



# **BR Space Software (Brsoft)**

**Bangkok, Thailand**  
28 -30 September 2010

# Overview of BR Space Software

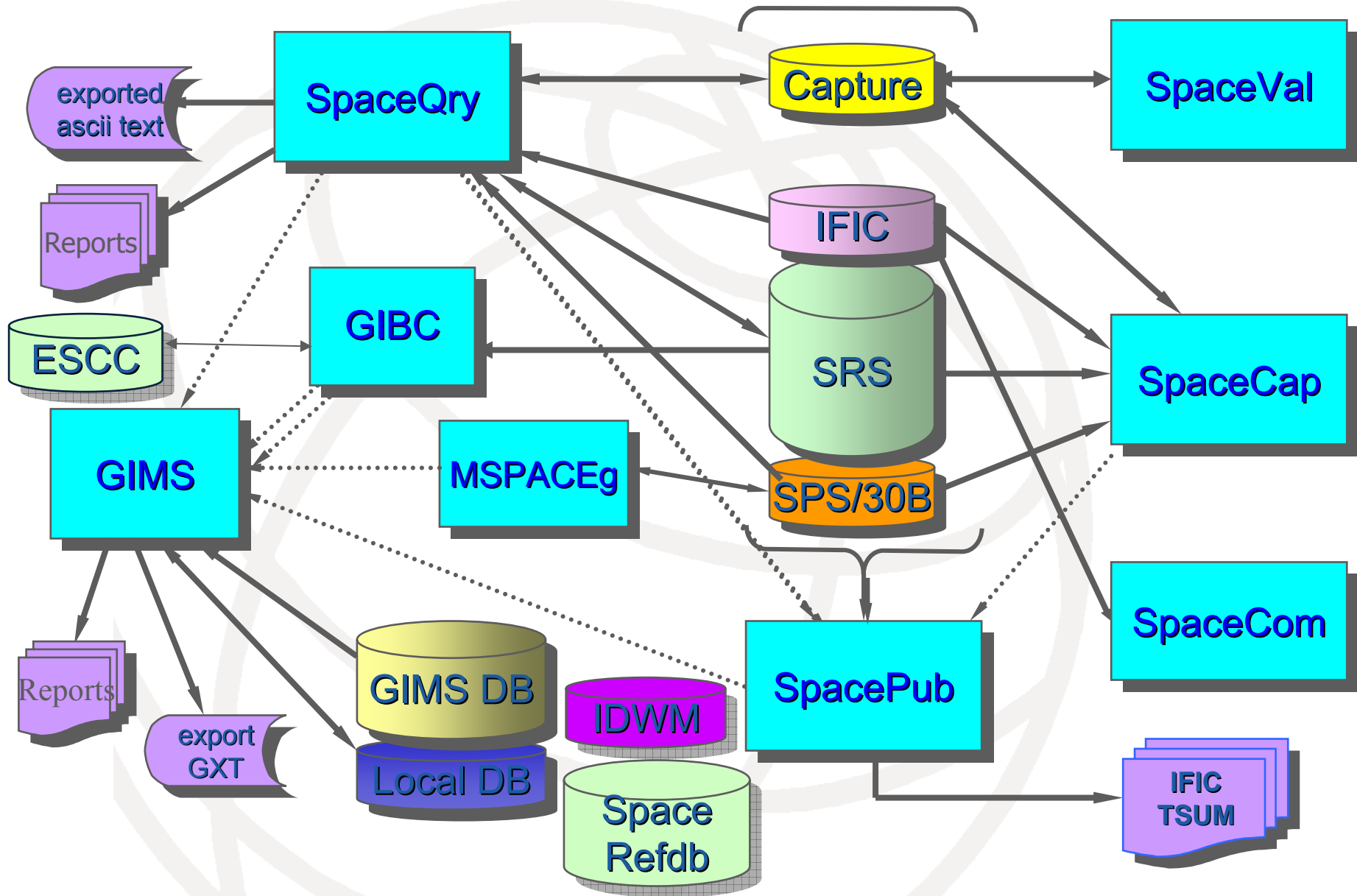


- Used with BR Space service data bases
- Description, relevant information, installation are provided on the BR IFIC (space services) and at the BR web page:
  - <http://www.itu.int/ITU-R/software/space/index.html>
- PC Based Software
  - SpaceQry, SpaceCap, SpaceVal, SpaceCom, SpacePub, GIMS, GIBC, SPS, Utilities: SRSConvert, SRSFixDB
- Web Based Software: SNS-Online, SNL-Online

## ***SPACE SOFTWARE APPLICATIONS:***

- **SAM (Space Applications Manager) *NEW!***
  - The main menu driven software for launch of BR space software applications
  - Provides for RSS feeds for latest updates from BR, store favorites, URL references to ITU/BR web pages

