International Telecommunication Union

Committed to connecting the world

BR software tools for terrestrial services

Bangaly Fodé TRAORE
BR/TSD/BCD

Agenda

- Overview of BR International Frequency Information Circular (BRIFIC): software and database
- Overview of BR online tools
  - Online Validation, eMIFR tools, WISFAT (official submission to the BR) for all terrestrial services
  - The eBCD2.0 platform for broadcasting services
- Compatibility Analyses Display software (CA Display)

BR IFIC

For subscribers

International Telecommunication Union

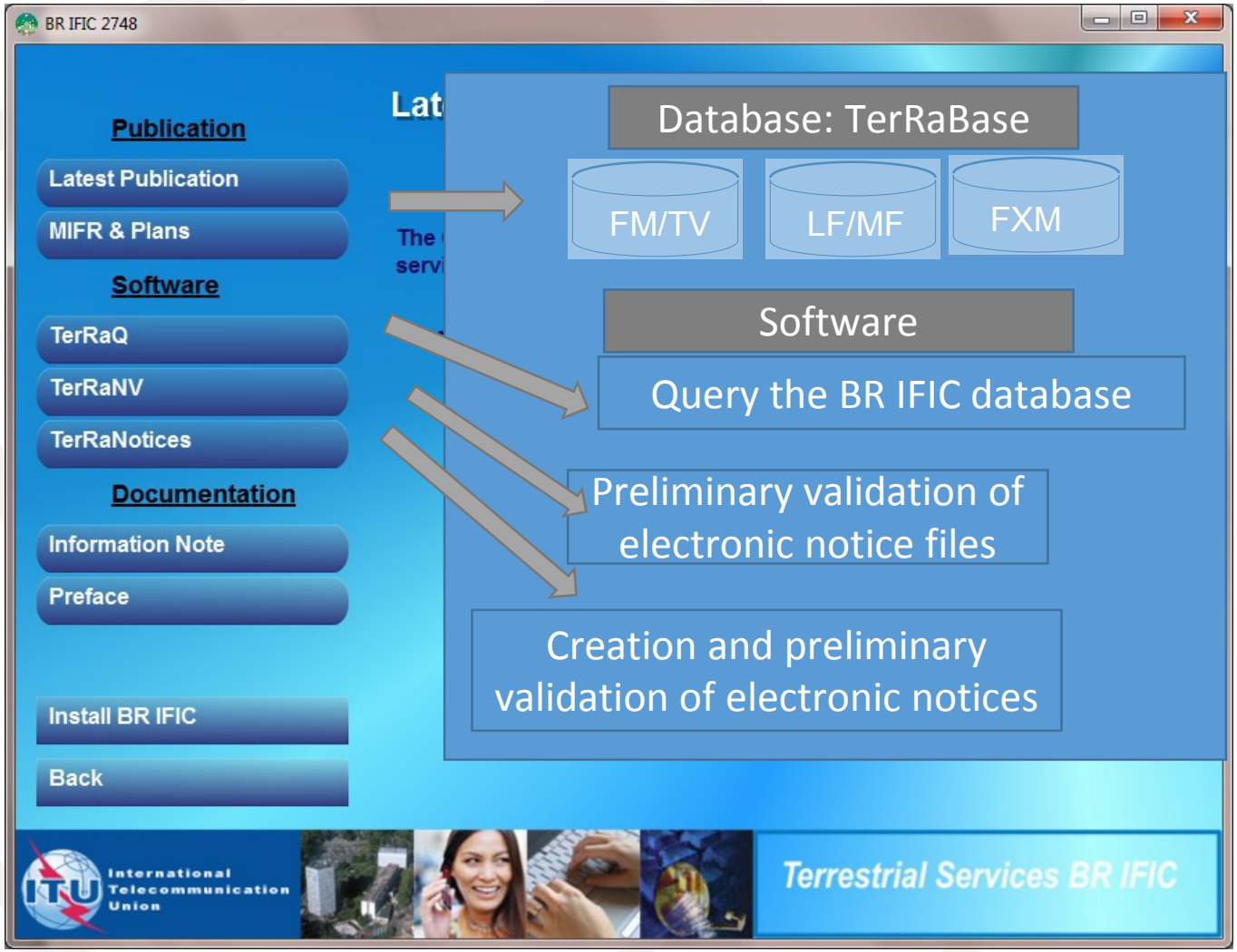
Committed to connecting the world

BR International Frequency information Circular

- Provide information on the frequency assignments and allotments recorded in the Master International Frequency Register and World-wide or Regional Plans, as well as on frequencies prescribed for common use.
- Published once every two weeks
- Arabic, Chinese, English, French, Russian and Spanish.

BR IFIC (Terrestrial Services)

