error 30142:
The 4 nodes <text>, <text>, <text> and <text> are not lying in a plane.

Error 30143:
KK card: Cone with height zero is generated. Use the KR card instead.

Error 30144:
There is no right angle between the points <text>, <text> and <text> (KU/EL card).

Errors 30145, 30146:
There is no right angle between the points <text>, <text> and <text> (EL card).

Error 30147:
KU/EL card: Angle THETA must be in the range 0..180 degree.

Error 30148:
KU/EL card: Angle PHI must be in the range 0..360 degree.

Error 30149:
KU/EL card: Both angles THETA are equal.

Error 30150:
KU/EL card: Both angles PHI are equal.

Error 30152:
KU card: The distance between the points <text> and <text> as well as <text> and <text> is different.

Error 30154:
There is no right angle between the points <text>, <text> and <text> (TO card).

Error 30156:
TO card: The point <text> must lie in the plane of the points <text>, <text> and <text>.

Errors 30157, 30158, 30159:
There is no right angle between the points <text>, <text> and <text> (QU card).

Errors 30160, 30165:
One side of the cuboid has zero length.

Error 30161:
Maximum edge length for cuboids is zero (IP card).

Errors 30162, 30163, 30164:
There is no right angle between the points <text>, <text> and <text> (QT card).

Error 30166:
Maximum edge length for tetrahedra is zero (IP card).

Error 30167:
Wrong range of THMAX (UD card).

Error 30168:
Number of copies for the TG card must not be negative.

Error 30169:
There is no right angle between the points <text>, <text> and <text> (DZ card).

Error 30170:
DZ card: Radius of the inner cylinder is zero.

Error 30171:
DZ card: Radius of the outer cylinder must be bigger than the radius of the inner one.

Error 30172:
DZ card: Height of the cylinder is zero.

Error 30173:
DZ card: The point <text> must lie between the points <text> and <text>.

Errors 30174, 30175, 30176:
There is no right angle between the points <text>, <text> and <text> (DK card).

Error 30177:
DK card: Radius of the sphere is zero.

Errors 30178, 30179:
DK card: The distance between the points <text> and <text> must be equal to the distance of the points <text> and <text>.

Error 30180:
Maximum edge length for a dielectric sphere is zero (IP card).

Error 30181:
Internal error at DK card.

Error 30182:
Wrong label at KA card: <text>.

Error 30183:
KL card: Start point <text> and end point <text> fall together.

Error 30184:
KL card: Start point <text> and end point <text> on the 0-side fall together.

Error 30185:
KL card: Start point <text> and end point <text> on the N-side fall together.

Errors 30186, 30187:
KL card: The point <text> must not be located on the edge <text>-<text>.

Error 30188:
Wrong type of the Fock region for the FO card.

Error 30189:
Invalid type of the Fock region for the FO card.

Error 30190:
A continuation line must follow for the PM card with internal mesh points.

Errors 30191, 30192:
There is no right angle between the points <text>, <text> and <text> (PB card).

Error 30193:
Maximum segment- or edge-length is zero (PB card).

Error 30194:
There is no right angle between the points <text>, <text> and <text> (UZ card).

Error 30197:
Label increment <number> at TG card must be positive.

Error 30198:
Scaling factor of the TG card must be one if no scaling desired.

Error 30199:
Label increment <number> at SY/TG/TP card too large.

Error 30200:
Scaling factor at the SF card was not specified or is zero.

Error 30201:
Scaling factor at the SF card must be positive.

Error 30202:
The scaling option (SF card) is used in connection with an adaptive remeshing (RM card). Then the SF card must be used before the RM card.

Errors 30203, 30204:
PH card: The point <text> must be located between the points <text> and <text>.

Error 30205:
Angle of the hole is zero at the PH card.

Error 30206:
Radius of the hole is zero at the PH card.

Error 30207:
PH card: The point <text> must be located outside of the hole.

Error 30208:
Excitation of microstrip lines only possible for *.fek file format 37 or higher.

Error 30210:
Only one coordinate system is possible in the *.neu file.

Error 30212:
Wrong element type in the *.neu file (only line or triangle or quadrangle or tetrahedral element).

Error 30213:
Only one coordinate system (rectangular) is possible in the *.neu file.

Error 30214:
Not enough memory available for storing FEMAP neutral file points.

Error 30217:
Not enough memory available for storing FEMAP neutral file curve.

Error 30219:
Not enough memory available for storing FEMAP neutral file surface.

Error 30220:
Boundary surfaces with holes cannot be imported from FEMAP.

Error 30222:
FEMAP *.neu file is corrupt, error when importing polygonal plates.

Error 30224:
Not enough memory available for the vertices of a polygonal plate when importing a FEMAP *.neu file.

Error 30228:
Near field aperture: Could not determine the U direction vector from the coordinates in the data file [<text>].

Error 30233:
Near field aperture: Unexpected angle for data point <number> in the magnetic field definition. Please ensure that the data lies on a regular grid and that the correct number of points is specified.

Error 30234:
The phase of one of the field components of point <number> is too large.

Error 30249:
Wrong syntax of the AC/CM card: Filename is missing.

Error 30250:
Not enough memory available for processing the AC/CM card.

Error 30251:
Not enough memory available for processing the AC card.

Error 30252:
EN card missing at the end of the *.pre file (after AC card).

Error 30253:
The project name name=... must end with a semicolon.

Error 30254:
The geometry name geoname=... must end with a semicolon.

Error 30255:
The names of the CableMod project and of the geometry section differ.

Error 30256:
AC card: Segment data is read before unit=.. was processed.

Error 30257:
AC card: Segment data is read after the 'values:' keyword.

Error 30258:
Error while reading the segment data at the AC card.

Error 30259:
Missing equal sign after the string p1_type.

Error 30260:
Unknown type after the string p1_type.

Error 30261:
Missing equal sign after the string p2_type.

Error 30262:
Unknown type after the string p2_type.

Error 30263:
Modelling a transmission line segment by Hertzian dipoles at the AC card is not possible when one of the two segment ends has the type loaded.

Error 30264:
When importing a *.rsd file from CableMod, it is not supported that both ends of a segment are of the typeloaded_and_connected.

Error 30265:
Invalid type of the transmission line modelling of an AC card.

Error 30266:
AC card: Frequency was read before the 'values:' keyword.

Error 30267:
AC card: No segment data was read.

Error 30268:
For multiple frequencies the AC card must be defined as new and not as additional.

Error 30269:
Error while reading the frequency at the AC card.

Error 30270:
AC card: Line with keyword 'data:' not found.

Error 30271:
AC card: Option additional source can be used only if there is just one frequency.

Error 30272:
Error while reading the currents at the AC card.

Error 30275:
AC card: Invalid number of Hertzian dipoles (must be larger than zero).

Error 30276:
When using adaptive frequency interpolation only one AC card is allowed.

Error 30277:
Inconsistency found at the AC card (adaptive/not adaptive).

Error 30278:
AC card: There are multiple occurrences of the string 'values:.

