What Is New In Rev 7.06

Miscellaneous Changes:

- By default connectors are rendered as lines even when one specifies solid rendering. This is because connectors are long as slender and may not show in the picture. To allow for solid rendering, a new option, -CON_SOLID, has been added to the &PICTURE command. Click here to see the documentation.

- A new concept, "Badness", has been introduced. This is a measure of "out of roundness/squareness" which is applicable to panels or plates with any number of vertices. Click here to see the documentation. This measure is now reported on &SUMMARIES of panels and plates. Also, this notion is now used to interpolate added mass from the standard results presented in DNV.

- Exporting loads on plates has been fixed. Since REV 7.03 MOSES has not "properly" exported loads on plates. The problem was that loads were exported on the internal nodes of the plates and these nodes were not part of the input model.

- Two new sensor signals, MIN_WT_DOWN and MIN_NWT_DOWN, have been added. Click here to see the documentation or here for an example.

- One can now override all 24 SCF values for the end of a beam that is part of a tubular joint. Click here to see the documentation or here for an example.

- TEE shapes are now converted correctly from a SACS model.

- The automated transportation has been changed. One can now make multiple calls to INST_TRAN. This allows one to produce a single fatigue result for situations with different drafts and trims. Also now instead of defining a single file for duration data, you define a file with an option on the INST_TRAN command. This allows each process to have its own duration data. Click here to see the documentation or here for an example.

- One can now resize classes of tubular beams in MEDIT. The resize here will change the diameter and thickness so that the D/T ratio will be between two specified limits. Click here to see the documentation or here to see an example.
- The order of a converted file has been changed so that it can be inserted during an MEDIT; i.e. the nodes are now emitted before the elements.
- One can now use -IGNORE on &EQUI to ignore degrees of freedom for the current equilibrium computation only. Click here to see the documentation or here to see an example.

Disposition Menu:

- An new option, -VALUES, has been added to most commands in the Disposition Menu. With this option one can restrict the records to be considered by specifying values from a specified column. Click here to see the documentation.
- Three new options, -POWER, -LN, and -EXP have been added to the ADD_COLUMN command in the Disposition Menu. Click here to see the documentation or here to see an example.
- The &TABLE, STORE, VIEW, STATISTICS, and EXTREME commands now accept the option -FIGURES with which one can define the number of digits to the right of the decimal point when reporting. Click here to see the documentation or here for an example.

STRPOST:

- Non tubular beams can now be checked with EUROCODE 3. You cannot specify EUROCODE as a type of code, but you get this check with either NORSOK of ISO for non tubes.
- One can now compute code checks on beams according to the NORSOK code specification. Click here to see the documentation or here for an example.
- The default for computing RP2A joint ratios has changed from using the "old method" (21st edition second supplement) to using the "new method" (21st edition third supplement).
- The "Short Can" correction factor is now taken into account if one is using the the second supplement of the 21st edition of RP2A, ISO, or NORSOK codes.

PRCPOST:

- Three new columns have been added to the CONFORCE report in the PRCPOST Menu. These new columns report the line on bottom and the horizontal and vertical pull on the anchor. Click here to see the documentation or here to see an example.

- A new command, CF_TOTAL has been added to the PRCPOST Menu. This command reports the total force acting on a body due to a set of selected connectors. Click here to see the documentation or here to see an example.
- A new command, P_MIN_DISTANCE has been added to the PRCPOST Menu. This command reports the minimum distance from a set of points to a PIECE. Click here to see the documentation or here to see an example.
- The documentation has been changed so that the "trajectory" section became the "body" section which describes both the TRAJECTORY and BODY_FORCE commands.
- The TOT_CFORCE command has been removed from the documentation since it produces basically what BODY_FORCE can produce. The command is, however, still valid.
- The column "Maximum Constraint Force" has been removed from the LOCATION report from TRAJECTORY. This column has generated a lot of questions and, honestly, has no value whatsoever.

Forces:

- There is a new option, -CS_VELOCITY, on piece definition commands. With this option, one can define a table of drag coefficient vs relative speeds, which will be used instead of the input value for x value of -CS_CURRENT. Click here to see the documentation or here for an example.
- The way that the forces are computed on a tube has been changed. The changes are primarily prompted by increases in computer power over the years. Most of the algorithms has been sharpened so that they produce better results, but require more computer power. Also, the "buoyancy" of a tube in waves has been changed so the this is now the integral of the water pressure over the submerged part of the tube. Click here to see an example.

String Functions:

- Three new ACTIONs for the &INFO string function have been created: WT_CATEG0RY, BU_CATEGORY, and MU_CATEGORY. These return information on the weight, buoyancy, and multipliers for selected categories. Click here to see the documentation or here to see an example.
- Two new actions have been added to the &BODY string function. G_ROLL will return the "generalized" roll and I_VECTOR will return the "inclination vector". Click here to see the documentation or here to see an example.
- Three new actions have been added to the &CONNECTOR string function. These new actions allow one obtain the line on bottom and the horizontal and vertical pull on the anchor. Click here to see the documentation or here to see an example.

Classes:

- A new option, -REFLECT, has been added to the class definition command. This command simply reflects a shape about the y axis. Click here to see the documentation or here to see an example.
- One can now define corrugated plates. Click here to see the documentation or here to see an example.

What No Longer Works:

- The addition of three columns to the CONFORCE report changes the association of the column numbers for all columns after the 9th one. Any cif files or macros that use the old numbering scheme will need to be changed.
- The action LAMBDA has been removed from the &CLASS string function.

What Answers Will Change:

- In the past, MOSES had a slam force which was consistent with "slam coefficient" of 6.27. This was a bit greater than the 5.15 which DNV recommends, but was twice the theoretical value of 3.14. This has been change so that now MOSES uses 3.14 (the original 6.27 was a simple typo) and the slam force is now half of what it was before. If you need 5.15, then you should use
- ```
      &PARAMETER -SL_TUBE 5.15
  ```

- Since the default for computing Joint Unity Ratios changed from using the old RP2A to using the latest version, joint unity ratios will change.
- Some results will change (slightly) due to the new way added mass coefficients are interpolated from the badness instead of our old estimate of the aspect ratio.
- Some time domain results will change (slightly) due to the change in the way forces are computed on a tube.