

ITU Software tools



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Introduction



- ❖ Radio Regulations is an intergovernmental treaty, therefore administrations are bound to apply those provisions.
- ❖ Frequency assignments recorded in the MIFR with favourable findings allow for international recognition.
- ❖ Frequency assignments to **be notified** to the Bureau
 - ❖ Those capable of causing harmful interference to any service of another administration;
 - ❖ Used for International radiocommunication;
 - ❖ Subject to world or regional frequency allotment or assignment plan which does not have its own notification procedure;
 - ❖ Subject to the Art. 9 coordination procedure;
 - ❖ Request for international recognition;
 - ❖ For information only.

A large, faint, light gray globe with grid lines is centered in the background of the slide.

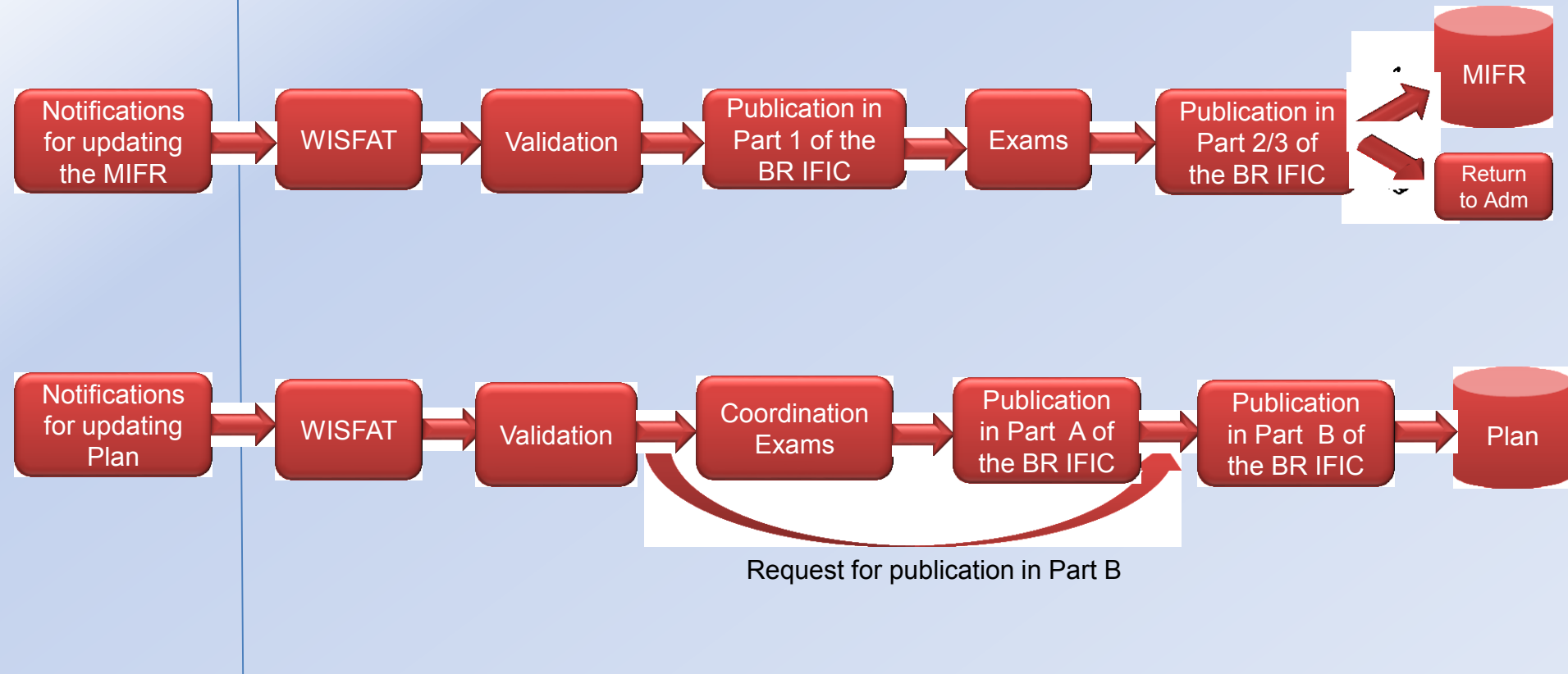
Terrestrial services



Overview of the BR processing

Adm

BR





Software

- TerRaQ: Software for querying the BR IFIC database:
 - Parts I, II, III or IIB and the Special Sections (Parts A, B and C);
 - Frequency assignments/allotments recorded in the Master Register and in the various plans, as well as notices currently being processed;
 - Specific queries (National extract, SQL Query, etc.).
- TerRaNV
 - Software for checking the electronic notices;
 - Complete validation is performed by the BR.
- TerRaNotices
 - Creation and validation of electronic notices;
 - Incorporates the same validations as TerRaNV.
- BR IFIC DB Manager
 - It is now possible to have different releases of the BR IFIC databases installed on one PC and choose the desired one
- Terrestrial BR IFIC Format Converter
 - Create a bridge MS Access[®] database to connect to the SQLite database
 - Convert BR IFIC database file from MS Access[®] to SQLite
 - Convert BR IFIC database file from SQLite to MS Access[®] (works only for the BR IFIC editions before 2808 dated 24/11/2015 because of the size of the FXM part of the BR IFIC which is bigger than the limitation of the MS Access[®])

The software tools to be used during the *Frequency Coordination* process

1 - BRIFIC



BR Terrestrial database *TerRaBase*
TerRaNotices (Notice generation & validation)
TerRaQ for queries (linked to *TerRaNotices*)

3 - GE06Calc



26 January 2017

2 - eBCD



TIES users 

Submit your file to the web on *eTools* to the ASMG compatibility Analyses :

Please select the calculation type

| | |
|--|---|
| <input type="text" value="GE06"/> | <input type="text" value="GE06D ASMG Compatibility Analyse"/> |
| <input type="button" value="New Calculation"/> | |

The BR IFIC



The screenshot shows a web browser window titled "BR IFIC 2748". The interface is divided into several sections:

- Publication:** A red oval highlights the "Publication" header and the "Latest Publication" button. A red arrow points from the word "Data" to this button.
- Software:** A red oval highlights the "Software" header and three buttons: "TerRaQ", "TerRaNV", and "TerRaNotices". A red arrow points from the word "Software" to this group.
- Documentation:** A red oval highlights the "Documentation" header and two buttons: "Information Note" and "Preface". A red arrow points from the word "Documentation" to this group.

