

ADORE Update Version 7.51

Release Date: August 31, 2018

ADORE 7.51 consists of minor code corrections, discovered in the final packaging of version 7.50. The following corrections are applied by replacing the appropriate code modules:

adore.f

The initial ball and race position as set in internal procedure “InitialPosition” in adore.f fails while starting the iterative equilibrium procedure for setting the initial conditions for some ball bearings. The error does not affect the test cases and most bearings.

adra1.f

An error in final code assembly of the production version 7.50 in the setting of higher shear stress exponent for silicon nitride rolling elements was displaced. This resulted in incorrect setting of this exponent. The error is corrected by slight reorganization of the code. The error affects hybrid bearings only.

A temporary setting to use only the STLE lubrication factor for silicon nitride rolling element life is removed. So the life modification factor for rolling element is kept as default, which simply uses the inner race life modification factor for rolling element as well. The correction affects hybrid bearings only.

m_constants.f

Replacement of this code module simply documents the ADORE version as 7.51.

3. ADORE User Manual

No changes.

4. ADORE Input Facility, AdrInput

No changes

5. ADORE Plot Facility, AdrPlot

No changes.

6. ADORE Animation Facility, AGORE

No changes.

7. Test Cases

All test cases are identical to those supplied with version 7.50.

8. Program File Contents:

Program updates are distributed on a CD in normal data format. The files may be easily extracted from this disk on any computer system and then transferred to appropriate system for which ADORE is licensed for.

The media contains the following three subdirectories and a **readMe.pdf** file, which provides latest update information and instructions for quick installation on the Windows machine:

Disk1

Update751.pdf: A pdf file containing notes of the latest updates (this file).

Update750.pdf: This pdf file from version 7.50 is retained for this distribution.

adoreInput.txt: A text file containing details of ADORE input data.

adoreManual.pdf: ADORE user's manual.

Ball: Subdirectory containing ball bearing test case.

Roller: Subdirectory containing roller bearing test case.

TaperedRoller: Subdirectory containing tapered roller bearing test case.

AdrxExamples: Subdirectory containing few of the user programmable examples.

Disk2

***.f files:** ADORE FORTRAN-90/95 source files.

makeIntel.txt: Makefile for Windows 7 machine with Intel Fortran compiler.

makeLahey.txt: Makefile for Windows 7 machine with Lahey Fortran compiler.

makeUnix.txt: Makefile for Intel compiler on a Unix operating system.

Disk3

setup.bat: Setup batch file to compile adrInput, adrPlot and AGORE on Windows system.

adrInput.bat: Batch file to execute adrInput.

adrPlot.bat: Batch file to execute adrPlot.

agore.bat: Batch file to execute the graphics animation facility, AGORE.

Java: Subdirectory containing all Java source files.

9. Program Installation

Quick installation steps are outlined in the readMe.txt file supplied on the program disk. More detailed installation instructions are included in the users manual.

9.1 ADORE Installation

Make files are provided in Disk2 directory for easy installation of ADORE for both the Intel and Lahey compilers for a Windows machine. The nmake command available with these compilers may be used to compile and create an executable code. In addition, a make file is also included for a Unix operating system, running an Intel FORTRAN compiler. This file may also be used on a Macintosh computer, since Mac OS is essentially based on Unix.

In case of other computing platforms and/or operating systems, any of the supplied make file may be appropriately edited and used for ADORE installation.

9.2 Installation of Java facilities adrInput, adrPlot and Agore

Edit the setup.bat file in Disk3 subdirectory to correct the paths to all source files and the Java Development Kit. Execute the updated setup file to compile and generate executables for these facilities.

The executable files for the three applications may then be transferred to appropriate run directory, an access to which may be defined by the environmental variable on the applicable computer system.

10. Contact Information

In the event of any questions and/or technical support please contact:

Dr. Pradeep K. Gupta
PKG Inc.
117 Southbury Road
Clifton Park, NY 12065-7714 USA
Phone: 518-383-1167
Fax: 518-371-3833
Web: www.PradeepKGuptaInc.com
Email: guptap@PradeepKGuptaInc.com