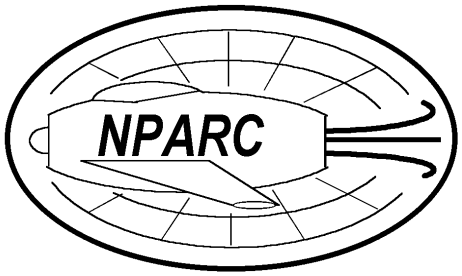
THE NPARC ALLIANCE



INTRODUCTION

The NPARC (National Project for Application-oriented Researdch in CFD) Alliance is a partnership between the NASA Glenn Research Center (GRC) and the Arnold Engineering Development Center (AEDC) dedicated to the establishment of a national, applications-oriented compu-tational fluid dynamics (CFD) capability, centered on the WIND flow solver. WIND is a general-purpose, applied CFD tool with a proven track record. Its further development and support is intended to enhance both the military and commercial competitiveness of the U.S., with particular emphasis on the needs of the aerospace community.

BACKGROUND

NASA GRC and AEDC have formed the NPARC Alliance in response to a national requirement for a productive, user friendly, well maintained, well documented, applications-oriented CFD tool. The NPARC code has developed a wide following over the last decade, with over 300 governmental, industrial, and academic institutions acquiring it. Several years ago, a variety of PARC code users approached both NASA GRC and AEDC about establishing this CFD computer program as a formally supported national asset. In line with the evolving emphasis in both NASA and the Department of Defense on the transfer and fostering of advanced technology, the NPARC alliance was formed to meet this need.

DESCRIPTION

NASA GRC and AEDC are jointly committed to the long range maintenance and improvement of the NPARC flow simulation system, including the WIND code. The three main tasks of the NPARC Alliance are user support, program development, and validation.

Support:

The NPARC flow simulation system is maintained under a formal version control system. User's and developer's manual are available via the WWW. AEDC and/or NASA GRC personnel are available to help answer questions via telephone, E-mail, and/or mutually acceptable site visits. A limited amount of service (4 hours) is available, at no cost, to every user organization. More extensive training or consulting can be negotiated on a case by case basis. AEDC and NASA GRC will periodically arrange workshops and conferences. All users will be kept informed of recent modifications to the software and documentation, as well as upcoming NPARC conferences or workshops through appropriate media (e.g. periodic newsletters, E-mail).

Development:

The NPARC Alliance establishes directions for future development of the NPARC flow simulation system, develops enhancements, and incorporates improvements contributed by other developers. Code developments will continue to emphasize its strengths

as a user-oriented, reliable CFD analysis tool.

Validation:

The NPARC Alliance has assembled and maintains a library of validation data sets, check cases, and experimental data in order to provide a validation audit trail for NPARC. The alliance may also design and perform code validation experiments when inadequate data exists.

NPARC ASSOCIATION

The NPARC Association is a semi-independent interest group which provides a forum for NPARC users to share their problems, developments and plans involving this program. Membership is open to government, commercial and academic users of the NPARC software (other interested parties may be invited to join, as appropriate). An advisory committee, drawn from the Association is chartered by the NPARC Alliance to provide input to AEDC and NASA GRC on the future direction of the NPARC Alliance and its development efforts.

RELEASE PROCEDURE

In order to obtain a copy of the NPARC software and documentation, you must fill out the Memorandum of Agreement form. The AEDC Software Release Instructions describe how to complete the form.

PROPRIETARY PROTECTION

The alliance seeks to leverage the talents and expertise of government, commercial and academic users. Over the last couple of years, a significant number of improvements have been incorporated into the NPARC code by a variety of users. We encourage you to share your modifications with us. The Alliance can incorporate proprietary modifications into special versions of NPARC so that their use is limited to government contractors for a period of up to 18 months. After this period these modifications will be added to the standard version of NPARC. The Alliance will ensure the compatibility of the proprietary modification with all future releases of NPARC.

POINT OF CONTACT

If you have any questions or comments concerning the NPARC Alliance or NPARC software, the NPARC support team can be contacted via phone, fax or email:

Phone: 931-454-7455
Fax: 931 454-6658
Email: nparc-support@info.arnold.af.mil.

Our Web site contains more information, software documentation and validation data at:

http://www.arnold.af.mil/nparc