

NewsLetter



Issue No.4, Vol. 4 – February 2011

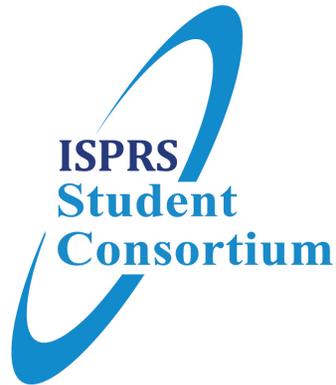
5th ISPRS SC Summer School
Hanoi - Vietnam

Global and National Digital Earth Systems



Interview
with
Dr. Wolfgang Foerstner

ISPRS SC Newsletter



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SC Newsletter (ISSN Y506-5879) is published every three months by ISPRS Student Consortium.



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Frontpage designed by Ayda Aktaş



Would you like to join SC Newsletter team? Do you want to make a difference? Want to learn new skills?

SC Newsletter is at a stage where getting broader and better demands more people to be involved in the process of it's formation. That's why SC Newsletter team is looking for the following volunteers:

- More **people who would be willing to prepare articles** for existing or new rubrics,
- Designers of Newsletter,
- **English native speakers** for proof reading.

If you can help us with any of the above, please let us know!

info@isprs-studentconsortium.org

And also...

If you **would like to publish your research work** in the SC Newsletter send us your abstract on email written above. We will soon contact you for further information.

Dear Friends,



The Student Consortium has been involved in many international and regional events during 2010, spreading the benefits of scientific networking through the Continents. Furthermore, we worked on increasing the opportunities for a better integrated youth to ISPRS. As a result, SC members not only participated

but also contributed to Technical Commission Symposiums. From organizational aspects to scientific and technical programs committee membership for young authors, members of SC had the possibility to experience both side of a scientific event in the early days of their careers. I hope this will become a tradition and increase within ISPRS TCs and WGs. We also agreed in collaboration with the youth body of a sister society of ISPRS, American Photogrammetry and Remote Sensing Society Student Advisory Council. The agreement will be presented as it will be signed by the representatives of the both organizations. In addition, after the 5th annual ISPRS Summer School in Hanoi, the applications to organize the summer schools 2011 from different parts of the world encouraged us to a surprise for you. We are now under preparations with TC VI/5 and local organizers and will announce shortly. At the same time, we gladly welcomed the 500th SC member and the contribution to SC Newsletter reached from different parts of the world.

I believe SC climbed to a peak point since 2008, beside summer schools and representing the involvement of youth at different events we will be also focusing on major updates and improvements of our standards for the next level. Aiming knowledge sharing without boundaries we expect your involvement either you are reading the first issue, or have been following us from the very first day.

With My Best Wishes,
Cemal Özgür KIVILCIM
ISPRS SC Chair

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Let's Come Together
to Make The World
Smaller and Smaller,
While Enlarging
and
Powering Our
Student Consortium
Network!!

JOIN US!!!

Interview

by Urša Kanjir

Professor Dr. Wolfgang Foerstner

In this issue we invited Professor Dr. Wolfgang Förstner to answer some of our questions. Prof. Förstner gives lectures for Photogrammetry and is the head of the Department of Photogrammetry at the Institute for Geodesy and Geoinformation, University of Bonn, Germany. His main interests are image analysis, pattern recognition, machine learning, geometric reasoning, statistical and semantic modelling. In his career he supervised many Bachelor, Master theses and PhD theses and published even more papers. He received some of the prestigious awards for his work (Carl Pulfrich Award in 1987, the ISPRS Cassinis Award 2000 and the ASPRS Fairchild Award 2005). Since 2010 he is Fellow of the ISPRS.

As an introduction, please can you tell us few words about your professional work (academic position, your research topic...)

Currently I teach students in the program 'Geodesy and Geoinformation' in Photogrammetry and perform research in the areas Photogrammetry, Computer Vision (CV) and Pattern Recognition (PR) at the Agricultural Faculty of Bonn University. I try to teach my students in a way which allows them on one hand to grasp the basic concepts of photogrammetric procedures useful in practice and on the other hand to be able to do research in the fascinating areas of automatic image analysis and interpretation. This bridge to the much larger areas of CV and PR since the beginning of my teaching attracted also students from Computer Science who could specialize to Photogrammetry. Research topics of my PhD students cover, among others, questions of image classification for Remote Sensing images, of identifying objects in stereo video sequences taken in a moving car for driver assistance and of reconstructing 3D models from point clouds taken by laser scanners or by automatic stereo algorithms.

Why did you decide for this profession (maybe you can tell us something more about your first steps)?

