



I N T O R E L

"Our solutions give a new meaning to monitoring and control.

They are inventive, powerful, visionary and aim to show what the future might bring.

They grow your business, fulfill your wishes, expand your horizons, create opportunities and definitely break rules.

They start a revolution."

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ABOUT VISIONIC

Visionic is the only telecom-grade monitoring and controlling solution that can encompass the whole organization – from the input stages, basebands and re-multiplexing, to the output stages – uplinks or any other.

It is designed to provide integration of all your subsystems into a single screen. From there, you can detect, connect and operate your remote or in-house equipment in any way you can possibly imagine.

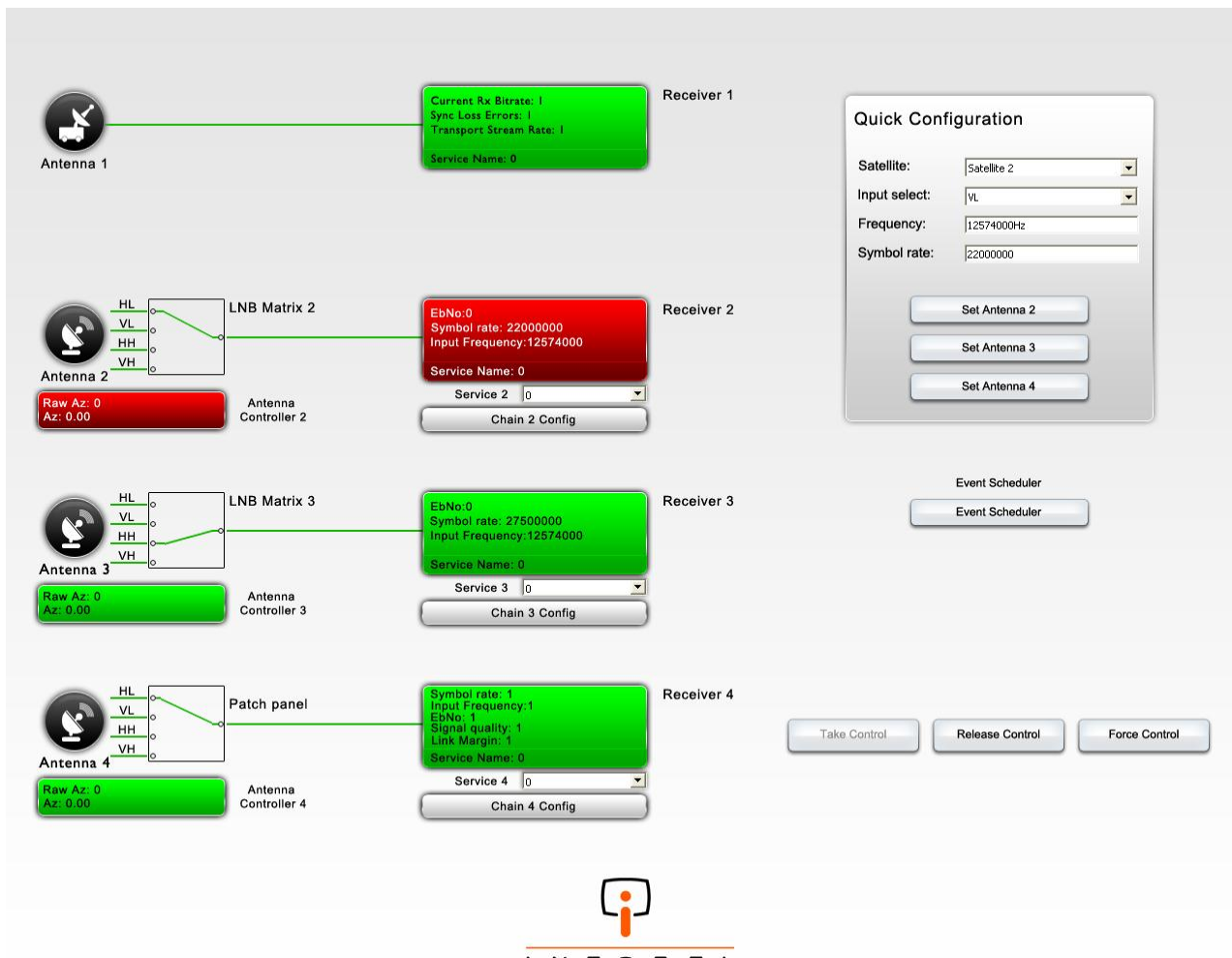
Visionic can be used for any industrial monitoring, controlling and automating of applications that requires reliability, automation and advanced features, regardless of type or size of your organization. In particular, it has been used for monitoring and controlling various telecom systems, such as: DVB-S/S2 Satellite Uplink Stations, VSAT Systems, TVRO Systems, Fixed and Mobile Microwave Links, DSNG Systems, Fiber Optic Systems, DVB-T Encoding & Multiplexing Headends, ATM/SDH/PDH/IP Transport Networks and IPTV Headends.

