# GEOG Planning tools أدوات التخطيط GEOG

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# Agenda

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

- The new enhancements
- The link between the files considered by the iterations and the Plan data - Additions, Modifications & Suppressions
- The ITU/ASMG Frequency coordination web portal



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

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# Software tools for compatibility studies

Create notices (TerRaNotices)

Run compatibility calculations (*eTools*)

Analyse results (GE06Calc)



# 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





### TIES users TIES

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

✓ GE06D ASMG Compatibility Analyse ✓

Please select the calculation type

GE06

New Calculation

# **The BRIFIC**



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# **The BRIFIC**





### Enable Macros in Access – See doc. INFO 8





Ready

Num Lock

# The **BRIFIC**





# **BRIFIC** installation



BR IFIC (Terrestrial Services)	s) 2777 02/09/2014
	BR IFIC Software installation locations
<ul> <li>Introduction</li> <li>BR IFIC Data installation I</li> <li>BR IFIC Software installati</li> <li>BR IFIC Data Management</li> <li>Pre-Installation Summary</li> <li>Installing</li> </ul>	Please select which TerRaSys software you wish to install and give a location, then click Next.
O Install Complete	Please select installation options for the software: <ul> <li>Do NOT install software</li> <li>Install software</li> </ul> <li>Please select a location: <ul> <li>C\DD_C=C\\Terrasys</li> </ul> </li> <li>Restore Default Choose</li>
	TerRaNotices and TerRaNV
InstallAnywhere Cancel	Previous <u>N</u> ext

## Terrestrial BR IFIC Format Converter: TerRaQ "*external Tools "m*enu item



In order to enable existing *GE06Calc* (MS Access) to access the data in the BR IFIC database (SQLite), a format converter is also provided.

This application is able to provide a quick Microsoft Access "*bridge*" to access the data stored in SQLite format.

See "<u>How to run GE06Calc with the</u> <u>new BRIFIC.docx"</u>



Terrestrial	BRIFIC Linker to MSAccess	? <mark>×</mark>					
- Detected S	Detected Settings						
Detected UUID: {7: SQLite da Detected The detec	Detected MSAccess version: Access.Application.14 UUID: {73A4C9C1-D68D-11D0-98BF-00A0C90DC8D9} SQLite data file to link: C:/BR_SOFT/TERRASYS/Data/BRIFIC_2733.db3 Detected BRIFCI old format location: C:/BR_SOFT/TERRASYS/TERRAQ/Data The detected old path is valid.						
Link File							
File name:	C:/BR_SOFT/TerRaSys/TerRaQ/Data/TERRABROADCAST.MDB						
🗶 Open t	ne resulting link file on success, using MSAccess						
Linking steps							

## **Direct Access from BCD Portal**

http://www.itu.int/ITU-R/terrestrial/broadcast/index.html





# eBCD overview



## A TIES Account is necessary.

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



"Online search on Plans and MIFR"

eQry



### Search by:

Administration

Frequency

Administration Unique Identifier

Geographic Area Date of Receipt

> BR Identification Number

Status (Recorded/Published)

# eTools: e-notice submission to the compatibility analysis



http://www.itu.int/ITU-R/eBCD/MemberPapes/eCalculations.aspx?

	eQry ePu eT	ools myArinin	eBCD	Logout	
	el	rool	S		
	<u>eBCD statistics</u>	Calculations on-	demand		
	eCalculations Utility	SRTM3	Utiliti	ies	
The processing system is current Please select the calculation type	ly ONLINE: 6 processes available				
GE06 New Calculation	GE06D ASMG Co	mpatibility Analyse			
Upload File	Complete Submission			Browse	



# eTools: e-notice submission



![](_page_15_Picture_3.jpeg)

The ITU distributed processing infrastructure will treat your test submission and inform you at completion! <u>Our new server will handle 28</u> <u>separate processes</u>

![](_page_15_Picture_5.jpeg)

# eTools - Important

![](_page_16_Picture_1.jpeg)

Please make sure that the notice files to be examined for the <u>compatibility analysis</u> have been validated by the software tools on the BRIFIC such as *TerRaNotices*, before submitting them *eTools* 

# eTools: job processing

![](_page_17_Picture_1.jpeg)

![](_page_17_Figure_2.jpeg)

Job Id	Job Name	Job Status	Јор Туре	Date of Request	Date of Start Run	Date of Completion	Process	Elapsed Time (minutes)
11943	BHR_KWT_OMA_QAT_UAE	Success	Art4_Compatibility_ServerASMG	4/30/2014 10:11:25 AM	4/30/2014 10:25:41 AM	4/30/2014 10:30:12 AM	BR-GE06- 2_4	19
<u>12080</u>	Full_iteration_1bis	Success	Art4_Compatibility_ServerASMG	5/7/2014 5:29:36 PM	5/8/2014 2:09:16 AM	5/8/2014 2:41:29 AM	BR-GE06- 2_5	552
<u>12079</u>	Full_iteration_1	Failed	Art4_Compatibility_ServerASMG	5/7/2014 5:15:18 PM	5/7/2014 5:15:24 PM	5/7/2014 5:21:35 PM	BR-GE06- 2_4	6