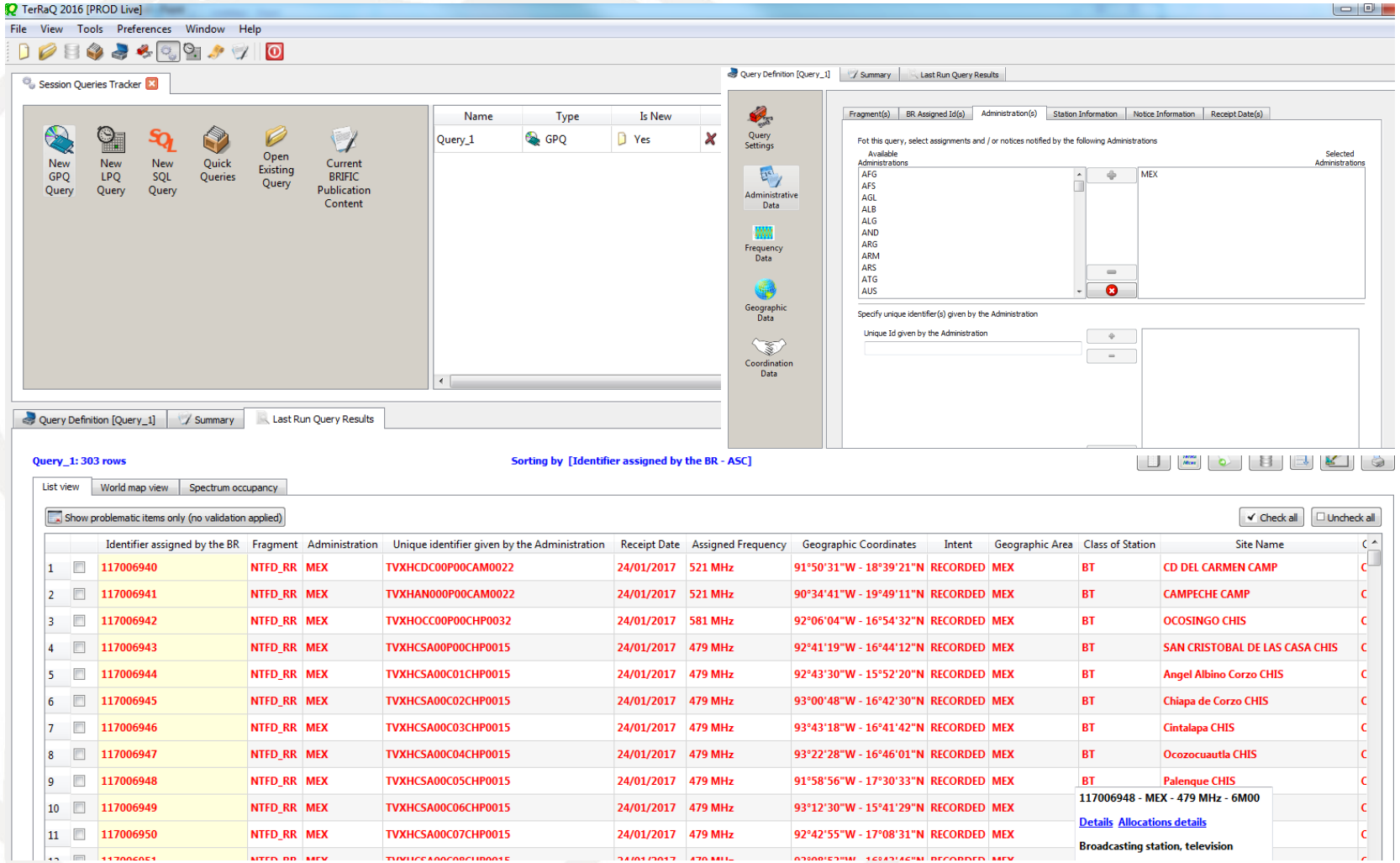
BR IFIC Contents



Install on PC
Run from the DVD

More during demo session!

