Conference program

discover. learn. advance.

2009 BAE Systems GXP International User Conference
and Professional Exchange
May 4 – 8, 2009
San Diego, California

BAE SYSTEMS

April 19 – 23, 2010

Join us for the BAE Systems GXP International User Conference and Professional Exchange

For more information: www.gxpuserconference.com

What is XA™?

eXtreme Analysis™ with SOCET GXP® v3.0

SOCET GXP® establishes the union of image analysis and geospatial analysis in one software product.

eXtreme Analysts™ (XA™) have the best of both worlds — image analysis (IA) and geospatial analysis (GA) integrated into a single application — SOCET GXP. The XA uses SOCET GXP's automated functionality, access to shared databases, and interoperability to manage geospatial information effectively. No more switching between multiple products or spending excessive time completing laborious tasks.

IA + GA = XA

General information

Conference registration

Conference registration will be located in the *Hotel Lobby* from 11:00 a.m. to 4:00 p.m. on Sunday, May 3, from 7:00 a.m. to 7:00 p.m. on Monday, May 4, and will move to the exhibition area in the *Ballroom Foyer* from 5:00 p.m. to 7:00 p.m. Registration takes place in the *Ballroom Foyer* for the duration of the User Conference. Check in at the registration desk when you arrive to pick up your badge, then use this area as your primary source of information. Please speak with BAE Systems personnel if you have inquiries or special requirements. We want you to enjoy the Conference to the maximum!

Sunday, May 3	11:00 a.m. to 4:00 p.m.
Monday, May 4	7:00 a.m. to 7:00 p.m.
Tuesday, May 5	7:00 a.m. to 5:30 p.m.
Wednesday, May 6	7:00 a.m. to 5:00 p.m.
Thursday, May 7	7:00 a.m. to 5:00 p.m.

Walk-up workstations

One-on-one sessions to discuss individual software issues

La Jolla Room: The Canyon

One of our major objectives for this conference is to help you solve any problems or issues you may have using GXP software. We have provided a number of walk-up workstations in *La Jolla Room: The Canyon*. This area is staffed at all of the times listed below, or you can go to Conference Registration and arrange an appointment to meet with the appropriate support engineer or product manager. Bring your own data set if you prefer.

Tuesday, May 5	Noon to 5:30 p.m.
Wednesday, May 6	8:00 a.m. to 5:00 p.m.
Thursday, May 7	8:00 a.m. to 5:00 p.m.

Internet café

La Jolla Room: The Shores

Computers are available in *La Jolla Room: The Shores* for connecting to the Internet, reading e-mail, accessing the Web, and so on. Computers are available during conference hours. At other times, please use the high-speed Internet connection in the complimentary wi-fi hotspots: the *Hotel Lobby* and *Restaurant*.

Tuesday, May 5	7:00 a.m. to 5:30 p.m.
Wednesday, May 6	7:00 a.m. to 5:00 p.m.
Thursday, May 7	7:00 a.m. to 5:00 p.m.

Exhibit hours and location

Ballroom Foyer

Monday, May 4	6:00 p.m. to 9:00 p.m. Welcome reception
Tuesday, May 5	8:00 a.m. to 5:00 p.m.
Wednesday, May 6	8:00 a.m. to 5:00 p.m.

User survey and conference proceedings

This year's user survey will be conducted electronically. Starting on Tuesday, May 5, using either your own laptop in the privacy of your room, one of the computers in the Internet café, or any other computer connected to the Internet. Navigate to **www.gxpuserconference.com** and complete the survey. Respondents have the opportunity to comment on the User Conference, GXP products, and other facets of GXP's performance. As a thanks for completing the survey, you will receive a BAE Systems XA™ polo shirt. Conference proceedings will be made available online after the conference to attendees who have completed a survey.

GXP Professional Exchange

The GXP Professional Exchange is a new component in 2009 open to the global geospatial community — not just current GXP software customers. It is a forum designed to support the exchange of ideas between industry partners, GIS executives, geospatial and image analysts, and others interested in learning and sharing information about trends and technology.

Monday, May 4

7:00 a.m. to 1:00 p.m.	**Golf tournament** *Modified shotgun start at 7:00 a.m.*
9:00 a.m. to 3:00 p.m.	**SOCET GXP Boot Camp** *Scripps Ballroom I & II*
9:00 a.m. to 10:00 a.m.	**SOCET GXP Boot Camp: module one** *Scripps Ballroom I & II*
10:00 a.m. to 10:30 a.m.	**Break** *Scripps Ballroom I & II*
10:30 a.m. to noon	**SOCET GXP Boot Camp: module two** *Scripps Ballroom I & II*
Noon to 1:30 p.m.	**Lunch** *Parterre Gardens*
1:30 p.m. to 3:00 p.m.	**SOCET GXP Boot Camp: module three** *Scripps Ballroom I & II*
3:00 p.m. to 6:00 p.m.	**Free time** *On your own…*
6:00 p.m. to 9:00 p.m.	**Welcome reception and exhibition** *Ballroom Foyer*

Golf tournament | 7:00 a.m. to 1:00 p.m.

Recently renovated Torrey Pines South Course boasts dramatic coastline views as well as some of the most challenging golf in the country. In 2001, renowned golf course designer Rees Jones set his signature on the course and the accolades on his work have not ceased since. Now 7607 tremendous yards in length, the Torrey Pines South Course hosted the 2008 United States Open Championship.

Includes golf on the South Course and lunch.

SOCET GXP Boot Camp | 9:00 a.m. to 3:00 p.m.