Other visible elements include "MIFR & Plans", "Install BR IFIC", and "Back" buttons. The main content area contains the text "Latest Publication" and "The Official Publication portion of the BR IFIC (Terrestrial services) contains:" followed by a link: "• [Part I, II, III & IIB and Special Sections](#)".

At the bottom, there is a banner with the ITU logo, the text "International Telecommunication Union", and "Terrestrial Services BR IFIC" next to a collage of images showing people using mobile devices.

eBCD overview

- A TIES Account is necessary.

<http://www.itu.int/en/membership/Pages/default.aspx>

myAdmin

**“My own office
@ ITU: opening ~24/7”**

ePub

**“Special Sections,
the publication day!”**

eTools

**“My test calculations
on-demand”**

eQry

**“Fast search
on Plans and MIFR”**

Read-Only copy of BR Database (Updated daily)

| | | | |
|------|-------|------|--------|
| GE06 | ST61 | GE75 | MIFR |
| | GE89 | RJ81 | (FMTV) |
| GE84 | | | |
| | GE06L | | |



Search by:

Administration

Geographic Area

Frequency

Date of Receipt

Administration
Unique Identifier

BR Identification
Number

Status
(Recorded/Published)

ePub

Broadcasting publications on-line (from 01.01.2007)

All BRIFics Selected BRIfic

GE06 GE06L GE89 GE84 ST61 RJ81 GE75 MIFR (GE06)

All Administrations Selected Administration

GE06 Special Sections: click to hide all

| Special Section | Part A1 | Part B1 | Part C1 | Part A2 | Part B2 | Part C2 | BR IFIC No | Publication Date | End of 40 day period | End of 75 day period |
|-----------------|---------|---------|---------|---------|---------|---------|------------|------------------|----------------------|----------------------|
| 103 | 27 | 986 | 201 | 4 | 1 | | 2792 | 14 Apr 2015 | 24 May 2015 | 28 Jun 2015 |
| 102 | 289 | 805 | 1 | 13 | 1 | 1 | 2790 | 17 Mar 2015 | 26 Apr 2015 | 31 May 2015 |
| 101 | 147 | 487 | 10 | 2 | 2 | | 2787 | 3 Feb 2015 | 15 Mar 2015 | 19 Apr 2015 |
| 100 | 281 | 219 | 2 | 3 | 5 | | 2785 | 6 Jan 2015 | 15 Feb 2015 | 22 Mar 2015 |
| 99 | 318 | 80 | 2 | | 3 | | 2783 | 25 Nov 2014 | 4 Jan 2015 | 8 Feb 2015 |

[eQry](#)[ePub](#)[eTools](#)[myAdmin](#)[eBCD](#)[Logoff](#)

myAdmin myAdmin

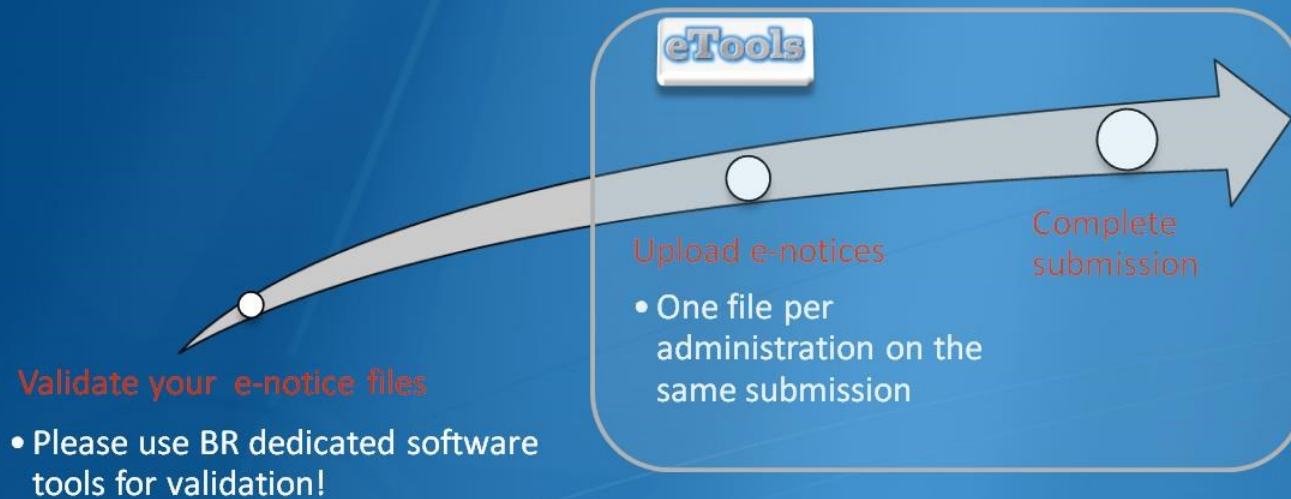
[GEO](#)

[myProfile](#) Your own office at the ITU (last update: 8 Apr 2015)

[Your](#)[Adm\(ITU\)](#)[MailBox](#)[GEO6D](#)[GEO6A](#)[GE84](#)[ST61](#)[GE75](#)[MIFR](#)[Plan](#)

| | |
|---|-------------|
| Recorded Plan entries | <u>2192</u> |
| Notices under treatment | <u>39</u> |
| Notices under treatment ready for Part B | <u>2</u> |
| Notices under treatment receiving objection | <u>8</u> |
| Notices under treatment which affect me | <u>223</u> |
| Coordination given in the last period (30 days) | <u>1</u> |
| Coordination received in the last period (30 days) | <u>1</u> |
| Notices to be deleted after 2 years and 75 days (30 days early warning) | <u>1</u> |

eTools: e-notice submission



The ITU distributed processing infrastructure will treat your test submission and inform you at completion!