This is an off the shelf product and can be used either online or offline, which will significantly reduce your installation and training time and costs.

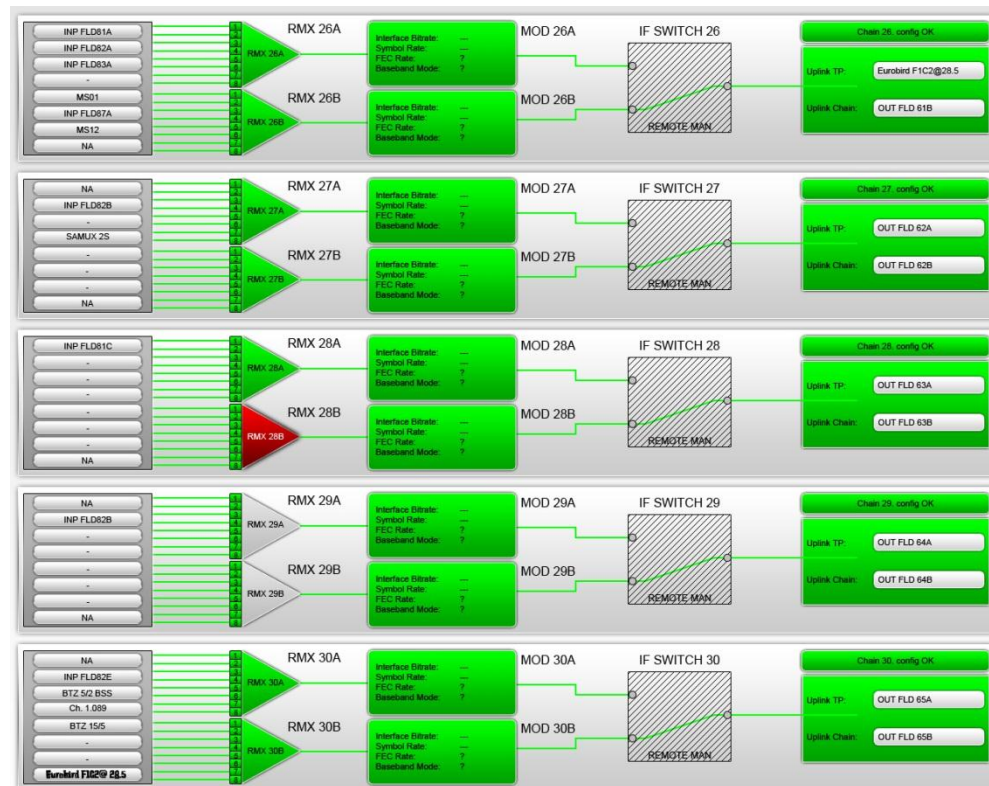
Designed to be flexible, convenient and customizable, Visionic redefines the boundaries of M&C software.

Rich, modern and entirely innovative user interface offers outstanding user experience and makes a huge step forward in M&C software.