# eTools – Download Results

![](_page_18_Picture_1.jpeg)

🕅 Те	Yest Packages 12080: click to show all								
Job s	umma	ry <u>Delete</u>	<u>Share</u>						
jo	b id	job na	me	job	status				
12	080	Full_iteration	on_1bis	Su	lccess				
Job I	nput								
Adr	n E-I	notice file		Number of Not	ices				
ALC	G <u>AL</u>	<u>G.txt</u>		170					
ARS	s <u>AR</u>	<u>S.txt</u>		290					
BHI	r <u>bh</u>	<u>R.txt</u>		104					
EG	Y <u>EG</u>	Y.txt		512					

![](_page_18_Picture_3.jpeg)

Results is an MS Access mdb file for download to be visualized with GE06Calc to be unzipped.

# **GE06Calc : Important**

![](_page_19_Picture_1.jpeg)

- GE06Calc is intended to be an easy-to-use tool for administrations
  - Display in details the compatibility analysis results
  - unofficially examine the conformity of notices with respect to the GE06 Plan before sending them to the BR.
- To be able to benefit from GE06Calc features, please <u>first install the BRIFIC (Terrestrial) DVD</u> <u>applications and database on your PC.</u>
- Examinations are performed taking into account the GE06 Plan and MIFR data on the BRIFIC DVD.

# **GE06Calc Software Tool**

![](_page_20_Picture_1.jpeg)

- PC-based application for unofficial examinations to the GE06 Digital Plan
- Web-based installation from: ITU-R->Terrestrial->Broadcasting->Software->GE06Calc <u>http://www.itu.int/ITU-R/terrestrial/broadcast/software/ge06calc/</u>
- Automatic updates (checking for updates is performed only if and when the application is started)

# **GE06Calc - Features**

![](_page_21_Picture_1.jpeg)

run conformity examination in case of conversion of an allotment into assignments.

read the results file created through the use of the '<u>compatibility analysis tool</u>' of the Web application **eBCD**.

![](_page_22_Picture_0.jpeg)

# GE06Calc – Usage to read the compatibility analysis

- 1. Open compatibility analysis file (saved from eTools)
- 2. Select option to read the results
- 3. Analyze the results, reduce incompatibilities and coordinate.

[C:\ASMG\Full iteration\iteration 1\iteration1.mdb\testGE06_out.mdb] GE06 Calc								
File	Edit	View	Tools	Preferences	Window	He	lp	
			Compatib	ility Analysis				
			Coverage Analysis					
			Service/Coverage Areas					
		Channel Distribution Statistics						
		_				_	,	

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![](_page_23_Picture_5.jpeg)

## **Protection of ARS – OMA – TUN Plan entries**

![](_page_24_Picture_1.jpeg)

## Impact on the results of iteration 6 Number of assignable channels

Administration code	4dB margin	3dB margin (ARS-OMA-TUN)
EGY	292	291
IRQ	140	139
JOR	166	163
KWT	3	2
OMA	200	194
QAT	40	39
UAE	71	59
YEM	575	573

![](_page_25_Picture_2.jpeg)

