

New train of thought

2006 was the last time we restructured our training courses, offering since then Introduction, Intermediate and Advanced courses as well as Land & Engineering Surveying and a variety of survey instrument workshops. We have of course kept the content of these courses bang up to date with the program, but structurally we felt that it was time we repackaged the courses to more closely match our requirements.

Off-the-shelf

The majority of the courses we offer are off-the-shelf and run at our offices here in Gloucestershire. These are ideal courses for the majority of users and are the most cost effective way to 'get trained in LSS'. We restrict these courses to six delegates, so we can maintain the quality of the training. At £150 per person per day these courses represent good value and not only do we run them here, we also hold the same courses in hotels around the UK every few months.

For your convenience

For those organisations wanting to train several people at the same time, or those requiring very targeted training courses we have offered what were previously called 'Bespoke' training courses. These allowed organisations to book an entire day or days and we'd travel to them, armed with laptops and a projector. We are now re-branding these courses as 'Team' courses. Pick from the normal list of courses

we offer and the cost is £500 per group per day, plus travelling and subsistence expenses (if we come to you). For groups of more than five trainees, each additional trainee will be £100 each up to a maximum agreed by our trainer.

Made to measure

So that brings us onto our new 'Bespoke' courses. As Bespoke suggests, these are truly 'Made to Measure'. Come to us with a list of requirements and we'll build a course around you. We'll advise how many days you need and we'll even use your own data if we think it appropriate. For this we charge £700 per day for a group of up to seven and you'll get a unique training manual to keep and refer to in the future.

Here are a few scenarios to help you visualise our new approach to training.

1) A new user of LSS Vista needs some training and is willing to travel to Gloucestershire to attend our standard courses. He books himself on the Introduction followed by the Intermediate courses. The cost is 2x£150 (£300).

2) An existing customer who is based in Glasgow is in the same position as the user in the above scenario. He waits until our next training week in Scotland and books on the

Introduction and Intermediate courses. The cost is 2x£150 (£300).

3) A Civil Engineering company needs to train five engineers at the same time and has identified that all have used LSS and therefore won't need the Introduction course, but having discussed the requirements with us has decided that a two day 'Team' 'Introduction and Advanced' course on-site will be the best option. We charge £1,000 for the two days plus travelling and subsistence, depending on how far we have to travel.

4) A quarry company who already use LSS in their survey department want to train four geologists in LSS. They have no previous knowledge of the system, but need to get to the point where they can design excavations and report volumes. We would be suggesting a three day course. The first would be the standard 'Team' Introduction course, followed by two 'Bespoke' days which will involve us using their own data in the training and adapting elements of the Intermediate and Advanced courses, with aspects of the 3D Visualisation and data handling course. A bespoke training manual would be produced for days 2 and 3. Day 1 would be £500 and days 2 and 3 would be £700 per day plus travelling and subsistence, depending on how far we have to travel.

If you would like to discuss your training needs then please call Duane or David on 08456 444244 or email training@dtmsoftware.com. Don't forget to add VAT on to all the prices we quote. Discount rates on multiple bookings are explained on the back page.

LSS Training and Workshop Timetable

You can book online at dtmsoftware.com

Birdlip, Gloucestershire, Nov '09 - Dec '10

Course	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LSS Introduction	3/17	1/15	19	2/16	2	6/20	4/18	8/22	6/20		7/21	5/19	2/16	7
LSS for Land & Engineering Surveyors	4	2		3	3	7	5	9	7		8	6	3	8
LSS Intermediate	5/18	3/16	20	4/17	4	8/21	6/19	10/23	8/21		9/22	7/20	4/17	9
LSS Advanced		19	17	21	18		22	20	24	22		23	21	18
Leica 1200 Wkshop	See website or contact us for dates of survey instrument Workshops													
Leica Midrange Wkshop														
Trimble Wkshop														
Topcon Wkshop														

Other locations in 2010

Course	Derbyshire	Scotland	W. Yorkshire	Derbyshire	Scotland	W. Yorkshire
LSS Introduction	23	23	11	13	14	12
LSS for Land Surveyors & Engineers	24	24	12	14	15	13
LSS Intermediate	25	25	13	15	16	14
LSS Advanced	26	26	14	16	17	15
Leica, Trimble & Topcon Workshops	See website or contact us for dates around the UK					

Prices

Discounts are available on bookings made for any standard £150 a day course. Discounts are applied by adding up the total number of training places booked on a single purchase order. They do not have to be for just one person or for just one course. Please note that unused training places cannot be carried over. If booking via our website these discounts will be automatically applied when you reach the checkout.