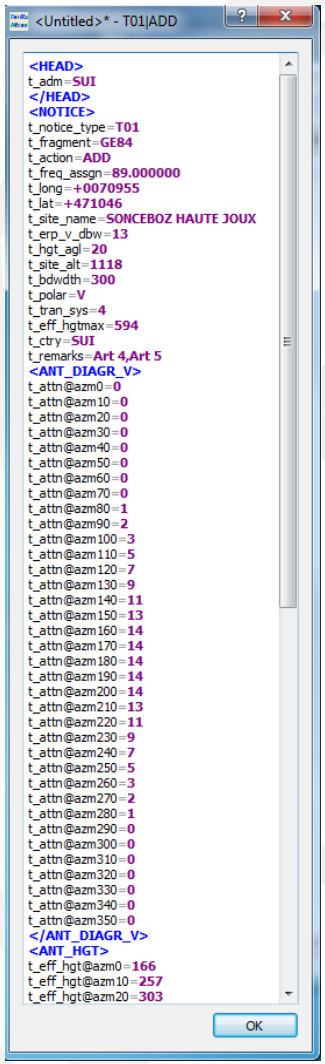
BR IFIC: TerRaQ

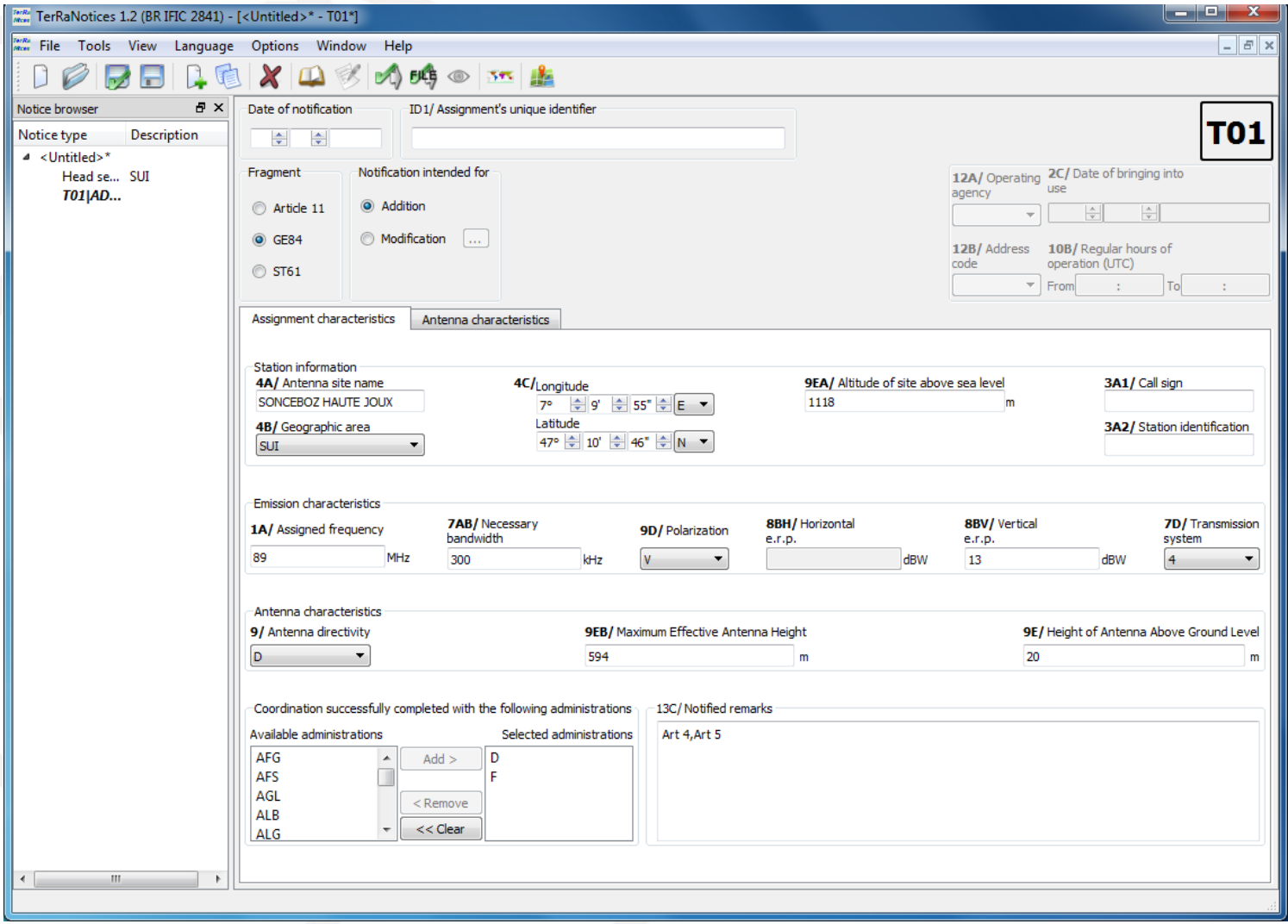


		Identifier assigned by the BR	Fragment	Administration	Unique identifier given by the Administration	Receipt Date	Assigned Frequency	Geographic Coordinates	Intent	Geographic Area	Class of Station	Site Name
1		117006940	NTFD_RR	MEX	TVXHCDC00P00CAM0022	24/01/2017	521 MHz	91°50'31"W - 18°39'21"N	RECORDED	MEX	BT	CD DEL CARMEN CAMP
2		117006941	NTFD_RR	MEX	TVXHAN000P00CAM0022	24/01/2017	521 MHz	90°34'41"W - 19°49'11"N	RECORDED	MEX	BT	CAMPECHE CAMP
3		117006942	NTFD_RR	MEX	TVXHOCC00P00CHP0032	24/01/2017	581 MHz	92°06'04"W - 16°54'32"N	RECORDED	MEX	BT	OCOSINGO CHIS
4		117006943	NTFD_RR	MEX	TVXHCSA00P00CHP0015	24/01/2017	479 MHz	92°41'19"W - 16°44'12"N	RECORDED	MEX	BT	SAN CRISTOBAL DE LAS CASA CHIS