## Introduction of Coord Complete

				inter Car	al an alla 1 co	50
<u> </u>	ASMG/Full Ite	eration\itei	ation oliterationokesults_W	incoor	a.mabj G	EC
°06 F	ile Edit Vi	ew Tool	s Preferences Window	Help		
UHF	Channel Distribu	ution VHF	Channel Distribution			
	No. Adm	Geo Are	Adm Ref Id		Not.Typ	S
	99 JOR	JOR	TRCD1 JORT940		GT1	G
	100 JOR	JOR	TRCD1 JORT942		GT1	K
	101 JOR	JOR	TRCD1_JORT946		GT1	А
	102 JOR	JOR	TRCD1_JORT947		GT1	A
	103 JOR	JOR	TRCD1_JORT949		GT1	Ν
	104 JOR	JOR	TRCD1_JORT951		GT1	A
	105 JOR	JOR	TRCD1_JORT955		GT1	IF
	106 JOR	JOR	TRCD1_JORT956		GT1	N
	107 JOR	JOR	TRCD1_JORT957		GT1	N
	108 JOR	JOR	TRCD1_JORT958		GT1	IF
	109 JOR	JOR	TRCD1_JORT961		GT1	J
	110 JOR	JOR	TRCD1_JORT963		GT1	G
	111 JOR	JOR	TRCD1_JORT965		GT1	S
	112 JOR	JOR	TRCD1_JORT966		GT1	E
	113 JOR	JOR	TRCD1_JORT967		GT1	A
L	114 JOR	JOR	TRCD1_JORT968		GT1	A
<u> </u>	115 JOR	JOR	TRCD1_JORT970		GT1	A
<u> </u>	116 JOR	JOR	TRCD1_JORT971		GT1	A
	117 JOR	JOR	TRCD1_JORT973		GT1	A
	118 JOR	JOR	TRCD1_JORT974		GT1	D
<u> </u>	119 JOR	JOR	TRCD1_JORT977		GT1	S
<u> </u>	120 JOR	JOR	TRCD1_JORT978		GT1	A
	121 JOR	JOR	TRCD1_JOR19/9		GII	A
	122 JOR	JOR	TRCD1_JOR1980		GTI	В
<u> </u>	123 JOR	JOR	TRCD1_JOR1981		GTI	В
<u> </u>	124 JOR	JOR	TRODI_JUK1982		GT1	D
	120 JUR	JOR	TPODI JOR1983		GT1	U
<u> </u>	120 JOR	JOR			GT1	
<u> </u>	127 JOR	JOR	TROD1_JORT985		GT1	
	128 JOR	JOR	TROD1_JORT980		GT1	J
<u> </u>	130 JOR	IOR	TROD1_JORT992		GT1	N
	131 JOR	JOR	TRCD1_JORT993		GT1	R
	132 JOR	JOR	TRCD1 JORT995		GT1	S
	133 JOR	JOR	TRCD1 JORT997		GT1	s
	134 JOR	JOR	TRCD1 JORT998		GT1	N
	135 JOR	JOR	TRCD2 JORT0015		GT1	T
	136 JOR	JOR	TRCD2 JORT0365		GT1	S
	137 JOR	JOR	TRCD2_JORT0439		GT1	D

Э	Coord Required	<b>s</b> ti	C
	ISR PSE XYZ		C
	ARS ISR PSE XYZ		
	ISR PSE XYZ		
	ISR PSE XYZ		
	ISR PSE XYZ		
	ISR PSE SYR XYZ		
	ISR LBN PSE SYR XYZ		
	ISR LBN PSE SYR XYZ	0.40.40	A
	ISR LBN PSE SYR XYZ	8,40,43	32
	ISB SYB		33
	ISR PSE XYZ		32
	DSF XYZ	8,40,43	25
		8,40-4	25
		8,40-4	25
		0-41,4	25
	ISR LBN PSE STR XTZ	8,40-4	25
	ISR PSE XYZ	4-38,4	22
	ISR PSE SYR XYZ	4-38,4	22
	ARS EGY EGY ISR		27
	ARS SYR	0 34-3	25
	ISR PSE XYZ	0,010	32
	ARS SYR	6,38,40	33
	PSE SYR XYZ	8 40 43	39
	PSE SYR XYZ	0,40,40	37
	ISR LBN PSE SYR XYZ		26
	EGY EGY ISR PSE XYZ	4 20 4	32
	ISB I BN PSE SYB XYZ	6 38 40	20
	ARS EGY ISR	8,40,43	25
	EGY EGY ISB PSE XYZ		22
		8,40,43	25
		4-30,40	32
	ARSEGTISR	3-44,4	25
	EGY ISR LBN PSE SYR XYZ	7 40 4	43
	ARS SYR	6,40,4	25
	EGY EGY ISR LBN PSE SYR XYZ	6,40,43	22
	EGY EGY ISR PSE XYZ	1 20 10	26
	EGY EGY ISR	4-38,40	34
	EGY ISR		
	ISR PSE SYR XYZ		

ARS EGY ISR

## on information

Assignable Ch/blo	Coord Complete	Coord Required
22,25,27,30,35,3		ISR PSE XYZ
32		ARS ISR PSE XYZ
33		ISR PSE XYZ
32		ISR PSE XYZ
25,30,35,37-38		ISR PSE XYZ
		ISR PSE SYR XYZ
25,30,35,37-38,4		ISR LBN PSE SYR XYZ
25,30,35,37-38,4		ISR LBN PSE SYR XYZ
25,27,30,35,37-3		ISR LBN PSE SYR XYZ
25,30,35,37-38,4		ISR SYR
		ISR PSE XYZ
22,25,27-28,30,3		PSE XYZ
22,25,27-28,30,3		ISR PSE XYZ
27		ISR
		ISR LBN PSE SYR XYZ
25,27,30,35,37,4		ISR PSE XYZ
32		ISR PSE SYR XYZ
33,43-44,47		ARS EGY EGY ISR
39		ARS SYR
22,25,28,30,35,3		ISR PSE XYZ
37		ARS SYR
26		PSE SYR XYZ
32		PSE SYR XYZ
25,30,35,37-38,4		ISR LBN PSE SYR XYZ
22,25,35,38,44		EGY EGY ISR PSE XYZ
25,30,35,37-38		ISR LBN PSE SYR XYZ
22		ARS EGY ISR
25,30,35,37-38		EGY EGY ISR PSE XYZ
22,25,27,30,35,3		ISR PSE SYR XYZ
32		ARS ISR PSE SYR XYZ
05.05.07		ARS EGY ISR
25,35,37		EGT ISR LBN PSE STR XTZ
43		ARS STR
25,35		EGT EGT ISR LBN PSE STR XTZ
25,35,44		
22,20,30,43-44,4		
20		
22,20,20,30,32,3		
34		ANDEUTION
1	to the second second	expetienel.