- ✓ With Visionic, you can monitor and control heterogeneous equipment, regardless of the manufacturer. Even more, all your input devices can be integrated into a single screen
- ✓ Visionic is a universal solution, suitable for any system that requires reliability and automation, but is particularly tailored toward the telecommunications, satellite and broadcast industries
- ✓ It provides constant updates of your real-time system state, as the equipment is monitored equipment 2-10 time per seconds
- ✓ Real-time alarms are raised in case of failure or anomalies in system execution. The operator can choose in which way he wants to be notified (SMS, e-mail, phone call, etc ...), as well as which action should be triggered by particular alarm (SNMP traps, redundancy switching, uplink power control and others)
- ✓ Visionic offers a possibility of trending and charting of any number of selected parameters. Results can be consulted in any form of graphical representation (reports, diagrams, graphs, etc...) and even exported to an excel file, up to 24 months.
- ✓ Visionic is based on client-server architecture, and consists of one system server and any number of client machines
- ✓ It proposes the real-time manual control of all system devices, with built-in security
- ✓ It is possible to schedule particular system actions: receive particular programs

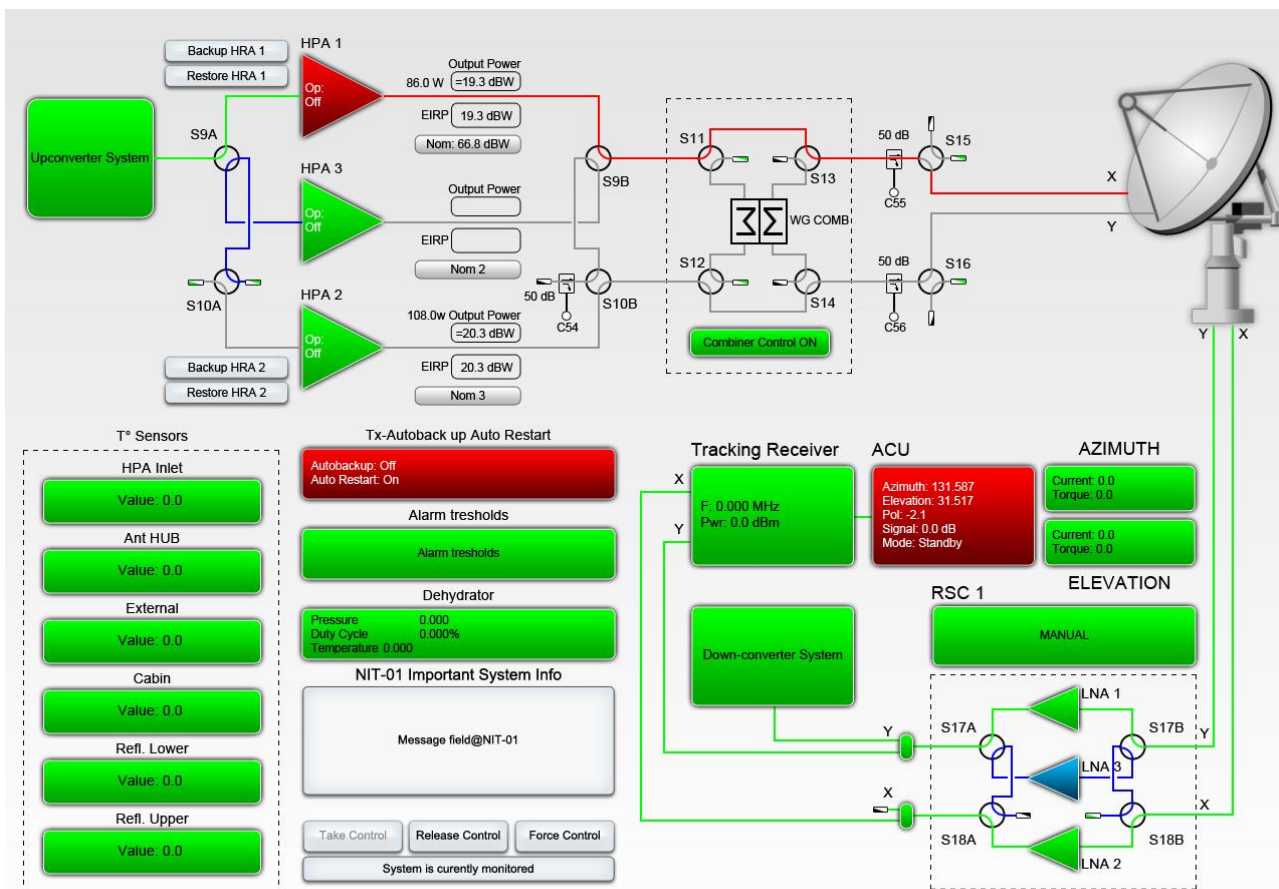


- ✓ The mimic of the real-time system can be designed in Microsoft Visio
- ✓ Visionic is a solution that can encompass almost a whole organization, regardless of its size and complexity. It can address one or more: receive, baseband, tx or other subsystems
- ✓ Visionic can illustrate signal flow in full detail, from input, multiplexing and signal analysis to switching and output
- ✓ It offers you an option to brand your system by placing the logo and other company relevant information
- ✓ Should any problem arise, the color-coding of devices and paths allows an operator to spot it immediately
- ✓ Given its high-performance, Visionic server can drive 300 devices, and poll them at least 2 times per second
- ✓ Visionic server can support any number of remote stations
- ✓ Communication between client and server uses very narrow bandwidth – which means client can be connected via LAN, Internet / VPN or even via satellite link