5		117006944	NTFD_RR	MEX	TVXHCSA00C01CHP0015	24/01/2017	479 MHz	92°43'30"W - 15°52'20"N	RECORDED	MEX	BT	Angel Albino Corzo CHIS
6		117006945	NTFD_RR	MEX	TVXHCSA00C02CHP0015	24/01/2017	479 MHz	93°00'48"W - 16°42'30"N	RECORDED	MEX	BT	Chiapa de Corzo CHIS
7		117006946	NTFD_RR	MEX	TVXHCSA00C03CHP0015	24/01/2017	479 MHz	93°43'18"W - 16°41'42"N	RECORDED	MEX	BT	Cintalapa CHIS
8		117006947	NTFD_RR	MEX	TVXHCSA00C04CHP0015	24/01/2017	479 MHz	93°22'28"W - 16°46'01"N	RECORDED	MEX	BT	Ocozocuautla CHIS
9		117006948	NTFD_RR	MEX	TVXHCSA00C05CHP0015	24/01/2017	479 MHz	91°58'56"W - 17°30'33"N	RECORDED	MEX	BT	Palenque CHIS
10		117006949	NTFD_RR	MEX	TVXHCSA00C06CHP0015	24/01/2017	479 MHz	93°12'30"W - 15°41'29"N	RECORDED	MEX		
11		117006950	NTFD_RR	MEX	TVXHCSA00C07CHP0015	24/01/2017	479 MHz	92°42'55"W - 17°08'31"N	RECORDED	MEX		