The objective of SOCET GXP Boot Camp is to introduce SOCET GXP to individuals who are not familiar with the software or how to use it. Image analysts, geospatial analysts, and commercial mapping professionals are welcome. The goal is to acclimate attendees to SOCET GXP concepts, terminology, and capabilities so that presentations, workshops, and Professional Exchange sessions during the week are more meaningful. SOCET GXP Boot Camp features succinct presentations and focused demonstrations presented by experienced Customer Support engineers using SOCET GXP v3.0.2, the current version installed at most customer sites. The session begins with basic concepts such as the Workspace Manager, Multiport, VirtualMosaic, Ribbon and Quick Access Toolbar, to ensure familiarity with the nomenclature used throughout the conference. As support engineers navigate through the SOCET GXP application, attendees are shown processes such as triangulation, orthomosaic generation, automatic terrain generation (ATG), spatially enabled exploitation, and advanced product generation using capabilities such as Chipping and the Finishing Tool.

Presenters: Thao Duong, Brian Roberts, Casey Tatro

Welcome reception | 6:00 p.m. to 9:00 p.m.

BAE Systems is pleased to host the conference welcome reception. Meet exhibitors, network, and enjoy the fabulous *hors d'oeuvres* and BAE Systems host bar.

Tuesday, May 5

7:00 a.m. to 8:00 a.m.	**Continental breakfast** *Ballroom Foyer*	
8:00 a.m. to 5:00 p.m.	**Exhibition** *Ballroom Foyer*	
8:00 a.m. to noon	**Plenary session** *Grand Ballroom A, B & C*	
8:00 a.m. to 8:15 a.m.	**Opening remarks** Dan London	
8:15 a.m. to 9:00 a.m.	**Keynote presentation** **NGA sources for geospatial intelligence** John (Jack) Hild, NGA, Bethesda, Maryland	
9:00 a.m. to 10:00 a.m.	**eXtreme Analysis™: SOCET GXP v3.1** Yen Dennison, Kurt de Venecia, Shannon Holland, Rob Lomicka, Chris McCullough, Rob Stout, Stewart Walker	
10:00 a.m. to 10:30 a.m.	**Break and exhibition** *Ballroom Foyer*	
10:30 a.m. to 11:30 a.m.	**eXtreme Analysis: SOCET GXP v3.1 (continued)** Yen Dennison, Kurt de Venecia, Shannon Holland, Rob Lomicka, Chris McCullough, Rob Stout	
11:30 a.m. to noon	**SOCET SET® v5.5** Brandon Gilhooly	
Noon to 1:30 p.m.	**Lunch and exhibition** *Parterre Gardens and Ballroom Foyer*	
1:30 p.m. to 3:00 p.m.	**Plenary session (continued)** *Grand Ballroom A, B & C*	
1:30 p.m. to 3:00 p.m.	**Keynote presentations** **DCGS-A update – a GEOINT perspective** Steve Montgomery, U.S.AIC&FH, Fort Huachuca, Arizona **NOAA integrated ocean and coastal mapping activities and enabling technologies** Mike Aslaksen, NOAA, Silver Spring, Maryland **SOCET GXP in U.S. Army GEOINT training** Stephen Looney, U.S.AIC&FH, Fort Huachuca, Arizona	
3:00 p.m. to 3:30 p.m.	**Break and exhibition** *Ballroom Foyer*	
3:30 p.m. to 5:00 p.m.	**Workshops** ⏩ **Distributed processing in SOCET GXP with Jobs** *Scripps Ballroom I & II* Mike Estes, Clark Ray, Brian Roberts, Mike Schwarzlose ⏩ **Product generation in SOCET GXP v3.1** *Grand Ballroom D & E* Julie Adams, Dennis Bryant, Dave Chittim, Will Preissner	**Professional Exchange** ⏩ **Panel discussion on space imagery** *Grand Ballroom A, B & C* John Allan, DigitalGlobe®, London, U.K., Gene Dial, GeoEye®, Thornton, Colorado, Rob Coorey

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Tuesday, May 5 (continued)

5:00 p.m. to 5:30 p.m.	**Free time** *On your own…*
5:30 p.m.	**Bus transportation departs for downtown San Diego** *Hotel Lobby*
6:00 p.m. to 10:00 p.m.	**Social networking and dinner event: Baseball game, San Diego Padres vs. Colorado Rockies** *Petco Park, in downtown San Diego's Gaslamp Quarter*
10:15 p.m.	**Bus transportation departs for Hilton La Jolla Torrey Pines** *Location will be provided on-site*
10:00 p.m. to 12:00 a.m.	**Free time in Gaslamp Quarter, limited bus transportation to Hilton La Jolla Torrey Pines** *Location will be provided on-site*

Social networking and dinner event: Take me out to the ball game!

Enjoy the San Diego Padres vs. Colorado Rockies baseball game atop the historic Western Metal Supply Co. building overlooking Petco Park.

Round trip shuttle transportation is provided from the hotel to Petco Park and a pre-game buffet will be served one hour prior to game time (7:05 p.m.) and continuing one hour after the first pitch. The evening is complete with ballpark snacks served in the third inning.

Bus transportation departs for downtown San Diego at 5:30 p.m. from the *Hotel Lobby*. After the game, enjoy some time in the Gaslamp Quarter and return to the hotel using the shuttle transportation, available between 10:00 p.m. and 12:00 a.m.