INPUT

ENCODING

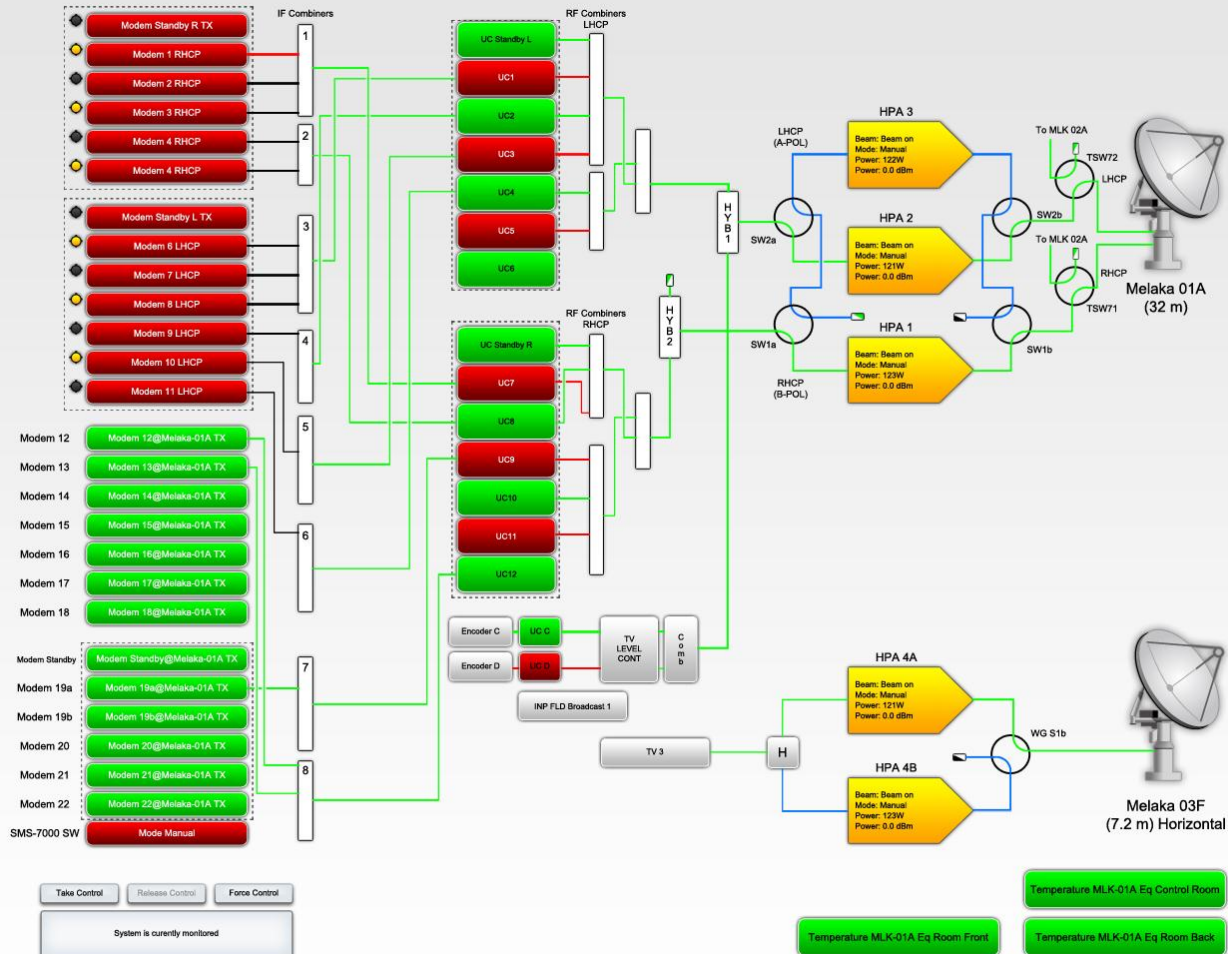
OUTPUT



- ✓ Visionic is compliant with heterogeneous equipment. It supports any protocol and any interface: serial (RS232/RS485), LAN (TCP/IP or UDP), SNMP, MODBUS, HTTP and general purpose IO (via MODBUS).
- ✓ It can integrate any SNMP (Simple Network Management Protocol) device via MIB (Management Information Base) builder and device builder (delivered with Visionic)
- ✓ It enables driving RF switches directly, without special interface (GPIO)
- ✓ Visionic offers a possibility to distribute your equipment per shelters, per stations or even per continents
- ✓ The system uptime is 99.999%
- ✓ The screen design follows the path of the telecom signal
- ✓ It provides extensive support for satellite equipment
- ✓ Full antenna control units support allows a long-term assessment of the tracking



Melaka 1 TX Configuration



- ✓ Automatic actions, such as redundancy are possible within the Visionic system
- ✓ It allows an engineer to record, replay or edit macros in the system. Macros can be invoked by the user (manually) or by the system as a response to certain situation
- ✓ Visionic provides implementation of total redundancy switching inside the system
- ✓ It offers implementation of uplink power control inside your Visionic system
- ✓ It proposed an array of conditions, used to set up your equipment in order to avoid misconfiguration of the complete system
- ✓ Scripting capabilities on both client and server side extend already broad range of Visionic features and possibilities
- ✓ The system can be controlled by multiple users
- ✓ Assuming you have been granted appropriate permissions, you can force the control over the system at any point of time



Rack View

UJ equipment				
UJ equipment				
Enrhe	U.D.	Tx pwr	U.D.	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
U equipment				
U equipment				
U equipment				
Enrhe	U.D.	Tx pwr	U.D.	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
UJ equipment				
UJ equipment				
