



a world class African city

Corporate Geo - Informatics

November 2012

Progress Report

Communique to all



In this issue

Cover Story	1
Progress Report	2
Customer Survey Results	3
Aerial Photography 2012	3
Identified Projects with urgent attention	4
SAP Query Resolution Project	5
3D modelling project	5
GIS changed to Orange	5
Geography through GIS	6
GISSA Ukubuzana 2012	7
Planning Africa 2012 Conference	8

Contact Corporate GIS

We value your comments and suggestions.

Please e-mail comments and suggestions to cgis@joburg.org.za

Gold Medals

We have reached the end of yet another financial year and, in true Corporate Geo-Informatics style, a comprehensive list of achievements.

The first phases of our new online mapping website (ArcGIS Server implementation) and our aerial imagery projects have been completed. New products including LIDAR, Pictometry, Orthophotos, 3D building models and building footprints will be on display at our International GIS Day on 16 November 2012. This promises to be an exciting event for all our clients and we are looking forward to meeting you there!

Data management is an integral part of our daily operations at CGIS. In addition to our meticulously maintained core datasets such as cadastre, street addresses and zoning, we also supply road centrelines, proposed townships, use zones, informal settlements, points of interest, urban land use and growth indicators to our clients. The overall maintenance of spatial data in the City is ensured by service level agreements between CGIS and the Municipal Entities or departments. Legal compliance to the Spatial Data Infrastructure Act is achieved by monitoring the metadata for the data layers.

Capturing data is not an end in itself as the data needs to be accessible to our clients. Although we have various information supply channels such as our public information counter, fax service and online mapping website, the latter has proven the most successful, boasting more than 5, 25 million hits for the year. You will thus be pleased with our efforts to improve your website experience.

CGIS has furthermore been closely involved in the City's efforts to ensure a clean audit. Specific efforts include the loading of weekly deeds files within three days of receipt from the Registrar of Deeds, the processing of deeds files as from July 2012 to ensure completeness on LIS and the 99% success rate of LIS records processed through the LIS/SAP TMD (property) interface. The interface is a joint effort between CGIS, Rates & Taxes, Revenue, OCIO as well as the service providers and attention will still be directed at the Deeds and Valuation interfaces. Several projects have also been directed at the quality assurance of the cadastre (property) data. It has once again been confirmed that reliable property information is a prerequisite for a credible billing process and the LIS is receiving the attention that it deserves.

02

On the system side, several enhancements have been made, namely the capture of Sectional Titles across townships, TAS historic applications and ArcGIS 10 roll-out of the graphic user interfaces (GUIs) or capture tools. The promulgation of the new Consolidated Town Planning Scheme is awaited in order to implement the zoning tool and electronic zoning certificates. The implementation of the upgraded LIS infrastructure is another dependency which promises to be addressed during the current financial year by the Office of the Chief Information Officer.

Communication and knowledge sharing remains a priority and is reflected in CGIS's skills transfer, staff rotation plan, GIS User group events, Spatial Information Steering Committee as well as Municipal GIS meetings. Topics of interest included cadastre, metadata, satellite imagery, informal settlements, land cover, community services,

urban decay, servitudes, flood lines, etc. Based on our success story, CGIS was requested to design the knowledge transfer framework for the Development Planning department. We are furthermore embarking on a joint project with Cities Network to facilitate communication between municipalities.

Read more about how CGIS has reached out to the wider GIS community to facilitate the award of bursaries to disabled learners.

In Olympic spirit, we would like to award gold medals to all who make CGIS great ... including you, our valued customers!

Marcelle Hattingh
Director: Corporate Geo-Informatics

Progress Report

Spatial Information section:

The Spatial Information Section captured a total of 127 666 stands for the period May 2012 to September 2012. These include new subdivisions, consolidations, townships, excisions and sectional scheme units. 369 Road center lines were either newly captured or corrected.

For the Deeds Mismatch Project from June 2011 to May 2012, a total of 37 639 records were received of which only 198 mismatched. All 198 records were resolved and a 100% match achieved. From June 2012 to May 2013, a total of 11 886 records were received of which only 266 mismatched. Currently 0 records are outstanding. The current percentage match for the year is 98.22%

Street Address section:

The street address section is currently working on a project relating to duplicate street addresses.

Total duplicates identified: 3656
Duplicates resolved 2383
Outstanding 1273

Public Information section:

A number of 7 092 clients were attend to at the public information section from May 2012 - September 2012.

Fax service section:

There are 428 subscribed clients with 2 723 requests attended to from May 2012 - September 2012.