Our new server will handle 28 separate processes



Check your TIES account!

yourTIESname@ties.itu.int

GE06Calc Software Tool

- PC-based application for unofficial examinations to the GE06 Digital Plan
- Web-based installation from:
ITU-R->Terrestrial->Broadcasting->Software->GE06Calc
<http://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/Services.aspx>
- Automatic updates (checking for updates is performed only if and when the application is started)



“On-demand test
calculations”

eTools

GE06

- **GE06D** Plan Modification (Coordination/Conformity)
- **GE06A** Coordination exam.
- **GE06D** Compatibility
- **GE06D** Compatibility (ATU)
- **GE06D** Compatibility (ASMG)

Propagation

- ITU-R P.1812 Point to Point
- ITU-R P.1812 Point to Area
- ITU-R P.1546 Point to Area



RJ81

- Plan Modification
- What-if studies



Notice Generation

- Notice Generation (Export to SGML output)





BR terrestrial web pages

- BR Terrestrial web site:

<http://www.itu.int/en/ITU-R/terrestrial/Pages/default.aspx>

- Three divisions (BCD, FMD and TPR)
- Other activities carried out:
 - Resolution 647 (rev. WRC-12) “Emergency and disaster Relief Radiocommunication”
 - Frequencies made available to use in case of Emergency;
 - Resolution 205 (rev. WRC-12) “Monitoring in the band 406-406.1 MHz” (COSPAS-SARSAT)
 - To identify and locate unauthorized emissions in the band 406-406.1 MHz that cause harmful interference to the reception of satellite emergency position-indicating radio beacons (EPIRB) signals of the COSPAS-SARSAT system.



Online databases - Monitoring

- Regular monitoring program in bands between 2 850 kHz – 28 000 kHz

- Data received are processed and regularly published

<http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

- Monitoring station notified to the Bureau and participating in this program can be consulted:

http://www.itu.int/online/mms/mars/monitoring/l8_station_search.sh

- This information is also published in List VIII




WISFAT

- Web Interface for Submission of Frequency Assignments/Allotments for Terrestrial Services:

<http://www.itu.int/en/ITU-R/terrestrial/tpr/Pages/Submission.aspx>



WISFAT

 **Committed to connecting the world** ITU_ERSC\wrsterre Sign out

What would you like to search for?

[Home](#) **ITU** [General Secretariat](#) [Radiocommunication](#) [Standardization](#) [Development](#) [ITU Telecom](#) [Members' Zone](#) [Join ITU](#)

[About ITU](#) [Newsroom](#) [Events](#) [Publications](#) [Statistics](#) [Areas of Action](#) [Regional Presence](#) [Careers](#)

ITU-R Web Interface for Submission of Notifications of Frequency Assignments/Allotments to Terrestrial Services (WISFAT)

| | |
|---|--|
| Notifier's name | Wrs Terrestrial |
| Administration | INT |
| Telephone | |
| Email address | wrs.wrsterrestrial@ties.itu.int |
| Department/Service | |
| Email address for receipt of acknowledgement | <input type="text"/> |
| Submission under | Article 11 (Update of the Master Register) |
| Title of document * | <input type="text"/> |
| Total number of notices * | <input type="text"/> |
| Check this box if the file is submitted in reply to a request for clarification from the BR | <input type="checkbox"/> |
| Indicate the BR Reference if the above is checked | <input type="text"/> |
| Remarks | <input type="text"/> |
| Attach the file * | <input type="text"/> |

Note: Input is required for fields marked with *

Please check your entries and press **Submit** to confirm

If the submission is successful, an acknowledgement report should be prompted and sent to the above email address(es).

Check that the uploaded file contain the same number of notices

To communicate to the BR

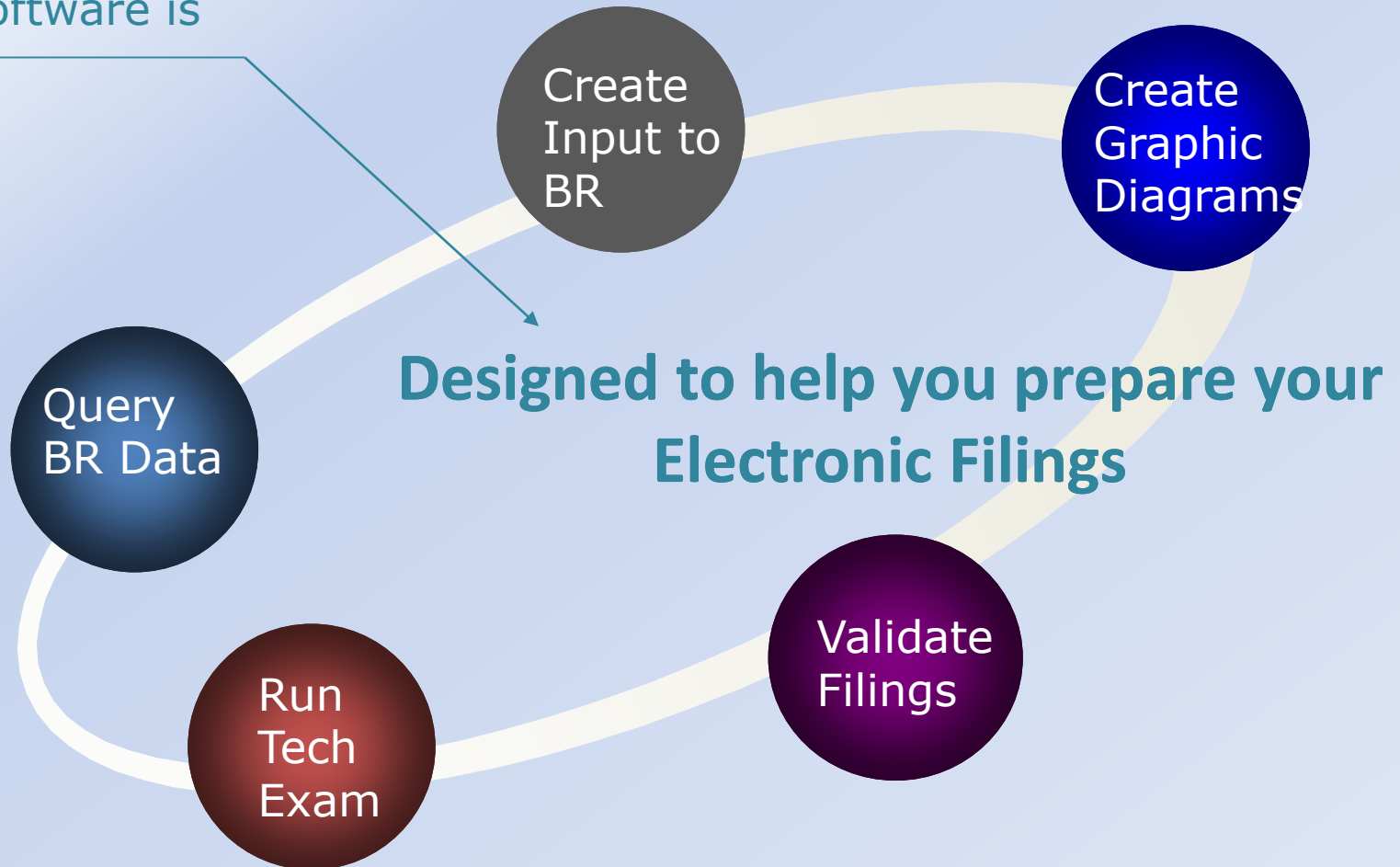
When submitting many files -> ZIP into one file