1 day £150 2 days £280 3 days £400 4 days £500 >4 days £120 per day

'Team' and 'Bespoke' training

If you have a group of people requiring training or need to cover subjects other than those contained in our standard courses, please contact us for details of our 'Team' and 'Bespoke' training courses. These are charged per group and cost from £500+expenses for a 'Team' course and £700+expenses for a 'Bespoke' course. Please read the article in this Newsletter which explains the various training options available. If you have any questions then please contact Duane or David on 08456 444244 or training@dtmsoftware.com. Please note that 'Team' and 'Bespoke' courses cannot be booked online.

Terms and Conditions. When booking courses online you will be given the opportunity to pay by credit or debit card or provide us with an order number. If using a purchase order we will invoice you immediately and settlement must be within 30 days from the invoice date. We are unable to give refunds for non-attendance on a course. All events are subject to availability. Prices exclude VAT

© Oct 2009, McCarthy Taylor Systems Ltd, Aerial View, Acorn House, Shob Hill, Birdlip, Glos. GL4 8JX UK Tel 08456 444 244 International Tel +44 1452 864244 Fax +44 (0) 1452 864194 sales@dtmsoftware.com www.dtmsoftware.com Company Reg No. 2339960 VAT No. GB 490 5915 25 All Trademarks acknowledged



04
84
44
54
64

Autumn 2009 Newsletter

(No.58)

The "Green shoots of recovery"

After what has undoubtedly been a tough year for many, some degree of cautious optimism has begun to return to the most badly hit industries of construction and civil engineering. It was the then Chancellor of the Exchequer, Norman Lamont who, in 1991 coined the phrase "the green shoots of economic spring" and many since have made the same mistake of predicting an economic upturn in exchange for the oxygen of publicity. We, on the other hand are fortunate enough to talk on a daily basis to many of our users who aren't afraid to tell it how it is, yet there has never been an obvious consensus on what's happening with the UK economy. However, in the past few weeks there has been a noticeable increase in optimism amongst the worst affected sectors of land survey and house building.

Amongst all the doom and gloom of recent months, several sectors remain relatively unaffected by the current economic woes. One of our major clients who works in the construction industry has seen a growth of 25% in its order book in the past year and appears to have done this by concentrating more on the future growth markets of waste, energy, nuclear power and water and as a result are busier than ever. And in our own way that has been one of the strengths of McCarthy Taylor over the past 24 years. By providing software solutions which appeal to several different industries, we are able to ride the ups and downs in the economy, providing some degree of consistency and guarantee to our customers that we'll be around in the long-term.

And while we British are reluctant to discuss complex issues such as the economic conditions which led to the collapse of the Icelandic banking system, we do love to moan about the weather. Why is it that every successive generation always remembers the long hot summers of their youth, but can't remember there ever being a single good one since they started working? Odd that! but for those who rely upon stable climatic conditions the picture has been quite different. We recently undertook a demonstration to a landfill company whose main concern wasn't the economy, it was the weather. The

summer in their part of the country has again been a washout. They were running out of landfill capacity and needed to lay a new clay liner, but this was reliant on a prolonged spell of dry weather in order to carry out this work. If it didn't go down in the next few days

they would be forced to lay off several members of staff. But as we go to print with the newsletter we are experiencing some belatedly warm, dry weather, so let's hope that this particular operator manages to install his new liner in time.

Windows How Many?

It doesn't seem that long since Windows Vista was finally released (yes, it really was January 2007) but October 22nd sees the launch of Microsoft Windows 7. Touted as "easier" and "faster" than every one of its predecessors, Windows 7 will have a hard time convincing those organisations who tried and rejected Windows Vista to upgrade this time around.