License applications:

A total of 863 zoning requests for license applications

were attended to from May 2012 - September 2012 of which 301 were for health licenses, 209 were for Liquor licenses and 347 were for trade a. This information is sent to land use management for the license approval process.

Projects section:

A total of 152 requests were attended to from May 2012 - September 2012 of which 57 were internal requests and 95 external requests.

Website training:

A total of 230 clients were training on how to best utilize the online maps website from July 2011 - September 2012.

Free training is offered. Booking is essential. To book contact Lesley Adams at 011 407-6203 or email Lesleya@joburg.org.za

Online Maps website:

Between May 2012 and September 2012 the internal website on "City Maps" via Jozinet received a total number of 1 818 522 hits with an average of 303 087 hits per month.

The external website via eservices (<http://eservice.joburg.org.za>) experienced a total of 982 126 hits with an average of 163 688 hits per month. There are 515 active subscription users and 1 528 inactive users for the external website with a total of 2 043 external users.

Top 5 external themes

Property (Free website)
Property (Subscription website)
Zoning (Subscription website)
Innercity (Free website)
Transportation(Subscription website)

Top 5 external users

Wits University
City of Johannesburg
Romel Bechoo
Frances Kathy Reid
Telkom

Top 5 internal themes

Property (Subscription website)
Property (Free website)
Zoning (Subscription website)
Planning (Free website)
Transportation (Subscription website)

Top 5 internal users

Corporate Geo-Informatics
Valuations
Planning
Revenue
Billing

Customer Satisfaction Survey Results July 2011 - June 2012

Corporate Geo-Informatics (CGIS) conducts a bi annual customer survey and recognizes the survey as an essential listening tool that yields information about our customer expectations, customer satisfactions and strategies for improvement.

During July 2011 and June 2012, 70 questionnaires were returned and ranged from Municipal Owned entities such as Joburg water, Joburg roads, City Power etc, internal departments such as Environmental management, valuations etc. and external clients who utilized our services during the financial year.

A summary of the results are reflected below:

- 1 - Poor (0% - 29%)
- 2 - Below average (30% - 49%)
- 3 - Satisfactory (50% - 69%)
- 4 - Good (70% - 89%)
- 5 - Excellent (90% - 100%)

Overall customer service - 83.11%

Our next survey will be distributed during November and December 2012.

Aerial Photography 2012 - Exciting new products soon to be made available

July 2012 marked the end of the flying phase of the Orthophoto, Lidar and Pictometry for the City of Johannesburg jurisdiction (including a 5km buffer outside the City's boundary).

The first full set of draft Orthophotos (379 tiles, measuring 3km x 3km) were supplied to Corporate Geo-Informatics (CGIS) during October 2012 for checking purposes. The CGIS project team consisted of Charlotte Nkosi, Zineth

Mpesheni, Skhumbuzo Masondo, Lucky Netshikovhela, Mangalani Dongola, Mashudu Netangaheni and Mangalani Dongola who spent many tireless hours checking the aerial images at a scale of 1:500. We are happy to report that few errors were identified on the Orthophotos and that the imagery is of excellent quality.

Many logistical challenges were encountered during this project, but were successfully addressed.

04



Most of the aerial products have been delivered to CGIS and the remaining products, for example the 3D building models, are nearing completion and will be delivered soon. Development Planning and Facilitation were actively involved in identifying core areas for which specific aerial products were requested. These included the 3D building

models (CBD areas) and building footprints for the following areas:

- Priority 1. All CBDs as per CBD polygons initially supplied
- Priority 2. Business, Commercial, Industrial, Special - Zoning Parcels
- Priority 3. 1000 metres of a Railway Station
- Priority 4. 500 metres of a BRT Station

The above products will be presented at the annual GIS Day scheduled for 16 November 2012. Be there and be amazed!

Identified Projects with urgent attention

A. Backlog status changes

The backlog status changes project comprises of the updating of various properties to registered and history as per Deeds Office. These updates are essential for CGIS (LIS), Valuation and Billing. The Spatial Information section updates all the properties' status so that valuation can value and update the GV roll. The LIS section then loads the ownerships. These records are then processed and attended to by the Billing department for revenue purposes. There are about 1000 status to be changed.

B. -9999 Legal sizes

The -9999 legal Sizes project comprises of the capturing of the missing legal areas for all properties with a legal size of -9999. The legal size will be corrected on properties with a status of 1 (registered), 2 (S.G. Approved), 4 (Withdrawn) and 7 (History). The Spatial Information section captures all the correct legal sizes of the properties by using the Surveyor General's documentation. Where needed, areas will be calculated to square meters as far as possible. Only in very unique cases will the area remain

in cape feet, english feet or cape roods.