Error 30281:
Unknown dimension unit=.. in a RSD file.

Error 30282:
Unknown command for PREFEKO after !! signs.

Error 30283:
Missing character sequence 'FOR' in a FOR loop.

Error 30284:
Missing name of a variable with #-character in a FOR loop.

Error 30285:
Missing equal sign '=' in a FOR loop.

Error 30286:
Missing character sequence ' TO ' in a FOR loop.

Error 30287:
Missing expression for the start value of a FOR loop.

Error 30288:
Missing expression for the end value of a FOR loop.

Error 30289:
Missing expression for the stepping value of a FOR loop.

Error 30290:
Stepping in a FOR loop must not be zero.

Errors 30291, 30292:
Not enough memory available for processing the FOR loop.

Error 30293:
NEXT command as termination of a FOR loop missing.

Error 30294:
Missing character sequence 'IF' in an IF statement.

Error 30295:
Missing character sequence 'THEN' in an IF statement.

Error 30296:
Missing expression for the condition of an IF statement.

Error 30297:
ENDIF command as termination of an IF statement missing.

Error 30298:
Multiple ELSE statements in an IF statement.

Error 30299:
Termination due to user request (EXIT statement).

Error 30300:
Missing character sequence 'PRINT_TO_OUT' in a PRINT_TO_OUT statement.

Error 30301:
Missing character sequence 'PRINT' in a PRINT statement.

Error 30302:
Missing quotation mark \" in a PRINT expression.

Error 30305:
NEXT statement found without suitable FOR statement.

Error 30306:
ELSE statement found without suitable IF statement.

Error 30307:
ENDIF statement found without suitable IF statement.

Error 30308:
Internal error in command_line.

Error 30309:
Not enough memory available for the nodes when processing the ABAQUS include file.

Errors 30209, 30211, 30310, 30376, 30390, 30402, 30649:
Not enough memory available for the nodes when processing the include file.

Error 30311:
Node index less than one when importing a ABAQUS file.

Error 30312:
Node index larger than read indices when importing a ABAQUS file.

Error 30313:
A node with this index has not been read when importing a ABAQUS file.

Error 30316:
Internal PREFEKO error during point generation for Delaunay.

Error 30317:
Internal error of PREFEKO (invalid mode value).

Error 30318:
Internal error of PREFEKO (internal mesh points in SWEEP2).

Error 30320:
Internal PREFEKO memory management error in DELAUNAY.

Error 30324:
Wrong syntax of a far field data definition: Filename is missing.

Error 30325:
Wideband support for defining a far field pattern requires FEK file format 179 or later.

Error 30327:
Data block support for defining a far field pattern requires FEK file format 179 or later.

Errors 23233, 30329:
Error in opening the file <text> .

Error 30330:
Far field pattern: An error occurred while parsing field data (file <text>, block number <number>, data point <number>) [<text>].

Error 30333:
Error for DXF import: Section 'ENTITIES' not found.

Error 30334:
Error for DXF import: Section 'ENDSEC' not found.

Error 30336:
Error for DXF import: Sections 'ENDSEC' or 'SEQEND' not found.

Errors 30337, 30340:
Error for DXF import: Unexpected end of file.

Error 30339:
Error for DXF import: Attempting to link non-existent nodes.

Error 30341:
Error for DXF import: Can only import mesh faces with 3 or 4 corner points.

Error 30342:
Not enough memory available for the vertices when importing a DXF file.

Errors 30343, 30344:
Error for DXF import: Unexpected end of file while reading 'group code'.

Error 30345:
Error for DXF import: Cannot determine 'group code'.

Error 30346:
Error for DXF import: Cannot read real value.

Error 30347:
Error for DXF import: Cannot read integer value.

Error 30349:
Order of the NU card must be in the range 1..<number>.

Error 30350:
End of buffer encountered while reading from the supplied preContents (NU card).

Error 30351:
Order q too large for the NU card.

Error 30352:
The node <text> is used within a NU card but has never been defined (row <number>, column <number>).

Error 30353:
NURBS with two opposite sides of length zero is not allowed.

Error 30354:
Error during polynomial interpolation.

Error 30355:
Allocation failure in dvector().

Error 30357:
Radius of a GW card is zero (tapered wire not supported).

Error 30358:
Field IS1 of the GM card must be zero or one.

Error 30359:
FEKO allows only a selection via the tag number at the GM card in NEC.

Error 30362:
Internal error in PREFEKO when importing a *.pre file (IN card).

Error 30363:
Wrong parameter MODE for the IN card.

Error 30364:
Error reading the mode for the IN card.

Error 30365:
Error reading the selection for the IN card.

Errors 30366, 30367:
Wrong syntax of the IN card: Quotation mark is missing.

Error 30368:
At the IN card the expression scaling=... must be terminated with a semicolon ;.

Error 30369:
At the IN card the expression medium=... must be terminated with a semicolon ;.

Errors 30370:
Error reading the data for triangles from the include file.

Error 30371:
Invalid node number while reading the data for triangles from the include file.

Error 30372:
Scaling factor at the IN card must not be used when importing a *.pre file.

Errors 30373:
Error reading the data for segments from the include file.

Error 30374:
Wrong structure of the include file.

Error :
Invalid node number while reading the data for segments from the include file.

Errors 30380:
Error reading the data for polygons from the include file.

Errors 23453, 30377:
Error reading the data for nodes from the include file.

Error 30378:
A polygonal plate must have at least 3 corner points.

Error 30379:
Not enough memory available for the corner points of polygons.

Error 30381:
Invalid node number while reading the data for polygons from the include file.

Errors 30382, 30383:
Error reading the data for tetrahedra from the include file.

Error 30384:
Invalid node number while reading the data for tetrahedra from the include file.

Error 30385:
It is not possible to apply a label specific selection when importing a CONCEPT file.

Error 30386:
When importing a CONCEPT file only the selection 1 (wires) or 34 (surfaces) or 35 (autodetect) is supported.

Error 30387:
Error while reading from CONCEPT file (number of wires).

Error 30388:
Error while reading from CONCEPT file (wire coordinates).

Error 30389:
Error while reading from CONCEPT file (number of nodes/patches).

Error 30391:
Error while reading from CONCEPT file (node points).

Error 30392:
Error while reading from CONCEPT file (patch numbers).

Error 30393:
It is not possible to apply a label specific selection when importing an STL file.

Error 30394:
Error in reopening the include file <text>.

Error 30395:
Error while reading from STL file.

Error 30396:
Error while reading header from binary STL file.

Error 30397:
Error while reading number of triangles from binary STL file.

Error 30399:
Not enough memory available for the nodes when processing the PATRAN include file.

Error 30401:
Wrong number of data lines of the PATRAN node data packet.

Error 30404:
Node index less than one when importing a PATRAN file.

Error 30405:
Node index larger than read indices when importing a PATRAN file.

Error 30406:
A node with this index has not been read when importing a PATRAN file.