A large, faint, light gray globe with a grid of latitude and longitude lines is centered in the background of the slide.

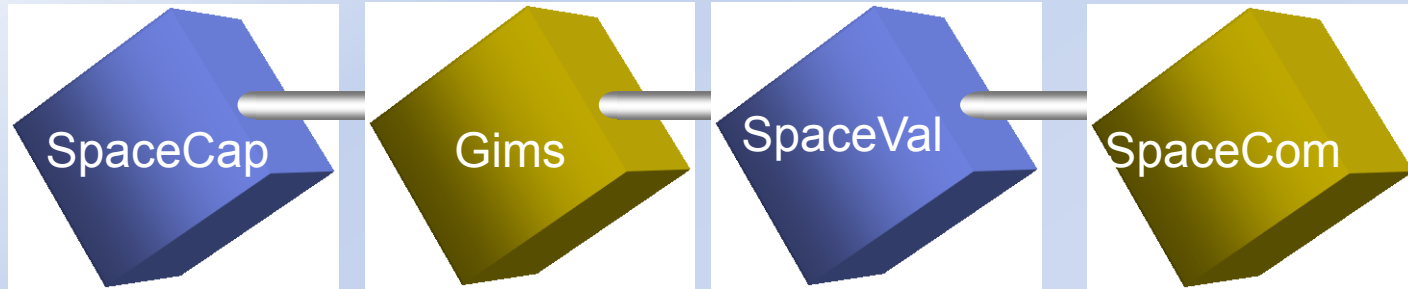
Space services

Purpose of BR Software

BR Software is



BR Software to Create BR Data



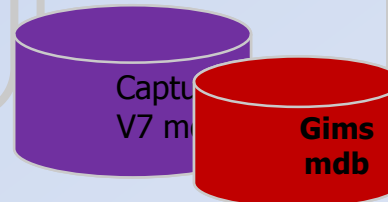
Create AP4 data to SNS V7 formatted database



Capture AP4 graphical data to GIMS mdb

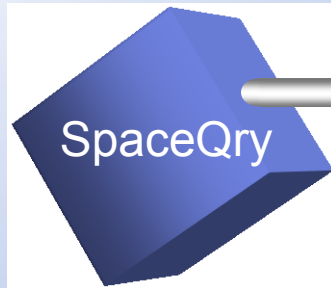


Validate AP4 data and checks for presence of required AP4 graphical data



Capture requests for coordination

BR Software to Query BR Data



Query
satellite and
Earth stations
in the space
Services from
-Srs_all.mdb
-IFIC.mdb
-Sps_all.mdb
-AP30B.mdb



Query
satellite and
Earth stations
in the space
Services from
-SNS Master
on Ingres



Print
satellite and
Earth stations
in the space
Services from
-Srs_all.mdb
-IFIC.mdb
-Sps_all.mdb
-AP30B.mdb