My first contact with geodesy I had as teenager, when I had the chance to look through a theodolite – wondering why the image was upside down – and measure some directions between reference points in a test field for evaluating the accuracy of photogrammetric point determination organized by my father, being a geodesist in the third generation. My interests at school lead

me to start studying mathematics and physics, but I soon realized that – especially mathematics – appeared too abstract, not knowing the difference between pure and applied mathematics. Therefore I studied Geodesy in Stuttgart, where two young teachers – F. Ackermann and K. Linkwitz – had large influence on my thinking. But it took another five years that I decided to work in the area of Photogrammetry, when F. Ackermann asked me to do research in his group in Stuttgart - I could not resist.

What would you advice to students and young professionals to be successful in their future career?

Advice is difficult, as people are different. However, most important is to identify one's own strengths and weaknesses, to believe in long term dreams while accepting reality may be stronger, and to identify persons whose behaviour can be a model while keeping a critical distance. Of course follow the classical virtues, such as discipline, the balance between self confidence and self critics, hard working while accepting one's limits, taking the profession serious but not getting dictated by seemingly unavoidable needs, and, most important, believing in luck, being the basis for being liked by it.

In your opinion how important is participation of young people in international professional events like Congresses, workshops, etc? What do you think are the benefits of such activities to youth and to profession?

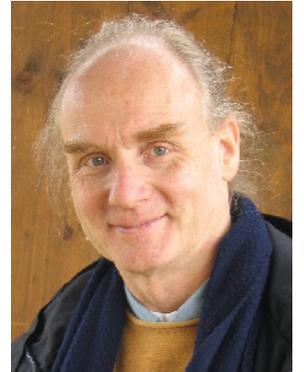
Our profession lives from mapping on all scales: not only on the local one being part of every early educa-

tion. Meeting other professionals is a benefit per se, not only for the stimulating ideas one brings home. Such meetings give the chance to see one's own problem from outside, leading to a much higher tolerance towards too narrow rules, as the practice of our profession looks extremely different in different countries around the world.

Moreover, the different cultures of the attendees merge on a practical level during international meetings and on the long run help building bridges. Master students should already attend scientific workshops or local conferences to grasp the idea of a scientific exchange of ideas. Congresses, like the annual meetings of the societies, allow to exchange ideas between scientists and practitioners, the basis for good and effective engineering research.

How do you see the future of spatial information sciences (remote sensing, photogrammetry, GIS, and related fields)? What would you propose to young scientists as the most challenging field and research problems in the profession?

The field has become very broad, not really allowing to understanding all parts in depth. The relevance is obvious, not only proven by Google maps and its diverse applications. Most challenging are all areas between classical fields and the neighboring disciplines. Besides the



See more on next page

example of my own research area I see promising links between geodesy and remote sensing, between geodetic engineering and close range photogrammetry, between image interpretation and semantic modeling in GIS, but also links to all applications of computer vision, e. g. in video based driver assistance, space time modeling of plants and animals agriculture or biology, and the fascinating area between cartography and cognitive science. It appears that one never knows enough applied mathematics, statistical modeling, applied physics, and computer science for solving the challenging problems encountered. Being well prepared in these basic fields eases to find the own area, to climb the ladder of the envisaged career and to be influential in one's profession.

Global and National Digital Earth Systems; For A Better Understanding and Visualization of the Earth

by Thanasis Moysiadis, University of Thessaly

Digital earth is a virtual representation of our planet, a global initiative to exploit the world's data and information resources and develop a virtual 3D model of the Earth in order to monitor, measure, and forecast natural and human activity on the planet. Digital earth is highly related to the earth observation and the earth-related geosciences. The digital earth concept was proposed by Al Gore, former U.S. Vice-President, in 1998. Since then, due to the information technology and hardware improvements, earth-related software have been developed to meet the above aim. The so-called commercial digital earth systems exist on either a global or a national scale. These are computer-based software systems used for display and interaction of a 2D/3D representation of the earth or other planets. These systems can be used for research, study, navigation or even entertainment purposes.

