# THE DISTINSIDER

## .NET Control for Visual Studio 2003, 2005, and 2008

Users of the GlsDotNET and the .NET Framework should be aware of a known bug in the Microsoft .NET Framework version 1.1 that affects mixed-mode DLLs. This issue only affects the GlsDotNET Control for Visual Studio 2003/7.1 users working with the Microsoft .NET Framework version 1.1. If you are unable to upgrade your projects this article will describe a work around to the bug.

A description of the issue can be found on the following MSDN site: http://msdn.microsoft.com/library/default. asp?url=/library/en-us/dv\_vstechart/html/

vcconMixedDLLLoadingProblem.asp

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Upgrading projects to Visual Studio 2005 or 2008 and using the latest release of the GlsDotNET Control with the .NET Framework version 2.0 will fix this issue. For users who cannot migrate forward the following work around will avoid the conflict.

After adding the GlsDotNET Control to the Visual Studio 2003 Toolbox, users MUST close Visual Studio 2003, saving any project files, and rebooting the system before inserting the GlsDotNET Control into any forms. Failing to do so may cause the editor to crash without warning or cause problems inserting RSOs into the control. Projects that were created without the reboot step will need to remove all instances and references to the GlsDotNET Control, and then reinsert them as indicated above.

Should you need further assistance or clarifications please don't hesitate to contact our Support Department.



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### Where We'll Be

**ITEC 2008** Stockholm, Sweden June 10-12, 2008

ADL Co-Lab Lake Buena Vista, FL August 25-28, 2008

I/ITSEC 2008 Orlando, FL December 1-4, 2008

## **GL Studio Training Dates**

August 4-7, 2008, Orlando FL

November 3-6, 2008, Orlando FL

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## Letter from the President

Germany adopts	GL Studio product sales were up over 25% as we continue to penetrate the embedded aircraft market. Our Professional Services group supported over fifteen separate programs including contracts that firmly establish DiSTI as a leader in Virtual Maintenance Training Technology, resulting in sales growth of 35% in the services business.		
ct Updates2			
Continues to Grow Pacific 2	The Professional Services group achieved several significant milestones. The U.S. Army Flight School XXI program received new Instructor Station cockpit repeaters for three		
dio: Global Leader II Development 3	helicopter platforms, while the U.S. Army Transportation School is benefiting from the delivery of virtual Diesel Engine Maintenance Trainers for four different engines. In		
ips: .NET Control ual Studio 2003,	addition, the US Navy's F-18 SAMT achieved Final Acceptance and is now in service.  These deliveries, and our continued success in the automotive and medical fields, have further cemented our position as a world leader in HMI development.		

As demand for GL Studio grows, we continue to support our customer's requests for new features for GL Studio. During the past year we have added plug-ins for ARINC 661, a Map Toolkit, and an Approach Plate Generator based on customer requirements. Please contact us about requests for future enhancements.

I am proud to report that DiSTI has achieved another year of tremendous growth and success in 2007. Our

In 2008, one area of focus is expanding our international market share to build on the very strong success seen in North America. To this end we have promoted Christopher Giordano to Director of International Business. With over nine years of experience at DiSTI, Chris brings a wealth of knowledge to our international business partners.

Joseph Swinski DiSTI President

Elektroniksystem - and Logistik-

## ESG, Germany Adopts GL Studio

GmbH, ESG, a leading developer and integrator of IT systems for the German military and public authorities, has adopted the GL Studio toolkit for multiple simulation-based training programs. With 14 offices spread throughout Germany and France, and over 1,200 employees, ESG has been developing, integrating or operating software intensive electronic and IT systems for over 40 years. DiSTI, along with European reseller Antycip Simulation, were selected because of the strength of the GL Studio toolkit and the ability to provide the necessary support to make ESG successful in their simulation and training endeavors.

"After conducting a thorough evaluation of Human Machine



Interface tools", said Dr. Peter Stütz, Head of Simulation & Training for ESG's Aircraft Division, "our group concluded that GL Studio would make a beneficial addition to our existing workflow and enhance the quality of what we can bring to our customers. While GL Studio is currently in use on 2 programs here at ESG, we have plans to move forward using GL Studio with additional programs in the near future. I am also very satisfied with the support DiSTI has provided and the results we have achieved thus far."

conjunction with ESG on the SeaLynx MK88A Helicopter Cockpit Procedure Trainer (CPT) for the German Navy. Together we are developing the virtual instruments that will be used in both the cockpit, controlled via touch screens and on the Instructor Operator Station. In addition to the cockpit variant, which gives pilots a realistic image of the real helicopter, ESG will also develop a simplified laptop variant of the CPT. This program is being developed on a very short time line which lends itself perfectly to the rapid content development and Reusable Software Objects (RSOs) architecture that GL Studio provides.