117006948 - MEX - 479 MHz - 6M00
Details Allocations details
Broadcasting station, television

Notice file and TerRaNotices





Online Validation

The Online Validation tool allows administrations to validate their notice file, before official submission via WISFAT

Reuses TerRaNotice validation software and eTools functionalities in a SOA architecture

The processing system is currently **ONLINE**
Contact: brtpr_dp@itu.int

New Validation | Logout | Refresh

Jobs History for user: manara

Test Packages 31412: click to show all

Job summary Delete

job id	job name	job status
31412	ugatest	Completed

Job Input

Adm	E-notice file	Number of Notices
UGA	UGAtest.txt	1

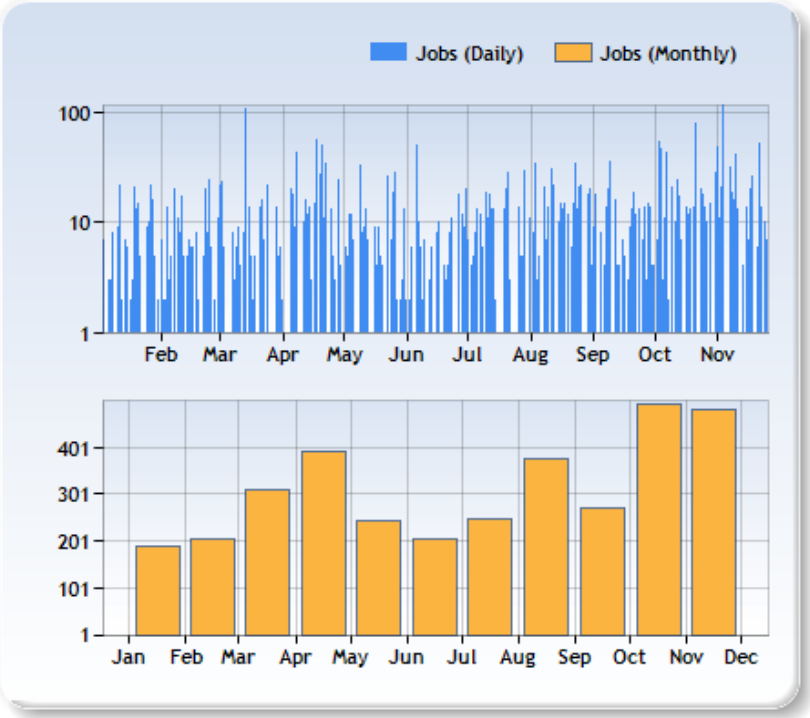
Job Output

Parse status: T_PARSE_HAS_WARNINGS
Total number of errors: 4
Total number of warnings: 1

Notice 1 (Line 4) - GT1/MODIFY
Line 4 : DeepVal Warning - Could not perform further notices validation checking, due to previous errors.
Line 1 (4) : Error : Either t_ref_plan_cfg OR t_sys_var & t_rx_mode should be submitted for this notice type.
Line 17 (20) : Error : t_ref_plan_cfg : invalid value or make sure that the value is typed correctly
Line 9 (12) : Error : t_site_nae : is EITHER not applicable in this case OR check the spelling.
Line 1 : Error : t_site_name : mandatory key missing or the associated key value is invalid.

More during demo session!