Error 30410:
An unsupported card is used in the *.cfm include file.

Error 30411:
This version of PREFEKO cannot read the *.cfm file version <number> (maximum <number>).

Error 30412:
*.cfm file import: Media must be identical for a metallic triangle.

Error 30413:
*.cfm file import: Unknown type of a triangle.

Error 30414:
Not enough memory available for the vertices of a polygonal plate when importing a *.cfm file.

Error 30415:
*.cfm file import: Wrong version of the QD card found.

Error 30417:
Not enough memory available for the nodes when processing the ANSYS CDB include file.

Error 30418:
ANSYS CDB import supports only element types 16 or 200.

Errors 30419, 30420:
Inconsistency regarding number of element types for the CDB file.

Error 30421:
Internal error ANSYS CDB import (CMBLOCK).

Error 30423:
Read invalid element type from the CDB file.

Error 30424:
Reference to an invalid real constant (diameter) for a pipe16 element in the CDB file.

Errors 23138, 23142, 30425, 30426, 30427, 30428:
Internal consistency check of CDB file failed.

Error 30430:
Found wrong element type which cannot be imported.

Error 30431:
Node index less than one when importing an ANSYS CDB file.

Error 30432:
Node index larger than read indices when importing an ANSYS CDB file.

Error 30433:
A node with this index has not been read when importing an ANSYS CDB file.

Error 30436:
Wrong value of the mode of the RM card.

Error 30437:
Wrong type of the mesh refinement at the RM card.

Error 30438:
Wrong syntax of the RM card: Filename is missing.

Error 30439:
Not enough memory for processing the RM card.

Error 30440:
The two distances D1 and D2 at the RM card must not be equal.

Error 30441:
At the RM card for the mesh refinement along a line, the length of the line is zero.

Error 30443:
Error in opening the RSD file <text>.

Error 30444:
Error while reading the segment data from a RSD file (RM card).

Error 30445:
Not enough memory available for the edge lengths when remeshing a polygonal plate.

Error 30446:
Wrong value for the kind of mesh refinement for the RM card.

Errors 30064, 30067, 30068, 30448, 30463:
Found a degenerated surface element, please check input.

Error 30449:
Not enough memory available for the variables.

Error 30450:
Too many media are used (limit 32768).

Errors 30453, :
Error while writing to the *"FEK_EXT_L" file (disk full?).

Error 30456:
The name '<text>' of a node is too long (maximum <number> characters allowed).

Error 30457:
Invalid character '<character>' in the name '<text>' of a node (allowed are only letters A-Z, digits 0-9, the underscore _, and square brackets [ ]).

Error 30458:
Not enough memory available for storing the node points.

Error 30459:
Label <number> for a point must be in the range 0...<number>.

Error 30460:
The node name '<text>' has more than 5 characters. This is only supported in the FEK file format 62 or later..

Error 30461:
There must be at least 3 vertex points of a polygonal structure (<text> card).

Error 30462:
There is a wrong character in the substring <text>.

Error 30465:
For the polygon (<text> card) the length of the edge between the nodes <text> and <text> is zero.

Error 30466:
No corner of a polygon (<text> card) found for the normal vector determination.

Error 30468:
Error in opening the input file <text>.

Error 30469:
The filename specified at the IN card must be different from the name of the file where the IN card is used.

Error 30470:
Error while writing to a temporary *.pre.tmp file (disk full?).

Error 30472:
Meshing of polygonal plate: All vertices are identical.

Error 30473:
Internal PREFEKO error: Normal vector wrong in mesh_polygonal_plate.

Error 30474:
Meshing of polygonal plate: Cannot find normal vector.

Error 30476:
Load of a microstrip lines (LE card) only possible for *.fek file format 37 or higher.

Errors 23458, 30361, 30409, 30477, 30679, 30772, 30865:
Error in opening the include file <text>.

Error 30478:
Syntax error in an expression.

Errors 30479, 30488, 30492:
Not enough memory available when allocating a buffer for labels.

Error 30487:
The negative label increment used at one SY or TG card leads to a label less than zero.

Error :
The negative label increment used at one SY or TG/TP card leads to a label less than zero.

Error 30489:
The variable #<text> is used in a label name but has never been defined..

Error 30490:
The variable #<text> is used in a medium name but has never been defined..

Error 30491:
Arbitrary strings as label are supported only in the FEK file format 61 or higher, please use a newer version of PREFEKO.

Error 30493:
Invalid character '<character>' in the name '<text>' of a label (allowed are only letters A-Z, digits 0-9, the underscore _ as well as the dot .).

Error 30494:
Arbitrary strings as medium are supported only in the FEK file format 61 or higher.

Error 30495:
Not enough memory available when allocating a buffer for media.

Error 30496:
Invalid character '<character>' in the name '<text>' of a medium (allowed are only letters A-Z, digits 0-9, the underscore _ as well as the dot .).

Error 30523:
Not enough memory available for the triangle list for tetrahedral meshing.

Error 30525:
Execution of TETGEN failed.

Errors 30526, 30527:
Error in reading a temporary file <text>.

Error 30528:
Not enough memory available for the node list for tetrahedral meshing.

Error 30530:
Too many different labels are being used (a maximum of <number> labels are being supported).

Error 30531:
Too many different media are being used (a maximum of <number> media are being supported).

Error 30532:
Internal PREFEKO error (label list <number> <number>).

Error 30533:
The label must be an integer for the debugging option STRINGS_AS_MEDLAB_DEBUG == 1.

Error 30534:
The medium must be an integer for the debugging option STRINGS_AS_MEDLAB_DEBUG == 1.

Error 30535:
Internal PREFEKO error (media list <number> <number>).

Error 30537:
Medium <number> must be in the range 0...<number>.

Error 30538:
Wrong syntax of the AI card, field I3 must not be used.

Error 30539:
Wrong syntax of the A6 card, field I2 must not be used.

Error 30540:
Wrong syntax of the A6 card, field I3 must not be used.

Error 30541:
Non-supported mode of the AE card is used.

Error 30542:
Non-supported mode of the LE card is used.

Error 30543:
Non-supported mode of the SA card is used.

Error 30544:
Non-supported mode of the VS card is used.

Error 30548:
When the medium is specified at the FE card (field R8), then the medium index must be an integer value.

Error 30549:
At the IN card the expression labels_as_strings must be terminated with a semicolon ;.

Error 30550:
Internal error in qd_out.

Error 30551:
New syntax of the QU/DZ/DK cards with medium index requires FEK file format 67 or later.

Error 30552:
Not enough memory available for storing cuboid media info.

Error 30553:
Wrong parameter I2 at a directly imported QD card.

Error 30556:
For string labels the specification of the range <text> .. <text> is not valid (base string must be identical).

Error 30557:
For string media the specification of the range <text> .. <text> is not valid (base string must be identical).

Error 30558:
Wrong type (dielectric/magnetic or both) of a cuboidal volume element.

Error 30559:
Wildcards for the CB card are only supported for the FEK file format 61 or later.