DiSTI is currently working in



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## DiSTI Continues to Grow in Asia Pacific

The Asia Pacific region has exhibited significant growth for DiSTI in the past two years. Over thirty companies, universities, and technology centers in China, South Korea, and Japan have adopted GL Studio for their HMI development efforts.

Two of our most recent customers in Asia include Mitsubishi Heavy Industries (MHI) and ShinMaywa Industries of Japan. MHI will be using the tools on multiple in-house programs, with applications including the development of glass cockpit displays for engineering simulators that represent both civil and military aircraft types. ShinMaywa Industries will be the recipient of instrumentation developed with GL Studio for use on multiple flight training applications.

Another recent user in Asia is Hyundai Rotem in South Korea, the main contractor for the K-Series Tank Platoon Simulator (KTPS) program. GL Studio was selected to support development of the visual solution for the KTPS virtual tactical tank simulation trainers. Hyundai Rotem plays a critical role in strengthening the South Korean defense posture by developing the K1/K1A1 tanks and related vehicles, with supporting high fidelity training devices.

DiSTI, in addition to its direct sales in Asia, continues to support U.S. prime contractors in the design and delivery of training systems for Asian customers though the U.S. Foreign Military Sales (FMS) program. On recent FMS programs DiSTI has used its GL Studio toolkit to produce Instructor Station instrument repeater displays incorporated in military flight simulators for Singapore, South Korea, and Japan.



## **Product Updates**

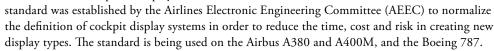
#### GL Studio 3.2.4

DiSTI continues to expand GL Studio functionality with the release of GL Studio 3.2.4. This release includes debug C runtime libraries for GL Studio offering our users greater capabilities in debugging and troubleshooting their overall build environment. It also extends support for Visual Studio 2008 (vs9.0) enabling users to move forward with the latest Microsoft Visual Studio product offering. GL Studio 3.2.4 is available for download

through our support site.

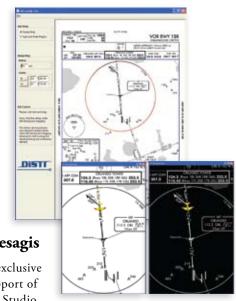
#### GlsA661 Toolkit Released

DiSTI unveiles the new GL Studio ARINC 661 Toolkit at the 2008 Avionics Event in Amsterdam. This new plug-in module for GL Studio was developed in conjunction with major aircraft and avionics manufacturers around the world to enable the rapid development of ARINC 661 compliant displays. The ARINC 661





DiSTI releases the Approach Plate Tool Pack to convert digital Instrument Approach Procedures (IAP) charts, publicly available in Adobe PDF from the FAA, into correlated geo-referenced GL Studio objects suitable for a variety of aeronautical based applications including instructor operator stations. The pack consists of a Configuration Tool, for converting the PDF documents into GL Studio consumable textures and configuring chart parameters, and a Viewer RSO component, for loading, rendering, and controlling charts in user based applications.



## New Partnership Agreement with Presagis

DiSTI and Presagis have entered into a new non-exclusive partnership agreement regarding the sale and support of GL Studio for Vega Prime; a bundling of the GL Studio development toolkit and the GL Studio Vega Prime Plug-

in module. Realizing that the efficient and symbiotic integration of GL Studio and Vega Prime is of vital importance to our customers, the new agreement contains two critical changes. First, all activity regarding the purchase and support of GL Studio needs to be directed to DiSTI. Second, all activity regarding purchase and support of the GL Studio Vega Prime Plug-in module can be directed to either DiSTI, or Presagis. These changes are effective immediately.

## GLS Vega Prime Plug-In 2.9.2 Released

The GLS Vega Prime Plug-In version 2.9.2 is ready for distribution from the DiSTI Support site. This version supports GL Studio 3.2.2 for RHE4 and VS2003 as well as GL Studio 3.2.4 for VS2005. The plug-in is compatible with Vega Prime version 2.2.