# Space PC-Software Suite



# Overview of BR Space Software

## ➤ **SpaceCap** – the *capture* software

- Used to prepare electronic notifications of satellite and earth stations in the space services for submission to BR
  - Appendix **4**, Annex-**2a** and **2b**: notification
  - BSS networks: App. **30** and **30A** (WRC-2000)
  - FSS networks: Appendix **30B** (WRC-2007)
  - Due diligence information: RES **49** (WRC-03)
- Update local SRS with IFIC databases

## ➤ **SpaceQry** – the *query* software

- Query any SNS-formatted database
  - Like SRS on DVD, any IFICnnnn data
- Update local SRS with IFIC databases
- Access to graphical data through GIMS
- View validation results and print report

# Overview of BR Space Software

## ➤ **SpaceVal** – the *validation* software

- To validate space notices (satellite networks / earth stations)
- To ensure data correctness and completeness, validity of BR space data
- Involves checks on: simple field, range, and Cross reference of many fields
- Some inter-record validation at different levels of network: like strap validation – can be COMPLEX
  - If one assigned frequency in group is strapped then all frequencies of the group must be strapped
  - Emission of uplink strapped group should match in downlink & vice versa
- Validates electronic notices captured by the BR SpaceCap software, and from any other source if in the same format
- Val results stored in a table in database, error messages can be viewed & printed with SpaceQry
- SpaceCap can be used to correct errors

## ➤ **SpacePub** – the *publication* software

- To print satellite networks & earth stations
- IFIC (Part I-S, II-S, III-S), CR/C, CR/D
- TSUM – transaction summary report

# Overview of BR Space Software

- **GIMS – the *graphics* software**
  - Used for capture, modification, and viewing of graphical data (service areas, antenna gain contours) relating to the electronic notification of geo-stationary satellite networks
  - To view and create your own diagrams
  - Allows PFD calculations & Gain interpolation tools
- **IDWM - the ITU Digitized World Map**
- **SpaceCom – the *comment capture* software**
  - Stand alone software, used by the administrations to capture comments on
    - **API/A** Special Sections concerning comments under No. 9.3 in order to publish the Special Section API/B
    - **CR/C** Special Sections concerning requests for coordination under No. 9.11 to 9.14, 9.21 and RS33 2.1 in order to publish the Special Section CR/D/
    - **AP30(30A)/E Part A** or **AP30-30A/F/C** Special Sections in order to publish the Special Section AP30(30A)/E Part D and AP30-30A/F/D

# Overview of BR Space Software

- **GIBC – the *batch calculations* software**
  - Graphical Interface for Batch Calculations
  - Technical Examination tools for the determination of coordination requirements on
    - Satellite Networks, based on: PFD (Power Flux Density)
      - Noise temperature increment & Coordination Arc.
    - AP30B examination
    - Earth Stations, based on:
      - Determination of the Coordination Area
- **SPS – the *space plans* software (formerly “MSpaceG”)**
  - Determination of the coordination requirements for the Plans for space networks in Appendices 30 and 30A of the Radio Regulations
- **SRSCovert**
  - Utility to convert a SNS formatted version-5 (or even V-4) databases into a version-6 database, to use with software V-6
- **SRSFixDB**
  - Fix data problems caused by earlier versions of SpaceCap or other sources, removes old BR processing data

# Overview of BR Space Software



## ➤ SNS Online

- Online access to the SNS database, latest up to date information, yearly subscription, free for TIES users
- Database structure, tables, fields, detailed explanations
- Query system – statistics, graphical GIMS data, latest BR updates and news
- Submission of filings, Demo Pages, Discussion Forum, web: <http://www.itu.int/sns/>

## ➤ SpaceRefdb.exe: reference data base software

- To install BR Soft reference tables which are used by BR space software applications
- To update the reference tables
- An up-to-date copy of the reference tables database is provided on each BR IFIC and software is on web link:
- <http://www.itu.int/ITU-R/software/space/spacerefdb/index.html>



# Conclusion

- SNS data base, data Structures, notice exploration and submission are important, familiarity with these would help in use of BR space software
- Best way to create electronic notice is to use BR's SpaceCap software
- BR's space validation software should be run after capture on the notice to check its validity and correctness.
- Presently, SNS DB contains AP4 data of **more than: 12500** geo satellite filings, **1300** n-geo filings and **8900** earth station filings
- WRC-12 would lead to a NEW SNS data base version ! (v.7)
- Regular reference to BR web site and use of SNS Online, SAM, for latest Updates, versions and news
- ITU/BR web link: biennial & regional seminars, workshops, provides good information  
<http://www.itu.int/ITU-R/index.asp?category=conferences&mlink=seminars&lang=en>
- **NOTE:** Your feedback and comments would **certainly help** BR to improve its services and the software