UJ equipment				
Enrhe	U.D.	Tx pwr	U.D.	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
UJ equipment				
UJ equipment				
UJ equipment				
Enrhe	U.D.	Tx pwr	U.D.	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
Enrhe	Not polled	Tx pwr	Not polled	0% 0% 0% Status Test
U equipment				
U equipment				
U Space				
U Space				

Modem 01
Modem 02
Modem 03
Modem 04
Modem 05

Modem 06
Modem 07
Modem 08
Modem 09
Modem 10

Modem 11
Modem 12
Modem 13
Modem 14
Modem 15

Modem 16
Modem 17
Modem 18
Modem 19
Modem 20

IU equipment			
RF Out	<input type="text" value="120.7"/>	Alarm	<input checked="" type="radio"/>
Attn	<input type="text" value="0.0"/>	RT Inhibit	<input checked="" type="radio"/>
RF In	<input type="text" value="0.0"/>	Tx	<input checked="" type="radio"/>
Hex: V	<input type="text" value="0.0"/>		
IU equipment			
RF Out	<input type="text" value="120.7"/>	Alarm	<input checked="" type="radio"/>
Attn	<input type="text" value="0.0"/>	RT Inhibit	<input checked="" type="radio"/>
RF In	<input type="text" value="0.0"/>	Tx	<input checked="" type="radio"/>
Hex: V	<input type="text" value="0.0"/>		
IU equipment			
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
Mode	<input type="text" value="Man"/>	Pri	<input type="text" value="(Ho pri)"/> Alarm
IU equipment			
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
RF	<input type="text" value="0.000"/> MHz	Attn	<input type="text" value="0.0"/> dB
			<input checked="" type="radio"/> Alarm
Mode	<input type="text" value="Man"/>	Pri	<input type="text" value="(Ho pri)"/> Alarm
IU equipment			
Freq	<input type="text" value="0.000"/> MHz	Lock	<input checked="" type="radio"/>
Scan	<input type="text" value="0.0"/>	Signal	<input type="text" value="0.0"/>
Alarm			
Azimuth	<input type="text" value="1.381"/>		
Elevation	<input type="text" value="1.259"/>		
Polarization	<input type="text" value="2.5"/>		<input checked="" type="radio"/> Alarm
IU equipment			
Mode	<input type="text" value="G"/>		<input checked="" type="radio"/> Alarm
IU equipment			
IU equipment			

