

## Record participation for LS Summit and UserGroup 2008



Record participation was marked for this year's LS Summit and UserGroup which took place in Lichtenau from 30th of June until the 3rd of July. 140 delegates from 29 countries were counted for the LS Summit Conference Day and over 60 participants attended the UserGroup.



This year again participants appreciated the well-selected topics presented by renowned experts in the field of spectrum management and radio network planning.

Richard Womersley, Helios Technology Ltd., for example, raised the question whether spectrum management can be made more efficient through techniques that control interference instead of transmitters. His presentation outlined different levels of interference, various definitions of spectrum usage rights and concluded that interference control would allow, for instance, for complete service and technology freedom as well as simple definition, measurement and administration with minimal regulatory intervention.

The evolution from Maxwell's equation to cognitive radio was very well illustrated by Prof. Friedrich Jondral, from the Institute for Radio Engineering (Institut

für Nachrichtentechnik), Karlsruhe, Germany. At the same time he pointed out definitions, characteristics, tasks and spectral efficiency of the cognitive radio and presented the vision of resources being assigned where they are needed as long as they are needed and spectrum access being organised by the network, i.e. by the end users.

Also Peter Bury from Ofcom, UK presented a very innovative point of view on spectrum assignment, usage and efficiency. He concluded that spectrum should be free of technology, policy and usage constraints as far as possible. He also claimed the importance of an effective IS platform to support spectrum liberalisation and trading. Ofcom's new licensing system, which is based on LS telcom's SPECTRAplus software has increased efficiency and quality of service of Ofcom's licensing activity, supports key elements of their spectrum reform agenda and is a platform for future change in the spectrum environment, according to Peter Bury.

The many other lectures covered current issues such as radio in the digital environment, the digital dividend and broadband internet access on broadcast frequencies, to name just a few. An exhibition of products and services by LS telcom and external companies took place in parallel.

Several customers decided to stay for another day to attend personal trainings on the new LS telcom Software Tool Suite LS Speed, Service Oriented



Dear Readers,

Top-class speeches, informative discussions, internationality and a new record-breaking attendance were the characteristics of this year's LS Summit and the preceding UserGroup Conference of LS telcom. Our guests' exceptionally positive response encourages us to organise these events again next year and to cordially invite you, dear readers, to join us then.

We have already determined the dates. So please note them in your agenda: The next **UserGroup Conference** will take place on **29th and 30th June 2009** and the **LS Summit** on **1st July 2009**.

We wish all of you a successful end of the year 2008 and hope you enjoy reading this edition of SPECTRUM.



Roland Götz  
Member  
of the Board

Architecture (SOA) and trainings on various software modules. It was the first time this year that this last day with special trainings was added to the programme and regarding the success, it should be part of the programme again for the events to come.

During the whole event, lectures and discussion groups were balanced with social happenings in the evening, which ranged from networking dinner to a guided tour of the famous Baden-Baden Opera House and a visit to the UNIMOG Museum, including a test drive in their all-terrain vehicles.



## Peter Bury, Ofcom UK, becomes new Chairman of UserGroup



Photo: Peter Bury

Peter Bury, Director of Spectrum Policy at Ofcom, the independent regulator and competition authority for the UK communications industry, takes the chair of the UserGroup.

Manfred Leberz, CEO of LS telcom said "We are delighted that Mr. Bury has accepted the position as chairman of our UserGroup. Mr. Bury is a well-known and recognised expert in the field of spectrum management with 30 years of experience in the communications industry. Furthermore, Ofcom is one of the most innovative regulatory authorities worldwide." Peter Bury commented, "The UserGroup has become a real institution in the spectrum management community and I am very pleased to be appointed their new chairman. The

opportunities for members to exchange information and experience to shape the future of spectrum management in a joint effort are unparalleled."

The UserGroup has taken place annually since 1997, the year of inauguration following the initiative of the Dutch Radiocommunications Agency. Aljo van Dijken, Senior Adviser, Spectrum Affairs, at the Dutch Radiocommunications Agency, Agentschap Telecom, the past chairman of the UserGroup, was honoured and

thanked for his efforts and contributions during the last seven years.