Testing times

There is much discussion on various Blogs that most equipment and drivers capable of running on Vista will continue to work on 7, but always fairly sceptical about such claims we have decided to test Windows 7 and report back. We have installed the 'Release Candidate' (pre-release) version on a 4-year old DELL Inspiron 9300 laptop with a 1.73GHz processor, 1Gb RAM and a 128Mb ATI Mobility graphics card.

This laptop was previously running XP, so if we were going to experience any problems they should show up on this computer. Installation was relatively straightforward, which itself was fairly promising and most existing software seems to work okay. If you read the system requirements you might be horrified to discover that it needs 16Gb of available hard disk space, but this is rarely a problem on modern computers, even 4-year old ones. Once installed, we checked the 'Windows Experience Index' in Control panel and it said 3.8, which isn't at all bad. Compare that to a brand new Dell Vostro with a 2.1GHz Core Duo processor and 4Gb RAM which rates at 5.0 and we soon realised that there's life in the old 9300 yet.

64 or 32-bit?

Windows 7 comes in two flavours, 32-bit which will run on most computers (like the one we are testing) and 64-bit for high-end 64-bit processors. As it turned out the 64-bit platform presented the first problem when one of our users came to install LSS. He reported that he was unable to install LSS due to some permission issue, but it was discovered

that a simple update to our installation program solved this problem. This updated installation program has been used on all LSS installations from versions 9.70.16 and 9.75.06. Installing on the usual 32-bit computers wasn't a problem. The message here is that whatever platform you are installing onto, as long as you have downloaded the latest LSS program from our website then you should be fine.

Dongle drivers

Once installed, LSS then needs a dongle to run and while D E S - t h e manufacturers of the dongle - are working on a Windows 7-compatible driver, at

the time of writing this is still in Beta test. So, for anyone wanting to install LSS on Windows 7, they need to go to our Downloads section and download the Beta dongle drivers. The good news is that it would appear that these latest drivers will work with previous versions of the server drivers, so there should be no need to upgrade all clients and the dongle server to the same version.

Performance

The first thing you'll notice if you have upgraded to Windows 7 on an existing computer is that the graphics drivers will need updating. Don't be surprised to see jerky 3D views until you have done so. Everything else should be at least as fast as it was in Vista and arguably faster. Ours installed a generic Microsoft driver which does work, but we're not sure we're getting the most out of the card now we're running Windows 7 and the ATI website didn't appear to offer an update for our card. That's certainly something to think about if you're upgrading an old computer.

continued inside...



Windows 7 continued...

Summary

So, in summary, when October 22nd comes around you should be able to install and run LSS on your computer, but bear in mind that for the time being at



least you'll need to download the Beta dongle drivers because the ones on our CD won't work. Please let us know if you encounter any difficulties. We are aiming to produce a 32- and 64-bit Windows 7-compatible installation CD in time for the official launch of Windows 7, so any comments from users who have already gone through the upgrade will be helpful.

BETA LSS™ Latest news from the development team

The summer has been a busy one for development and with the advantages of the automated software update system in place we can be sure that every one of our testers has access to the latest program. We're cramming in as much as we can before we commit to a main program release, so if you're not



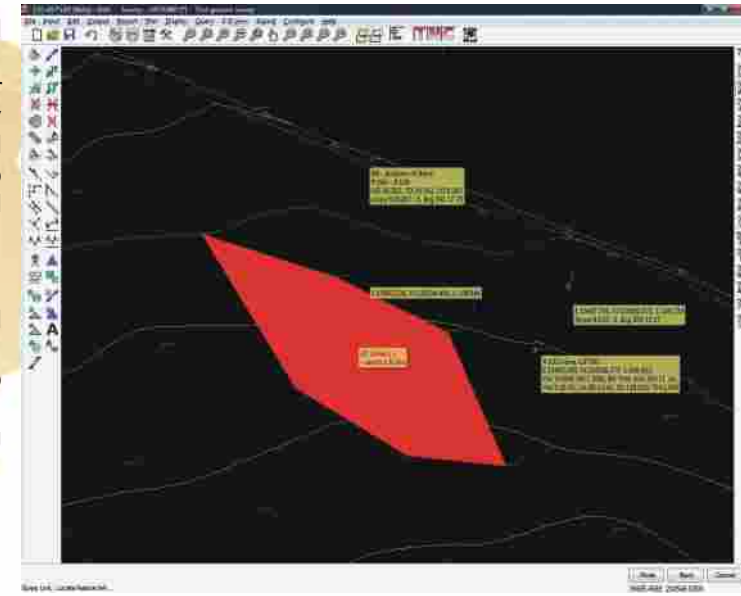
averse to doing a bit of testing then please go ahead and download LSS Beta from our website and start using the software today. Notable enhancements have been mentioned in our e-bulletins over the past few months, but for those who don't receive them or have forgotten, here's a summary of the main improvements.