TWTA 1

TWTA 2

UC1
UC2
UC BU
RSC U

DC1
DC2
DC BU
RSC D

ACU

BCN

RSC LNA

- ✓ Visionic offers few alternative views to your system: Service, System and Rack view.
- ✓ System and Rack view are available within the same system, taking into account the needs of both support engineers as well as maintenance personnel
- ✓ The Rack view offers a graphical representation of all your hardware devices and server room layout
- ✓ Visionic is fully customizable, allowing you to replicate your real-time system in details and show where exactly the hardware devices are physically located in the server room
- ✓ Your system can be updated real-time, to minimize the downtimes
- ✓ You can change your system as it evolves (add or remove equipment, change the type or device or its interface)
- ✓ You can spot, at a single glance which device is reportedly problematic and instantly detect its physical location (i.e. which rack, where in a particular rack)
- ✓ Visionic precisely shows the values of the device's most important parameters as well as the status of every particular device

SPECIALISTS SYSTEMS

Channels

Refresh

Goto Preset

Rename Preset

Save view as preset

Devices...

Filter...

Clear Filter...

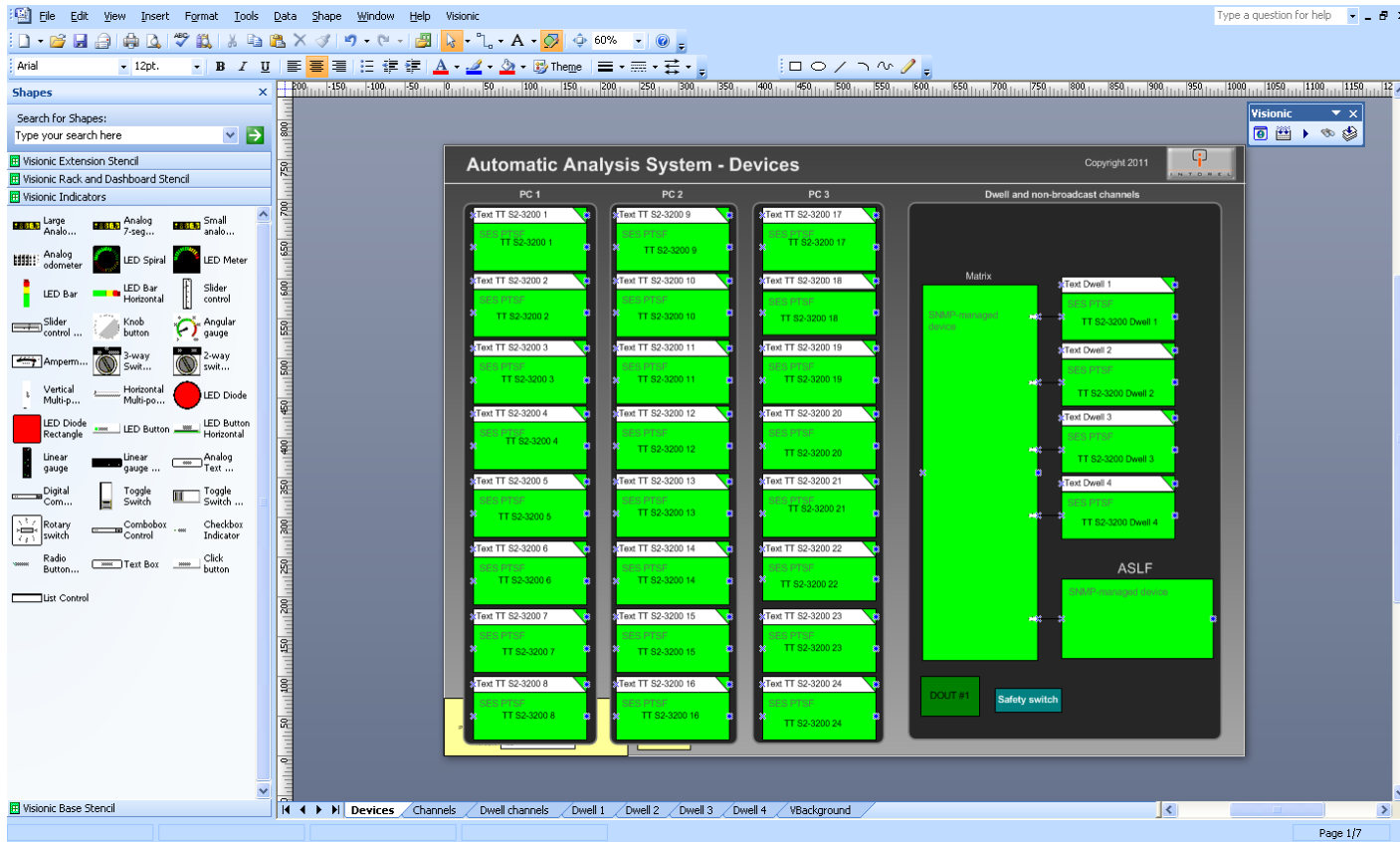
Common

Drag a column header here to group by the columns

Name	RF Level	Post FEC BER	AI po	Bitrate	SNR	Modulation	Matrixinput	BER	Uplink	FEC	ery sys	TI
5.231	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	13	0.0E+0	Kiew	5/6	DVB-S2	5/12/2011
5.230	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	13	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.225	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	8PSK	13	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.224	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	14	0.0E+0	Sofia	5/6	DVB-S	5/12/2011
5.223	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	13	0.0E+0	Vilnius	5/6	DVB-S	5/12/2011
5.222	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	14	0.0E+0	Moscow	5/6	DVB-S	5/12/2011
5.220	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	14	0.0E+0	Betzdorf	5/6	DVB-S	5/12/2011
5.218	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	14	0.0E+0	Vilnius	5/6	DVB-S	5/12/2011