Error 30560:
Axial ratio for an elliptical arc must be positive.

Error 30561:
Axial ratio for an elliptical cylinder must be positive.

Errors 30562, 30565:
Axial ratio for an elliptical plate must be positive.

Error 30563:
Axial ratio for an elliptical cone must be positive.

Error 30564:
Axial ratio for an elliptical torus must be positive.

Error 30566:
PH card: The edge between the points <text> and <text> has zero length.

Error 30568:
Wrong syntax of the CB card: Filename is missing.

Error 30571:
The length of the edge between the points <text> and <text> is zero (KA card).

Error 30572:
The length of the edge between the points <text> and <text> is zero (KL card).

Error 30573:
Autodetect for the CONCEPT file type failed, please specify directly whether a wire file (select 1) or surface file (select 34).

Error 30575:
Missing character sequence 'PRINT_WARNING' in a PRINT_WARNING statement.

Error 30576:
Missing character sequence 'PRINT_ERROR' in a PRINT_ERROR statement.

Error 30578:
Internal error of PREFEKO (floating point exception).

Error 30579:
Internal error of PREFEKO (segmentation fault).

Error 30580:
Internal error of PREFEKO (illegal instruction).

Error 30581:
Internal error of PREFEKO (bus error).

Error 30582:
Wrong number of continuation lines for the AE card.

Error 30583:
For this type of AE card only one line is allowed.

Error 30584:
Wrong number of continuation lines for the LE card.

Error 30585:
For this type of LE card only one line is allowed.

Error 30586:
No convergence for integral after maximum number of iterations.

Errors 30587, 30589, 30590:
Invalid argument to hyperbolic formula.

Error 30591:
Invalid argument x1 to hyperbolic formula.

Error 30592:
Invalid argument x2 to hyperbolic formula.

Error 30593:
The points <text>, <text> and <text> may not lie on a straight line (HY card).

Error 30594:
The points <text> and <text> are not arranged in the correct manner (HY card).

Errors 30595, 30599:
Maximum segment- or edge-length is zero (HY card).

Error 30596:
The points <text>, <text> and <text> may not lie on a straight line (HC card).

Error 30597:
The height of a cylinder is zero (HC card).

Error 30598:
The points <text> and <text> are not arranged in the correct manner (HC card).

Error 30600:
The points <text>, <text> and <text> may not lie on a straight line (HP card).

Error 30601:
The points <text> and <text> are not arranged in the correct manner (HP card).

Error 30602:
Not enough memory while reading corner point array.

Error :
Maximum segment- or edge-length is zero (HP card).

Error 30603:
Not enough memory while reading non-uniform meshing length array.

Error 30604:
Not enough memory while reading internal point array.

Error 30605:
Not enough memory while processing PM card.

Error 30606:
Not enough memory while processing PY card.

Errors 30607, 30608, 30644, 30990:
A continuation line must follow for the specification of a general network.

Error 30610:
End of Touchstone file reached, no specification line starting with #-symbol found.

Error 30611:
Network port number greater than zero expected (voltage source at a network port).

Error 30612:
Multiple frequency options in the Touchstone file are not allowed.

Error 30613:
Multiple parameter type options are not allowed in the Touchstone file.

Error 30614:
Network port number greater than zero expected (load at a network port).

Error 30615:
Multiple data format options are not allowed in the Touchstone file.

Error 30616:
Multiple reference impedance indicators are not allowed in the Touchstone file.

Error 30617:
Reference impedance expected in the Touchstone file.

Error 30618:
Invalid specification line parameter in the Touchstone file.

Error 30619:
End of the Touchstone file reached, no data set found.

Error 30621:
Wrong syntax for a voltage source at a network port: Network name is missing.

Error 30622:
Wrong syntax for a load at a network port: Network name is missing.

Error 30623:
Do not specify a port number for empty network name (general networks).

Error 30624:
Network port number greater than zero expected (general networks).

Error 30625:
The variable #<text> is used in a network name but has never been defined..

Error 30630:
Wrong syntax of a general network: Network name is missing.

Error 30631:
The first uncommented line in the Touchstone file must be a specification line.

Errors 30632, 30936:
Invalid number of reference impedances specified in the Touchstone file.

Error 30633:
Invalid frequency value in the Touchstone file, all data sets must be arranged in increasing order of frequency.

Error 30634:
Invalid frequency value in the Touchstone file, real number expected.

Error 30635:
End of the Touchstone file reached, not enough input data found.

Error 30636:
Invalid data value in the Touchstone file, real number expected.

Error 30638:
End of line expected in the Touchstone file, invalid number of parameter data points per line.

Error 30639:
Internal PREFEKO error (nwname list <number> <number>).

Error 30640:
The number of network ports should be greater than zero.

Error 30641:
Wrong syntax of a general network: Filename is missing (Touchstone).

Error 30642:
No filename allowed at the specification of a general network when the data follows in the *.pre input file.

Error 30643:
A general network may have a maximum of 4 ports when the data follows in the *.pre input file.

Error 30645:
Not enough memory available for the nodes when processing the GID include file.

Error 30646:
Error while reading mesh properties.

Error 30647:
Mesh property 'dimension' must be either 2 or 3.

Error 30648:
Mesh property 'elemtype' must be one of the following: LINEAR, TRIANGLE, QUADRILATERAL, TETRAHEDRA.

Error 30650:
Node index less than one when importing a GID file.

Error 30651:
Node index larger than read indices when importing a GID file.

Error 30652:
A node with this index has not been read when importing a GID file.

Error 30655:
A target *.cfm filename must follow the option --expand-cfm-include-filename.

Error 30656:
The new *.cfm filename must follow the target *.cfm filename for the option --expand-cfm-include-filename.

Error 30657:
A continuation line must follow for a transmission line.

Errors 30658, 30660:
Do not specify a port number for empty network name (transmission lines).

Errors 30659, 30661:
Network port number greater than zero expected (transmission lines).

Error 30662:
Wrong syntax of a transmission line: Transmission line name is missing.

Error 30663:
Transmission line length expected when using internal ports / ports connected to edges.

Error 30664:
Wrong number of continuation lines for a transmission line.

Error 30666:
Wrong number of continuation lines for the specification of a general network.

Error 30668:
Non-supported port type of a general network is used.

Errors 30669, 30670:
Non-supported port type of a transmission line is used.

Error 30671:
Not enough memory available for the coordinate system information when processing the NASTRAN include file.

Error 30672:
Invalid coordinate system type when importing a NASTRAN file.

Error 30673:
Invalid format of coordinate system when importing a NASTRAN file.

Error 30675:
Invalid coordinate system specified for a node when processing the NASTRAN include file.

Error 30676:
Invalid coordinate system information when processing the NASTRAN include file (division by zero).

Error 30677:
Invalid coordinate system information when processing the NASTRAN include file.

Error 30678:
For the CA card when importing cable data from a NASTRAN file then a continuation line must follow.

Errors 30680, 30866:
No valid segments for the cable path were found in the NASTRAN file <text> with property ID <text>.