Query
for graphical
data in the
Gims database

BR Soft to Run Technical Exams

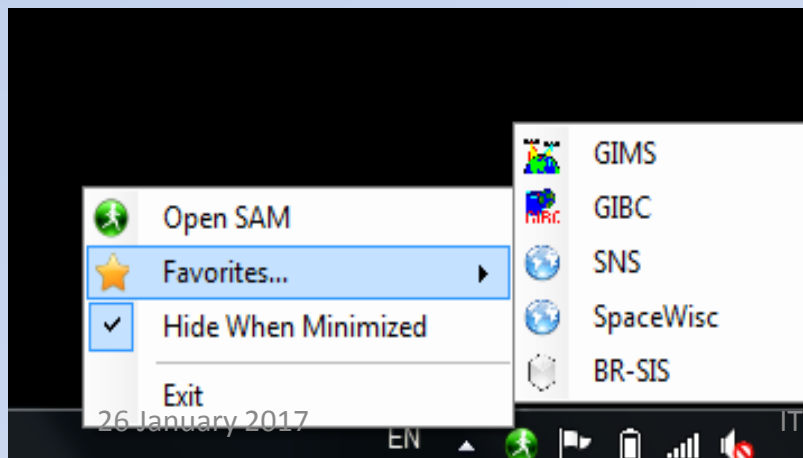
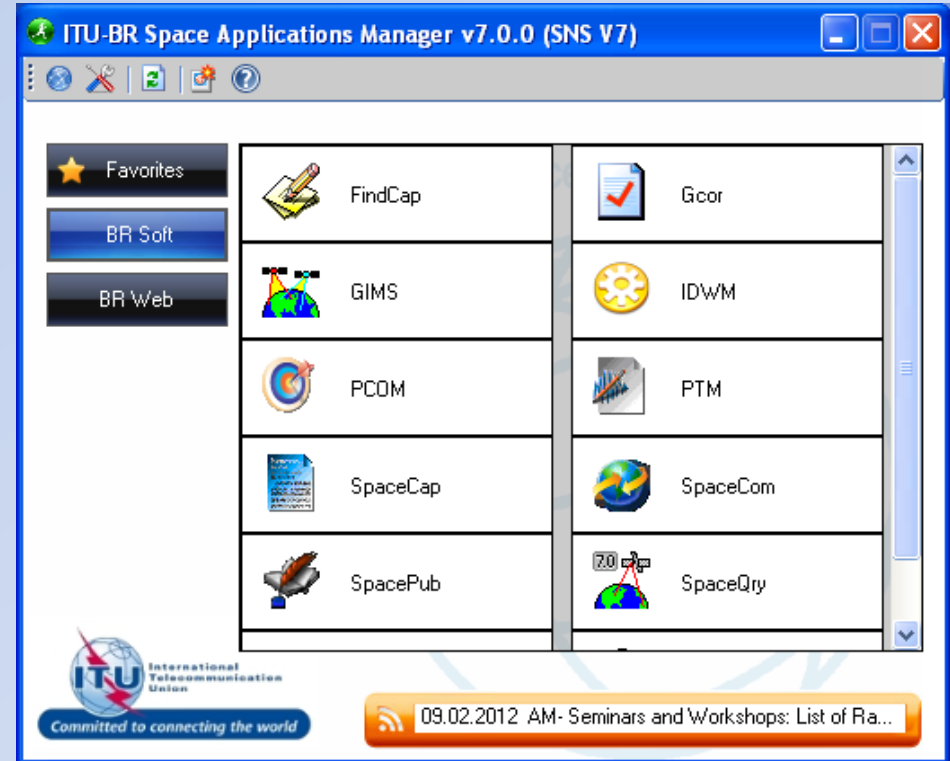


SPS
the space plans software (formerly “MSpaceG”)

Determination of the coordination requirements for the Plans for space networks in Appendices 30, 30A of the Radio Regulations



Space Application Manager





Applications

PC based

- ❖ SpaceQry
- ❖ SpaceCap
- ❖ SpaceVal
- ❖ SpacePub
- ❖ SpaceCom
- ❖ GIMS
- ❖ GIBC
- ❖ SPS
- ❖ Ap7Capture

Web

- ❖ SNS-on-Line
- ❖ SNL-on-Line

Software Distribution

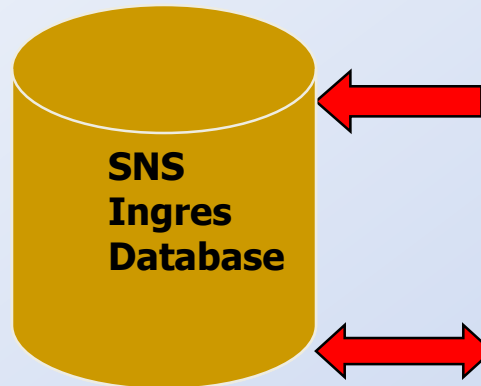
- ❖ BR IFIC DVD ROM
- ❖ Downloadable from ITU web site

SNS Databases

SNS Master Database On Ingres

in the Master Register

- Coordination and Notification
- Advance Publication
- Resolution 49

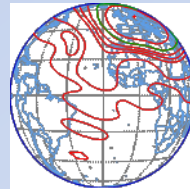


- Electronic Filings received by the BR
 - New assignments
 - Mod of existing
 - Delete existing
- Notifications in technical Examination



