PRODAS Newsletter

ARROW TECH

If You Can't Get a Bigger Target

Summer 2010

Announcing the Release of PRODAS Version 3.5.4

Our engineers and software developers are back at it again. Not only did they take care of a couple of bugs remaining in the first release of version 3.5, but they added a couple of neat new features. Tear off plots come to mind (see below). There is even a new analysis module.

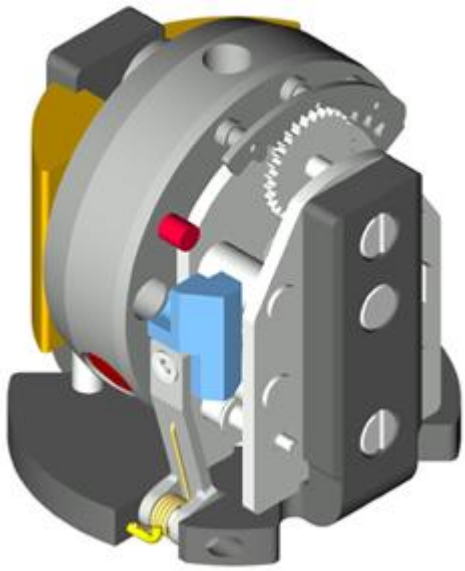
We anticipate that you will be pleased with the new features in this release of PRODAS; I know our own Arrow Tech users are.

Mark Steinhoff
VP Software Sales and Development
Arrow Tech Associates

New FUZE Mechanical Simulation Tool

Arrow Tech has just released FUZESIM, a new module that offers a simpler and more efficient method for analysis of mechanisms carried within Projectiles and/or Rockets. Using FUZESIM, the analyst only needs to describe the mechanism by developing the equations of motion. FUZESIM contains the infrastructure to provide the following functions:

- *Preparation of the Input Data File*
- *Equation Editor*
- *Integration*
- *Output of Results*
- *Macro Capability*



FUZESIM shines when a mechanism needs to be simulated in a variety of environments. We first ran into this with the development of a second safety device for the 2.75" rocket fuzes. This design had a second safety lock that responded to the spin environment while the Arming Rotor was driven by the acceleration environment. The lock had to release before the Rotor reached a certain point in its travel or the fuze would dud. This mechanism needed to function properly on the full family of rockets, in all launch conditions and within the full range of tolerances for the fuze mechanism. Multiple trajectory simulations were required for each rocket type to identify the corners of the envelope for successful fuze performance since the relationship between acceleration and spin depended on both launch temperature and altitude. Then fuze design parameters had to be optimized to maximize the design margin. A fully integrated Fuze Simulation application made this work much more efficient, complete and accurate.

All of the PRODAS Trajectory codes have been modified to optionally provide this tabular output.