Error 30681:
A continuation line must follow for the CA card with cable type parameters.

Error 30682:
Invalid connection orientation of a general network.

Error :
Invalid feed orientation specified (A1 card).

Error 30683:
Invalid feed direction specified (A2 card).

Error 30684:
Invalid feed orientation specified (A3 card).

Error 30685:
Non-supported option for a port feed orientation.

Error 30686:
Invalid specification of the start/end vertex of a segment to be loaded.

Errors 30687, 30689, 30690:
Invalid selection of the start/end point of a segment.

Error 30688:
Invalid connection direction specified.

Error 30691:
Wrong syntax of an impressed spherical mode definition: Filename is missing.

Errors 23349, 23350, 30569, 30692, 30968:
Error in opening the file <text>.

Errors 23245, 23247, 23464, 23465, 30693:
An error occurred while reading spherical mode coefficients (file <text>, line <number>): unknown header format.

Errors 30694, 30695:
An error occurred while reading spherical mode coefficients (file <text>, line <number>): unknown data format.

Error 30697:
A continuation line must follow for the TG card.

Error 30700:
Removing a lock on the *"FEK_EXT_L" file failed.

Error 30706:
Invalid mesh array name '<text>'. Variable array names must start with a '#' character.

Error 30707:
Variable '<text>' is undefined..

Error 30708:
Import of spherical mode data from a TICRA file requires FEK file format 80 or later.

Error 30709:
The definition of multiple spherical modes requires FEK file format 80 or later.

Errors 30715, 30716, 30717:
Invalid label index.

Error 30727:
Not enough memory while processing the triangles.

Errors 30728, 30730:
Dielectric medium name specified at the windscreen dielectric layer definition should not be empty.

Error 30729:
A continuation line must follow for the WD card.

Error 30732:
The variable #<text> is used in a layered dielectric name but has never been defined..

Error 30738:
Layered dielectric name specified at the windscreen dielectric layer definition should not be empty.

Error 30739:
Windscreen name specified at the windscreen dielectric layer definition should not be empty.

Error 30740:
Windscreen name specified at the windscreen reference definition should not be empty.

Error 30741:
Windscreen name specified at the windscreen antenna definition should not be empty.

Error 30742:
The variable #<text> is used in a windscreen name but has never been defined..

Error 30746:
Internal PREFEKO error (wdname list <number> <number>).

Error 30747:
Internal PREFEKO error (mbname list <number> <number>).

Error 30751:
The variable #<text> is used in a modal port name but has never been defined..

Error 30753:
To consider only the scattered part of the field for an ideal receiving antenna requires FEK file format 89 or later.

Error 30755:
The list of old/new labels can be specified during symmetry for *.fek file format 91 or higher.

Error 30758:
List of old/new label names expected during symmetry.

Error 30759:
ADAPTFEKO termination criterion accuracy can be specified in *.fek file format 92 or higher.

Error 30760:
Frequency number being analyzed must follow after the option --adaptfeko-mode.

Error 30761:
Frequency number after the option --adaptfeko-mode must be larger than zero.

Error 30762:
Continuous frequency S-parameter calculation request with the load not restored is not supported for adaptive frequency sampling with multiple frequency bands.

Error 30765:
A continuation line must follow for a planar Green's function.

Error 30766:
Metallic groundplane at an arbitrary interface of a planar Green's function only supported in version 93 or later of the *.fek file.

Error 30767:
Invalid ground plane type specified in connection with the planar Green's function. PEC/PMC expected..

Error 30769:
*.cfm file import: Media must be identical for a planar Green's function aperture triangle.

Error 30773:
Multiple .END lines in the *.cir file not supported.

Error 30774:
The definition of a subcircuit expects at least one external node. General form: .SUBCKT subnam N1 <N2 N3 ...>.

Error 30776:
The number of external nodes defined in the line .SUBCKT <text> does not equal the number of ports/pins plus the number of probes specified for this network (expecting <number> nodes)", myname_index_to_string("sc.

Error 30778:
Multiple subcircuits with the name <text> not supported", myname_index_to_string("sc.

Error 30779:
The circuit model should be defined within a subcircuit with name <text> General form: .SUBCKT subnam N1 <N2 N3 ...>", myname_index_to_string("sc.

Errors 30780, 30781:
The ground 0 node is always global and should not be defined as one of the external nodes to a subcircuit.

Error 30782:
Wrong syntax of a general network: Filename is missing (*.cir).

Error 30783:
Defining a non-radiating network by SPICE *.cir file is only supported in version 97 or later of the *.fek file.

Errors 23411, 23412, 30103, 30770, 30784, 30785, 30786:
Not enough memory available for a list (SK).

Error 30788:
Wrong syntax of a media definition: Filename is missing.

Error 30790:
Wrong number of continuation lines when specifying a medium.

Error 30791:
No material found while parsing XML file.

Error 30792:
Internal PREFEKO error (dlname list <number> <number>).

Errors 30793, 30794, 30798:
The label defining a layered medium should not be empty.

Errors 30795, 30799:
The label defining the material in the principle direction should not be empty.

Errors 30796, 30800:
The label defining the material in the orthogonal direction should not be empty.

Error 30797:
Wrong number of continuation lines when specifying a layered medium.

Error 30801:
The label of a wire coating material should not be empty.

Error 30802:
The label describing a layered dielectric surface coating should not be empty.

Error 30803:
The label describing finite conductivity or characterised surface in a material should not be empty.

Error 30804:
The label of a layered thin dielectric sheet should not be empty.

Error 30805:
Internal Error.

Errors 30806, 30808:
The label defining a substrate medium should not be empty.

Error 30807:
A continuation line must follow for a layered dielectric sphere.

Error 30809:
The label defining the medium of a reflection coefficient ground plane should not be empty.

Error 30811:
Frequency dependent material modeling requires FEKO file format 105 or later.

Error 30812:
Defining a layered dielectric is only supported in FEKO file format 105 or later.

Error 30813:
Syntax adding finite conductivity to structures by directly using a layered dielectric or material label requires FEKO file format 105 or later.

Error 30814:
Syntax adding coating to elements by directly using a layered dielectric or material label requires FEKO file format 105 or later.

Error 30815:
Syntax adding a reflective ground by directly using a material label requires FEKO file format 105 or later.

Error 30816:
Syntax defining a Green's function medium by directly using a material label requires FEKO file format 105 or later.

Error 30817:
Syntax defining the layers of a windscreen by directly using a layered dielectric label requires FEKO file format 105 or later.

Errors 30819, 30820:
An error occurred while parsing material(s) from a XML file.

Error 30821:
An error occurred while parsing a material attribute value from a XML file.

Error 30825:
An error occurred while parsing a cable shielding attribute value from a XML file (invalid value).

Errors 30827, 30828:
An error occurred while parsing cable shielding(s) from a XML file.

Errors 30789, 30830:
Error returned from SAX parser while parsing XML file.