The purpose of this project is to enable the LIS Interface to use the legal size as an indicator for SAP and not the calculated area for the accounts. This would ensure that properties are not over or under charged by the City of Johannesburg. There are about 26 416 legal sizes to be corrected.

C. Sliver remainder of townships. (RE of townships with incorrect geometry)

The Sliver remainder of township's project comprises of the remainders of townships with an area of less than 10 square meters that require investigation and fixing. The project needs to be conducted across the entire COJ boundary. A list has been generated with the affected townships. The purpose of the project is to ensure that the correct size and status of the township remainder is available for the LIS, Valuations and Billing. There are about 263 Sliver RE's of townships to be corrected.

SAP Query Resolution Project

On 30 November 2011, 11 483 SAP CRM tickets were identified as outstanding for CGIS. By 15 October 2012, all these tickets including those older than 30 days were resolved. Over 80% of these tickets were already correct on LIS.

New SAP CRM call types were introduced in October 2012 and reduced the types from 114 to only 38. In the past

between 500 and 600 service tickets were logged for CGIS on a weekly basis. With the implementation of the new call types the number of tickets dropped to between 80 and 100 per week.

This will free some valuable time for CGIS to focus on urgent projects contributing to quality property information.

3D modelling project



The City's recently adopted and participated Growth and Development Strategy was strong on direction and explaining the priorities for the future City. The 3D modelling project allowed us to represent, in a very visual way, possible spatial development scenarios for the City: What the City could look like in the future, highlighting priority areas and demonstrating change over a period of three decades. Using GIS as a platform we have been able to demonstrate these aspects for a number of our priority development corridors and nodes. As a starting point it provides us with an exciting visual overview for these areas and in the future, we will look to complete the picture for the rest of the City.

CGIS changed to Orange



In uniting to spread the message to end Violence against Women and girls campaign, CGIS adopted the initiative of **Orange Day**.

Orange Day is recognized globally on the 25th of each month in line with the call made by the United Nations' General Secretary, Ban Ki Moon. It is aligned with the global 16 Days of Activism Campaign, celebrated annually worldwide. **Orange Day** aims to reinforce the message that we should not only recognize the 16 Days of Activism during this period, but should do so every month and everyday as we commit to ending violence against women and girls.

We invite all departments to join us every 25th of each month to wear **orange** and take a stand on ending violence against women & girls. Encourage all your friends to do the same!

For more information on the **Orange Day** campaign contact: Gugu Mathibela 011 407 6495/ 082 372 8164 and Judith Mtsewu 011 407 7001/ 082 467 9603

Geography through GIS - Map and share your information



The fourth annual "Map your world through GIS" organized by Corporate Geo-Informatics (CGIS) of the City of Johannesburg has once again proven to be a sort after school event for Geography learners from grade 10 - 12.

The event was held on the 4 and 5 September 2012, arranged through the Information & Knowledge Management department at the University of Johannesburg (UJ), Auckland Park campus. The cold and windy weather did not deter the attendance of the learners and educators.

Over 800 learners and 30 educators from 16 Gauteng schools participated in the many interactive sessions, demonstrating the vast extent on how geographic information affects our daily lives. The contribution by

the Development Planning Department of the City of Johannesburg secured transportation for over 400 learners (grades 10 and 11) from previously disadvantaged communities to the venue.

The event was opened by Adrian Roos, the Chairman of the Gauteng Region of Geo- Information Society of South Africa (GISSA). Adrian encouraged and inspired the learners to learn Geography and GIS explaining that it is the key to gaining an improved understanding of the environment we live in today and the future.

The interactive sessions were hosted by Chaney Simms and her team from Esri South Africa. With the use of the ArcGIS Explorer online, Chaney demonstrated how easy it was to explore, view and share information.

She explained how Geography and GIS touches our lives every day, and how the functions of GIS bring a whole new perspective to the subject when asked "what is at...?, where do you find...?, what has changed since...?, what spatial pattern exist? And what if...?".

The learners and educators left the sessions with better understanding on how the benefits of GIS technology are becoming more widespread, assisting people using geographic information to gain new insights and make more informed decisions.

