QVoice World

3rd Issue / June 2003

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From the Desk of Beat Gerber

Dear Customers,
Dear QVoice Users,
Dear Colleagues

You'll quickly see from this newsletter that we collaborate closely with our customers. Moreover, we believe that our future success will be founded on this principal. We have found that The annual QVoice User Conference along with application specific workshops provide the 'right' interactive environment needed to define network testing requirements and to agree on service priorities.
The challenges in 3G infrastructure testing are greater than ever before due to the complexity of the technology. The variety of user services will be in 3G an order of magnitude more than in GSM – so what tools and what processes are required to prove what is and isn't working – in conformance, quality, performance and interoperability?
In order to answer these questions and to have the 'right' test systems ready to deliver when needed, Ascom is taking extra measures. Through the sponsorship of workshops and user conferences, we are building strong working relationships with the operators and becoming more of a partner. The end result: everyone benefits.

Sincerely
Beat Gerber, Head of Ascom AG, Carrier Products

QVoice 10th Year Jubilee

Ascom QVoice, the mobile network testing and optimization system that is now recognized as the de factor market leader world-wide, is ten years old this year.

1993 will go down in the annals of telecommunications history as the month in which the first-ever system able to use real speech to measure voice quality was successfully tested for the first time in 'real-life' conditions – on Switzerland's pioneering 'Natel D' mobile network.
Since then, QVoice – one of the most-ever successful Ascom products – has continued to maintain its technological (and market) lead by a series of innovative developments that has consistently kept it one step ahead of its rivals.
Today, QVoice enjoys total dominance in the core European GSM markets, and continues to increase its presence world-wide as 3G networks go commercial.
It is now used by operators in over 50 countries and by all the major infrastructure manufacturers. As such, it helps to ensure mobile QoS for the vast majority of mobile subscribers world-wide.
A decade after its market launch, QVoice remains not only the best quality test tool on the market in purely technical terms, but the most configurable and adaptable design for the future.
For readers interested to learn how QVoice has consistently maintained its lead in this unusually dynamic and rapidly changing industry, a 24-page booklet entitled "The QVoice Story" is available free of charge. Simply send an email request to: odile.nizon@ascom.ch

New QVoice utilities and stepped-up performance

QVoice brings new functionalities in release 4.1 – enhancing the benefits of using one system for drive-testing and network optimization

Here is an outline of release 4.1 features followed by a brief function overview. For the full technical explanation and upgrading options, a user functions document is available from your QVoice sales /support office.

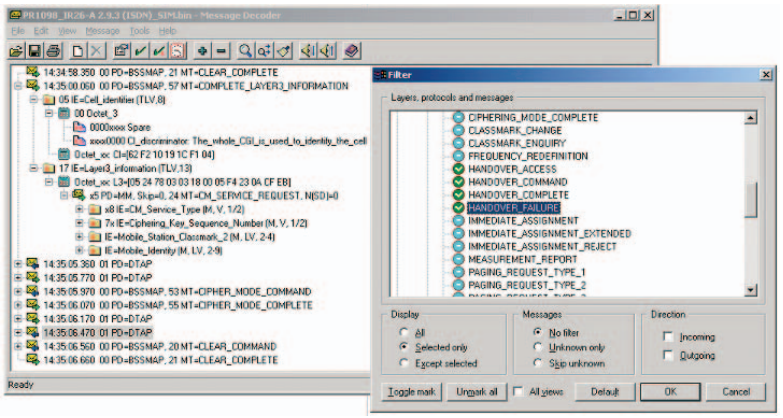
Data collection functions in QVM and QVS
- PESQ speech quality algorithm
- WCDMA scanner
- Real time trigger/filter on QVM MMI
- HTTP turbo browser
- Mobile date enhancements – IP throughput, FTP active/passive

Post Processing in QVP
- WCDMA scanner displays
- Web reporting
- Best in class display in QVP Map
- Performance enhancements with new database structure and hardware

About PESQ
QVoice users have a choice in which speech algorithm best meets their needs. They can select Ascom PACE, the industry standard for many years, or take the ITU recommendation P.862 that contains the PESQ algorithm. And existing PACE equipment can easily be modified to run PESQ. Field tests showed a high correlation between the two algorithms.
The PESQ algorithm delivers two results: PESQ ITU and PESQ LQ (listening quality) and both parameters appear real-time on the QVM monitor (after each received sample). They are also viewable in the QVP.