Error 30831:
No cable shielding found while parsing XML file.

Errors 23324, 23333, 30833:
The metallic material label of a cable shield should not be empty.

Errors 30836, 30864:
The name of a cable cross-section definition should not be empty.

Error 30837:
The core material of a single conductor cable must be specified.

Errors 30839, 30841:
The label describing a coaxial cable shield should not be empty.

Error 30840:
The core material of a coaxial cable must be specified.

Error 30842:
The core material of a ribbon cable must be specified.

Error 30845:
The medium in which a shielded bundle is embedded should not be empty.

Error 30846:
The radius of a shielded bundle should be larger than zero.

Error :
The radius of an unshielded bundle embedded in a dielectric should be larger than zero.

Error 30847:
Wrong number of continuation lines when specifying a cable definition.

Error 30848:
The insulation material around a coaxial cable core must be specified.

Error 30849:
The name of a sub-cable definition should not be empty.

Error 30853:
Internal PREFEKO error (csname list <number> <number>).

Error 30854:
The variable #<text> is used in a cable shield name but has never been defined..

Error 30855:
The variable #<text> is used in a cable cross section name but has never been defined..

Error 30856:
The variable #<text> is used in a cable path section name but has never been defined..

Error 30862:
The non-conducting fibre/sheath type requires FEK file format 120 or later.

Error 30863:
The name of a cable path section definition should not be empty.

Error 30867:
Wrong number of continuation lines when specifying a cable section.

Error 30870:
Unknown data format when specifying a cable path section.

Errors 30871, 30872:
The name of a cable connector should not be empty.

Error 30874:
The variable #<text> is used in a cable connector name but has never been defined..

Error 30878:
Internal PREFEKO error (ccname list <number> <number>).

Errors 30879, 30880:
Wrong syntax for a cable load definition: Connector name is missing.

Error 30892:
The cable shield label should not be empty.

Error 30893:
Internal PREFEKO error (shname list <number> <number>).

Error 30894:
Internal PREFEKO error (cdname list <number> <number>).

Error 30895:
Not enough memory available for processing the AW card.

Error 30896:
EN card missing at the end of the *.pre file (after AW card).

Error 30897:
Not enough memory available for a list (AW).

Error 30898:
Wrong syntax of the AW card: Filename is missing.

Error 30899:
For the waveguide port excitation specification (AW card) a continuation line must follow.

Error 30900:
For multiple frequencies the AW card must be defined as new and not as additional.

Errors 30908, 30909:
An error occurred while parsing a numeric attribute value from FIM file.

Error 30910:
Duplicate port name (number) found in FIM file.

Error 30911:
Unknown port type in FIM file.

Errors 30912, 30913, 30914:
Port parameters not matching port type in FIM file.

Error 30916:
Too many modes for a port in FIM file.

Error 30917:
Unknown mode type in FIM file.

Error 30918:
Not enough modes for a port in FIM file.

Error 30919:
Unknown root element in FIM file.

Error 30920:
Unsupported FIM file version.

Error 30921:
Too many ports in FIM file.

Error 30922:
Too many modes for a frequency in FIM file.

Error 30923:
Not enough modes for a frequency in FIM file.

Error 30924:
An error occurred while parsing a FIM file.

Error 30925:
Internal error while creating schema for FIM import.

Error 30926:
Error while opening file for FIM import.

Error 30927:
Internal error while attaching schema validator for FIM import.

Error 30930:
Not enough frequencies in FIM file.

Error 30931:
Too many frequencies in FIM file.

Error 30932:
Line in input file is too long (max. <number> characters allowed).

Errors 23105, 23328, 23397, 23415, 30934, 30935:
This feature is currently not supported in this library version.

Error 30937:
A cable path section should consist of at least two node points.

Error 30940:
Internal PREFEKO error (ddname list <number> <number>).

Error 30944:
The variable #<text> is used in a domain decomposition name but has never been defined..

Error 30945:
Wrong syntax for a domain decomposition: Domain name is missing.

Error 30946:
Wrong number of continuation lines for domain decomposition.

Error 30947:
Wrong syntax for a domain decomposition: label expected.

Errors 30948, 30949:
CableMod/CRIPTE excitation should not be used simultaneously with a radiating cable excitation.

Error 30950:
Rotating impressed spherical mode data by Kardan angles requires FEK file format 113 or later.

Error 30951:
Expecting a continuation line when parsing spherical mode data from a *.pre file.

Error 30952:
Expecting a continuation line when parsing spherical mode data with rotation by Kardan angles.

Errors 30953, 30954:
Unable to find corresponding node point.

Error 30955:
Only NBLOCKs with 3 integer variables supported, e.g. (3i8,6e16.9).

Error 30956:
Label <number> for a cylinder for the UTD must be in the range 0...<number>.

Error 30958:
Wrong number of continuation lines for the OS card.

Error 30959:
Wrong number of continuation lines for the EE card.

Error 30960:
Wrong number of continuation lines for plane wave excitation.

Error 30961:
Wrong syntax of the A0 card: value in field I5 not supported.

Error 30962:
ADAPTFEKO quantity selection can be specified in *.fek file format 118 or higher.

Error 30963:
ADAPTFEKO quantity selection may not have a negative value.

Error 30964:
Cable segments in the NASTRAN file <text> with property ID <text> do not form a single continuous path section.

Error 30965:
Incorrect number of cable nodes exported.

Error 30966:
Unknown/unsupported data found while parsing the file <text>, line <number> <text>.

Errors 23177, 23180, 23221, 30967:
Internal error: A file is already open.

Error 30969:
Internal error: Unknown/incorrect file format (<number>) requested for file <text> - ABORTING FILE OPERATION.

Error 30970:
File I/O error <number> while parsing the file <text>.

Error 30971:
Error while processing the file <text> - EMPTY FILE.

Error 30972:
Error while processing the file <text> - ABORTING FILE OPERATION.

Error 30973:
Incorrect file format found while processing the file <text> - ABORTING FILE OPERATION.

Error 30974:
Incorrect start line number (<number>) given for the file <text> (no data found) - ABORTING FILE OPERATION.

Error 30975:
Internal error: Unknown/incorrect file type (<number>) requested for file <text> - ABORTING FILE OPERATION.

Error 30976:
Incorrect coordinate system (<number>) given for the file <text> - ABORTING FILE OPERATION.

Error 30977:
Internal error: DAIMPFILES array size too small - ABORTING FILE OPERATION.

Error 30978:
Undefined ribbon cable type.

Error 30979:
The twisted pair cable cross-section requires FEK file format 120 or later.

Error 30980:
The core material of a twisted pair must be specified.

Error 30982:
Undefined twisted pair type.

Error 30983:
Undefined non-conducting type.

Error 30984:
The material of a non-conducting fibre/sheath must be specified.

Error 30985:
Twisting of a bundle only permitted when bounded.

Error 30986:
Twisting of a bundle requires FEK file format 120 or later.

Error 30987:
Invalid usage of a SPICE probe definition.