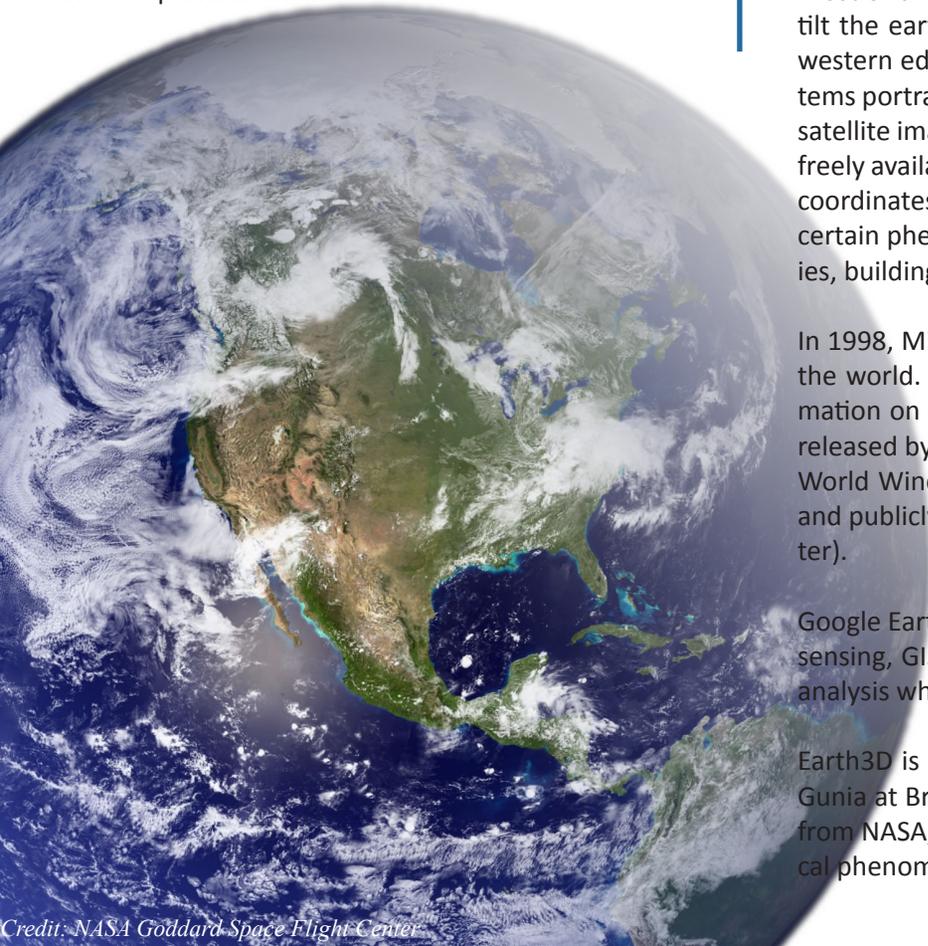
Most of them are online-systems, freely available, which permit the user to manipulate, view, rotate and tilt the earth interactively from the North Pole to the South Pole, from the eastern edge of Asia to the western edge of North America. The design varies considerably according to their purpose. Nearly all systems portray an accurate visual interpretation of the earth by means of a mosaic of aerial photographs and satellite imagery of high spatial resolution. These images can be used for research purposes, since they are freely available. Not only natural and man-made characteristics can be identified in these systems, but also coordinates of any point on Earth, area and distance measurements as well as descriptive characteristics of certain phenomena. Moreover, some of them allow the user to interact by adding new imagery, boundaries, buildings and other structures.

In 1998, Microsoft released Encarta Virtual Globe 98, an offline electronic seamless map and database of the world. In 1999, Cosmi Corporation released 3D World Atlas, a 3D global system with in-depth information on every country of the earth. The first widely used online digital earth systems are World Wind released by NASA in 2004 and Google Earth released by Google in 2005.

World Wind is an open source software which uses USGS topographic maps, satellite and aerial imagery and publicly available GIS data on 3D models of the Earth and other planets (Moon, Mars, Venus and Jupiter).

Google Earth is a global digital earth system which implements advanced computation technology, remote sensing, GIS and GPS technology with enabled functions such as view, browse, search, measure, location analysis which are based on massive geographic data interoperability in a network environment.

Earth3D is an open source software, developed in 2004 as part of a diploma thesis of Dominique Andre Gunia at Braunschweig University of Technology, to visualize the earth in a real-time 3D view. It uses data from NASA, USGS, the Central Intelligence Agency (CIA) and the city of Osnabrück to provide meteorological phenomena (low-pressure areas, anticyclones, etc.) in near real-time.



GLOBAL and NATIONAL DIGITAL EARTH SYSTEMS

Microsoft Virtual Earth (known as Bing Maps) released in 2005, is a 3D interface of the earth and runs in web browsers. It uses quality geospatial data (satellite imagery, aerial photographs) and leading-edge technology to visualize, understand and analyze the earth resources. Bing Maps uses five high resolution viewports named as: Road View, Aerial View, Bird's Eye View, StreetSide View, and 3D View.

SkylineGlobe released in 2006 by Skyline Software Systems, is an online 3D digital earth system that provides highly detailed 3D terrain and urban environment of the USA. SkylineGlobe shares geographic and natural information (weather condition, traffic condition etc).

Geoportrail is the French 3D digital earth system released in 2007 by SkylineGlobe and covers the metropolis and the French overseas departments by means of high-resolution satellite imagery. Natural and environmental information (protected and risk areas, geology) of the country is provided.

Bhuvan is the Indian digital earth system, a geoportal released in 2009 by the Indian Space Research Organisation (ISRO) to explore and discover virtual earth in 3D space, with emphasis on the Indian region. It uses IRS Recoursesat 1 data and provides land information (groundwater, watershed, soil erosion), weather and ocean condition (sea surface temperature, chlorophyll, potential fishing zones) and disaster hazards (forest fires, drought, heat).