2016 Statistics



- 64 Administrations
- 163 Users
- > 4500 Validation jobs

eMIFR

Committed to connecting the world

Delivered prior to WRC-15

[Query system](#) for the simultaneous retrieval of data from the terrestrial portion of the MIFR (FMTV, LFMF and FXM)

eMIFR

MIFR (Terrestrial Services) on-line query (BETA release)

MIFR (Broadcasting) MIFR (FXM) MIFR (all)

MIFR (ALL): Selection Criteria

Administration	Geographic Area	Notice Type	Class of Station
AFG, AFS, AGL, ALB, ALG, ARG, ARM, ARS	ABW, AFG, AFS, AGL, AIA, ALB, ALG, ALS	1A1, 1A2, 1A4, 1A5, 1A7, 1B1, 1C1, 1Z0	AL, FA, FB, FC, FD, FG, FL, FP → AM, BC, BT

Status: Recorded, Pending

Assigned Frequency MHz f_{min} f_{max} $f_{min} \le$ Assigned Frequency $\le f_{max}$ only

Unique Id. code given by Admininistration

Identifier assigned by the BR from to

Date of Receipt (from) Date of Receipt (to)

Site Name: TORINO

Apply Filter Remove Filter

MIFR (All)

Total number of records 10. Click on headers to sort

Export to Excel Google Earth

BR Id	Adm	Geo Area	Site Name	Location	Assigned Frequency (MHz)	Intent		
080015495	I	I	TORINO	007°44'00" E - 45°02'00" N	0.657	RECORDED		
080225070	I	I	TORINO COLLINA	007°42'00" E - 45°06'00" N	212.5	RECORDED	1A4	BT
080606153	I	I	TORINO COLLINA	007°40'00" E - 45°04'00" N	522	RECORDED	1A4	BT
080607250	I	I	TORINO	007°44'00" E - 45°02'00" N	546	RECORDED	1A4	BT
080608609	I	I	TORINO	007°39'00" E - 45°04'00" N	578	RECORDED	1A4	BT
080610086	I	I	TORINO	007°44'00" E - 45°02'00" N	626	RECORDED	1A4	BT
103046152	I	I	TORINO	007°44'00" E - 45°02'00" N	746	RECORDED	TB2	
080623514	I	I	TORINO CASELLE	007°39'00" E - 45°11'00" N	1052	RECORDED	1B1	
080623522	I	I	TORINO CASELLE	007°39'00" E - 45°12'00" N	1056	RECORDED	1B1	
080623683	I	I	TORINO POIRINO	007°52'00" E - 44°55'00" N	1116	RECORDED	1B1	AM

MIFR (All) IFL: 080623514

Administrative

Emission Characteristics

Assigned Frequency (MHz)	1052	Nature of Service	
Reference (carrier) Frequency		Frequency deviation (MHz)	
Class of Emission	PXX--	Energy dispersal (kHz)	
Bandwidth Code	700K	System Type Code(s)	

Station and Site Information

Operations

Operation 1

General Characteristics

Power Type	X	Polarization	
Power to the Antenna (dBW)	30	Antenna Directivity	
Radiated Power (dBW)	30 E	Azimuth of Maximum Radiation (°)	
Maximum Antenna Gain (dB)		Maximum Effective Antenna Height (m)	
Maximum Gain Toward the Local Horizon (dB)		Height of Antenna Above Ground Level (m)	
Gain Type		Elevation Angle (°)	
Maximum Power Density (dBW/Hz)		Beamwidth (°)	
		Reference Antenna	

Receiving Station Information

RX1

Site Name		Geographical Type	CIRCLE
Geographic Area		Zone ID	
Region	1	Geographical coordinates	007°39'00" E - 45°11'00" N
		Radius (km)	80

Findings Information

Export data to Excel, Google Earth

More during demo session!

WISFAT

Web Interface for Submission of Frequency Assignments/allotments for Terrestrial Services

Submission of Notices for Terrestrial Services

YOU ARE HERE HOME > ITU-R > TERRESTRIAL SERVICES > TERRESTRIAL PUBLICATION AND REGISTRATION DIVISION > SUBMISSION OF NOTICES FOR TERRESTRIAL SERVICES

SHARE

Submission of frequency assignment/allotment notices for terrestrial services to the BR for the update of the Master International Frequency Register (MIFR) and/or for the modification of Plans shall be made via the secured web interface WISFAT (Web Interface for Submission of Frequency Assignments/allotments for Terrestrial Services).