About WCDMA scanner
QVoice scanner measurements are invaluable for detecting WCDMA coverage, pilot pollution and neighbor list problems. It is also an excellent tool for measurements required by licensing authorities.

About 'real time trigger/filter' on MMI
This function originated as a user request and adds flexibility to the MMI by allowing users to select only the messages wished to be viewed (right-hand screen); which will then appear on the left-hand window. Users can halt the scrolling and expand these messages for closer inspection. The scrolling stop can also be triggered automatically by the arrival of a message predefined by the user. (e.g. 'connect').



About HTTP turbo browser
This is an expansion of the HTTP measurements available in the IP data package; and fulfils the requirement to provide measurements which closely resemble what a subscriber using a commercial browser will experience. The 'turbo browser' enables the user to set up an HTTP download with multiple threads, instead of loading one file at a time.

About mobile data measurement enhancements
Important data handling improvements are incorporated in release 4.1. FTP measurements are now supported in both passive and active modes; and for IP level throughput, it is now possible to measure – for each measurement channel – uplink and downlink IP throughput on both the client and server side.

About QVS accounting/security

By using customer ID/System ID, QVoice operators can specify which access to QVS is accepted for mobile data tests such as which and how many UDP tests can be run.

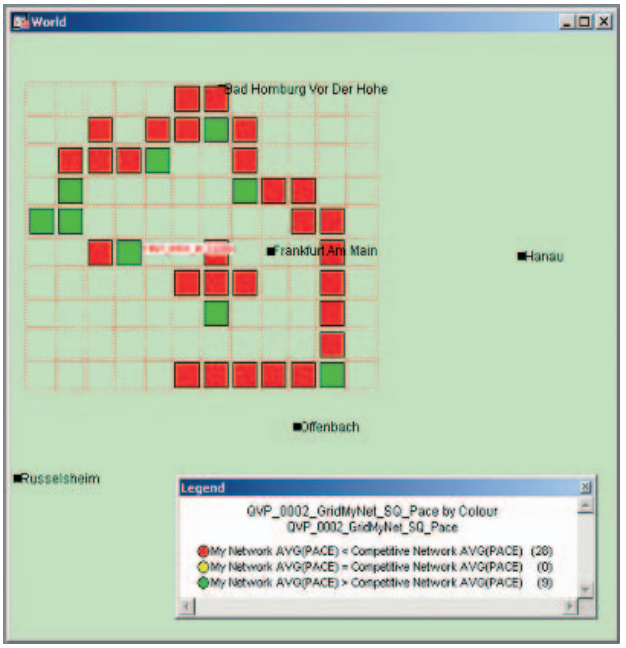
About WCDMA scanner displays and web reporting

In addition to displaying real-time results in QVM, scanner data can be presented in QVP as shown. Operators can easily see the strength of Pilot and coverage holes. The same data can be shown on a time axis.

The benefit of showing measurement results in web format is that different employees inside the company can access reports over their intranets. In release 4.1 a user(s) can be designated "publisher" and generate web formatted pages using the web reporting tool.