![](_page_26_Picture_5.jpeg)

### Introduction of Article 4 coordination examination

![](_page_27_Figure_1.jpeg)

![](_page_27_Picture_2.jpeg)

### Introduction of Article 4 coordination information

![](_page_28_Picture_1.jpeg)

![](_page_28_Picture_2.jpeg)

## Introduction of Article 4 coordination information

![](_page_29_Figure_1.jpeg)

![](_page_29_Picture_2.jpeg)

# Agenda

![](_page_30_Picture_1.jpeg)

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

The new enhancements

The link between the files considered by the iterations and the Plan data - Additions, Modifications & Suppressions

The ITU/ASMG Frequency coordination web portal

## Link between iterations & Plan data

- The files sent to the iterations should contain *all* the requirements
- The iterations consider all the entries in the Plan for the ASMG below channel 48
- The neighboring countries outside the ASMG are also considered
- For the future iterations, any Administration can decide to SUPPRESS or MODIFY the Plan Assignments/Notices in the iteration files.
- The iterations are a separate, independent process

![](_page_31_Picture_6.jpeg)

# Agenda

![](_page_32_Picture_1.jpeg)

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## **Direct Access from BCD Portal**

http://www.itu.int/ITU-R/terrestrial/broadcast/index.html

![](_page_33_Picture_2.jpeg)

![](_page_33_Picture_3.jpeg)

## **Direct Access from ASMG web page**

### Arab Spectrum Management Group (ASMG) - GE06 Frequency Coordination Meetings

YOU ARE HERE HOME > ITU-R > TERRESTRIAL SERVICES > BROADCASTING > ASMG

![](_page_34_Picture_3.jpeg)

The aim of this activity is to assist the ASMG ITU Member States in coordinating the necessary modifications to the GE06 Digital Plan, in order to ensure the availability for each country in the region, on an equitable basis, of the spectrum resources required to support at least four TV multiplexes with national coverage, including the frequency assignments or allotments already recorded in the GE06 Digital Plan, in the band 470-694 MHz.

This activity is intended to enable the concerned administrations to successfully apply the relevant procedures of the GE06 Agreement and the Radio Regulations in order to modify the GE06 Digital Plan and bring in service their frequency assignments to the broadcasting and mobile services in the UHF band without harmful interference.

Submissions to modify the Plan GE06 should be sent through WISFAT.

### PLANNING TOOLS

- eTools Runs compatibility calculations and other routines.
- GE06Calc View compatibility results (output of eTools).
- SRTM3 Effective antenna heights calculator, also available in TerRaNotices

#### RELEVANT COORDINATION MEETINGS

Digital Terrestrial TV in UHF Bands & Digital Dividend, Hammamet, Tunis, 8-12 September 2014: ASBU Invitation letter (including registration forn and hotel information) in Arabic

Registration form

Digital Terrestrial TV in UHF Bands & Digital Dividend, Dubai, United Arab Emirates, 18-20 May 2014:

ASMG recommendations and technical criteria

#### Presentations:

Transition to digital TV and allocation of the digital dividend Finding new channels - compatibility analysis Frequency planning and coordination - GE06 Plan modification and notification Transition to Digital TV & technical aspects Initial preparation of requirements

### SHARE 😭 💟 in 🖂

### NEWSFLASHES

 Next GE06 Coordination Meeting -Hammamet, Tunis, 8-12 September 2014

### <u>Next Iteration</u>:

Deadline for requirement submissions for Iteration 7 is 8 SEPT 2014, 18:00 Geneva time (Frequency coordination timeline).

The file must be validated using TerRaNotices and submitted to <u>BRBCD@itu.int</u>

### ITERATION RESULTS AND STATISTICS

![](_page_34_Figure_25.jpeg)

Iteration 6: notices, results, statistics

Previous iterations

### ASMG GE06 PLANNING AREA

![](_page_34_Picture_29.jpeg)

![](_page_34_Picture_30.jpeg)

![](_page_35_Picture_0.jpeg)

# Thank you Merci beaucoup