Wednesday, May 6

7:30 a.m. to 8:30 a.m.	**Continental breakfast** *Ballroom Foyer*	
8:00 a.m. to 5:00 p.m.	**Exhibition** *Ballroom Foyer*	
8:30 a.m. to 10:00 a.m.	**Workshops** **Overview of SOCET GXP v3.1** *Grand Ballroom A, B & C* Diego Balcazar, Tony Guglielmetti, Erik Hajek, Evan Miller **Overview of SOCET SET v5.5** *Grand Ballroom D & E* Mike Estes, Rad Gaidadjiev, Bryan Hafner, Curt Lima	**Professional Exchange** **Plans for feature collection, 3-D modeling and visualization in SOCET GXP v4.0** *Scripps Ballroom I & II* Rob Cline, Chris Hennes, Shannon Holland
10:00 a.m. to 10:30 a.m.	**Break and exhibition** *Ballroom Foyer*	
10:30 a.m. to noon	**Workshops** **Product generation in SOCET GXP v3.1** *Grand Ballroom A, B & C* Julie Adams, Dennis Bryant, Dave Chittim, Will Preissner **Terrain extraction with NGATE and ITE** *Grand Ballroom D & E* Thao Duong, Rut Gallmeier, Bingcai Zhang	**Professional Exchange** **Emerging enterprise solutions from GXP** *Scripps Ballroom I & II* Janis McArthur, Dave Miller
Noon to 1:30 p.m.	**Lunch and exhibition** *Parterre Gardens and Ballroom Foyer*	
1:30 p.m. to 3:00 p.m.	**Workshops** **Building GEOINT tools using the SOCET GXP API** *Scripps Ballroom I & II* Brian Roberts, Nick Rosengarten, Mike Schwarzlose **Geospatial eXploitation Products and ESRI®** *Grand Ballroom D & E* Rut Gallmeier, Erik Hajek, Steve Lossman, Bill Smith	**Professional Exchange** **Capabilities and plans for LiDAR processing in SOCET GXP v3.1 and v4.0** *Grand Ballroom A, B & C* Dennis Bryant, Yen Dennison, Brandon Gilhooly, Stewart Walker
3:00 p.m. to 3:30 p.m.	**Break and exhibition** *Ballroom Foyer*	
3:30 p.m. to 5:00 p.m.	**Workshops** **SOCET GXP v3.1 for SOCET SET users** *Scripps Ballroom I & II* Yen Dennison, Brandon Gilhooly, Nikki Spirakis **HSI and MSI capabilities in SOCET GXP v3.1** *Grand Ballroom D & E* Chris McCullough, Rick Racine, Casey Tatro, Stewart Walker	**Professional Exchange** **eXtreme Analysis search, cataloging, and data management** *Grand Ballroom A, B & C* Julie Adams, Janis McArthur, Will Preissner, Rob Stout
5:00 p.m.	**Free time** *On your own...*	

Thursday, May 7

Government and government contractor session: BAE Systems campus

This session is open only to customers who have passed their clearances prior to arrival in San Diego. Please use our bus transportation to the Rancho Bernardo campus.

7:00 a.m. to 7:45 a.m.	**Transfer to Rancho Bernardo** *Meet in Hotel Lobby for bus transportation to BAE Systems Rancho Bernardo Campus*
7:45 a.m. to 8:15 a.m.	**Arrival, check-in, and continental breakfast** *Building 61A Lobby*
8:15 a.m. to noon	**Plenary session** *Building 61A, Coronado Conference Room*
8:15 a.m. to 10:00 a.m.	**Customer presentations** *Building 61A, Coronado Conference Room* **Using SOCET GXP and Common Geopositioning Services (CGS) to support precision targeting** Duane Brown, U.S.A.F., China Lake, California **Validation of imagery exploitation tools for targeting** David Hughes, NGA, St. Louis, Missouri **CGS error propagation analysis for NTM registration** Randy Hines, NGA, St. Louis, Missouri **GXP and CGS on operations** Simon Oliver, 1 Artillery Brigade, Larkhill, U.K. **Image Access Solutions briefing** Mike Welch, Riverside Research, Arlington, Virginia Jim Phillips, ITT, Boulder, Colorado
10:00 a.m. to 10:30 a.m.	**Break** *Building 61A, Oceanside Conference Room*
10:30 a.m. to noon	**Professional Exchange** *Building 61A, Coronado Conference Room* **Cataloging** Janis McArthur, Chris McCullough **Video** Matt Bower, Scott Miller **Xport™** Julie Adams, Will Preissner
Noon to 1:00 p.m.	**Lunch** *Building 61A, Oceanside Conference Room*

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Thursday, May 7 (continued)

Government and government contractor session: BAE Systems campus

1:00 p.m. to 2:30 p.m.

Professional Exchange: CGS demo and user discussion
Building 61A, Coronado Conference Room
Dennis Bryant, Erik Hajek, Rob Stout, Joe Wilson

1:00 p.m. to 2:30 p.m.

Professional Exchange: Tools for AGI and MASINT
Building 60, Loma Linda Conference Room
Dave Chittim, Will Preissner, Nick Rosengarten

Presentations from developers building on SOCET GXP:

SAR Plug-Ins (SPI) integration with SOCET GXP
Brian Hennen, Steve Ingle, General Dynamics, Beavercreek, Ohio

SLOAN (SAR Low-Cost Operational Node): a vision of the future of SAR processing
Ireena Erteza, Paul Eichel, Charles Jakowatz, Sandia National Laboratories, Albuquerque, New Mexico

Using hyperspectral algorithms to support advanced geospatial intelligence
Antonio Wolf, Ball Aerospace, Fairborn, Ohio

Demos from and one-on-one discussions with developers building on SOCET GXP
Ball Aerospace, General Dynamics, Sandia National Laboratories

1:00 p.m. to 2:30 p.m.