Error 30988:
Monitoring a voltage/current within a general network is only permitted when the network data is loaded from a SPICE *.cir file.

Error 30989:
Monitoring a voltage/current within a general SPICE network requires FEK file format 122 or later.

Error 30992:
The variable #<text> is used in a cable interconnect/termination name but has never been defined..

Error 30997:
Internal PREFEKO error (ciname list <number> <number>).

Error 30998:
The variable #<text> is used in a SPICE sub-circuit name but has never been defined..

Error 35443:
Invalid number of nodes for curvilinear triangle type element.

Error 40626:
More than two polarisations encountered.

Error 40627:
The specified polarisations are not orthogonal to each other.

Error 53455:
Using a labeled geometry connection in a cable harness circuit requires FEK file format 174 or later.

Error 53456:
Number of cable interconnect/termination pin connections (labeled geometry connection) expected to be at least one.

Error 53457:
Number of labels defining the geometry in a cable interconnect/termination connection expected to be at least one.

Errors 23160, 23162, 23164, 23347, 23400, 23472, 30321, 30332, :
Not enough memory available for dynamic allocation.

Error 55042:
Incorrect coordinate system (<text>) found in near field import data block #<number> (expect 'Cartesian Boundary') of file <text> - ABORTING FILE OPERATION.

Error 55043:
No coordinate system specified for near field import data block #<number> (default 'Cartesian' not allowed) in file <text> - ABORTING FILE OPERATION.

Warnings

Warning 23196:
Cannot delete secondary XSD file for CST NFS import.

Warning 23206:
Non-base unit found at CST NFS import: Scaling of amplitude might be required.

Warning 23230:
Empty lines between data lines of a data block detected.

Warning 23231:
Origin of imported radiation pattern is not at global origin. Additional translation might be required (if not already taken into account).

Warning 23232:
Orientation of imported radiation pattern is not aligned to global. Additional rotation(s) might be required (if not already taken into account).

Warning 23348:
Coordinate system NOT specified/found for a node when processing the NASTRAN include file. Assuming default: Cartesian coordinate system at global origin (i.e. using coordinates of node unchanged from input file).

Warning 30004:
Your FEKO licence does not support ASCII *"FEK_EXT_L" files.

Warning 30084:
The variable #adaptfreq is set automatically by ADAPTFEKO and should not be set manually in the *.pre file.

Warning 30085:
Rounding of a floating point number to an integer occurred.

Warning 30106:
Unknown FEKO card '<text>' is used (MD5_checksum).

Warning 30109:
The variable <text> is set in the *.pre file. This should not be done because PREFEKO can determine the value automatically..

Warning 30127:
From FEKO version 4.2 onwards the usage of the CL card for the definition of a circular PO fringe current correction term is no longer supported, this CL card will be ignored.

Warning 30130:
Extreme axial ratio for an elliptical arc leads to an inhomogeneous segmentation.

Warning 30131:
Extreme axial ratio for an elliptical cylinder leads to an inhomogeneous segmentation.

Warnings 30134, :
Extreme axial ratio for an elliptical plate leads to an inhomogeneous segmentation.

Warning 30138:
Extreme axial ratio for an elliptical cone leads to an inhomogeneous segmentation.

Warning 30140:
KK card: A cone has been specified to be truncated, but the top radius is zero (assuming an ordinary cone with tip).

Warning 30151:
The three vectors between the points <text>-<text>, <text>-<text> and <text>-<text> form a left-handed coordinate system. The angle PHI is defined in a right-handed system..

Warning 30153:
Due to the high ellipticity of the ellipsoid possibly problems with the segmentation (check with POSTFEKO recommended).

Warning 30155:
Extreme axial ratio for an elliptical torus leads to an inhomogeneous segmentation.

Warning 30215:
FEMAP point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30216:
FEMAP Neutral file warning: Skipping surface ID=<number> containing curve <number> which does not exist in the curves block of the neutral file.

Warning 30218:
FEMAP Neutral file warning: FEMAP curve ID=<number> in surface ID=<number> contains point ID=<number> which does not exist in the points block.

Warning 30221:
Surface ID=<number> contains a curve ID=<number> which is not of type line.

Warning 30223:
FEMAP Neutral file warning: Skipping surface ID=<number> since there are no corner points available .

Warning 30225:
<number> surfaces skipped since not a boundary surface.

Warning 30227:
Near field aperture: data points do not conform to a regular grid definition. Please check the start index and the number of points..

Warning 30273:
No segments found in *.rsd file.

Warning 30279:
In the imported *.rsd file there is no data for frequency/current.

Warning 30280:
In the imported *.rsd file there are no transmission line segment data.

Warnings 30303, 30304:
The text for a PRINT statement is too long.

Warning 30314:
Contradictory specifications for the ABAQUS import, all nodes are imported.

Warning :
Contradictory specifications for the NASTRAN import, all nodes are imported.

Warning 30315:
ABAQUS point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning :
NASTRAN point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30335:
No elements were imported from the AutoCAD DXF file. Please check label and type selections as well as file format (see FEKO manual).

Warning 30338:
DXF point <number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30356:
The card <character><character> is not supported for NEC import.

Warning 30360:
For the NEC Import tags are used which are outside the allowed range 0 .. <number>. Such tags will be imported as label 0..

Warning 30400:
PATRAN file does not have an end-of-file packet at the end.

Warning 30403:
PATRAN file contains unsupported element shapes.

Warning 30407:
Contradictory specifications for the PATRAN import, all nodes are imported.

Warning 30408:
PATRAN point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30434:
Contradictory specifications for the ANSYS CDB import, all nodes are imported.

Warning 30435:
ANSYS CDB point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30447:
Maximum edge length of IP card is used for curved elements (since shorter than locally specified value).

Warning 30451:
From FEKO Suite 4.2 onwards the use of the parameter #maxallocm is discouraged, for more details see the manuals.

Warning 30452:
From FEKO Suite 4.2 onwards the use of the parameter #maxalloc is discouraged, for more details see the manuals.

Warning 30454:
The following nodes were defined but never used:.

Warning 30455:
The following nodes were defined more than once:.

Warning 30471:
The character sequence ** starts a comment, for powers use the ^ character.

Warning 30475:
Internal mesh point is identical to an external boundary point.

Warnings 23141, 30480, 30481, 30482, 30483, 30484, 30485, 30486, 30554, 30768:
Internal inconsistency in PREFEKO detected, please send the *.pre file to ALTAIR.

Warning 30545:
The option --ignore-errors cannot be used with FEKO Student Edition.

Warning 30555:
*.cfm file import: Cannot identify type of a cuboid (dielectric/magnetic) since old *.cfm format 1 is used.

Warning 30653:
Contradictory specifications for the GID import, all nodes are imported.

Warning 30654:
GID point ID=<number> cannot be exported directly since index too large. Coordinates are available in a variable. No further output of this warning for other points..

Warning 30763:
Label selective import for a *.cfm model containing symmetry: Label selection only applies to original geometry, not the parts created by the symmetry operation..