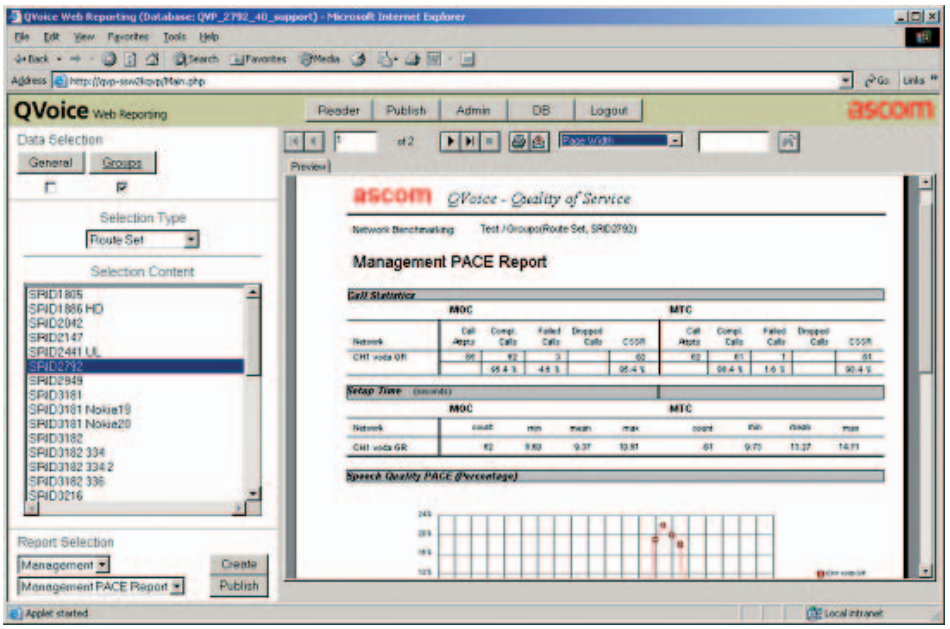
Best in class display

In the QVP map display, a user defines criteria and the measurements from two networks are then automatically compared. Areas where the user's own network is better appear green; whereas poorer than the competitors' show up red.



QVP performance enhancement

The database has been restructured giving improved performance, particularly with respect to important mobile data QoS parameters which now have their own data tables.



C/I in QVoice ... did you know?

C/I is one of the measurement values that links network planners, radio engineers and the people responsible for end-to-end QoS.

With QVoice it is possible to measure C/I or carrier to interference ratio of the received GSM signal. So in addition to end-to-end speech quality evaluation, QVoice users can perform C/I for each of the frequencies used during a test call. This information allows the radio engineer to investigate in-depth which of the frequencies are causing overall bad quality in the network. C/I can be measured in the critical range between 0 and 20 dB and can be averaged over several power bursts. C/I test results are presented on-line in QVM and logged for post-processing.
QVoice's QoS drive-tests data – that includes the entire air interface and layer 3 data is a valued and cost effective source of information that RF engineers can exploit for enhancing their tuning and optimization efforts.

Very interesting literature

- "The QVoice Story"
  Prepared for the 10th year jubilee – a nice photo history and evolution of QVoice.

- "Spotlight – Mobile Network Testing"
  Translated and reprinted with permission. First appeared in November 2002 issue of 'Connect'; an independent report comparing German operator network performance.

For copies please send an email request to:
odile.nizon@ascom.ch

Doing UMTS measurements on live networks around Europe

Already starting last year and accelerating in 2003, Ascom has been active delivering QVoice modules for WCDMA testing. But they have also been busy working side-by-side in the field with European operators – helping them measure and analyze quality and performance data that will be used to optimize these early UMTS networks. For Ascom product management is gaining invaluable experience and real hard feedback that is being implemented in current and future releases of QVoice 3G for the benefit of all QVoice users.

MMS/SMS/WCDMA Workshop

On Friday, 27 June 2003, at the Zurich Airport Unique Conference Center, the Ascom QVoice Team will hold a one day testing workshop for network operators to see how the QVoice platform will measure and present new test results.

The interactive workshop is another in a series that network operators welcome and have found helpful. The venue and 'group dynamics' helps to create an atmosphere that leads to constructive development. Ascom organizes workshops periodically to discuss requirements in order to ensure that user needs are consistently met as new network technologies and subscriber services evolve. This particular workshop will focus on WCDMA, from test mobiles to the design of data collection and post processing. Testing of SMS and MMS will also be covered.
If you are interested to learn more or to participate, please contact raymond.wu@ascom.ch, Vice President, Ascom AG, Carrier Products

QVoice User Group Conference 2003

Holding the conference in a unique corner of Switzerland has now become a tradition and attendees this year will gather in the mountain resort of Villars. The event gives QVoice users the opportunity to meet colleagues from around the world who all share the common objective – "to understand and improve network quality and performance".
The first two days are dedicated to interesting and informative topics covering a wide range of issues and challenges facing all operators today. There will be a wealth of information addressing a broad spectrum of technology and applications. Visitors can expect presentations and lively discussions from international operators, manufacturers and industry leaders.