BETA LSS™ Pro-Active

We've introduced what we have called 'Active Cursor' and the first time you use this you'll be hooked. Whenever you're in a query command such as Query Link or Query Obs a tooltip will appear beside the highlighted observation displaying all the information you need to know about it. The same works for links, surfaces and stations. In fact, any items which can be selected in 'Mode'.

When you are in a design command and have switched Active Cursor on you will be shown realtime information as you roam around the screen, removing the need to select a query command to confirm the details of an observation, link, coordinate or surface you are relying on for your design.

It's more efficient, less tiring and more intuitive, but for those who would prefer not to use it, there's an icon to turn it off.



BETA LSS™ LandXML

Survey equipment manufacturers have been talking about an international standard for land survey data, but have never agreed a common approach. Well, one format which has been around for a few years is finding favour amongst some at least. Unlike most data formats, Land XML is capable of recording raw survey data in the form of angles and distances and we were very interested to see if we could integrate it into LSS. Trimble and Topcon are early adopters of this format, so some of you should be in a position to try this out with your existing survey instruments. For everyone else, you may have a LandXML export or import facility within other software and may wish to experiment importing it into LSS.

For the technically minded amongst you, it is worth noting that at this time we support the LandXML tag called 'CgPoint' as the method of defining features in the

data. There are other methods, but this seems to be the preferred one for most. Please note that for the time being at least only XYZ data can be handled, which is fine for GPS data, but might not be appropriate for EDM surveys when Quality Assurance is a key element. **This is very much 'work in progress', so if you have any XML files which won't convert then please email them to us so we can update LSS.**

“... XML (Extensible Markup Language) is a set of rules for encoding documents electronically

BETA LSS™ Level-headed

As more and more UK coastal authorities are doing their own coastal monitoring, so they are looking to LSS as a means of processing and analysing changes in beach profiles.



Authorities which are part of the South Downs Region have been using All terrain Vehicles (ATVs) fitted with GPS receivers for some time. This setup allows a single person to survey kilometres of beach in a single tide. However, as the ATV drives up and down or across the beach the GPS antenna is rarely vertical and it is this problem which concerned Ian Thomas of Pevensy Coastal Defence Ltd. As early as 2003 he approached us with this issue and asked if LSS would be able to correct such data, knowing the wheelbase length, width and pole height. Of course, we said yes. From our discussions came the command 'Output GPS Pole Verticality Correction' and it has been in use ever since.

BETA LSS™ Theoretically Speaking

ZTVs (Zones of Theoretical Visibility) and ZVIs (Zones of Visual Influence/Impact) are well used terms amongst the planning fraternity. They are measures of the visual impact that a proposed development will have on the surrounding landscape. There are several such measures available and for years LSS has been at the forefront of this work.