Citysurf is a server based 3D GIS software, developed by PiriReis, a new system to model and serve raster data at high speed and low bandwidth. High resolution satellite images and aerial images are combined with digital terrain models and vector-based geographical information for the area of Turkey.

Marble, is an open source software developed by K Desktop Environment (KDE) in 2006 which provides information not only for the Earth but also for other planets. It uses data by OpenStreetMap, as well as NASA Blue Marble Next Generation. Marble offers different thematic maps: a classroom-style topographic map, a satellite view, street map, historical maps, earth at night, temperature and precipitation maps making it appropriate for educational purposes.

ArcGIS Explorer is a free 3D GIS viewer produced by ESRI. It is a part of ArcGIS software suite, an easy way to explore, visualize, and share GIS information. ArcGIS Explorer adds value to any GIS because it supports GIS file formats either in vector or raster form, support data fusion for map creation and perform spatial analysis.

EarthBrowser, a Flash/Adobe AIR based global digital earth system released in 2009.

There is a free trial version and provides real-time geophysical information such as weather forecasts, volcanoes and earthquake information.

Software MacKiev's 3D Weather Globe & Atlas, is a commercial digital earth system which provides geospatial information, by means of 3D views based on the Blue Marble imagery, of geographical and natural characteristics (near-real-time cloud coverage and 7-day weather forecast (including wind and humidity) from Custom-Weather, time zones, day and night views.

WorldView is a free browser by PYXIS innovation that uses a sophisticated Digital Earth Reference Model to integrate and display multiple sources of geospatial information on-the-fly.

The most commonly used commercial digital earth systems outlined in this article shows that effective actions can only be taken if we better understand and visualize the earth, protect and consider the earth's environment and its natural resources.

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PAST EVENTS REPORTS

Advanced Course in Radar Polarimetry and POLINSAR 2011

ESA/ESRIN, Frascati, Italy

by Vasileios Kalogirou, RSAC c/o ESA/ESRIN

The European Space Agency successfully organised an Advanced Training Course in Radar Polarimetry during 17th and 21st of January followed by the POLINSAR 2011 Conference on 24th to 28th. This enabled some of the students which attended the course to extend their visit in Frascati/Rome for the Conference. The course was the first of its kind, solely concentrating on radar polarimetry, its theoretical principles, processing algorithms and applications. The students had also the opportunity to work with sample quad-pol data with ESA's PolSARPro software package provided for the course. Many leading scientists of the field of radar polarimetry lectured in the course, including Prof. Eric Pottier, Prof. Shane Cloude and others. The course closed with a talk given by Prof. Wolfgang-Martin Boerner, who has initiated and worked in the field for more than 40 years.

PolInSAR 2011, the 5th International Workshop on Science and Applications of SAR Polarimetry and Polarimetric Interferometry, followed the next week with very interesting presentations on recent achievements and current research in the field. The conference concentrated on the use of quad-pol airborne or spaceborne data. The first day included presentations on the status of current and future quad-pol missions, as well as on calibration and data quality. More advanced sessions on theoretical issues of polarimetric interferometry and SAR Tomography has been covered during the second day. Presentations on various applications in Agriculture, Forests, Urban areas, Ocean, Cryosphere and Soil have been presented during the whole week. Every session was followed by a Round Table discussion. The last day all the different sessions summarised their results and findings. PolInSAR is organised every two years by ESA.

More info at <http://www.polinsar2011.com/>

RGSM BELGRADE 2010

by Bojan Šavrič,

Slovenian Geodetic Student Association

Regional Geodetic Student Meeting (RGSM) is a meeting of geodetic students from the region of the former Yugoslavian republics. For the first time after the disintegration of Yugoslavia, more than 40 students came together from Universities of Ljubljana, Zagreb and Belgrade. The event was held from 11th to 14th of November 2010 in Serbian capital city, Belgrade. Geodetic Student Society of Faculty of Civil Engineering in Belgrade didn't organize just social events, but also different presentations of interesting research by their professors and participants including Mobtrack:24 AVL, comparison of GNSS reference systems of all three countries, pseudolites and 3D point cloud: processing and application. One day of the meeting we also visited a Republic Geodetic Authority. The National Spatial Data Infrastructure and Digital orthophoto production in Serbia was presented there.

During our stay we participated on social events and went sightseeing, which included a visit of the White Palace. This meeting was a great opportunity to meet new peers and to compare development of geodesy in our countries. The first trial was successful, that's why we will meet again next autumn, this time in Ljubljana and we hope more universities from this region will join us.



Participants of RGSM in Belgrade

PAST EVENTS REPORTS

Summer school in autumn 5th ISPRS SC Summer School report (Hanoi, Vietnam)

by Urša Kanjir

Although this year's Summer School (SS) under the auspices of ISPRS Student Consortium took place in autumn, its parameters had been set to pure summer and manifested in the land of conical hats – Vietnam.