Professional Exchange: Front-End Processing Environment (FPE) forum
Building 61A, Point Mugu Conference Room
Mike Estes, Nikki Spirakis

- Employing SOCET SET Digital Point Positioning Data Base (DPPDB) format production module, which uses MIL-PRF-89034, March 1999 format specifications, and SOCET SET Controlled Image Base® (CIB) format production module, which uses MIL-PRF-89041, May 15, 1999, format specifications, with NextView imagery
- Moving forward with SOCET GXP
- Customer discussion

2:30 p.m. to 2:45 p.m.

Break
Building 61A, Oceanside Conference Room

2:45 p.m. to 4:15 p.m.

Professional Exchange: Image analysis (IA) topics
Building 61A, Coronado Conference Room
Mark Sarojak

Precision mensuration using Ruler and SOCET GXP
Candida Allen, NGA, Washington, D.C.

Introduction to Mensuration Services Program (MSP)
Doug Winsand

2:45 p.m. to 4:15 p.m.

Professional Exchange: Special session for U.S. Army personnel
Building 61A, Loma Linda Conference Room
Nikki Spirakis

AGI training for the U.S. Army
Charlie Frey, 743rd Military Battalion, Buckley Air Force Base, Colorado

2:45 p.m. to 4:15 p.m.

Professional Exchange: Geospatial analysis (GA) topics
Building 61A, Point Mugu Conference Room
Kurt de Venecia

SOCET SET versatility: triangulation experiences with WorldView-1 and NGATE experiences with TerraSAR-X
Greg Grohman, NGA, St. Louis, Missouri

IDEA
Jim Moeller, Rockwell Collins, Reston, Virginia

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Thursday, May 7 (continued)

Government and government contractor session: BAE Systems campus

4:15 p.m. to 4:30 p.m.	**Break** *Building 61A, Oceanside Conference Room*
4:30 p.m. to 5:00 p.m.	**Wrap-up** *Building 61A, Coronado Conference Room* Dan London
5:00 p.m.	**Depart for Hilton La Jolla Torrey Pines** *Building 61A Lobby*
5:30 p.m. to 7:00 p.m.	**Closing session and reception** *Grand Ballroom A, B & C* Dan London **Beyond SOCET GXP v3.1 – breaking records for ease of use** Troy Hepfner User interface architect Troy Hepfner offers a glimpse of the Ribbon enhancements in preparation for SOCET GXP v4.0, which will set new standards in ease of use and productivity. The intuitive Ribbon is based on the Microsoft® Office Fluent™ user interface, designed to simplify workflows and make large-scale applications easy to use for every task. It leverages Microsoft's three-year R&D investment, which included three billion data sessions collected from software users. The Ribbon is the primary replacement for menus and toolbars, with commands organized into a set of tabs with several groups of related commands.

Thursday, May 7

Commercial customers

7:30 a.m. to 8:30 a.m.	**Continental breakfast** *Ballroom Foyer*	
8:30 a.m. to 10:00 a.m.	**Workshops** **Overview of SOCET SET v5.5** *Grand Ballroom D & E* Mike Estes, Rad Gaidadjiev, Bryan Hafner, Curt Lima **Overview of SOCET GXP v3.1** *Scripps Ballroom I & II* Diego Balcazar, Tony Guglielmetti, Erik Hajek, Evan Miller	
10:00 a.m. to 10:30 a.m.	**Break** *Ballroom Foyer*	
10:30 a.m. to noon	**Workshops** **Terrain extraction with NGATE and ITE** *Grand Ballroom D & E* Thao Duong, Rut Gallmeier, Bingcai Zhang **HSI and MSI capabilities in SOCET GXP v3.1** *Scripps Ballroom I & II* Casey Tatro, Stewart Walker	
Noon to 1:30 p.m.	**Lunch** *Parterre Gardens*	
1:30 p.m. to 3:00 p.m.	**Workshop** **SOCET GXP v3.1 for SOCET SET users** *Grand Ballroom D & E* Ruth Davidge, Brandon Gilhooly, Hubiao Lan, Nikki Spirakis	**Professional Exchange** **Plans for feature collection, 3-D modeling and visualization in SOCET GXP v4.0** *Scripps Ballroom I & II* Rad Gaidadjiev, Shannon Holland
3:00 p.m. to 3:30 p.m.	**Break** *Ballroom Foyer*	
3:30 p.m. to 5:00 p.m.	**Workshop** **Geospatial eXploitation Products and ESRI** *Grand Ballroom D & E* Rut Gallmeier, Bill Smith	**Professional Exchange** **Capabilities and plans for LiDAR processing in SOCET GXP v3.1 and v4.0** *Scripps Ballroom I & II* Rad Gaidadjiev, Brandon Gilhooly, Hubiao Lan, Stewart Walker
5:00 p.m. to 5:30 p.m.	**Free time** *On your own…*	
5:30 p.m. to 7:00 p.m.	**Closing session and reception** *Grand Ballroom A, B & C* Dan London **Beyond SOCET GXP v3.1 – breaking records for ease of use** Troy Hepfner User interface architect Troy Hepfner offers a glimpse of the Ribbon enhancements in preparation for SOCET GXP v4.0, which will set new standards in ease of use and productivity. The intuitive Ribbon is based on the Microsoft® Office Fluent™ user interface, designed to simplify workflows and make large-scale applications easy to use for every task. It leverages Microsoft's three-year R&D investment, which included three billion data sessions collected from software users. The Ribbon is the primary replacement for menus and toolbars, with commands organized into a set of tabs with several groups of related commands.	