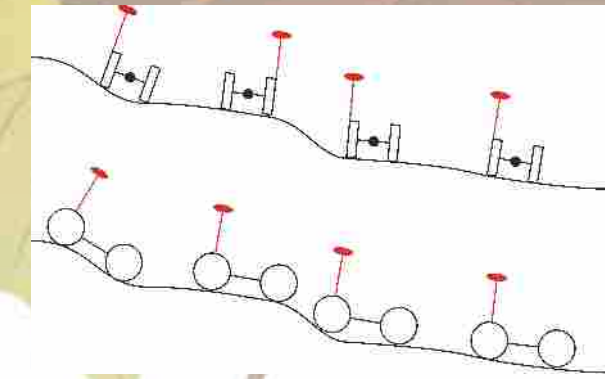
And now we have just added a new command called 'Horizontal ZTV' which measures how much of a receptor's horizontal field of view is taken up by a development. This is calculated from a user-defined grid of receptors and can measure either the largest contiguous feature visible, the total of all contiguous features or the maximum spread from the furthest left to the furthest right extent of the features. The information is stored as a horizontal angle in degrees. Both this command and 'Visibility Surface' are the only true tests of likely impact because the results reflect the effect that distance has on the apparent size of the object (a large object up-close has more visual impact than the same-sized object further away [all things being equal]).

In this example (right), we have four distinct objects, A, B, C and D. When viewed from position V at a precision of 2 degrees, object A takes up 9*2deg (18deg), B takes up

Downloads

We often get calls from users who need access to the LSS program and support files in a hurry because they need to run LSS on someone else's computer or have simply lost the LSS installation CD. Well, don't panic. All of the material which is on our CD is now available via the Downloads section of our website. The only thing we can't provide online is a new dongle, so don't forget it, wherever you are.

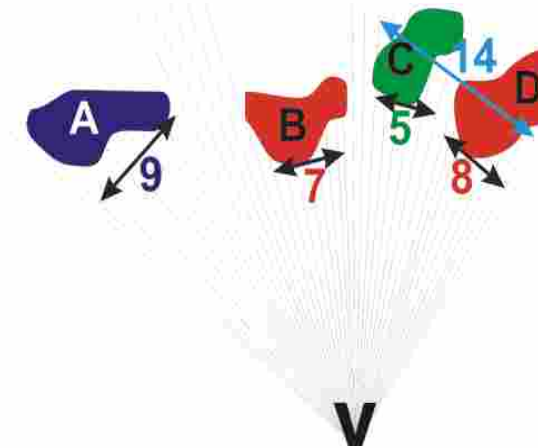
As local authorities within the south coast group known as 'The Channel Observatory' began to adopt ATVs, GPS and LSS for beach and coastal monitoring we were asked to enhance the command. When surveying homogeneous beaches where the entire beach is either sand, gravel or shingle it is not necessary to add feature codes as the survey is performed. However, on beaches where the material changes from sand to gravel or gravel to shingle, it is often important to record these code changes during the survey. So, an amendment to 'Output / GPS Pole Verticality' has been added to allow the feature codes to be retained when the survey is adjusted using this command.



Anyone using a GPS antenna mounted on an ATV should be aware of the possible errors if the data isn't corrected using this command in LSS. If you'd like to know more then visit our new website and from the front page choose 'Learn More' and follow the 'Software in use' links to 'Coastal Monitoring' where you'll find a detailed article on the beach survey problem and our solution.

7*2deg (14deg) and C & D combine to produce a contiguous spread of 14*2 (28deg).

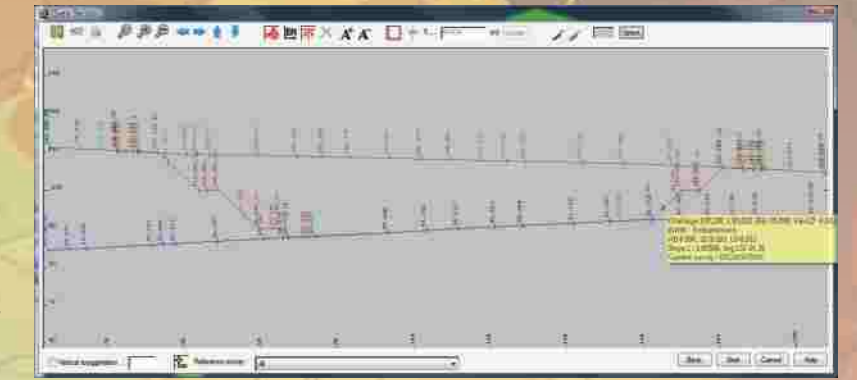
Therefore, the maximum contiguous is 28deg, the total contiguous is 18+14+28=60deg and the total spread is 39*2=78deg. Any of these results can be produced for a user-defined grid of receptors and for a user-defined angular interval.