Given the fact that Student Consortium is an international organization, it is consistent that its main annual event happens every year in another place on the sphere and thus offers the opportunity to expand knowledge and all the benefits offered by SS to different groups of young people, in particular to local ge-

oetic enthusiasts. After last year's successful SS in Warsaw, the 5th SS saw the light this year in Southeast Asia, precisely in the capital city of Vietnam, Hanoi, where over 50 participants gathered from 6th to 10th of November 2010. The organization required a lot of energy

of very few people because the event was organized in a very short time. The selection of its location was not accidental, since the event took place directly after the 31st Asian Conference on Remote Sensing (ACRS) 2010, which reunited strengths of all the influential Asian remote sensing scientists.

The SS main theme was Advanced Remote Sensing for Mapping, Monitoring and Management of the Environment and was a puzzle of four day lectures supported by practical exercises and an all-day trip along Red River to visit temples and villages. Lectures strongly drilled into themes of microwave remote sensing, change detection of land use/land cover, natural hazards and topographic mapping from high-resolution satellite sensors. All lectures were summed up in the Vietnamese Institute of Geodesy and Cartography (VIGAC), from which we disconnected in the evening hours on vari-



ous social events that had quite short life expectancy otherwise, but that doesn't mean they were any less intensive. The prevailing SS participants were Vietnamese, Taiwanese, Indonesians and Japanese, altogether participants from 13 countries attended the event. Nevertheless, the purpose of local integrity and widening was achieved since non-Asians remained in the minority, which was more than obvious in many things (from awkwardness with catching the rice with sticks, to everyday wonderings about the traffic in Hanoi, to clumsiness when barging, etc.). That you are not a real Asian you discover as soon as you get microphone foisted under your nose to sing karaoke. Meanwhile, the Westerns had to justify somehow why they aren't good at singing in public without additional stimulators, most Asians were happy to show what they are able, with the text on a screen or from the head. Respect!

If for foreigners karaoke were a bit awkward thing, this is definitely not the case for Vietnamese food! It is something all Vietnam visitors without exception agree upon, Vietnamese food rocks, no matter how much the noodles are entangled. Since this is not the right place for receipts and culinary tips we can only summarize that all that we sight on our plates could deserve a sincere superlative.

In general participants were pleased with the event since we all gained not just new knowledge but also some good friendships. Beyond that Vietnam is a wonderful piece of Earth and we think that all of those who left the country without trying to process all the acquired knowledge somewhere out of Hanoi missed something great, because Vietnam hides in all its dimensions many simple but beautiful places where also very „intense“ conference content can be easily digested.



PAST EVENTS REPORTS

Geospatial Data and Geovisualization: Environment, Security and Society, Orlando, USA

by Krzysztof Sterenczak and Cemal Özgür Kivılcım

The ISPRS Technical Commission IV& AutoCarto in conjunction with ASPRS/CaGIS 2010 Fall Specialty Conference with the theme “Geospatial Data and Geovisualization: Environment, Security and Society” was held in Orlando, Florida USA between the 15th and 19th of November 2010. The event was well participated with a number of 600 participants from different organizations. The event provided a meeting point for USA organizations in the geospatial field, namely ISPRS and ICG, as well as host an ISPRS Council meeting. The event provided an opportunity for young scientists and youth organizations of different societies to convene. The ASPRS Student Assistant and Volunteer Grant Program supported 20 individuals as well as ISPRS SC

representatives to the event: SC Chair Cemal Özgür Kivılcım and Co-Chair Krzysztof Sterenczak. ASPRS Student Assistant Program, a volunteer based service at ASPRS meetings, is a way of youth integration to the organizations of ASPRS. It provides a complimentary student registration, accommodation and some meals throughout the event. We were also granted with a certificate for our volunteer work within this event. During the event a significant number of young authors had presentations in various technical sessions. The symposium took an important role for ISPRS Student Consortium and ASPRS Student Advisory Council. With formal meetings between two society’s youth bodies we had the possibility to share our knowledge and discussed further new ideas for networking and possible future events together. The agreements of collaborations are matured with a written agreement which is expected to be signed soon by the ISPRS and ASPRS responsible parties.

The final General Session of the event was also dedicated to young professionals under the title of “Success Stories from Students of Geographic Information Science” provided for students and young scientists from a pool of different experiences. One of the invited key note speakers, Cemal presented his experiences in student networking and its importance with the highlights of ISPRS Student Consortium. The meeting provided an excellent platform for bridging the youth, local student clubs and experts in education.



Beside the technical sessions and visiting the leading industry experts in a technical exhibition, we enjoyed the social events for volunteers and met new friends from different backgrounds having a feeling of USA; an unforgettable event to us. We are thankful to ASPRS, its representatives and volunteer program organizers, ISPRS Foundation, European Science Foundation and Istanbul Metropolitan Municipality for their support and to ISPRS SC representatives for their participation in the events. The ASPRS Student Assistantship and Volunteer Program is now open for the applications of all Student Consortium members for their application as a part of the upcoming agreement.

