



Visualyse

TAKE THE MYSTERY OUT OF SATELLITE COORDINATION

The screenshot displays the Visualyse GSO V3 software interface. The main window shows a world map with satellite footprints for various satellites like TELSAT-1A, ANSAT-KU-L, CHANSAT-3A, INTERSAT-1B, and EUROKSYAT-1E. A 'Beam Overlaps' table is visible, listing satellites and their separation percentages. A 'Detailed Coordination' window shows a table of parameters for a specific satellite pair, including beam IDs, frequencies, and power levels. A 'Shaped Beam Editor' window is also open, showing a map of China with a beam footprint and various parameters like Earth Station ID, Carriers, and Power.

3

VERSION 3

WHAT'S THE MAJOR PROBLEM WITH SATELLITE COORDINATION?

If you are like many other people you may be overwhelmed by new filings and coordination meetings and wonder how you will ever get to the small amount of vital information you need.

Now Visualyse GSO V3 provides a solution. A simple to use, seamless package takes you through all stages of the process from receipt of an IFC circular to the preparation of detailed analysis for bilateral coordination.

The mystery and legwork of processing the data are removed as Visualyse GSO V3 automatically highlights cases that need further analysis based on DT/T and coordination arc triggers. Further detailed analysis allows you to look at priority dates and system parameters.

Coordination changes from a daunting task to a manageable process giving you more time to explore solutions and deliver valuable results to your organisation.



AUTOMATICALLY PROCESS IFIC AND SRS DATA

Visualyse GSO V3 effortlessly automates your interactions with space network databases published by the ITU.

Whether it's the regular task of reviewing bi-weekly circulars published in the IFIC or an in-depth analysis of the SRS database, Visualyse GSO V3 produces immediate results and in depth analysis.

The software checks frequency overlaps, orbital separation, and priority dates. It performs coordination trigger analysis based on DT/T levels and coordination arcs and will also perform detailed interference analysis for any system you select from those identified in the database.

NEW

FOCUS ON A SET OF NETWORKS USING FILTERS AND CHOOSE HOW THEY ARE ORDERED IN THE LIST

The screenshot displays the Visualyse GSO interface with several key components:

- Satellite Map:** Shows the relative positions of various satellite networks over a map of the Pacific region. Networks like EUROSKYBAT-6E, ANOSAT-2-KUL, CHANSAT-35A, INTERSATS 138E, COMSAT-A, and MYASAT-4 are visible.
- Network List:** A table listing networks with their status and coordination requirements.

Network	Status	Coordination	DT/T
MYASAT-4	Warning	Worst DT/T < 18%	140090
ANOSAT-2-KUL	Warning	Worst DT/T < 16%	180090
INTERATS 138E	Info	Worst DT/T < 416.36%	600196
CHANSAT-35A	Info	Worst DT/T < 194.85%	130090
COMSAT-A	Check	Worst DT/T < 3.91%	200090
INTERBAT-1B	Check	Worst DT/T < 0.95%	080090
EUROSKYBAT-6E	Check	No Frequency Overlap	200096
- Frequency Overlaps:** A detailed view showing overlaps between INTERSATS 138E and TSLSAT-1A. It lists specific frequency ranges and the percentage of overlap.

Interferer	Victim	Overlap %
90A → ABL	AB1	64.54%
926 → ABL	AB1	38.68%
922 → ABL	AB1	38.68%
925 → ABL	AB1	38.68%
924 → ABL	AB1	38.68%
911 → ABL	AB1	38.68%
923 → ABL	AB1	38.68%
921 → ABL	AB1	38.68%
912 → ABL	AB1	38.68%
914 → ABL	AB1	38.68%
917M → ABL	AB1	3.48%
- Beam Overlaps:** A detailed view of a beam overlap between 9GA and AB1, showing a frequency range of 3.725-4.200 GHz and a 7.0 deg arc.
- Coordination Trigger:** A detailed breakdown of the calculation, including network names, administration, notice ID, orbital location, and publication date.