## GL Studio: Global Leader In HMI Development

DiSTI's GL Studio has rapidly become an industry standard solution for graphical cockpit representations for a wide range of applications, including prototyping and human factors studies of avionics displays and cockpit layouts, flight trainers, instructor station repeater displays, and debrief stations. Key successes include:

The U.S. Army AMRDEC's APEX Laboratory at Redstone Arsenal, Alabama uses GL Studio to prototype and evaluate cockpit displays for the new Rockwell Collins Common Avionics Architecture System (CAAS) for aircraft such as the CH-47F, UH-60M, ARH-70A, and USCG HH-60. The cockpit graphics are also reused in APEX Lab produced desktop cockpit familiarization devices, saving additional development costs.

DiSTI has produced a high fidelity fully functional graphical cockpit representation of the F-16 aircraft for the U.S. Air Force Research Laboratory (AFRL), Human Effectiveness Directorate, Warfighter Readiness Research Division in Mesa, Arizona. Developed initially as an Instructor Station cockpit repeater, the application has been extended for use as the cockpit interface in their deployable virtual flight simulators, and their next generation tactical debrief stations. DiSTI has also done initial work to develop a high fidelity representation of an A-10C cockpit with Mesa. The flight simulators are essential to the AFRL's human factors and training effectiveness research studies, and are also used as part of large scale Distributed Mission Operations (DMO) training and rehearsal scenario development, evaluation, and after action review research.

Helicopter flight simulators produced for the U.S. Army's Flight School XXI training system incorporate fully interactive 3-D cockpit representations, produced by DiSTI, as an essential part of the Instructor Stations. The 3-D cockpit designs include the CH-47D, UH-60A, and OH-58D. The graphical cockpits allow the instructor to monitor student actions in real time, and debrief recorded training sessions.

DiSTI-generated cockpit graphics are also used as part of the U.S. Army's AVCATT program. Reconfigurable helicopter cockpit display graphics generated by DiSTI include the AH-64A,





AH-64D, UH-60A/L, CH-47D, and OH-58D. Using GL Studio, these AVCATT cockpit graphics can be easily modified as newer aircraft configurations come on line, such as the UH-60M, CH-47F, and ARH-70.

The U.S. Air Force 402d Software Maintenance Group, based at Warner Robbins AFB, Georgia, selected GL Studio as the new software basis for the Crew Interface Simulation (CIF) of the Special Operations Forces (SOF) Extendable Integration Support Environment (EISE). The support environment permits the modification and test of the OFPs running on SOF aircraft, including the MH-53J, AC-130H, MC-130H, MC-130E, MH-53M, EC-130H, and HH-60G. After an exhaustive analysis of numerous COTS software tools, The Air Force selected GL Studio as the new standard for generating virtual cockpit displays within the CIF GUI supporting visualization, control, evaluation, and test of the OFP upgrades.

DiSTI recently announced a new contract to develop cockpit Instrumentation and Instructor Station cockpit repeaters for German Navy's SeaLynx MK88A Cockpit Procedure Trainer (CPT). DiSTI's contract requires simulated instruments for the SeaLynx MK88A Helicopter CPT to be represented by graphical, interactive touch screen displays.

DiSTI cockpit graphics are developed for more than just aircraft, such as the DiSTI-developed graphical cockpit representations of the U.S. Navy's Landing Craft Air Cushion (LCAC). The virtual cockpit graphics, while initially applied to a desktop trainer that filled in for a mission simulator that was out of service for an upgrade, were successfully reused in subsequent desk top trainers and maintenance trainer courseware.

Instructor Station effectiveness can be enhanced with GL Studio beyond the use of graphical cockpits. GL Studio tools allow the user to add map displays in multiple formats, view approach plates, and incorporate live or recorded video within the Instructor Station displays.

In addition to the programs and aircraft listed above, DiSTI has produced complete and/or partial cockpit or crew station simulations for the following partial list of systems:

F/A-18C/D	T-38	Stryker
T-25	EC-135	T-45
EA-6B	E-6B	TH-57
F-15K	SH-60F	HMMWV
F-35	LMTV	E-2C
F-22	T-39	Bell 412
WAH-64D	MH-60S	HEMTT

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