Please visit the web site: <http://asprs.org/milwaukee2011/index.html>



Student Assistant Program Participants with Dr. Rakesh Malhotra at one of the social nights Hard Rock Cafe in Orlando, Entrance of Universal Studios

IT NEWS

Surfer 10

Golden Software releases the latest version of Surfer 10, a powerful, user-friendly software package which accurately transforms data into presentation-ready maps. Surfer is a contouring and 3D surface mapping program that runs under Microsoft Windows. It quickly and easily converts your data into outstanding contour, 3D surface, 3D wireframe, vector, image, shaded relief and post maps. Contour and 3D maps generated with Surfer are known for their clarity, color and accuracy.

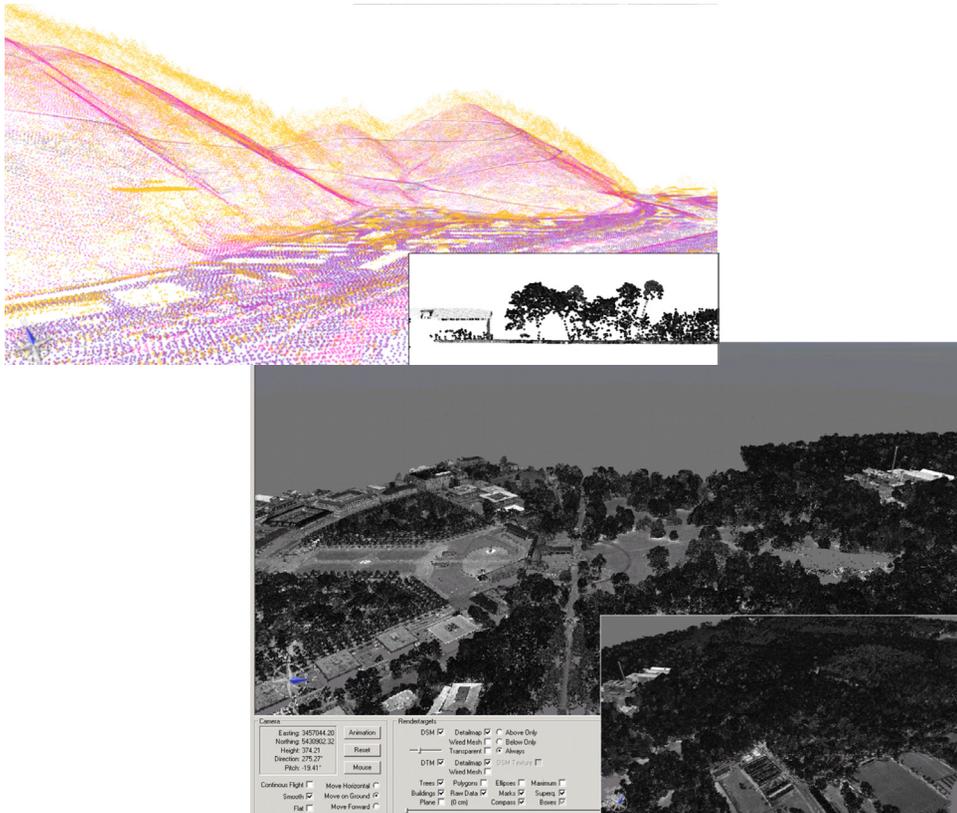
One of the most popular new features in Surfer 10 is the support for map projections. Users can now mix and match data sets and grids from various coordinate systems and have all the map layers overlay correctly and displayed in a single coordinate system.

Read more: <http://www.GoldenSoftware.com>

TreesVis - Advanced LiDAR processing and visualization at low price LP360 v2.0 for ArcGIS

by Fabian Fassnacht

TreesVis is an advanced LiDAR visualization and processing software developed at the FELIS department, University of Freiburg. Its features include 3D-realtime visualization of elevation models and raw data point clouds, extraction of bare ground (DTM) and surface models (DSM, nDSM), raw data selection and processing tools. The space saving, binary RWB format especially developed for TreesVis guarantees fast processing and visualization of huge amounts of raw data. TreesVis is compatible with LiDAR raw data in ascii and las format. The software has been presented on the ISPRS SC Summer School 2009 in Warsaw , Silvilaser 2010 in Freiburg and the LARS conference 2010 in Santiago de Chile and is now available for students and PhD students at a price of 50€. More information on technical features, licenses and cooperation possibilities can be found on the ISPRS website (www.isprs.org/education/pdf/TreesVis_Info.pdf) or via email (fabian.fassnacht@felis.uni-freiburg.de).

