PRODAS Newsletter

Announcing the Release of PRODAS Version 3.5

Our engineers and software developers have been hard at work finishing up the new version of PRODAS. What started as a simple upgrade has turned into a major release. New features are in abundance, but there was an extra emphasis put on speeding up and streamlining existing analyses.

In response to your inputs and the pleading from our own engineers, we have greatly expanded PRODAS's Guided Projectile capability. We regularly evaluate system effectiveness of guided projectiles for our customers and now make that technology available to you.

PRODAS Version 3.5 will be made available at no additional charge to all of our customers who have active product support. If you haven't heard from us already, you will soon.

To our customers that have let their product support expire, there is still a limited amount of time to bring your support up to date. Details follow in this letter.

We anticipate that you will be pleased with the new features in this release of PRODAS; I know our internal engineers are.
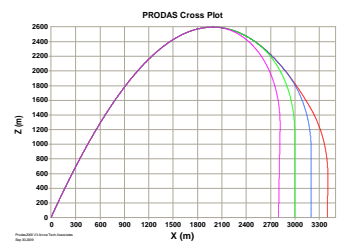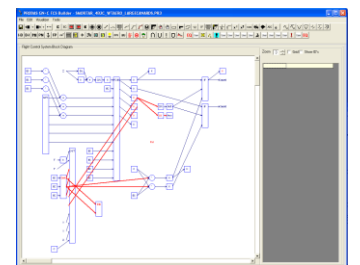
Mark Steinhoff
VP Software Sales and Development
Arrow Tech Associates

Enhancements to the Guidance, Navigation and Control Prototype Tool

The GN&C Trajectory simulation has always allowed you to build your flight controller using drag and drop block diagrams. Now in addition, you can create your own control blocks and make them part of the PRODAS GN&C Prototype Tool.

Algorithms too complex to program with the visual block metaphor can be programmed directly using your Intel FORTRAN or Microsoft C compiler and loaded dynamically at run time to become part of the PRODAS trajectory simulation. Your guidance algorithms are then executed in conjunction with the **validated** PRODAS trajectory engine. Tools are provided to generate the interface code to help streamline your development.
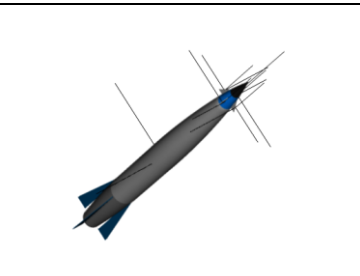
To model configuration changes during flight such as pop out canards, the GN&C Prototype Tool now supports "staged" aeros. Complete sets of aerodynamics can be switched during the simulation as the projectile configuration changes.

Updated 3D Visualizer

As Arrow Tech got more involved with Guided Projectiles, it became apparent the visualization should support movement of control surfaces. Now canard movement as well as squib/thruster firing is part of the simulation visualization.
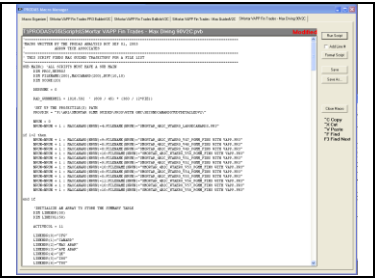
It is very powerful to actually see the effect of your control application to the flying projectile. It's as easy as ever to turn the visual into an AVI movie that can be displayed in your PowerPoint presentation

New Macro Editor

The engineers at Arrow Tech are some of the biggest users of PRODAS software and it became apparent that a more robust editor than "Notepad" was needed when generating system simulations or design trade studies for guided munitions.
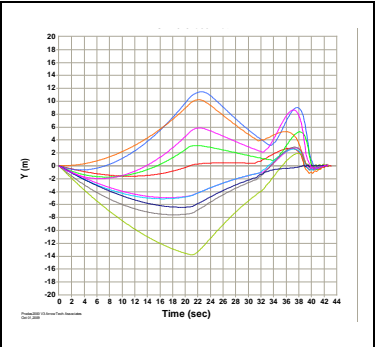
The new PRODAS macro editor manages your macros and supports multiple edit windows to make you more productive than ever. Features like automated formatting and line numbers are also provided for easy debugging.

System Effectiveness of Guided Projectiles

The recent emphases on guided projectiles lead to the development of a new analysis tools to support evaluating system effectiveness. Arrow Tech has developed a new module called the "Initial Conditions Generator" which statically combines all of the Mission, Weapon and Projectile errors to produce a set of initial conditions that can be used for subsequent analysis.
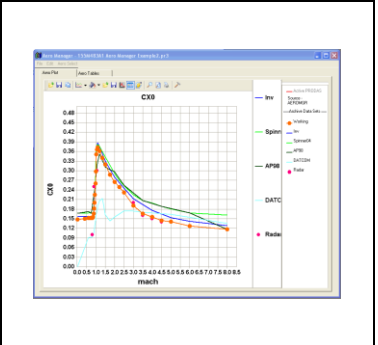
The methodology takes advantage of the power of the PRODAS macro language to use the output from the Initial Conditions Generator to fly guided trajectories and then accumulate the results into files that can be opened in EXCEL for post game analysis.

Aero Manager

Arrow Tech now offers three different aero predictors; the included Finner/Spinner, MISL3 and Missile DATCOM. When you add test data such as spark range, radar or wind tunnel, you have a mountain of data to be analyzed. The Aero manager is here to help.
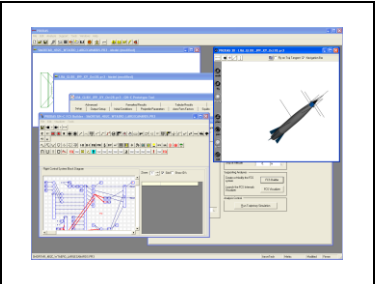
With a simple check box, all of the aero predictors will send their coefficients to the aero manager. Then copy and paste in test results. The aero manager will display all of the aeros from all of the sources and then let you, the aero engineer, decide which values to allow to advance into the trajectory simulations.

Infrastructure Changes

PRODAS now opens up faster, allows multiple windows for the 3D Visualizer and Flight Control System Editor and has a much more user friendly feel when moving from window to window.

Of note is the Software Development Kit modules that now open up in seconds rather than minutes.

Training

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.

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

New USB Security Keys

PRODAS Version 3.5 will require the use of a new software security key. The new key provides a higher level of security and the ability for Arrow Tech to continually incorporate additional modules under the PRODAS umbrella.

Be assured that the new USB keys and the keys currently in use are NOT Windows memory devices and are not Read/Write compatible without specialized software.

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).

To remove your name from our mailing list, please click here

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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