5.217	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	13	0.0E+0	Vilnius	5/6	DVB-S	5/12/2011
5.216	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	14	0.0E+0	Betzdorf	5/6	DVB-S2	5/12/2011
5.214	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	14	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.213	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	13	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.212	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	8PSK	14	0.0E+0	Bukarest	5/6	DVB-S2	5/12/2011
5.211	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	8PSK	13	0.0E+0	Betzdorf	5/6	DVB-S2	5/12/2011
5.210	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	14	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.209	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	16APSK	13	0.0E+0	Vilnius	5/6	DVB-S2	5/12/2011
5.207	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	13	0.0E+0	Betzdorf	5/6	DVB-S	5/12/2011
5.206	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	QPSK	14	0.0E+0	Betzdorf	5/6	DVB-S	5/12/2011
5.202	35 dBmV	6.1E-1	31.5E	31.447MB/s	16.5	8PSK	14	0.0E+0	Saarbruecken	5/6	DVB-S2	5/12/2011
4.910	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	8PSK	18	0.0E+0	Munich APS	5/6	DVB-S2	5/12/2011
4.908	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	8PSK	18	0.0E+0	Munich APS	5/6	DVB-S2	5/12/2011
4.906	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	18	0.0E+0	Betzdorf	5/6	DVB-S	5/12/2011
4.902	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	8PSK	18	0.0E+0	Betzdorf	5/6	DVB-S2	5/12/2011
4.240	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	18	0.0E+0	Stockholm	5/6	DVB-S	5/12/2011
4.239	0 dBmV	6.1E-1	5.0E	0.000MB/s	0.0	0	17	0.0E+0	Stockholm	unk	DVB-S	5/12/2011
4.238	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	18	0.0E+0	Stockholm	5/6	DVB-S	5/12/2011
4.237	0 dBmV	0.0E+0	5.0E	0.000MB/s	0.0	0	17	0.0E+0	London	unk	DVB-S	5/12/2011
4.236	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	18	0.0E+0	Stockholm	5/6	DVB-S	5/12/2011
4.235	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	17	0.0E+0	Stockholm	5/6	DVB-S	5/12/2011
4.234	35 dBmV	0.0E+0	5.0E	33.779MB/s	12.3	QPSK	18	0.0E+0	Stockholm	5/6	DVB-S	5/12/2011