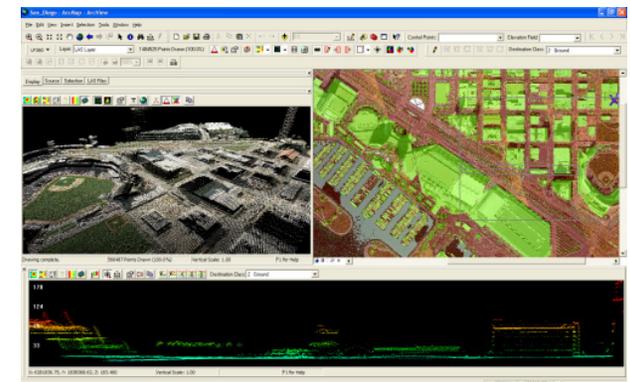


LP360 is the LIDAR tool for integrating and processing LIDAR point clouds in the ArcGIS environment. LP360 completely integrates LIDAR point cloud datasets into ArcGIS without requiring an import or conversion process. LP360 includes a powerful Point Cloud Task framework. The Point Cloud Task framework is a user friendly interface for generating point cloud statistics and previewing basic classification filters, height from surface filters, height filters, building point classification, building outlines, and macro filter stacks. Version 2.0 includes breakline digitizing integration with the new template-based editing in ArcGIS 10.

Benefits and Features:

- Virtually limitless LIDAR data architecture
- Leverages the LIDAR industry/ASPRS LAS standard (1.0, 1.1, and 1.2)
- Integrated extension for ArcMap™
- Requires only a standard ArcView™ license
- Creates a LIDAR data layer in ArcMap™
- End-user focused with easy-to-use controls
- Blends imagery or other data layers with LIDAR
- Specialized viewing controls and filters tailored for LIDAR data
- Blazing fast on-the-fly contouring and tinning
- Optimized cross-section/profile data viewer
- 3D data viewer
- Exports customizable contours, surfaces and point formats
- Point Cloud Tasks, including statistics
- Export wizard (customizable point and surface utilities)
- ASCII points to LAS converter
- GIS Fusion™
- Optional Classify and Extractor modules available

Source: <http://www.qcoherent.com/>



Mobile Mapping 2011 – Infrastrukturerfassung »on the move« (MM2011)

Muttenz, Switzerland, 16-17 February 2011

For more info visit: <http://www.3dgi.ch/mm2011/>

3D Virtual Reconstruction and Visualization of Complex Architectures

Trento, Italy, 2-5 March 2011

For more info visit: <http://www.3d-arch.org/>

Workshop on Climate Change & Ocean Carbon »Field Observation, Remote Sensing & Modeling«

Xiamen, China, 3-4 April 2011

For more info visit: <http://www.joint-crm.org/event/international-workshop-climate-change-and-ocean-carbon-field-observation-remote-sensing-and-mo/>

Workshop on Multinational Geomatics Capacity Building – Achievements & Challenges

Dehradun, India, 7-8 April 2011

For more info visit: <http://www.isrsindia.in/isprs6wg4/>

34th International Symposium on Remote Sensing of Environment (ISRSE2011)

Sydney, Australia, 10-15 April 2011

For more info visit: <http://www.isrse34.org/>

JURSE 2011 - Joint Urban Remote Sensing Event (URBAN 2011 + URS 2011)

Munich, Germany, 11-13 April 2011

For more info visit: <http://www.pf.bv.tum.de/jurse2011/>

Conference on Earth Observation for Global Changes (EOGC2011)

Munich, Germany, 13-15 April 2011

For more info visit: <http://www.eogc2011.tum.de/>

GEO-SIBERIA 2011

Novosibirsk, Russian federation, 27-29 April 2011

For more info visit: <http://www.geosiberia.sibfair.ru/eng/>

This column serves as a guide for the students who are thinking or are willing to go studying or doing practical work abroad. We have searched for new opportunities in different faculties, schools and other learning programs all over the world in order to encourage as many students as possible to take new steps towards new horizons.

1) The Research Center in Geographic Information and Land Planning (CIGPT) of the University of the Azores (Ponta Delgada, S. Miguel Island, Archipelago of the Azores, Portugal) is seeking a Trainee to develop a 6-months project in GIS and Remote Sensing of Environment on the behalf of EURODYSEE Traineeship Program from 15 June to 16 December 2011. Applications should be received by May 10, 2011. Candidates must be national citizens and official residents in an eligible European region. Read full announcement at:

[http://www.eurodysee.eu/traineeship-offers/backend/traineeship-detail.html?tx_ameosedtraineeflow_pi13\[uid\]=181](http://www.eurodysee.eu/traineeship-offers/backend/traineeship-detail.html?tx_ameosedtraineeflow_pi13[uid]=181)

