

IRUG Status and Improved RELAP5-3D Messages

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Report on International RELAP5 User Group (IRUG) membership and on some improvements in the messages for various types of license failure.

Active Licenses, 2017

With several licenses still in process, IRUG memberships will soon exceed 100, though the official number remains 100 at the moment.

	Domestic	International	Totals
Universities	29	23	52
Commercial	14	18	32
Government Use	15	1	16
Sub-Total	58	42	100

Membership in IRUG has grown yearly as more and more institutions, commercial entities, universities, and other organizations realize the benefits of membership.

Benefits of IRUG Membership

RELAP5-3D is an internationally recognized tool for safety and engineering analyses of nuclear power and pressure vessels.

IRUG provides access to RELAP5-3D code versions, information exchange, user support, and training. Each new version of RELAP5-3D provides improvement in code capability, robustness, and software quality. Information exchange is available through annual IRUG seminars and RELAP5-3D web site, which includes RELAP5-3D newsletters, presentations from the seminars and much more information. IRUG supports its members through acceptance and resolution of user trouble reports, its Linked-In site and responses to email queries. Basic and Advanced RELAP5-3D Training is offered prior to the IRUG annual meeting on an alternating basis and in special classes upon request.

In addition, IRUG provides a cost-sharing mechanism for code improvements and a control point for RELAP5-3D maintenance and software improvements. IRUG membership fees are re-invested in code maintenance, architectural improvements, version control, and user support.

Improved RELAP5-3D License File Failure Messages

As an IRUG member, you may have reached the end of your license time before receiving your renewal license file. This has caused some consternation for code users. Previously, when the RELAP5-3D code failed to run, no matter what the cause, users received the following message:

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0***** Sorry, Not authorized. Contact INL for authorization key.
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That generic message was designed to cover the many diverse failure conditions with a single message. However, users are often confused by its vagueness and want to know the exact reason for the license failure, especially when RELAP5-3D ran the day before. After a number of user complaints were received, it was decided to augment this generic message with a more specific message naming the exact reason for the license failure.

Currently, there are 3 principle ways to have a license file failure. These are:

- (1) License file expired (today's date exceeds the expiration date in the file)
- (2) RELAP5-3D version number exceeds the version number stored in license file
- (3) No license file found
 - a. Or both license file expiration (1) and an old code version number (2)

The new message system tells the user one of these specific reasons. It then follows up with the generic admonition to contact the INL for a new license, which is the correct solution for all licensing problems. The new specific messages are:

- (1) RELAP5-3D License file expired
- (2) License not valid for this code version
- (3) Valid RELAP5-3D License File not found

For any of these conditions, it is entirely possible that the user has received the new license file and either has not replaced the old license file with the new one, or has placed the new one in an invalid location within the directory structure. Valid locations are: the same directory as RELAP5-3D is RUNNING FROM; the parent or grandparent directory of that directory; or a sibling directory to that one (directory with same parent). The running code only checks the current, sibling, parent, grandparent directories with respect to where it is RUNNING; it does NOT check where it is STORED on the hard disk.

Further, it checks these locations in a particular order. Once it encounters a license file, it quits searching and evaluates its contents. If a user placed the new license file in a location checked after one with an old license file, the new license will not be found, the code will not run, and one of the new error messages listed above will be printed. Therefore as a precaution, ALWAYS DELETE all old copies of the license file before placing a new license file in the directory structure where the code will run.

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