

Program Package for Thermophysical Properties of Fluids: PROPATH version 13.1

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Program Package for Thermophysical Properties of Fluids: PROPATH is a software library for calculation of thermophysical and transport properties of fluids. It is written in FORTRAN (77 and 95) and partly in C language, and one can obtain thermophysical and transport properties by referring to these subroutines and/or functions from his/her FORTRAN or C main program unit similar to when he/she refers to trigonometric functions. In addition to the static libraries for FORTRAN and C language, PROPATH includes a Web interface through the Internet, single shot programs of each substance for MS-DOS, and dynamic link libraries (DLL) for Microsoft Windows operating system. The PROPATH group has just released a new version 13.1 in 2008. In this latest version, new 26 P-PROPATH (subsets for pure substances) programs have been added on the previous version 12.1, based on new formulations that have appeared in the last 10 years. In this presentation, the introduction of new features of the latest version and the usage of the DLL with application software, such as Microsoft EXCEL and Visual Basic are included. Users can use the PROPATH functions in spread sheets, Visual Basic programs and other Application software on Microsoft Windows. The current version 13.1 is ready to be transferred to any nonprofit organizations through Computer Center of Kyushu University and to profit organizations through a certain software house. The PDF user's manual is open for download to everyone from PROPATH Web site, "http://gibbs.mech.kyushu-u.ac.jp/~akasaka/propath_man/", and the Web version (W-PROPATH) can be used through the Internet at "<http://www2.mech.nagasaki-u.ac.jp/PROPATH/>".