Contact Lesley Adams, Corporate Geo-Informatics, Tel 011 407-6192, Lesleya@joburg.org.za

GISSA Ukubuzana 2012



Deemed the GIS sector conference of the year, it was sure to be a time of reflection, debate, discussion and exploration. The theme for this year was 'Ukubuzana' which means asking each other. The conference was held over three days at Emperor's Palace and was hosted by

Ekurhuleni Metro. Corporate Geo-Informatics (CGIS), from Development Planning, as a very active and recognized unit within GIS circles, was in attendance. Our director, Marcelle Hatting, as well as ten staff members from the different sections within the directorate represented the City of Johannesburg.

Soft-issues

A larger role that CGIS played was in the co-ordination of the 14 Grade 12 learners with disabilities from Adelaide Tambo School for the Disabled and Hope School to participate in this great event. This was done in the promotion of GIS as a career choice. Our staff member, Bernadette Rigney, was very instrumental in leading this project. She represents people with disabilities as a member of LEEF, DEEF and CEEF (Central Employment Equity Forum). Other staff members, Charlotte Nkosi; Clifford Lebokela, Petros Hlengwa and Yolanda Jansen van Vuuren, offered volunteer services at the conference. As volunteers, our attendance was funded by the conference organising committee. This undoubtedly showcased the spirit of the City of Johannesburg. Buyisiwe Khoza, Zineth Mpsheni, Jack Mahomane, James Matshevha and Vicky Shongwe attended technical sessions.

Technical sessions

Technical sessions usually form part of conference programmes and nothing less was expected at a conference of this calibre. The sessions were in the form of presentations, research papers, scholarly papers, training seminars and panel discussions. The rich source of information found in professors, academics and many learned colleagues was excellent. Staff members also attended hands-on training sessions on GIS software, which exposed current trends in the industry that can assist them in their daily work and in their future careers. Other topics of interest and relevance were GNSS (Global Navigation Satellite Systems) heighting analysis, map projections and remote sensing. As data (databases) and systems (processes to manipulate the data to make decision making) are important elements in the "d2GIS pie"d3, good data and systems management plays a very critical role in ascertaining that GIS value is leveraged in an organisation.

Exhibitions

Major role players in the GIS sector had exhibitions. Government entities such as NGI, which provides aerial imagery for the whole country, Statistic SA, ESKOM and

08

Google were present. GPS devices and gadgets from navigation to capture tools were also on display. New technologies allow users to manipulate data through touch-screen technology, send data via emails from the devices, make calls using the same handset as SIM-card technology is used. Better accuracy is also achieved.

Professional Development

The conference was also used as a platform to encourage and promote professional development. Plato, the South African body that is a custodian and facilitates both Land Survey and GIS professional registration and de-registration,

has rigorous processes that assist its members to register on the different levels and also to maintain a professional record. This will be achieved through the CPD (Continued Professional Development) points. These points are obtained by attending certain events like conferences and workshops, performing certain tasks within the working environment and accumulation of the points should be at least 20 points per 5 years.

We would like to thank CGIS directorate for allowing employees to partake in this event to gain skill, knowledge and understanding of the geo-spatial sector.

Planning Africa 2012 Conference

The 5th Planning Africa conference 2012 was hosted by SAPI at the International Convention Centre, Durban on the 17th-, 18th and 19th September 2012.

Delegates from across Africa attended the event and provided the opportunity / platform to discuss fundamental changes in planning on the African continent.

Three major themes were highlighted at the conference:

- How to cope with and/or positively steer unprecedented growth of settlements in the light of major urbanization and an increasing focus on the need for urban resilience;
- How to do this in a democratic way that ensures governance systems take into account the principles of equity, fair distribution and just management of resources and
- How to include all people in the planning and implementation of infrastructure and services, to contribute to an improved quality of life and of the environment to the benefit of all.

The event was opened by the SAPI President, Mr. Yusuf

Patel. Several distinguished guests formed part of the opening session, including Minister Trevor Manuel. Each day of the conference started with a group session in the main event's hall where after the conference attendees could choose between several break-away sessions, depending on their scope of interest.

Tea, coffee and lunch breaks allowed the conference attendees to visit the exhibition hall / poster presentations and exchange ideas with other delegates.

A welcome cocktail function was held on the first evening and was followed by a Gala dinner and Planning awards ceremony on the second evening.

The event was well attended by the City of Johannesburg. Mr. Herman Pienaar and Mr. Pete Ahmad (Development Planning and Facilitation) took part in several sessions and their presentations were well received.

The conference ended on Wednesday 19 September 2012 and all delegates took the long road home, enriched with the events that unfolded over the three days.