Friday, May 8

GXP software clinic

The GXP software clinic is available to all conference attendees. Friday, May 8 is dedicated to one-on-one sessions with GXP Customer Support engineers. Participants who have scheduled appointments meet with Customer Support engineers to discuss unique issues they are experiencing in their work environment.

8:30 a.m. sessions begin and continue throughout the day as required	**GXP software clinic** – For customers who have scheduled a one-on-one appointment to troubleshoot unique software issues – Customers bring sample data to the conference – Unclassified discussions take place at walk-up workstations at the Hilton La Jolla Torrey Pines – Classified discussions take place on the Rancho Bernardo campus

Workshops

Distributed processing in SOCET GXP with Jobs

Tuesday, May 5, 3:30 p.m. to 5:00 p.m. | *Scripps Ballroom I & II*

This workshop consists of a short presentation from BAE Systems on the future of Grid processing within SOCET GXP. The presentation examines the SOCET GXP Job Service as it is currently released and reviews extended capabilities planned for SOCET GXP v3.1, v4.0 and beyond, including distributed processing. Following the presentation, the floor is open for discussion. For those thinking about using SOCET GXP in a distributed processing environment, this is a chance to influence the future design of the SOCET GXP Job Service.

Presenters: Mike Estes, Clark Ray, Brian Roberts, Mike Schwarzlose

Geospatial eXploitation Products and ESRI

Wednesday, May 6, 1:30 p.m. to 3:00 p.m. | *Grand Ballroom D & E*
Thursday, May 7, 3:30 p.m. to 5:00 p.m. | *Grand Ballroom D & E*

The goal of this workshop is to show the numerous ways SOCET GXP and SOCET SET work with ESRI products and formats. This workshop shows how to take advantage of the spatially enabled exploitation functionality in SOCET GXP and provides examples of its power. For instance, the direct connection to ESRI personal and multi-user geodatabases allows for seamless interaction between the IA and GA. Data can be viewed, created, and edited all within the ESRI geodatabase format, allowing users to share the data much more easily than before. The workshop also provides an introduction to SOCET for ArcGIS® functionality, which is well known to SOCET SET customers. SOCET for ArcGIS is included in SOCET GXP v3.1, enabling users to collect and update feature data via ArcMap®, using ArcMap tools, user tools and SOCET SET tools.

Presenters: Rut Gallmeier, Erik Hajek, Steve Lossman, Bill Smith

Overview of SOCET GXP v3.1

Wednesday, May 6, 8:30 a.m. to 10:00 a.m. | *Grand Ballroom A, B & C*
Thursday, May 7, 8:30 a.m. to 10:00 a.m. | *Scripps Ballroom I & II*

The goal of this workshop is to provide an understanding of the broad areas of new functionality in SOCET GXP v3.1, including the new Workspace Manager and the continuing integration of major photogrammetric capabilities. This workshop reviews how users can make a smooth transition from previous versions of SOCET GXP to v3.1.

Presenters: Diego Balcazar, Tony Guglielmetti, Erik Hajek, Evan Miller

Overview of SOCET SET v5.5

Wednesday, May 6, 8:30 a.m. to 10:00 a.m. | *Grand Ballroom D & E*
Thursday, May 7, 8:30 a.m. to 10:00 a.m. | *Grand Ballroom D & E*

Discussion and demonstration of enhancements made and features added to SOCET SET v5.5. The workshop includes a demonstration, analysis, and triangulation results from a block of GeoEye-1 panchromatic images using rational polynomial coefficient (RPC), National Imagery Transmission Format (NITF) Version 2.1 Commercial Dataset Requirements Document (NCDRD) and rigorous sensor models.

Presenters: Mike Estes, Rad Gaidadjiev, Bryan Hafner, Curt Lima

Workshops (continued)

Product generation in SOCET GXP v3.1

Tuesday, May 5, 3:30 p.m. to 5:00 p.m. | *Grand Ballroom D & E*
Wednesday, May 6, 10:30 a.m. to noon | *Grand Ballroom A, B & C*

Explore the eXtreme Analysis product generation techniques now available for use in SOCET GXP v3.1! Capabilities and refinements showcased are the new Template Designer, Text Area Variables, feature and terrain legend, and scale selector for creating polished intelligence reports, documents, and image map products. SOCET GXP feature refinements discussed include multi-font text areas, marker customization, specialized annotation tools, and improved shapefile creation workflows. Finally, for publishing to forward deployed analysts and other personnel without access to SOCET GXP on their desktops, we demonstrate steps for publishing to FalconView™ via the new SOCET GXP v3.1 RPF Generator and GeoPDF® creation for use in Adobe® Acrobat® Reader®. Topics to be covered in the workshop include: rapid template creation using the new Template Designer feature; easy auto-population using the new Variable Auto-label feature; new Advanced Font Formatting for text fields; improved ESRI shapefile generation using pull-down Feature Selector; new terrain and updated feature legend; advanced snapping mode; new bracket tool; new scale selector for map-like product creation; ortho reference product creation; new marker display options; improved LOS and ground-truth tools.

Presenters: Julie Adams, Dennis Bryant, Dave Chittim, Will Preissner

Terrain extraction with NGATE and ITE

Wednesday, May 6, 10:30 a.m. to noon | *Grand Ballroom D & E*
Thursday, May 7, 10:30 a.m. to noon | *Grand Ballroom D & E*

This workshop presents the new capability in NGATE to generate both Digital Surface Models (DSM) and Digital Elevation Models (DEM) simultaneously. Product specialists introduce and describe the new NGATE input parameters and how they can be used in real production projects. Demonstrations are given of various bare-earth terrain editing tools in ITE.