Of course, what this command is doing is offering the user the choice of results. Uses include calculating the cumulative effect of windfarms, linear features such as roads, large commercial or residential developments or even specialist applications such as forensic collision reconstruction.

BETA LSS™ Sections, but not as we know them

Query section has been a powerful feature of LSS for many years, but we felt that it was time to update it and extend its capabilities and usefulness. As a result we now have fully interactive, annotated sections, with zoom and pan facility, realtime query and the display of DTM information using the 'Active Cursor' technology already mentioned (above). What's more, LSS Vista or above can plot a standard long or cross section direct from this screen without the need for an SDF.



BETA LSS™ Mirror image

The mirroring of link features has been a bit of a dark art for many and the number of calls we receive each year on the subject highlights the level of confusion that this subject generates. Any link feature which has a directional line type, such as an arrow or an asymmetrical pattern, or has an offset left or right line symbol, such as the feature 'wall to my right' have always required the user to create a mirrored feature. So, for a feature called 'TAD' which used the tadpole sub-symbol number '211' there would need to be a mirrored feature, possibly called 'TADM' which used the tadpole sub-symbol number '216'. If the user didn't create this mirrored link then if he chose to connect two points with the 'TAD' feature, the resultant link may have been drawn the wrong way round (it's all to do with the order in which the observations are loaded into the LSS database). Now, even if you haven't defined a mirror, LSS will honour the direction of any inserted links, doing all the mirroring for you.

BETA LSS™ Topcon TN3 machine control

It's ten years since the first GPS grade control system was introduced to the construction market. Since that time it has become an invaluable tool for earthmovers and road builders. One such system is Topcon's 3D Machine Control system and the addition of the TN3 export extends the already comprehensive list of GPS guidance and control systems supported by LSS.



E-commerce

In June we finally launched our new website and with it an e-commerce facility which not only allows new customers to buy LSS and training online with a credit or debit card, but it also enables existing customers to pay invoices and renew licences. If you would like to pay an invoice with a card please visit dtmssoftware.com/pay-invoice

Christmas shutdown

By the time this Newsletter hits your desk at least one TV Newsreader will have reminded us all of the number of shopping days to Christmas, so to add salt to the wound we would like to take this opportunity to notify our customers of our festive office closure. We will be shutting-up shop at midday on the 24th December, returning at 9:00am on Monday 4th January. We aim to offer a voicemail service during this period, but you can get help 24/7 via our website where you'll find online tutorials, supporting documentation and our support forum. We'd like to wish everyone a peaceful Christmas and a busy and profitable 2010.

ICES becomes CICES

We know that many of our customers are members of professional bodies and we thought that you'd like to read about the exciting developments at ICES which has just gained Chartered status.

The Chartered Institution of Civil Engineering Surveyors was established in 1969 in order to support the professional development of surveyors working in the civil engineering industry and recently celebrated the granting of its Royal Charter and 40 year anniversary at an event addressed by the Construction Industry Council.

Graham Watts OBE, Chief Executive of the Construction Industry Council, who has worked with the Institution for more than 20 years, spoke at the event and guests included representatives from industry partners including Balfour Beatty, Carillion, RICS, ICE, Network Rail, Construction Youth Trust and the Olympic Delivery Authority.



Jean Venables OBE, ICE President, Steve Jackson ICES President and Max Crofts RICS President

Prior to the celebration, the institution's advisory solicitor John Rushton and President Steve Jackson attended the Crown Office at the House of Lords to collect the Royal Charter.

Steve Jackson, President of the Chartered Institution of Civil Engineering Surveyors, said: "Securing the Royal Charter has been a long and exciting journey. The Charter unites our members all over the world and celebrates their achievements. I'm looking forward to the future and the Charter is a springboard for growth as well as a hallmark of excellence. To be able to celebrate our achievement with so many of our peers is a real honour. On behalf of ICES Council of Management and our members, I would like to thank all those who have taken an active role and supported the Institution in this fantastic achievement."

We would like to add our own congratulations to CICES on this landmark achievement.