Graphical Data

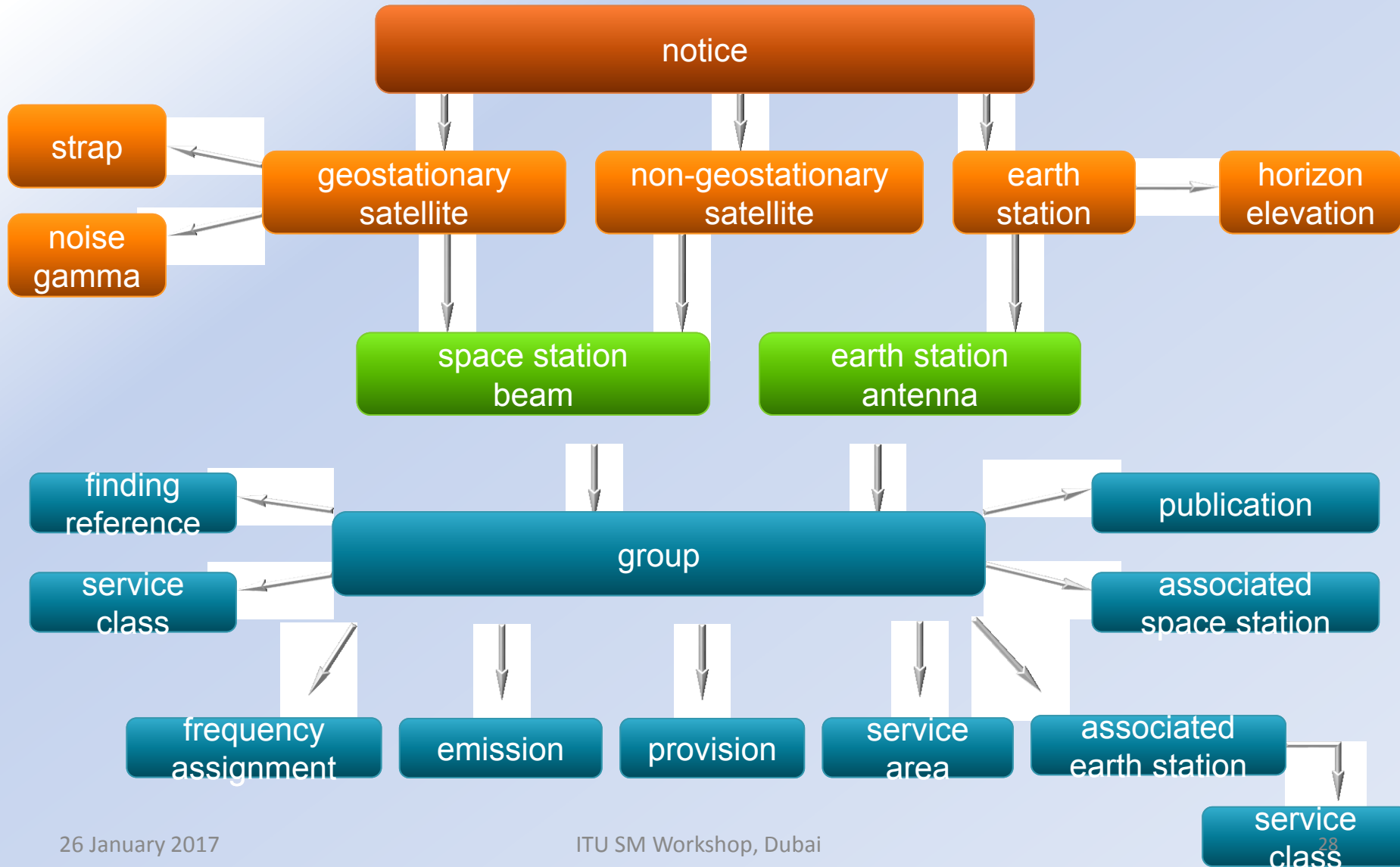
- **Gims diagrams**
 - **Appendix 4 – GSO and Non GSO Satellites**
 - **Contains Graphical data for both Non-plan and Plan**



- **ESCC Diagrams**
 - **Earth Stations Coordination Contours**



SNS data structure





❑ ITU-R Recommendations

- ❖ Metadata Search (Search Criteria)
 - "ITU-R Recommendation Series", "Radio Category", "Radio Services", "Cross Reference", "Responsible SGs/WPs" and "Approval Year"
- ❖ Frequency Search
 - Search by frequency range (min and max frequencies)

❑ ITU-R Questions

- ❖ Metadata Search (Search Criteria)
 - "Responsible SGs/WPs", "Approval Year", "Target Year" and "Category" (Resolution ITU-R 5)

❑ ITU-R Reports [demo version, data verification is required]

- ❖ Metadata Search (Search Criteria)
 - "ITU-R Recommendation Series", "Radio Category", "Radio Services", "Responsible SGs/WPs" and "Approval Year"
- ❖ Frequency Search
 - Search by frequency range (min and max frequencies)

❑ ITU-R Resolutions and ITU Handbooks [under development]



ITU-R Recommendation Profile Page

R-REC-M.690 ▸ R-REC-M.690-2-201203-1



R-REC-M.690-2-201203-1

| | |
|-----------------|---|
| Number | M.690-2 (03/12) |
| Title | Technical characteristics of emergency position-indicating radio beacons (EPIRBs) operating on the carrier frequencies of 121.5 MHz and 243 MHz |
| Services | aeronautical mobile (AMS) |
| Radio Category | Technical/operational characteristics or parameters |
| Resp. WPs | WP5B |
| FrequencyBands | 121.5-121.5 MHz / 243-243 MHz |
| Reference in RR | Appendix 15 (Table 15-2) |
| Cross ref. | IBR |
| Approval | 2012 |

[View All Properties](#)
[Edit Properties](#)

⊕ new document or drag files here

Find a file

| ✓ | 📄 | Name | Doc. lang. | File Size | Modified |
|---|---|------|------------|-----------|----------|
|---|---|------|------------|-----------|----------|

▾ Doc. lang. : E (2)

| | | | | |
|---|-------------------------------|---|---------|----------|
| 📄 | R-REC-M.690-2-201203-!!!MSW-E | E | 1317 KB | April 14 |
| 📄 | R-REC-M.690-2-201203-!!!PDF-E | E | 1305 KB | April 14 |

Detail Profile of selected Recommendation

ITU-R Recommendation file (for download)

Website

- Summary of the basic information from countries
- Relevant events (e.g. workshops, frequency coordination meetings, seminars)
- Relevant publications (e.g. ITU-R and ITU-D documents, roadmaps, workshop presentations)
- Relevant websites (e.g. ITU-R and ITU-D, broadcasting organizations, GE-06)
- Contacts
- Information sources (list of relevant surveys, questionnaires of the ITU-D and ITU-R and other sources)
- Accessible both from BDT and BR web pages

Circular Letter BDT/IEE/SBD/DM/014 from the BDT Director (23 February 2015)

- Given the dynamically changing status of the Digital Terrestrial Television (DTT) deployment and in order to enable all administrations to benefit from the latest status and information concerning the Digital migration, **Administrations are invited to make the necessary update to ensure that their actual status and data are correctly reflected on the portal.**

Website

<http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Pages/DSO/Default.aspx>

Website features

Ongoing

Albania, Algeria, Azerbaijan, Bahrain, Bulgaria, Oman, Russian Federation, Serbia, Ukraine

Completed

Andorra, Austria, Belgium, Croatia, Cyprus, Czech Rep., Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Korea (Rep. of), Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Seychelles, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Vatican

Not Started

Armenia, Belarus, Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Egypt, Ghana, Guinea, Guinea-Bissau, Iraq (Islamic Republic of), Kyrgyzstan, Lebanon, Libya, Malawi, Mali, Moldova, Morocco, Namibia, Niger, Nigeria, Rwanda (Republic of), Senegal, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Turkey, United Arab Emirates, Uzbekistan, Zambia, Zimbabwe