Presenters: Thao Duong, Rut Gallmeier, Bingcai Zhang

Building GEOINT tools using the SOCET GXP API

Wednesday, May 6, 1:30 p.m. to 3:00 p.m. | *Scripps Ballroom I & II*

Gain an in-depth understanding of the SOCET GXP v3.1 API. Learn how to use the methods contained within the API to interact directly with SOCET GXP. Users can launch their own applications from within the SOCET GXP Ribbon interface. Explore the Ribbon extensibility (RibbonX) schema for customizing the Ribbon interface. Real-world examples with source code are included.

Presenters: Brian Roberts, Nick Rosengarten, Mike Schwarzlose

SOCET GXP v3.1 for SOCET SET users

Wednesday, May 6, 3:30 p.m. to 5:00 p.m. | *Scripps Ballroom I & II*
Thursday, May 7, 1:30 p.m. to 3:00 p.m. | *Grand Ballroom D & E*

SOCET GXP v3.1 is introduced from the photogrammetrist's point of view, to show how the organization of the functionality and the user interface expedite the workflow. The workshop is focused on the GA or commercial data producer who has been using SOCET SET and wishes to generate the same products in SOCET GXP v3.1, with workflows that are faster than before.

Presenters: Ruth Davidge, Yen Dennison, Brandon Gilhooly, Hubiao Lan, Nikki Spirakis

HSI and MSI capabilities in SOCET GXP v3.1

Wednesday, May 6, 3:30 p.m. to 5:00 p.m. | *Grand Ballroom D & E*
Thursday, May 7, 10:30 a.m. to noon | *Scripps Ballroom I & II*

SOCET GXP v3.1 features a number of new capabilities for working with hyperspectral and multispectral imagery, such as principal components analysis, supervised and unsupervised classification, change detection, anomaly detection and spectral unmixing. This workshop includes demonstrations of a typical HSI and MSI workflow and of examples of the new capabilities. Since customers have a broad variety of HSI and MSI needs, the last part of the workshop is an open discussion of customer requirements, to help in future planning for SOCET GXP v3.1 and beyond. The workshop includes a demonstration of pan-sharpening where the panchromatic and multispectral images have been acquired from different positions with different orientations: the inclusion of triangulation within SOCET GXP provides a highly automated solution in such situations.

Presenters: Chris McCullough, Rick Racine, Casey Tatro, Stewart Walker

Professional Exchange sessions

Panel discussion on space imagery

Tuesday, May 5, 3:30 p.m. to 5:00 p.m. | *Grand Ballroom A, B & C*

The growing importance of commercial satellite imagery to geographic information and geospatial intelligence ensures that this topic is never far from practitioners' minds. Representatives from satellite operators give short presentations on their platforms, sensors, imaging capabilities, and image products; a panel follows the presentation. Questions from the audience are welcome.

Presenters: John Allan, DigitalGlobe®, London, U.K., Gene Dial, GeoEye®, Thornton, Colorado, Rob Coorey

Plans for feature collection, 3-D modeling and visualization in SOCET GXP v4.0

Wednesday, May 6, 8:30 a.m. to 10:00 a.m. | *Scripps Ballroom I & II*
Thursday, May 7, 1:30 p.m. to 3:00 p.m. | *Scripps Ballroom I & II*

As capabilities are transitioned from SOCET SET to SOCET GXP, BAE Systems takes the opportunity to improve them, often completely redesigning the software. Feature extraction is no exception. In addition to porting the traditional SOCET SET extraction tools, BAE Systems is developing new tools and introducing new techniques for 3-D modeling. Technology and concepts for 3-D modeling and visualization are evolving. Goals for feature extraction include developing software that works well with third-party tools and is relevant for future 3-D modeling and visualization needs. This Professional Exchange includes a presentation of plans for SOCET GXP v4.0, with open discussion on technology and requirements encouraged.

Presenters: Rob Cline, Rad Gaidadjiev, Chris Hennes, Shannon Holland

Emerging enterprise solutions from GXP

Wednesday, May 6, 10:30 a.m. to noon | *Scripps Ballroom I & II*

Enterprise solutions? Web services? Software as a service? Browser clients? Cloud computing? Find out what GXP is doing to investigate the latest enterprise technologies, develop them into emerging GXP products, and how you can benefit. We value your feedback and ideas.

Presenters: Janis McArthur, Dave Miller

Capabilities and plans for LiDAR processing in SOCET GXP v3.1 and v4.0

Wednesday, May 6, 1:30 p.m. to 3:00 p.m. | *Grand Ballroom A, B & C*
Thursday, May 7, 3:30 p.m. to 5:00 p.m. | *Scripps Ballroom I & II*

LiDAR, a workhorse of the commercial mapping industry for more than 10 years, has been enthusiastically embraced by the defense world too. Many of the capabilities of SOCET GXP for displaying and manipulating elevation data are directly applicable to LiDAR point clouds. This Professional Exchange begins with presentations and demonstrations of these capabilities in SOCET GXP v3.1 and a preview of plans for v4.0. An open discussion follows, designed to gather customers' requirements for working with LiDAR data, with a view to accommodating these in v4.0.

