

## Memorandum

**To:** PC-PUMP Users

**Date:** February 5, 2007

**From:** PC-PUMP® Team

**cc:**

**C-FER File:** P089400

**Subject:** Changes in PC-PUMP® V2.68

### Message:

PC-PUMP V2.68 has the following changes over PC-PUMP V2.671:

- Previously, if the Space Out graph was viewed, the program would not allow the user to open any more analysis output windows without recalculating. This has been fixed.
- If multiple pumps of the same model are selected, and a pump comparison is done, the volumetric efficiency for only one of them is used for all cases. This is a problem if a user is trying to see the effect of volumetric efficiency on the results.
- The program would previously crash if a person entered a non-zero value for the first station in a survey, and then opened the Charts or Summary windows within the wellbore geometry window. (Note that an error message did appear saying there was a problem—but this crash would occur if the user ignored the message.) This has been fixed.
- The program will issue a note if rod guides or couplings designed for use in one size of tubing are used in a larger size of tubing. (Note, an error will occur if they are used in a smaller size tubing—this has not changed.) This note will not appear for certain couplings and guides (e.g., API couplings). C-FER will designate (in consultation with the manufacturers) which couplings and guides this will apply to. Note that this may not function properly when an older PCP file is loaded, unless the rod string is respecified.
- XML exporting is now available. This allows the user to export all the basic input and output information in the program to an XML file which can be opened as a tabbed spreadsheet in Microsoft Excel. Note: two XML files are created, one which can be opened in Excel, another which cannot. This second file is larger and contains much more information. C-FER can provide advice about extracting information from this file for use in other applications, if desired.
- The PDF writer has been updated to a new version. For many users, this will not be noticeable, but the earlier version would not install on certain operating systems (including Vista). The new version should be usable on more systems.

- In the event that zero wear is calculated at any or all points in the well, the program will give a message to explain why this has occurred. Situations when this can occur are if there is zero contact force (as in a vertical well), or if there are spin-through couplings or guides (as the program assumes they are working properly—wear internal to these devices is not calculated).
- The Deformation Design Factor is no longer calculated by default. C-FER does not recommend its use at any time, and its presence in the program caused confusion with some users. It can be turned back on in the Preferences window if users wish to calculate it.