You should have already received an information from Ascom giving dates and further details. If you did not get this email, then possibility your name is missing on our list – and we would like to see you there. So please send your details immediately to doris.zuber@ascom.ch.

2002 QVOICE USER GROUP CONFERENCE, GRINDELWALD

Key speeches by Raymond Wu

Being an expert in his field and dynamic at the podium, Ascom's Raymond Wu has become a highly demanded speaker at telecom events around the globe. The topics from his last two European appearances addressed popular issues and were very much enjoyed by the audiences. A synopsis and a few highlight of his presentations appear below.

IIR conference March 03, London: GSM/GPRS Performance Measurement

Ascom's speech:
"GPRS optimisation and WCDMA"
The GPRS part discussed the possible problem areas in GPRS, from air interface to the core network. It also highlighted a few structural problems which are specific to some infrastructure vendors such as the restrictions in the allocation of time slots. The WCDMA part showed the performance of WCDMA networks measured by QVoice, and examples of what congestion/ interference will do to subscriber services. For example, heavy traffic will cause the WCDMA under measurement to have coverage holes – the higher speed services will suffer more than lower speed or speech calls.

IBC conference May 03, Amsterdam: Delivering "3G" services today with GPRS

Ascom's speech:
"Service delivery GPRS/WCDMA"
In the speech, the theoretical differences between GPRS and WCDMA in terms of delivering subscriber services were shown. These include speed, delay, capacity, transmission breaks, roaming etc. A comparison is then made with the GPRS and WCDMA real life performance to highlight the different capabilities of these two networks.
The last part looks at the different services offered by 3G networks today: access to pre-packaged information like news, finance, sports etc. and multimedia services like MMS and video calls. Each of these service offerings were examined to see if they are better suited to GPRS or WCDMA. This leads to the conclusion "who needs 3G and why".

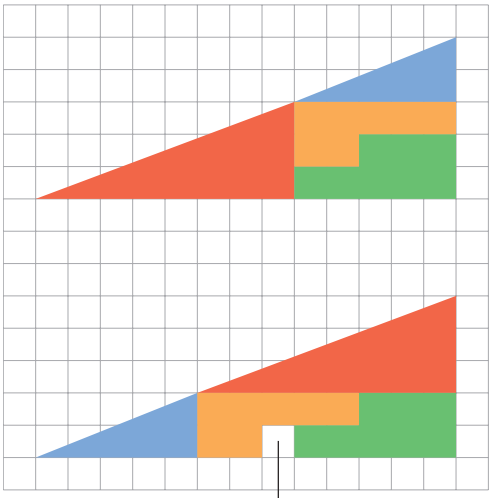
Where to see QVoice

GSM Middle East & Gulf: 7th - 8th, October 2003, Dubai

As part of its customer support objectives to this key region, Ascom will be reinforcing its presence in the Middle East and Gulf areas starting with participation at the upcoming October conference and exhibition to be held as last year in the JW Marriott Hotel, Dubai. Ascom will be exhibiting QVoice and its product platform for mobile network optimization and end-to-end QoS.
This conference is one of the events comprising the GSM World Series, and is being held under the patronage of H.E.Ahmed Humaid Al Tayer, The Minister of Communications, United Arab Emirates. Visitors will have the opportunity to hear a panel of industry leaders from Iran, Jordan and The Kingdom of Sauda Arabia as well as representatives from regional operators including Etisalat, UAE and MobiNil, Egypt.
If you're attending the conference, please take the time to visit the Ascom stand for a personal demonstration of QVoice.

Teaser Corner

How Can This be True?



Below the four parts are moved around

The partititions are exactly the same as those used above

From where comes this "hole"?

Like network optimization, make a few changes and coverage gaps mysteriously appear!?

QVoice – The "Voice of Quality"... for speech ... and data

A single system and shared database for end-to-end QoS & Network Optimization

If you would like to know more about anything you have read in this 'QVoice World' please contact us:

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