2) Tsinghua University (Beijing, China), Center for Earth System Science with a focus on global change issues, invites applications for 23 tenure track or tenured positions at PhD level in atmospheric sciences, ocean sciences, computational earth sciences, geographical and ecological sciences, carbon science, earth observation and geospatial information sciences, near-earth space weather at the Assistant, Associate or Full Professor level (in reference to major research universities in the US or Canada). The appointments will be for 9 months with salary (between 200,000 to 800,000 RMB) commensurate with experience and qualifications. Review of the first group of applicants will begin on April 10, 2011. Read full announcement at:

<http://www.earthworks-jobs.com/geoscience/tsinghua11011.html>

3) The MIT-Portugal Program is an international collaboration seeking to demonstrate that an investment in science, technology and higher education can have a positive, lasting impact on the economy by addressing key societal issues through quality education and research in the emerging field of engineering systems. The program has targeted bio-engineering systems, engineering design and advanced manufacturing, sustainable energy systems, and transportation systems as key areas for economic development and societal impact. Applications are now open for all of our educational programs at PhD and MSc. levels. The application deadline is February 28 for the PhD program and March 31, 2011 for the MSc Program. Read full announcement at:

<http://www.mitportugal.org/application/applying.html>

4) Applications are invited for the NASA 2011 Heliophysics Summer School, to be held in Boulder, Colorado. NASA Living with a Star sponsors the Heliophysics Summer Schools. The UCAR Visiting Scientist Programs office administers these schools for NASA. This series of summer schools helps graduate students and scientists learn and develop the science of heliophysics as a broad, coherent discipline that reaches in space from the Earth's troposphere to the depths of the Sun, and in time from the formation of the solar system to the distant future. Applications should be received by April 1st, 2011. Read full announcement at:

<http://www.vsp.ucar.edu/Heliophysics/summer-about-over.shtml>

ISPRS Monthly e-Bulletin

Check it and subscribe (more: <http://www.isprs.org/news/newsletter/01-Jan-2011/index.html>)

URISA Student Competition

URISA seeks to encourage students in a variety of academic settings and disciplines to write and publish papers and projects for the URISA membership and others in the spatial technologies industry. To promote this objective URISA has established a student competition. The 2011 Student Competition will consist of a two-tier approach that includes Papers and Posters.

(more: http://www.urisa.org/student_paper_competition)

Latest Earthquakes in the World - Past 7 days

Worldwide earthquakes with M4.5+ located by USGS and Contributing Agencies

(more: <http://earthquake.usgs.gov/earthquakes/recenteqsww/>)

Phase I of 24+3 GPS Constellation Reconfiguration Complete

The U.S. Air Force 50th Space Wing announced completion of phase one of the two-phase GPS constellation expansion called Expandable 24, also known informally as 24+3, to increase global coverage and provide users with more robust satellite availability.

(more: http://www.gpsworld.com/gnss-system/gps-modernization/news/phase-i-243-gps-constellation-reconfiguration-complete-10980?utm_source=GPS&utm_medium=email&utm_campaign=GNSS-Design_01_26_2011&utm_content=phase-i-243-gps-constellation-reconfiguration-complete-10980)

European Centre of Excellence in Earth Observation Research Training

The University of Leicester (UK) is going to launch a "Centre of Excellence in Earth Observation Research Training" with the aim of teaching and training young researchers to use the latest satellite technologies to tackle environmental issues. The centre is supported by the "Initial Operations Network for Earth Observation Research Training" (GIONET) project and funded by the European Commission within the Seventh Framework Programme (FP7) and the Marie Curie Programme.

(more: <http://www.un-spider.org/news-en/4149/2011-01-26t154700/european-centre-excellence-earth-observation-research-training>)

URISA Exemplary Systems in Government Awards Process Opens

January 13, 2011 - Des Plaines, IL - The Urban and Regional Information Systems Association (URISA) has recently posted the 2011 application materials for its prestigious Exemplary Systems in Government (ESIG) Awards. The awards recognize exceptional achievements in the application of geospatial information technology that have improved the delivery and quality of government services.

Applications may be submitted in two categories, Single Process and Enterprise Systems:

(more: <http://spatialnews.geocomm.com/daily-news/2011/jan/14/news2.html>)

Orthophotography.net

<http://www.orthophotography.net/>

SAFE - Space Applications For Environment

<http://www.eorc.jaxa.jp/SAFE/>

RESOURCES**Plant Ecology and GIS**

<http://www.nacse.org/~keon/gis.html>

EDUCATION**ESRI Virtual Campus**

<http://training.esri.com/gateway/index.cfm>

FREE SOFTWARE**GDAL/OGR 1.8.0**

<http://www.gdal.org/>

JOBS, CAREER OPPORTUNITIES**Computer Vision Online - jobs**

<http://www.computervisiononline.com/jobs>

JOURNALS**Earth Observation Handbook**

<http://www.eohandbook.com/>

RELATED ORGANIZATIONS, ASSOCIATIONS**Japan Aerospace Exploration Agency (JAXA)**

http://www.jaxa.jp/index_e.html