NEW

SATELLITE MAP SHOWS RELATIVE POSITION OF ALL NETWORKS AND COORDINATION ARCS

NEW

FREQUENCY OVERLAPS ARE NOW BROKEN DOWN INTO INDIVIDUAL BEAM PAIRS

NEW

BEAM PAIRS CAN THEN BE EXAMINED IN DETAIL USING THE DETAILED COORDINATION TOOL

NEW

PERFORM AN INITIAL VISUAL INSPECTION BASED ON BEAM OVERLAP AND ELIMINATE CASES ACCORDINGLY

The 'Edit Network' dialog box shows configuration details for the IMPROSTAT network, including GSO Longitude (134 deg), BR Notice ID (5232066), and various beam and transmission elements like CRU, CTD, and CTU. It also displays a table of properties such as Name, Type, Noise, Longitude, Gain, Beamwidth, and Radiation pattern.

Adding your networks is simple and easy. As soon as you have added them you can begin to use them in the one-click coordination process.

DETAILED BREAKDOWN OF COORDINATION TRIGGER CALCULATION WHICH CAN BE EXPORTED AS A REPORT

ENHANCED NETWORK LIST CLEARLY SHOWS WHEN A NETWORK REQUIRES COORDINATION

DISTINCT AREAS OF FREQUENCY OVERLAP BETWEEN YOUR NETWORKS AND OTHERS ARE IDENTIFIED AND DISPLAYED

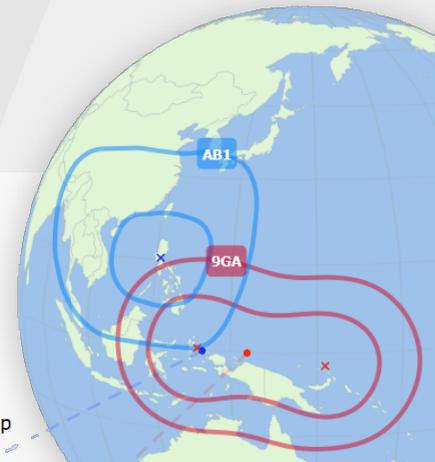
NEW VISUAL OVERLAP CHECK

In Visualyse GSO V3 you now have the ability to filter your interference cases based on beam overlap. If contours are sufficiently isolated you can choose not to include them in your detailed analysis. This can vastly reduce the number of interference cases saving you time and effort.

Excluded based on beam overlap



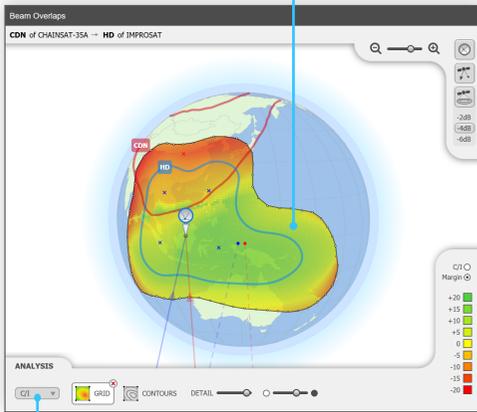
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EVEN MORE SUPPORT FOR BILATERAL COORDINATION

Visualyse GSO V3 hugely expands support for bilateral coordination with a complete redesign of the Detailed Coordination (DC) tool.

A brand new area analysis tool allows you to resolve interference issues on a geographical level. Network parameter changes are instantly reflected in the analysis.