Warning 30810:
No frequency-dependent material parameters found in XML file (using static/default values instead).

Warning 30818:
There were warnings while parsing material(s) from a XML file.

Warning 30826:
There were warnings while parsing cable shielding(s) from a XML file.

Warning 30832:
No frequency-dependent cable shielding parameters found in XML file (using static/default values instead).

RUNFEKO

6

View the list of messages that may be reported by RUNFEKO.

Errors

Error 20002:
Too many command line arguments are used.

Errors 20003, :
The number of processes must follow after the option -np.

Errors 20004, :
Invalid specification '<text>' for number of processes .

Errors 20005, :
Unknown command line option '<text>' .

Errors 20006, :
Invalid specification --num-threads '<text>' for newFASANT .

Error 20009:
Error reading the header of the file '<text>'. Please recreate this file with PREFEKO version 22.27 from 2001-09-12 or later (required is the 45.th format of the FEK file or later).

Error 20012:
A filename must follow the option --machines-file.

Error 20014:
Error creating the file '<text>'.

Error 20020:
The environment variable FEKO_MPI_ROOT is not set..

Error 20022:
File '<text>' not found (option --execute-prefeko forces execution of PREFEKO).

Error 20026:
The priority must follow after the option --priority.

Error 20027:
Invalid specification '<text>' for priority .

Error 20031:
A hostname or IP address must follow the option --remote-host.

Error 20036:
File '<text>' not found to execute PREFEKO (required due to time/date dependency or for remote launching).

Error 20045:
Invalid setting of FEKO_WHICH_MPI.

Error 20052:
The selected MPI implementation does not support Windows CCS / HPCS.

Error 20053:
The environment variable FEKO_WHICH_MPI is not defined.

Error 20060:
A method must follow the option --parallel-authenticate.

Error 20061:
Unknown method for the option --parallel-authenticate.

Error 20062:
The environment variable FEKO_RSH cannot be set..

Error 20063:
The frequency number being analyzed must follow after the option --adaptfeko-mode.

Error 20067:
File '<text>' not found (option --execute-cadfeko_batch forces execution of CADFEKO_BATCH).

Error 20069:
When using OpenMP threading (i.e. option --use-openmp-threading) then also the number of parallel processes/threads must be specified (use option -np x).

Error 20077:
Cannot set remote environment (FEKO_IS_REMOTE).

Error 20087:
Unable to locate mpiexec.exe for MS-MPI. (Please check if MS-MPI runtime is installed.).

Error 20088:
Using optimisation in connection with continuous frequency data is not supported, please use a discrete frequency sampling.

Errors 20126, 20130:
An error occurred reading a header line from the file '<text>'.

Notes

Note 31127:
OpenMP threading is ignored due to better performance without this option.

Warnings

Warning 20035:
When killing a remote job, the Feko files are possibly not copied back from the remote host (check the remote directory <text> there).

Warning 20049:
Option --machines-file will be ignored as --use-job-scheduler is active.

Warnings 20050, :
Option -np will be ignored as --use-job-scheduler is active.

Warning 20086:
The environment variable FEKO_PARALLEL_DEBUG cannot be set..

Warning 20101:
The environment variable FEKO_EXE_NAME_POSTFIX cannot be set..

CADFEKO Geometry Faults

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View the list of messages that may be reported by CADFEKO.

Corrupt data structures:
The solid modeller is in an inconsistent state. If this model was imported, either the translation failed or the original model contained errors. Please send the original model file (in the original format) to the Feko support team.

Invalid or duplicate identifiers:
This situation usually arises when old Parasolid models are imported.

Missing geometry:
This situation only arises with imported models. The best solution is to select the faulty entity in the details tree and remove it. Note that this entity will not be visible in the 3D view. The geometry has to be recreated.

Invalid geometry:
The fault is usually caused by scaled importing. The best solution is to select the faulty entity in the details tree and remove it. Note that this entity will not be visible in the 3D view.

Self-intersecting geometry or degenerate geometry:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity in the details tree and remove it. The entity can then be recreated.

Geometry not G1-continuous:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity in the details tree and remove it. The entity can then be recreated.

Open or non-periodic curve attached to ring edge:
This fault can occur when a model is imported or the stitching tool has been used on the model. Please send the original model file to the Feko support team.

Open or non-periodic nominal geometry attached to ring edge:
This fault can occur when a model is imported or the stitching tool has been used on the model. Please send the original model file to the Feko support team.

Vertex not on curve of edge:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Vertex not on nominal geometry:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Edge reversed:
This fault only arises with imported models.

Nominal geometry in wrong direction:
This situation arises with imported models.

SP-curves of edge not within tolerance:
This fault should not arise. Please contact your Feko support team.

SP-curves not within edge's tolerance of nominal geometry:
This fault should not occur. Please contact your Feko support team.

Vertices of edge touch:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated. Note that it could be that the face has to be deleted to remove the faulty edge.

Faces incorrectly ordered at edge:
The fault is usually caused by importing. It may be possible to explode the part and try to combine the entities again.

Vertex not on surface of face:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Edge not on surface of face:
The fault is usually caused by importing. It may be possible to explode the part and try to combine the entities again.

Self-intersecting face (i.e. edge/edge inconsistency):
The fault is usually caused by importing. It may be possible to explode the part and try to combine the entities again. See self intersecting geometry.

Edges incorrectly ordered at vertex:
The fault is usually caused by importing. It may be possible to explode the part and try to combine the entities again.

Loops inconsistent:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Missing vertex at surface singularity:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Wire-frame edge/face inconsistency:
This could be caused by unions involving wires and faced bodies. Please send the original model file to the Feko support team.

Wire-frame edge/wire-frame edge inconsistency:
This could be caused by unions involving wires and faced bodies. Please send the original model file to the Feko support team.

Size-box violation:
This fault should not arise. Please contact your Feko support team. Please send the original model file to the Feko support team.

Face-face inconsistency:
The fault is usually caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

Body is inside out:
This situation only arises with imported models.

Shells of region are inconsistent:
This fault should not arise. Please contact your Feko support team. Please send the original model file to the Feko support team.

Regions of body are inconsistent:
This fault should not arise. Please contact your Feko support team. Please send the original model file to the Feko support team.

Geometry/topology inconsistency in shell:
This fault should not arise. Please contact your Feko support team. Please send the original model file to the Feko support team.

Acorn shell/shell inconsistency:
his fault should not arise. Please contact your Feko support team. Please send the original model file to the Feko support team.

Unspecified checker failure or checker failure during face-face check:
It should be possible to continue working, but the part may contain faults that cannot be detected. Please contact your Feko support team. Please send the original model file to the Feko support team.

Non-printing character used in name of attribute definition:
This situation only arises with imported models and it should be possible to continue working.

B-geometry has knots closer than the allowed precision:
The fault is most probably caused by importing and more specifically scaled importing. The best solution is to select the faulty entity and remove it. The entity can then be recreated.

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