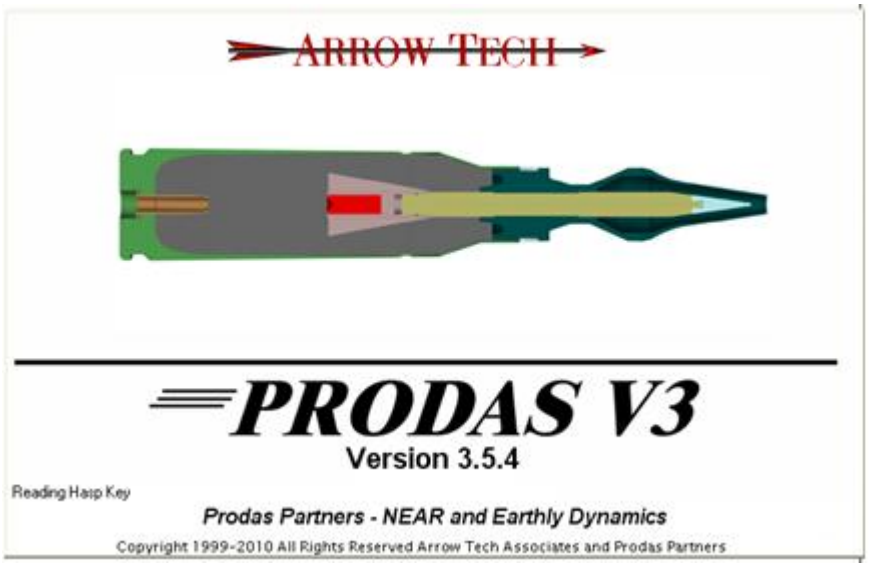
Updated Ballistic Tables

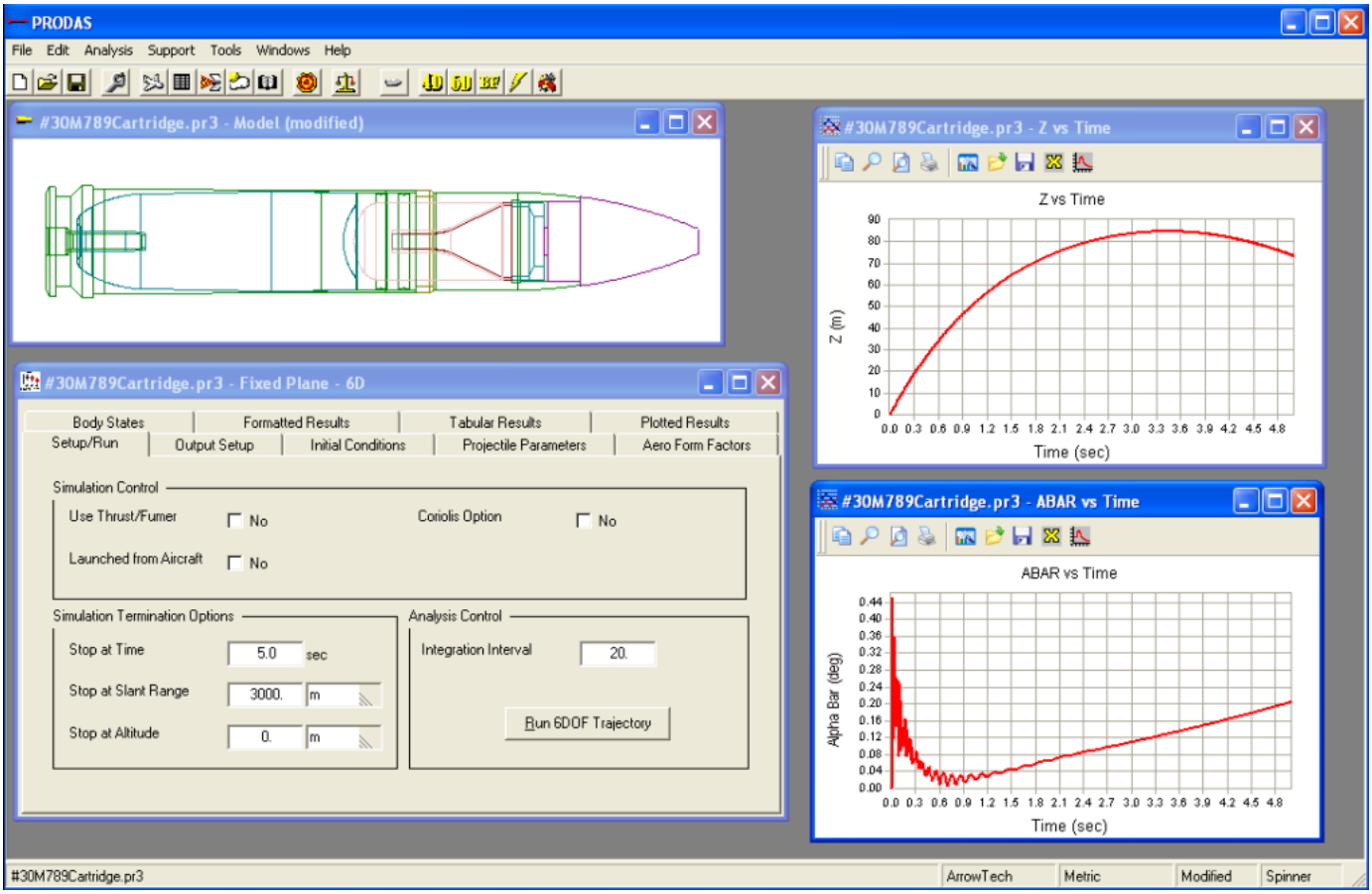
Due to a user request, Arrow Tech enhanced Ballistic Tables to include a 6 DOF trajectory simulation option. Included with this is the ability to use Ballistic Tables to provide its output for high QE projectiles such as Artillery or Mortars.

Airplane Stealth Mode (hidden feature)

If you are like us and use PRODAS while on an airplane, the startup screen with a projectile displayed may cause some concern and questions from your seat-mates. You may like the Stealth Mode. This feature has been in PRODAS for quite a while, it was just never advertised.

When the PRODAS startup screen displays the 3D projectile, merely double click on the image and it will disappear, leaving you to conduct your analyses in peace. Open projectile windows won't display the wire frame models either, but rest assured they will all function just fine.





Other Enhancements

- A text field is now available to make comments on the projectile or to include a proprietary legend if appropriate.
- Tear Off Plots are now part of the normal plotted output toolbar. This allows you to make a copy of a plot for future reference and still close the application – thus you can view the plot without having to re-run the analysis application.
  Tear Off Plots also make it faster to see the graphical results of an analysis.
- New HASP Key Drivers are compatible with Windows 7.

Training

Arrow Tech engineers teach 10 to 20 classes a year. If you are thinking about a course to try and get the most out of your PRODAS investment, call soon so we can reserve a spot.

In addition to our traditional PRODAS training courses we now offer an ***Advanced PRODAS User Course*** which covers using the Initial Conditions Generator and macros to perform Guided System Effectiveness as well as other advanced tools such as the Projectile Tracing Tool, the Aero Manager, the suite of Structural Analysis modules and the Guided Projectile/Rocket modules.

For the ultimate in effective training, Arrow Tech offers the ***Advanced PRODAS User Seminar***. This is a one on one training experience where you work with one of our engineers at our facility. Bring along your current projectile problem, and we will solve it with your help and you will bring home the knowledge so you can do it the next time. This has become very popular for companies wanting to expand their guided projectile expertise. Of course we will sign a non-disclosure to protect your ideas and abide by all applicable ITAR regulations.

To discuss what training is best for you please contact John Whyte at 802-865-3460 ext. 13 or email jwhyte@prodas.com.

My Product Support has expired, how can I bring it up to date?

PRODAS product support is paid on an annual basis and covers all PRODAS Software on a per site basis. Per our published PRODAS Maintenance Agreement product support can be re-instated if there has been a lapse in coverage with defined penalties. To access the Maintenance Agreement terms click on the following link: Maintenance Agreement

For a quote to reinstate your product support please contact Lin White (lin@prodas.com) or John Whyte (jwhyte@prodas.com).

Questions, comments or to request the latest pricing information please email us at: info@prodas.com or call 802-865-3460

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