Every LS telcom customer is entitled to free of charge membership in the UserGroup. Membership in the UserGroup provides customers with the opportunity to exchange experience, to discuss network planning issues as well as to define requirements for new software releases with respect to the latest developments in the market.



## NEW: Major State-of-the-Art Software Release CHIRplus\_BC v5.2.0

LS telcom proudly presents its major state-of-the-art software release CHIRplus\_BC version 5.2.0: Over 50 LS telcom customers under maintenance have already received the new software version.

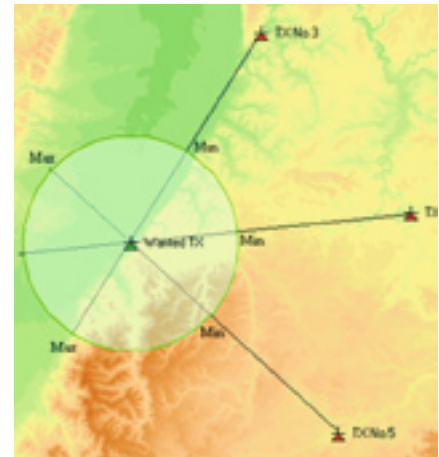
Make your life easier and rely on our latest CHIRplus\_BC software release for the most modern, most efficient and fastest broadcast networking planning and coordination.

One of the major characteristics of the new software release is certainly the terrific amount of calculation time that is saved, which increases performance significantly. Especially time-critical Field Strength Calculation or network wide calculations can be accelerated considerably by distributing the calculation process on several computers. The

calculation time saved depends partly on the number of software licences available. An enormous gain is also achieved through the improved macro capability: a simple press on the button allows starting complex network planning batch jobs.

In addition, CHIRplus\_BC v5.2.0 is the only software fully supporting the complete GE06 agreement: network protection and optimisation are further enhanced with the new release taking into consideration other services as interferers and as reference service for coordination and interference calculation. Compatibility check for other services as well as direct BR-IFIC access are now also included.

That we are always up-to-date with latest market occurrences is also reflected in our software. Not only did our experts actively contribute towards the development of the latest ITU Recommendation P.1812, but it has also immediately been integrated into the new CHIRplus\_BC version. The superior Weekly International Circular Update (WIC) function lets

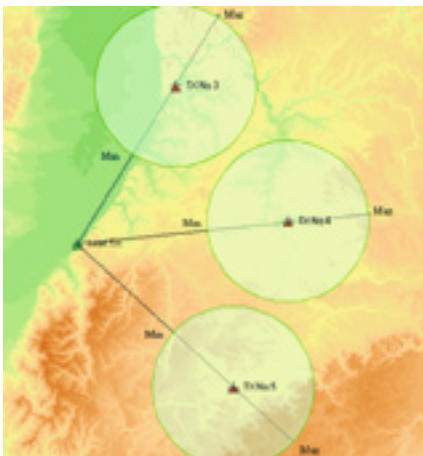


Wanted Transmitter Calculation

the user compare the BR-IFIC publications with the database with even more ease and speed than before.

Last, but not least, the user should appreciate the new look and feel of the advanced Graphic User Interface (GUI): it includes, for instance, further export possibilities for vector format and measurement data as well as new improved display and overlay functions.

On request of our American customers, we have added the FCC propagation model for VHF/UHF along with RJ81 and FCC propagation curves for medium waves.



CHIRplus\_BC v5.2.0.: Interfering Transmitter Calculation

Country	Frequency	Power	Height	Distance	Notes
USA	100.0	1000	100	1000	Example entry
USA	100.1	1000	100	1000	Example entry
USA	100.2	1000	100	1000	Example entry
USA	100.3	1000	100	1000	Example entry
USA	100.4	1000	100	1000	Example entry
USA	100.5	1000	100	1000	Example entry
USA	100.6	1000	100	1000	Example entry
USA	100.7	1000	100	1000	Example entry
USA	100.8	1000	100	1000	Example entry
USA	100.9	1000	100	1000	Example entry
USA	101.0	1000	100	1000	Example entry

New Preview Window: Weekly International Circular Update (WIC) Function

## 'Digital Radio in Europe': LS telcom presents Study Results during Plenary Session of the 'Digital Platform Austria'

LS telcom experts were engaged by the Austrian Regulatory Authority (Rundfunk & Telekom Regulierungs-GmbH, short: RTR) to undertake a study on digital radio in Europe. The aim of the study was to assist the principals in their decision making process for a potential launch of T-DAB in Austria. The results of the study were presented by LS telcom during the plenary session of the 'Digital Platform Austria' on the 23rd of June in Vienna. 80 members participated in the session.