As stipulated in BR Circular-letter CR/297 dated 20 January 2009, only notices received via WISFAT, are considered as official submissions.

Access to this interface is restricted to registered notifiers, therefore administrations shall appoint notifier(s) for their administration and inform the BR by sending an official e-mail to brmail@itu.int giving the TIES username, name, position and official e-mail address.

Before submitting notices via WISFAT, administrations are strongly recommended to validate their submissions using the Online Validation tool. Please note that incomplete notices will be returned to the notifying administration in accordance with provision No. 11.27 of the Radio Regulations.

In addition, administrations are encouraged when submitting many files on the same day, to compress their files into one single file by using for example WinZip or WinRaR.

RELATED LINKS | CONTACT PERSON

- Notification Tutorial
- Guidance for notification for Terrestrial Services

Validation of Terrestrial Frequency Assignment/Allotment Notices

This tool is to assist administrations to validate their frequency assignment/allotment notices before their official submission via WISFAT.

- How to use the online validation tool

Access to Online Validation

For Official Submission of notices

This web interface is accessible only to registered notifiers, having a TIES account.

- WISFAT Information document
- WISFAT Video example

Access to WISFAT

eBCD2.0 platform for broadcasting services

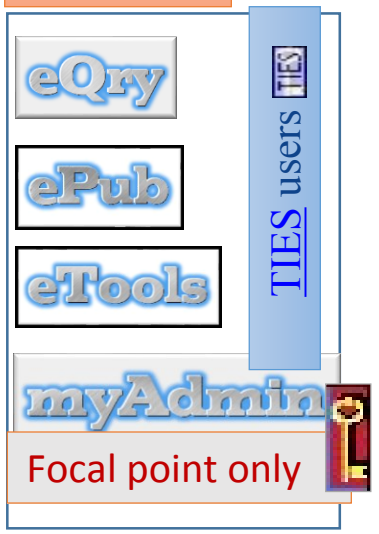
Portal description

Objectives

Bring the BR closer to Administrations with added-value services

- Up-to-date broadcasting data
- Special Section at publication date
- Calculation-on-demand
- Easily follow-up on plan modification procedures and related deadlines

Output



Outcome

- Reduce workload on both BR and administrations
- Reduce the need for printed documents

eQry

"Online search on the Plans "

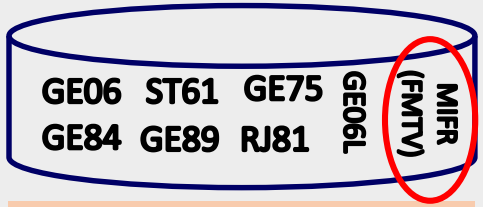
Read-Only copy of BR Database (Updated daily)

Search by:

- Administration
- Geographic Area
- Frequency
- Administration Unique Identifier
- BR Identification number
- Status (Recorded/Published)
- Site/Allotment name

ePub

"Special Sections, the publication day!"



Database Snapshots at publication date

Search by:

- BR IFIC number
- Administration
  - My notifications
  - Notifications which affects me

eTools

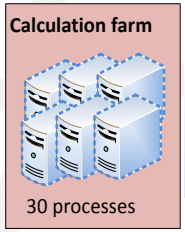
"On-demand test calculations"

2016 statistics

More than **2000 jobs** run by **188 users** from **88 Administrations**

Calculation Type	
GE06D Plan Modification	
GE06D Compatibility Analyses	
GE84 Compatibility Analyses	
CA Compatibility Analyses	NEW
RJ81 Plan modification and what-if studies	
ITU-R P.1812 v4 & P.1546 v5	NEW

Back-end infrastructure



ITU internal farm: 30 processes distributed in such a way to minimize waiting time.

eTools: e-notice submission

GE06, RJ81, CA Compatibility	GE84

eTools

Validate e-notice files

Upload e-notices

Multiple files from different administrations.