Unknown

Afghanistan, Angola, Antigua and Barbuda, Argentina, Australia, Bahamas, Bangladesh, Barbados, Belize, Bhutan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Burundi, Cambodia, Canada, Central African Rep., Chad, Chile, China, Colombia, Comoros (Union of), Congo, Costa Rica, Cuba, Dem. People's Rep. of Korea, Dem. Rep. of the Congo, Djibouti, Dominica, Dominican Rep., Ecuador, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Former Yugoslav Republic of Macedonia, Gabon, Gambia, Georgia, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Iceland, India, Indonesia, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Lao P.D.R., Lesotho, Liberia, Liechtenstein, Madagascar, Malawi, Maldives, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia, Monaco, Mongolia, Montenegro, Mozambique, Myanmar, Nauru, Nepal (Republic of), Netherlands Antilles, Nicaragua, Niue, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Romania, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Singapore, Solomon Islands, Somalia, South Sudan, Sri Lanka, State of Palestine, Suriname, Syria, Tajikistan, Thailand, Timor-Leste, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, Tuvalu, Uganda, United States, Uruguay, Vanuatu, Venezuela, Vietnam, Yemen



AFRICA
AMERICAS
ARAB STATES
ASIA-PACIFIC
CR
EUROPE

ATSC
DTMB
DVB-T
DVB-T2
ISDB-T

ONGOING
COMPLETED
NOT STARTED
UNKNOWN

RESET

| Country | Year Of Launch | DSO Date | TV Standard | Compression Format | Status |
|-----------------|----------------|------------|-----------------|--------------------|-----------|
| Andorra | | | DVB-T | MPEG-2 | Completed |
| Austria | 2006 | 2011 | DVB-T DVB-T2 | MPEG-2 MPEG-4 | Completed |
| Belgium | 2005 | | DVB-T DVB-T2 | MPEG-2 | Completed |
| Croatia | 2009 | 2010 | DVB-T DVB-T2 | MPEG-2 | Completed |
| Cyprus | | 2011 | DVB-T | | Completed |
| Czech Rep. | 2005 | | DVB-T | MPEG-2 MPEG-4 | Completed |
| Denmark | 2006 | 31/10/2009 | DVB-T DVB-T2 | MPEG-4 | Completed |
| Estonia | 2006 | 2010 | DVB-T DVB-T2 | MPEG-4 | Completed |
| Finland | 2001 | 2007 | DVB-T DVB-T2 | MPEG-2 MPEG-4 | Completed |
| France | 2005 | 2011 | DVB-T | MPEG-2 MPEG-4 | Completed |
| Germany | 2002 | 2008 | DVB-T | MPEG-2 | Completed |
| Hungary | 2008 | 2013 | DVB-T | MPEG-4 | Completed |
| Ireland | 2011 | 24/10/2012 | DVB-T | MPEG-4 | Completed |
| Israel | | 2011 | DVB-T | MPEG-4 | Completed |
| Italy | 2004 | 2012 | DVB-T DVB-T2 | MPEG-2 | Completed |
| Japan | 2011 | | ISDB-T | | Completed |
| Korea (Rep. of) | | 2012 | ATSC | | Completed |
| Latvia | 2009 | 2010 | DVB-T | MPEG-4 | Completed |
| Lithuania | 2008 | 2012 | DVB-T | MPEG-4 | Completed |
| Luxembourg | 2006 | | DVB-T | MPEG-2 | Completed |
| Malta | | 2011 | DVB-T | MPEG-2 | Completed |
| Netherlands | 2003 | 2011 | DVB-T | MPEG-2 | Completed |
| New Zealand | 2008 | 2013 | DVB-T DVB-T2 | MPEG-4 | Completed |
| Norway | 2008 | 2009 | DVB-T | MPEG-4 | Completed |
| Poland | 2009 | 2013 | DVB-T | MPEG-4 | Completed |
| Portugal | 2009 | 2012 | DVB-T | MPEG-4 | Completed |
| Seychelles | | 2013 | DVB-T | | Completed |
| Slovak Republic | 2009 | 2012 | DVB-T DVB-T2 | MPEG-2 MPEG-4 | Completed |
| Slovenia | 2006 | 2011 | DVB-T | MPEG-4 | Completed |
| Spain | 2000 | 2010 | DVB-T | MPEG-2 | Completed |
| Sweden | 1999 | 2007 | DVB-T DVB-T2 | MPEG-2 | Completed |
| Switzerland | 2001 | | DVB-T | MPEG-2 | Completed |
| United Kingdom | 1998 | 2012 | DVB-T DVB-T2 | MPEG-2 MPEG-4 | Completed |
| Vatican | | | DVB-T | | Completed |

Afghanistan

Documents provided by the country

No Document to display

Events in this country

| | | |
|---|--------------------------|--------|
| Meeting with Government The new platform for Europe and Africa to meet and discuss future evolutions of Digital TV | 29/11/2014 | Paris |
| Documents from Country: Powerpoint presentation of Dr. ZZZ This is the description about this wonderful document | 29/11/2014 | |
| Presentation during Conference This is our Powerpoint | | |
| Presentation by Ms... This is just to see what happens when we have several document and if the style will work correctly, meaning one blue line and one white line alternately | | |
| Conference on Broadband A simple meeting to demonstrate the capabilities of Digital TV | 25/11/2014 26/11/2014 | Moscow |
| Documents from Country: Powerpoint presentation of Dr. ZZZ This is the description about this wonderful document | | |
| Other Documents: Presentation | | |
| First Workshop at Kabul Showcase where the most efficient network have been setup. | 12/11/2014 19/11/2014 | Kabul |



What would you like to search for?