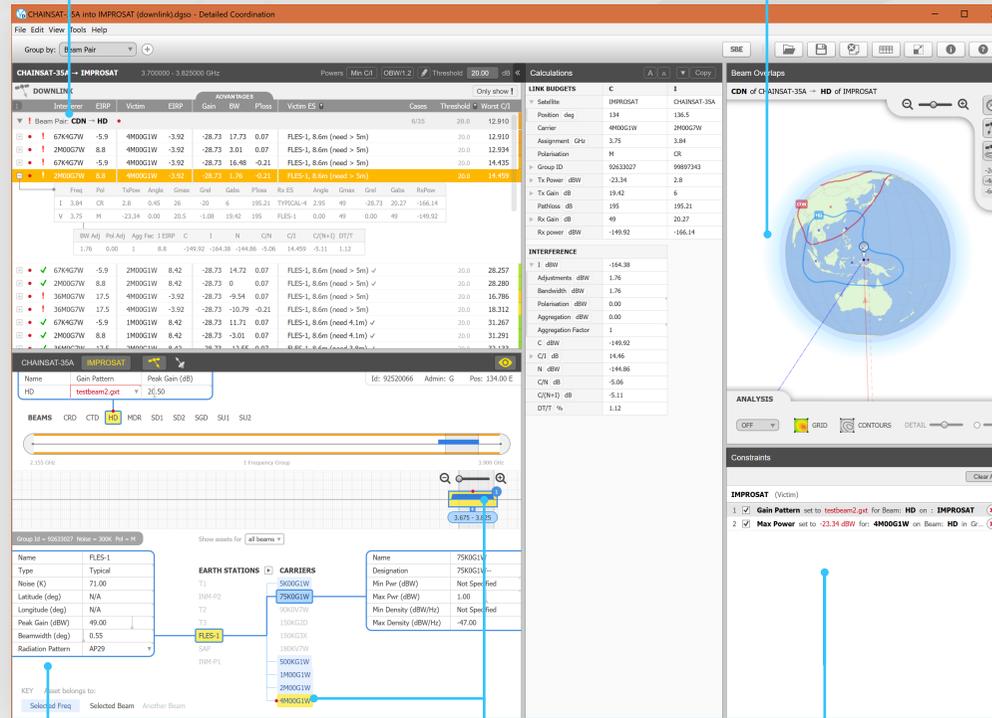
PLOT REQUIRED DISH SIZE, C/I, C/N, C/(N+I), ΔT/T, OFF-AXIS EIRP OR PFD

NEW

NEW

INTERFERENCE CASES ARE SUMMARISED WITH KEY CALCULATION FIGURES. EXPAND ANY CASE TO SHOW MORE DETAIL

DRAG EARTH STATION TO SEE CALCULATIONS CHANGE IN REAL TIME



NETWORK EDITOR ALLOWS YOU TO PLACE CONSTRAINTS ON EITHER NETWORK

NEW

NETWORK ELEMENTS THAT APPLY TO THE SELECTED INTERFERENCE CASE ARE HIGHLIGHTED

NEW

PROPOSED CONSTRAINTS ARE RECORDED FOR EASY REFERENCE OR REMOVAL

NEW

Group by: Beam Pair I Carrier I ES

INTERFERENCE CASES CAN NOW BE GROUPED FOR EASIER MANAGEMENT

NEW

DATA DEPENDENCY

A key feature in Visualyse GSO Verison 3 is the dependency between network data and interference calculations.

If you change an asset then this is instantly reflected in all the interference calculations where that that asset features.

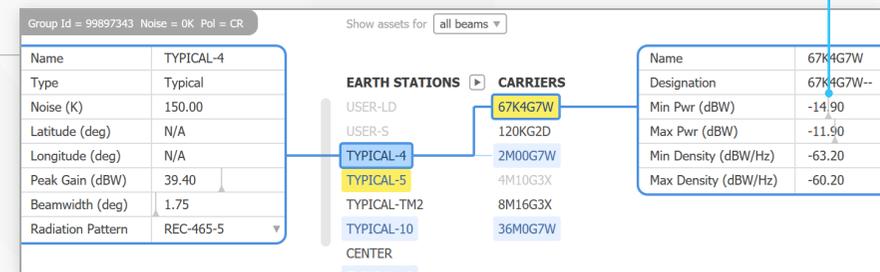
You can also click on any interference calculation and all network assets are highlighted in the network editor. This makes it incredibly easy to trace calculation values back to network parameters.

VALUE SLIDERS MAKE OPTIMIZING A BREEZE

NETWORK EDITOR

Visualyse GSO V3 adds a complete Network Editor. This allows you to place constraints on any parameter and see the effects on all interference cases instantly. Value sliders allow you to quickly find optimum levels for any parameter.

