

CDH/AMLS Version 4.0.r61

Release Notes

March 16, 2009



CDH/AMLS V4.0.r61 contains a four error corrections that have been identified since the release of V4.0.r54. In most cases, the users will not notice these errors.

- 1) Corrected memory management in phase2 for very large solid models in excess of 30M DOFs.
- 2) Corrected an i/o error in phase3 for gigantic models, > 70M DOFs.
- 3) Corrected the handling of the area matrix for NVH models where the area matrix, AAFZ, is greater than 2GB. The size of this matrix can be found in the *.f04 files via diag 8.
- 4) Corrected the reporting of usage statistics for extremely large runs.
- 5) Phase2 made more robust for extremely small models.
- 6) Corrected the handling of residual vectors in the case where the rigid body modes are not near zero, i.e., < 0.05 Hz.

Errors 1) and 2) cause AMLS to fail. However, error 3) does not cause a failure in AMLS but continues to a successful completion, but the results are wrong. Thus, this may be considered to be a critical error and the user is encouraged to use this latest revision. Because the error is associated with very large FE meshes of the acoustic domain, the probability of this error occurring in most models is rather small.

Errors 1 thru 5 existed in all previous AMLS versions. Error 6 was introduced in v3.2.r239.

Prior to this release, recent AMLS versions, including v3.2.r239 thru 4.0.r54, were modified so that they could handle models which had poor rigid body modes and residual vectors. However, the modification was found to contain an error that produced inaccurate frequency response on at least one model in the presence of residual vectors. This error has been corrected in this release. **Users of AMLS are urged to switch to the current release as quickly as possible to avoid the possibility of encountering this error and obtaining inaccurate results.**