Status of the transition to Digital Terrestrial Television Broadcasting : Data Miner

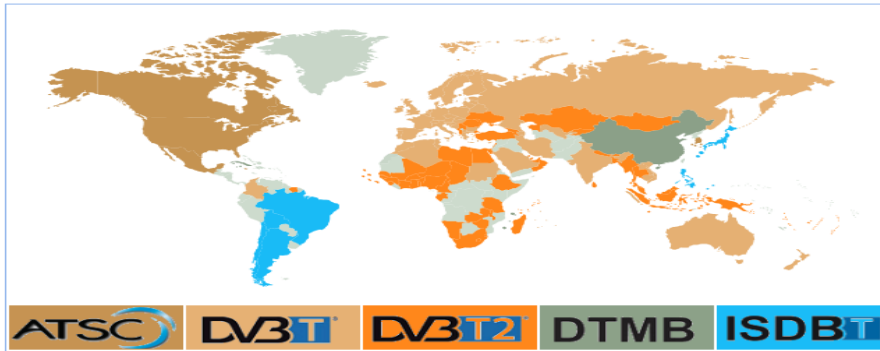
YOU ARE HERE HOME > ITU-D > SPECTRUM AND BROADCASTING > STATUS OF THE TRANSITION TO DIGITAL TERRESTRIAL TELEVISION BROADCASTING : DATA MINER

SHARE



This portal provides information on the status of the deployment of Digital Terrestrial Television (DTT)

| AFRICA | AMERICAS | ARAB STATES | ASIA PACIFIC | CIS | EUROPE |
|---------|-----------|-------------|--------------|--------|--------|
| ATSC | DTMB | DVB-T | DVB-T2 | ISDB-T | GE06 |
| ONGOING | COMPLETED | NOT STARTED | UNKNOWN | | RESET |



| Country | Year Of Launch | DSO Date | TV Standard | Compression Format | Status |
|---------------------|----------------|------------|-----------------|--------------------|-----------|
| Afghanistan | | | ND | | |
| Albania | | 17/06/2015 | DVB-T2 | MPEG-4 | Ongoing |
| Algeria | 2010 | 2015 | DVB-T DVB-T2 | MPEG-2 MPEG-4 | Ongoing |
| Andorra | 2006 | 25/09/2007 | DVB-T | MPEG-2 | Completed |
| Angola | | | | | Ongoing |
| Antigua and Barbuda | | | | | |
| Argentina | 2010 | 2019 | ISBD-T | | |
| Armenia | 2015 | 2015 | DVB-T2 | | Ongoing |
| Australia | 2001 | 10/12/2013 | DVB-T | MPEG-2 | Completed |

MENU

- Home
- Summary
- Data Miner
- Figures

[Related Events](#) | [Related Publications](#) | [Relevant Websites](#)



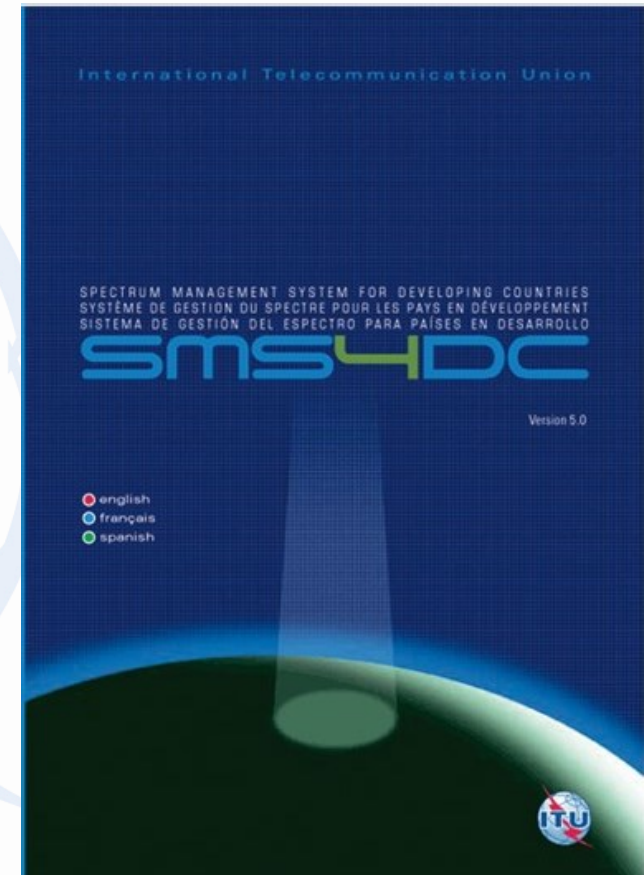
- Comoros (Union of the), 5.06.2015
- Morocco coordination meeting, Tunisia, 16.05.2015 - 19.05.2015
- "Transition to digital technology, policy and regulation seminar" for rural broadcasting service providers, Mongolia, Ulaanbaatar, 22.04.2015 - 23.04.2015
- "Transition to digital technology, policy and regulation" for rural broadcasting service providers, Mongolia, Ulaanbaatar, 22.04.2015 - 23.04.2015
- la migration de la television vers le numerique, le choix de la norme de diffusion dans les pays membres, l'IPTV, la television numerique par satellite, la video ala demande et le deploiement des nouvelles technologies a large bande issues du dividende numerique telles que la telephonie mobile de la quatrieme generation (4G) et le Wimax, Comoros (Union of the), ARUSHA, 11.03.2014 - 13.03.2014

[Full List >](#)

ITU Spectrum Management System for Developing Countries (SMS4DC)



- SMS4DC is software designed by ITU based on ITU recommendations
- Developed to assist the administrations of developing countries to undertake their spectrum management responsibilities more effectively;
- SMS4DC covers terrestrial fixed, mobile, sound and television broadcasting services in the bands above 30 MHz, including GE-06 as well as frequency coordination of Earth stations



For further reading:

- **ITU Handbook - Computer-Aided Techniques for Spectrum Management (CAT), 2015**
- **ITU Handbook on National Spectrum Management, 2015**
- **SMS4DC 5.0 User Guide**
- **ITU Handbook on Spectrum Monitoring, 2011**
- **Recommendation ITU-R SM.1370**
- **Recommendation ITU-R SM.1537**
- **Recommendation ITU-R SM.1604**

Thank you!



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