- ✓ Visionic allows you to build any type of the system, regardless of the industry or branch of work
- ✓ Use of macros with an external database allows you to build a complete DVB S/S2 measuring solution
- ✓ Visionic is also suitable to execute tests and monitor and control testing equipment
- ✓ It offers centralized view all channel and their parameters
- ✓ Visionic can measurement over 600 DVB channels per minute using up to 32 parallel DVB analyzers per system
- ✓ It can be used on an unlimited number of systems
- ✓ The system is fully customizable
- ✓ It offers extensive and detailed client reports for any inconsistency between the real-time measurements and set range of values

CUSTOM DESIGN



- ✓ Visionic offers you a chance to design your system from beginning, using familiar, proven technology - Microsoft Visio
- ✓ Design your own system, style, colors and create your own look and feel
- ✓ Depending on your own preferences, you can draw Service, System and Rack views
- ✓ Visionic offers a real-time updates of your system, without interruptions, while your system is running.
- ✓ Visionic compiler automatically transforms Visio drawing into full-featured working client-server system
- ✓ It supports thousands of device drivers (any HTTP or SNMP device among others)
- ✓ Visionic design environment saves an operator's time and effort by providing uniform user interfaces, regardless of system or device

SERVICES

Training services

Intorel professional training is the most efficient way to get a full grasp of theoretical knowledge and applied practice of Visionic products and its features.

Our comprehensive portfolio of courses and certifications is shaped to prepare you for handling the complete system lifecycle yourself and to show you the tips and tricks from hands-on experience. Our experts will guide, mentor and support your efforts to ensure you meet your business requirements on every step of your system implementation.

Improve your business by getting the most out of your Visionic solution.





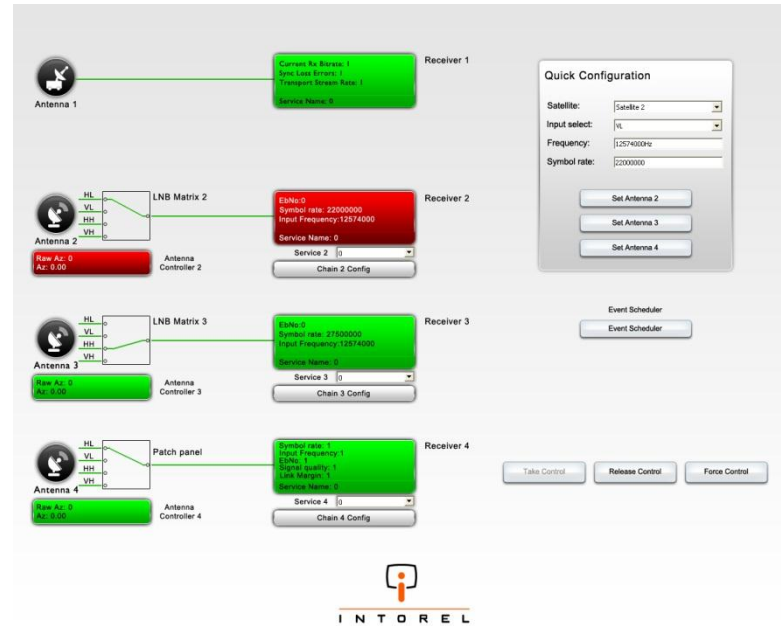
Engineering Services

Intorel engineering services provide in-depth analysis of your company's specific requirements in order to customize Visionic solution to support your unique, local business.

Thanks to the engineering expertise and extensive experience, our team can manage the complete life cycle of your M&C solution, starting with analysis and development, ending with successful integration, testing and verification.

Our engineering services will bring you a broad architectural knowledge, deep technical understanding and best real-world practices.

Looks familiar? We can transform it to a single screen.



A solid orange vertical bar is positioned on the left side of the slide, extending from the top to the bottom.

ABOUT INTOREL

We are a world class developer of advanced monitoring and control solutions for satellite operators, broadcasters and teleports.

Headquartered in Luxembourg, Intorel conducts business worldwide. Our solutions have been used by the most distinguished companies, across 6 continents in more than 600 systems.

The company's wide range of products can be used for any industrial application that requires reliability, automation and advanced features, regardless of type or size of an organization.



I N T O R E L

BY YOUR SIDE
WHEREVER YOU ARE



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