Presenters: Dennis Bryant, Yen Dennison, Rad Gaidadjiev, Brandon Gilhooly, Hubiao Lan, Stewart Walker

eXtreme Analysis search, cataloging, and data management

Wednesday, May 6, 3:30 p.m. to 5:00 p.m. | *Grand Ballroom A, B & C*

Join in this GXP discussion on search, cataloging, and management of geospatial data, image products, and related files and data. Demonstrations include an early version of a new product that will be available in 4Q09, being built to reinvent techniques for image product storage, geospatial data coverage display, archive, and search in familiar, but entirely new user interfaces. This Professional Exchange covers visual coverage tool (VCT) modernization. It is an update to the 2008 GXP User Conference executive track panel discussion on VCT and data management requirements. All geospatial communities are welcome, especially those familiar with IPL, Q2, image libraries, FalconView, and VCT. The Professional Exchange is divided into three sessions of approximately equal length: thick client (VCT and GCT) discussion and demonstration; catalog (back-end and Web server) design and discussion; and a guided question, answer, and comment session.

Presenters: Julie Adams, Janis McArthur, Will Preissner, Rob Stout

Professional Exchange sessions (continued)

Cataloging, video, and Xport™ (classified)

Thursday, May 7, 10:30 a.m. to noon | *BAE Systems Rancho Bernardo Campus, Building 61A, Coronado Conference Room*

The new cataloging, video, and Xport image analysis Multiport capabilities are presented in SOCET GXP v3.1 plenary sessions and workshops. This Professional Exchange provides further detail on these new features in terms of their use in the government world. For example the middle session is concerned with full-motion video (FMV) exploitation for situational awareness, mapping, and real-time coordinate generation, which includes a demonstration of new FMV functions within SOCET GXP, such as geospatial processing, links to Google Earth™, and an overview of plans for real-time positioning and error propagation for moving objects. A major goal of the Professional Exchange, however, is a discussion of the requirements of government customers and government contractors with respect to the new capabilities.

Presenters: Julie Adams, Matt Bower, Janis McArthur, Chris McCullough, Scott Miller, Will Preissner

CGS demo and user discussion (classified)

Thursday, May 7, 1:00 p.m. to 2:30 p.m. | *BAE Systems Rancho Bernardo Campus, Building 61A, Coronado Conference Room*

This Professional Exchange is a continuation of CGS presentations from the morning classified plenary session. It begins with a demonstration of the latest SOCET GXP and CGS software working together. A discussion session follows, encouraging CGS users to comment on their experiences and describe improvements and requirements that they feel would make the product optimal for their needs.

Presenters: Dennis Bryant, Erik Hajek, Rob Stout, Joe Wilson

Tools for AGI and MASINT (classified)

Thursday, May 7, 1:00 p.m. to 2:30 p.m. | *BAE Systems Rancho Bernardo Campus, Building 60, Loma Linda Conference Room*

There has been a rapid growth in the software tools available to the AGI and MASINT community for processing both radar and EO imagery. This community has demonstrated enthusiasm as the developers have integrated their tools on the SOCET GXP platform. For example, the SAR Plug-Ins, or SPI, from General Dynamics are a robust set of Synthetic Aperture Radar processing algorithms for use within SOCET GXP. The SPI tool allows users to process and exploit SAR complex data. SOCET GXP and SPI interact seamlessly with users able to define areas of interest from SOCET GXP and create many customized AGI products. Sandia National Laboratories' SLOAN (SAR Low-Cost Operational Node) is an innovative product that allows local or remote and deployed analysts to create IMINT and MASINT products. The Sandia Labs presenters will cover three themes of SLOAN: system independence, data management and a complete systems approach software design philosophy. Designed with the user in mind, SLOAN is very easy to learn and use. Robust algorithms with unique processing flows virtually eliminate the possibility of error in MASINT production. SLOAN easily works with the user's favorite tools, such as SOCET GXP. Ball Aerospace has achieved success in integrating some of its broad range of hyperspectral tools with SOCET GXP to increase the utility of geospatial intelligence derived from the fusion of spatial data and hyperspectral algorithms. The purpose of this session is to bring together AGI and MASINT practitioners with software developers. After the presentations, the session continues with an opportunity for discussions with and demos from the developers.

Chairpersons: Dave Chittim, Will Preissner, Nick Rosengarten

Front-End Processing Environment (FPE) forum (classified)

Thursday, May 7, 1:00 p.m. to 2:30 p.m. | *BAE Systems Rancho Bernardo Campus, Building 61A, Point Mugu Conference Room*

- Employing SOCET SET Digital Point Positioning Data Base (DPPDB) format production module, which uses MIL-PRF-89034, March 1999 format specifications, and SOCET SET Controlled Image Base® (CIB) format production module, which uses MIL-PRF-89041, May 15, 1999, format specifications, with NextView imagery
- Moving forward with SOCET GXP
- Customer discussion

Discussion starts with the current status of DPPDB, CIB, and Adjusted Mapping Support Data (AMSD) production in SOCET SET v5.4.1, continues with minor improvements for NextView production in v5.4.2, followed by new features in SOCET SET v5.5. The session concludes with a brief preview of SOCET GXP, which includes soliciting ideas for improvement in transitioning these workflows into the new product.

Presenters: Mike Estes, Nikki Spirakis

Professional Exchange sessions (continued)

Image analysis (IA) topics (classified)

Thursday, May 7, 2:45 p.m. to 4:15 p.m. | *BAE Systems Rancho Bernardo Campus, Building 61A, Coronado Conference Room*

This Professional Exchange includes presentations about important programs in the IA world and gives practitioners the opportunity to share experiences and clarify their product requirements. The focus of the session is mensuration. Candida Allen of NGA describes the use of the Ruler tools in conjunction with SOCET GXP and Doug Winsand of BAE Systems provides introductory information on the Mensuration Services Program (MSP).