Complete submission

The Online Validation (reuse TerRaNotices software in a SOA architecture) was integrated for GE84 calculation. Integration planned also for GE06, RJ81 and the CA compatibility software

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

Check your TIES account!

yourTIESname@ties.itu.int

eTools: job processing, privacy and collaboration

International Telecommunication Union

Committed to connecting the world

Job processing

The processing system is currently **ONLINE** (28 processes available)

Please select the calculation type

CA_compat | CA_compat

New Calculation

Refresh | manara

Jobs History for user: manara

Test Packages: click to hide all

Job Id	Job Name	Job Status	Job Type	Date of Request	Date of Start Run	Date of Completion
34977	1st iteration	Success	CA_compat	3/3/2017 8:03:32 PM	3/4/2017 11:56:00 AM	3/4/2017 12:00:06 PM
35012	testVIR	Failed	CA_compat	3/6/2017 5:20:07 PM	3/6/2017 5:20:09 PM	3/6/2017 5:20:10 PM
34912	test	Success	CA_compat	3/2/2017 2:59:18 PM	3/2/2017 3:20:17 PM	3/2/2017 3:21:28 PM

Job summary Delete Share

job id	job name	job status
35012	testVIR	Failed

Job Input

Adm	E-notice file	Number of Notices
USA	testVIR.txt	1

Job Output: ERROR

```
Problem parsing notices:
Missing effective antenna height pattern for adm: USA site name: CHARLOTTE AMALIE
```

Please contact brbcd@itu.int if the error message is unclear

Privacy and collaboration

Jobs (e-notice and results) are owned and visible ONLY by submitter…BUT…

… facilitate coordination!

…you can now share them with other eBCD registered users! (web2.0)

Around **200 jobs** shared by **72 users** from **45 Administrations**

eBCD 2.0 Broadcasting Online

eTools: ITU-R P series calculations

International Telecommunication Union

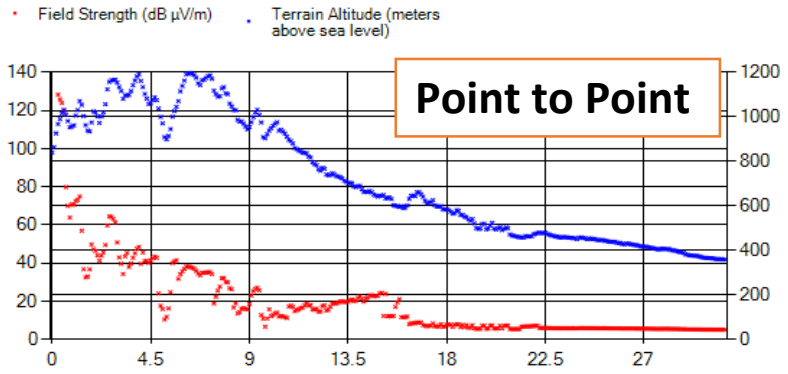
Committed to connecting the world

P.1812-4(07-15) Beta Release!

Propagation prediction using terrain profile (deterministic model)

- 30 MHz - 3 GHz
- 0.25 km - 3000 km
- 1% < time < 50%
- 1% < locations < 99%
- Rx and Tx hgt agl <= 3km

SRTM3 terrain database 3 arc-sec resol. (90 m)
Planned to move to 1 arc-sec (30m) early 2017



Point to Point

P.1546-5(09-13) Beta Release!

Propagation prediction (empirical model)

- 30 MHz - 3 GHz
- 1 km - 1000 km
- 1% < time < 50%
- 1% < locations < 99%
- TX eff hgt <= 3km

Terrain database can be used (clearance angle correction) to improve accuracy

Point to Area

More during demo session!

eBCD 2.0 Broadcasting Online

International Telecommunication Union

Committed to connecting the world

Thank you!

Further info:

bangaly-fode.traore@itu.int