On the basis of this study, the RTR GmbH decided to introduce digital radio in Austria. However, the exact timing of the launch has yet to be determined as there is no standardised digital system in Europe as was the case for analogue radio. On the contrary, there is a tendency to deploy various standards in different countries. 'Only through coordination and agreement among all the participants will the adoption of digital radio lead to a success', explained Markus Morgen from LS telcom, the leader of the study, during the plenary session. This is why the RTR GmbH Austria will wait and see which technology will establish

itself in order to avoid mistakes and to optimise investment in digital radio.

The development and current situation of T-DAB in ten European countries\* and Canada were subjects of the study. Canada was included in the study as a recognised pioneer for pushing the development of T-DAB. The roll-out level in each country was under investigation as well as the acceptance of T-DAB by consumers, including how multiplexes are composed in each country and how many programs are transmitted at what bit rate. Furthermore the current and future standards in each country were examined, such as Musicam, DAB+, HD Radio, DRM, FMeXtra, etc. Another aspect observed under the study was the availability and cost of digital receivers in each country and the influence on the progress of T-DAB. Finally, the re-use of liberalised analogue spectrum was examined.

\*Denmark, Finland, France, Germany, Great Britain, Hungary, Italy, the Netherlands, Spain and Switzerland

## TETRA Access Network Planning for the Federal State of Baden-Württemberg

LS telcom will carry out the design and planning of the microwave-based access network of the new BOS/TETRA network for the Ministry of Interior in the Federal State of Baden-Württemberg. The planning process includes the design of the network topology, capacity planning and the detailed planning of each single microwave link including site surveys and Line-of-Sight checks.

The planning process is a complex task and has to consider the requirements of a high-security network, as for each functional link there needs to be a redundancy link for emergency.

The order on planning, delivery and installation of the access-network was given following the European tendering process to Alcatel-Lucent Germany AG

in cooperation with LS telcom AG (planning) and Kellner Telecom GmbH (installation).



## Radio Amateur Licensing in Hungary

LS telcom has added radio amateur licensing to the SPECTRAplus system at the National Communications Authority (NHH). The licence attribution process was customised and adapted to the Hungarian system. Amateur radio operators should be pleased: they will now receive the desired licence immediately on request after the successful completion of the amateur radio test. The

Hungarian regulator is delighted to be able to serve an end consumer of radio frequencies directly and in a smooth and customer-friendly way.

NHH has also acquired several additional licences of SPECTRAemc as well as the point-to-multi-point system extension of MULTIlinc. Besides that the software CHIRplus\_LM was customised.

## Spot on

### More CHIRplus\_BC

The Romanian operator Radiocomunicatii s.a., acquires an additional CHIRplus\_BC core module licence and IRT 2D & 3D propagation models. Radiocomunicatii s.a. is working on strategies for the broadcast switch-over from analogue to digital technologies and will need the extra licence for the comprehensive planning of digital networks. The project also includes a tool training to ensure that the user will be able to make the most out of the fully-fledged software functionality.

### NARFA NL selected SPECTRA System

LS telcom was selected by NARFA NL (National Allied Radio Frequency Agency of the Netherlands) for the delivery of a spectrum management software system including the strategic spectrum planning tool SPECTRAplan and the electromagnetic compatibility and frequency engineering tool SPECTRAemc. The ARCADE database of the NATO will be used as the central spectrum management database in this configuration. ARCADE will also be used to store and administrate all sites and network relevant data. Both, SPECTRAplan and SPECTRAemc support an interface to ARCADE.

### Spectrum Management Study in Monaco

The DCCT (Direction du Contrôle des Concessions et des Télécommunications), the frequency regulatory authority of the Principality of Monaco assigned LS telcom to carry out a study to determine their spectrum management and monitoring system requirements. The aim of the study was to define the basic short term system requirements, taking into consideration budget and time constraints. Best practices were developed for the urgent acquisition of a new short-term system. The second part of the study involved the establishment of a long-term system architecture, including different system components to guarantee sustainability.