Chairperson: Mark Sarojak

Special session for U.S. army personnel (classified)

Thursday, May 7, 2:45 p.m. to 4:15 p.m. | *BAE Systems Rancho Bernardo Campus, Building 60, Loma Linda Conference Room*

The focus of this Professional Exchange is training for U.S. Army personnel. Charlie Frey, who is AGI Foundry Action Officer, reviews available training opportunities. A question and answer discussion follows the presentation.

Chairperson: Nikki Spirakis

Geospatial analysis (GA) topics (classified)

Thursday, May 7, 2:45 p.m. to 4:15 p.m. | *BAE Systems Rancho Bernardo Campus, Building 61A, Point Mugu Conference Room*

This Professional Exchange includes presentations about important programs in the GA world and gives practitioners the opportunity to share experiences and clarify their product requirements. Greg Grohman will cover several interesting areas of NGA activity, including both triangulation and the extraction of elevation information, based on the use of commercial satellite imagery. Jim Moeller's focus is IDEA, the acronym for Imagery Derived Ellipse Assistant. IDEA aims to: visualize, preserve, and communicate image-based geopositioning uncertainties; allow update of image-based geopositioning uncertainty with other contributing error sources, such as map backdrop, Controlled Image Base, and GPS-derived reference points; and support fusion by transmitting uncertainty parameters in a format that is compatible with SIGINT tactical data processors.

Chairperson: Kurt de Venecia

Hotel and conference map

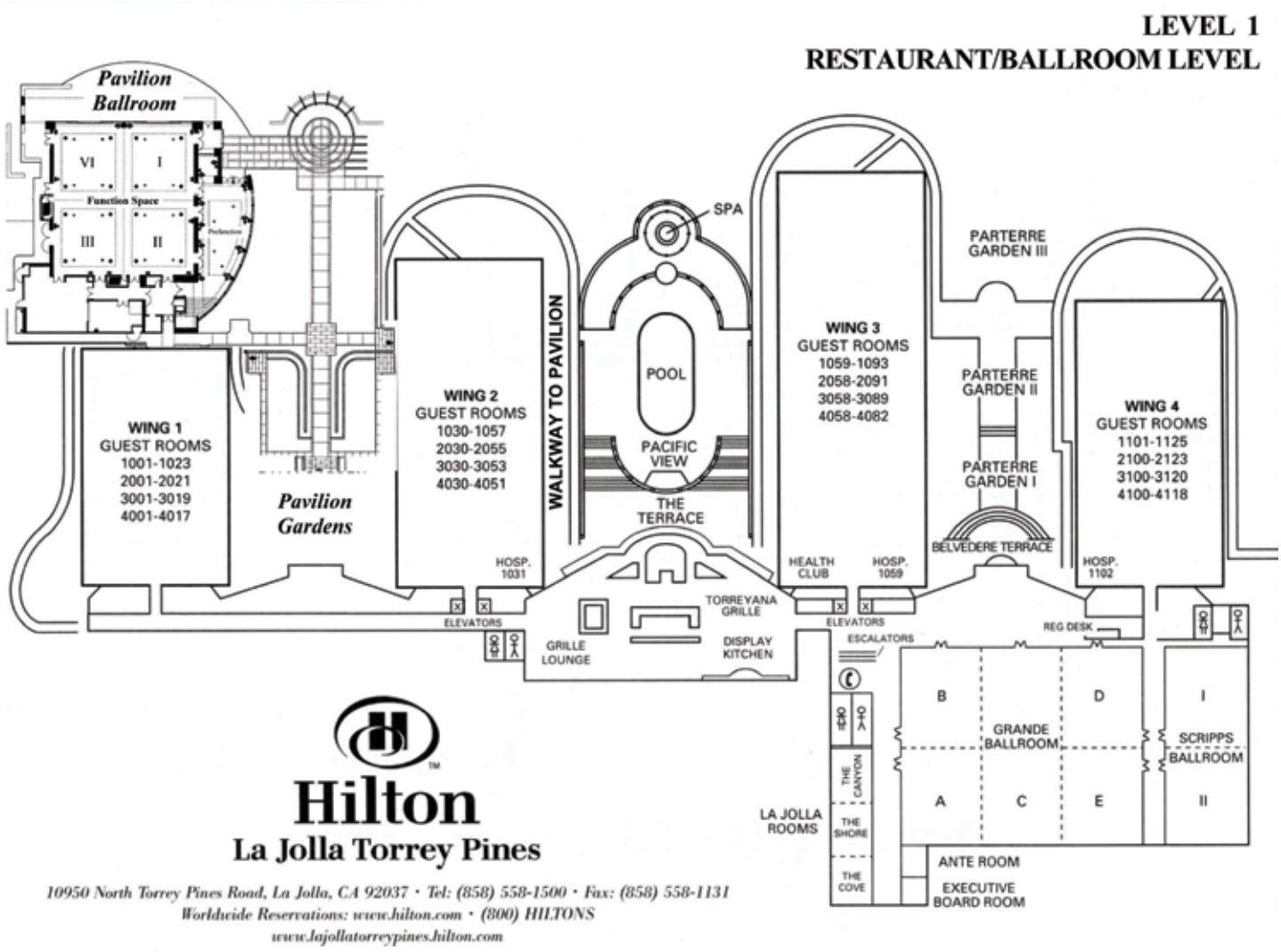

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Exhibit hours and location

Ballroom Foyer

Monday, May 4	6:00 p.m. to 9:00 p.m. Welcome reception
Tuesday, May 5	8:00 a.m. to 5:00 p.m.
Wednesday, May 6	8:00 a.m. to 5:00 p.m.

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