All changes are individually recorded in the constraints list and can be switched on or off or removed completely.



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CREATE OR EDIT GIMS BEAMS

Visualyse GSO V3 includes a Shaped Beam Editor (SBE) tool. This allows you to create and edit beams in GIMS format. These can then be used in the Detailed Coordination (DC) tool to achieve more accurate results.

NEW

COMPLETELY REDESIGNED FOR V3

NEW

BUILT IN COLOUR SCHEMES

NEW

RESIZE ONE OR MORE CONTOURS

NEW

SELECT, DRAG AND DROP CONTOURS AND BORESIGHTS

NEW

EDIT, SMOOTH OR REDUCE POINTS. SPLIT, DUPLICATE OR DELETE A CONTOUR



Missing -4.0 dB contour. Optional -20.0 dB contour omitted. Contours should have negative gains

The editor checks your shaped beam as you edit and will quietly inform you when it might fail GIMS validation checks.

NEW

UNDO OR REDO EDITS

MOVE, DELETE OR ADD INDIVIDUAL CONTOUR POINTS

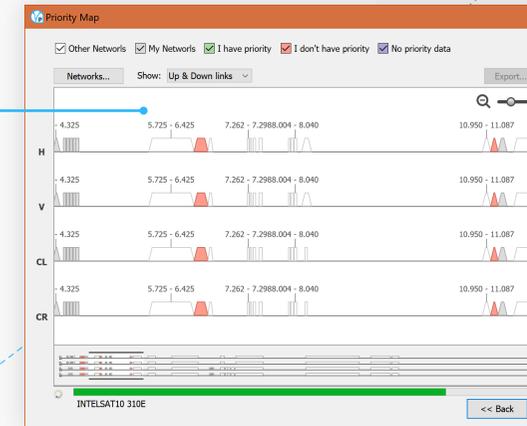
NEW

REGULATORY PRIORITIES SEE THE WHOLE PICTURE

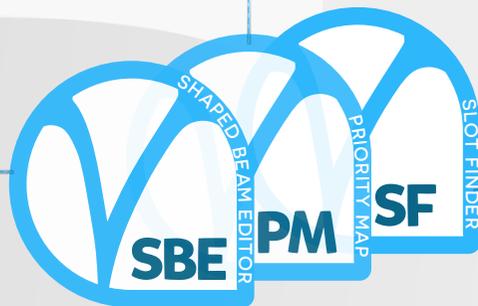
Visualyse GSO V3 provides you with a complete view of priorities for identified frequency overlaps.

Priority dates at network and group level are extracted from the database and assets can be filtered and sorted by Notification Date or more usefully by 'Date of Effective Protection'.

SEE AT A GLANCE WHERE YOU HAVE THE UPPER HAND IN BILATERAL COORDINATION.



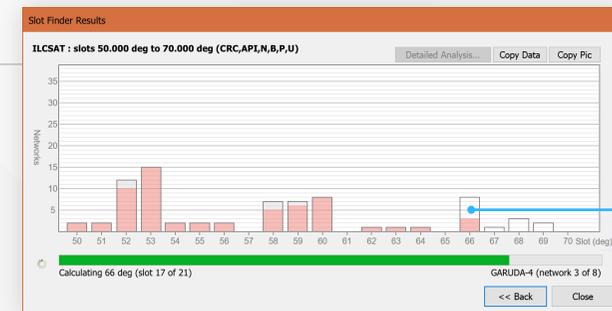
Combine the processing of priority dates with coordination trigger analysis and powerful detailed interference calculations and you have a software tool that provides seamless support for the satellite coordinator.



IDENTIFY PREFERRED ORBITAL SLOTS

Need a frequency plan and orbital location for your satellite systems? Visualyse GSO V3 includes facilities to perform constrained searches of the full SRS database that will help you identify locations where coordination can be minimised.

Ask for unused frequencies in the vicinity of your orbital location, and filter by (among other parameters) priority date, network name, notifying administration and expiry date.



OCCUPANCY LEVEL FOR EACH BAND - SEE INSTANTLY WHERE THERE ARE PREFERRED SLOTS

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