### MCMC Malaysia rolls out SPECTRAemc regionally

After their spectrum management system upgrade accompanied by a refresher training course, the Malaysian regulator, Malaysian Communications and Multimedia Commission (MCMC) has passed an order of supplementary SPECTRAemc licences for their regional offices. This order was also accompanied by advanced tool training at the customer's premises.

## Upcoming Training and Seminar Courses

28th - 31st October  
Digital Video Broadcast

### November is about BROADCAST...

Book your complete BROADCAST TRAINING WEEK or chose your individual days:

18th - 21st November  
BC Planning Tool CHIRplus\_BC  
(FM/TV, T-DAB / DVB-T)

24th - 25th November  
Mobile TV

26th November  
Broadcast Antennas

27th - 28th November  
Digital Radio

15th - 16th December  
Broadcast Planning Basic

### Upcoming Courses in the Field of Spectrum Management:

28th - 30th October  
Military Frequency Management

11th - 12th November  
Spectrum Monitoring Measurements

18th - 21st November  
System Administration

### ..and Mobile & Microwave:

4th - 5th December  
Professional Mobile Radio PMR  
(Systems TETRA and TETRAPOL)

8th - 10th December  
Radio Network Planning for  
Tetra Networks

11th - 12th December  
Planning and Coordination of  
Microwave Links (PtP & PtMP)

*Please note that this course list is not exhaustive...*

For further information on our seminars or for customised training, please contact Ms Sandra Lahm on tel: +49 7227 9535 482 or on SLahm@LStelcom.com

You will also find our training calendar for download on our website:  
www.LStelcom.com

## News from the LS Training & Competence Centre

Ladies conquer the male domain of broadcast. The majority of participants of our last broadcast training courses were women...!

### Broadcast Training for Media Commission, Kosovo

The Independent Media Commission Kosovo has booked a customised two-week broadcast training course which was held by LS telcom in Lichtenau, Germany. The training included broadcast planning issues, tool training and specific technology courses, such as digital video broadcast.

## Visit us at our Booth...

### Congress and Exhibition of the German Association for Defence Technology (Deutsche Gesellschaft für Wehrtechnik e.V), Bonn-Bad Godesberg, Germany

The Congress will take place from **18th to 19th of November** in the 'Stadthalle' of Bonn-Bad Godesberg, Germany.

The exhibition 'Information Technology and Security' will be held in parallel to the congress. LS telcom will present its system solutions and consulting in the area

of military frequency management and electronic warfare at our **stand no. K19**. For further information, please visit: [www.dwt-sgw.de](http://www.dwt-sgw.de) (in German only)

### PMR Expo Leipzig/Germany

From **25th to 27th November** LS telcom will exhibit again at the PMR Expo Leipzig, which takes place for the 8th time this year. You will find us at **stand no. W16**. For further information, please visit: [www.pmrexpo.de](http://www.pmrexpo.de)

## Spot on

### Ofcom UK goes for comprehensive Maintenance & Support Services

Ofcom has signed a Maintenance & Support contract, which comes into effect this August after the warranty period. The contract covers the first phase of the licensing system and will be upgraded along with further licence classes which are gradually added to the system. The contract includes software updates, bug fixing and hotline support.

### Spectrum Management Warranty, Support and Training for CITC Saudi Arabia

CITC, the Saudi Arabian regulator, has received extensive training for the additional SPECTRA and MULTIlinc licences and updated software versions which were delivered at the beginning of the year. Four different expert trainers brought the trainees up to the latest software standard. Besides the software delivery, warranty and support services were issued, including bug fixing, help desk and updates.

### Digital Terrestrial Television in Portugal: LS telcom experts assist Portugal Telecom in tender preparation

LS telcom experts were invited to review the tender study carried out by PT Telecom, to provide final verification and advice before the submission of the tender response to the Portuguese regulatory authority ANACOM. The experts of LS telcom scrutinised the calculation procedures and processes, verified and tested the data and parameters used for the calculations, such as for example wave propagation models, and validated the final results.

In conclusion, Portugal Telecom won the tender for the provision of DTT in Portugal.



Photo:Photocase

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