

29TH WORLD RADIOCOMMUNICATION SEMINAR

30 November - 11 December 2020

Capture and Validation

Coordination Requests



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Objectives

- Use an existing notice to create a new notice
- Introduce Validation and Cross-Validation
- Correct common errors







Microsoft Access database container : specific internal structure (described in the BR Preface) https://www.itu.int/ITU-R/go/space-preface/en

PREFACE

TO THE BR INTERNATIONAL FREQUENCY INFORMATION CIRCULAR

BR IFIC (Space Services)

SECTION III - Chapter 1: Details relating to the contents of the SNS data items

Details relating to the contents of the SNS data items published in Part I-S, II-S, III-S and the Special Sections of the BR IFIC

Table Name	Data Item	Items in AP4	Format	4/2	4/3	Plans	Description	Comment
adm_assoc							Administration list "on behalf of" which submitted	
	ntc_id	BR	9(9)	х		х	unique identifier of the notice	PK, FK; see NOTE 1
	adm	A.1.f.2	X(3)	х		х	country symbol of the notifying administration	PK; see NOTE 1
assgn							Assigned frequency	
	grp_id		9(9)	х	х	х	unique identifier of the group	PK, FK; see NOTE 1
	seq_no		9(4)	х	х	х	sequence number	PK; see NOTE 1
	frea svm	C.2.a.1.a	Х	x	х	х	symbol indicating kilohertz [K], megahertz [M] or gigahertz [G]	





Table relationships within the SNS Data Structure from the Preface to the BR IFIC









Find the notice you wish to use as a starting point TIP: Try using a published notice











CHANGE DATA as needed

'RS

(e.g., network name, orbital position, beams, frequencies, etc.)

Notice	Station	Beam	Strapping	Noise Gan	nma Attachments
	Notice Id: 120500111	Administration: F	Status: 19	Date: 02.09	9.2020
	A1a. Identity of the Satellite Ne A4a. For GeoStationary Satel Degrees E/W 8 W 2c. Inclination Excursion 0.1 °	twork lites Only 2. Longitudinal toleran a. To West 0,1 b	ce (degrees) . To East 0.1		ist of Available Beams Beam BSR Beam RCO Beam RO Beam UBR Beam UBR Beam UCR Beam B1R Beam BSR Beam DCR
	A16a. Commitment to meet o limitations (applicable bands 13.75-14.5 GHZ and 29.5-30	ff-axis power 12.75-13.25 GHz, G I GHz)	Yes O No		Beam ECU Beam EO
	417 0 3 14 1	a			



You can EXPORT and CHANGE the graphical data the same way using GIMS



🖻 🗖 🕐 V1T

HOWEVER...simply changing the orbital position doesn't work; You must re-create the contours and the service areas after

Checking your notice

Using Cross-Validation

For Coordination GSO notices you need an SNS mdb file and a GIMS mdb file

VALIDATE your notice

- e V9 [Set Notice Template]
- s Template Window Help

SELECT the notice in Notice Explorer Then click the Validation button in the Control Box

VALIDATE your notice

FROM SAM LAUNCH BR SIS Then click Validation module

Selected task:

Validation interfaces: SpaceCap and BR SIS

Validation (or Cross-Validation) reports

Validation Reports

created on 27/10/2020 - start time: 09:26:47 - duration: 1min. 37sec. by user JONESGO

- Validation: 22 Errors
- O SRSFIX: 1 Error

											-1
Beam	E/R	Grp Id	Table	Field	Value	Row	Valerr	Rule	r/W	And Ref	LE TO
							9000	1	F	F	EXT
			geo	f_p	Y		105	4	w	(Blanks)	Con
CMD	R		s_b	be	CMD		501	4	w	(Non blanks F W) (GIN Vev evu Joss
KA	R	266	grp	are	1		647	4	w	e.t.r.a	xGIN diam
KA	R	271	grp	are	1		647	4	w	C.11.a	xGIN diam

	-	1	-		-	-	
leam	E/R	Grp Id	Table	Field	Value	Row	V. Y Rule F
							90 ^(Blanks)
			geo	f_p	Y		(Non blank
							105
MD	R		sh	he	CMD		501

VRS

Click on the filter button ...to filter only the Fatal errors or warnings ... or to see specific

errors, filter by validation error number

Double-click on error text to get more information about a specific error

THE: US.20.47 - QUIAUON: TITIIN. 37 SEC. DY USET JUNESOUN USING VERSION: 9.0.0.7

		ſ	SNS Valid	ation	Rule								x
or:1	Warni	ng	Table na	ame:	grp		Field name:	area_no		Da	ta format: 9(2)	
eld	Value	R	AP4 iter	m: C. *	11.a								
			Descript	ion:	sequen	ce numbe	er associating a	a particul	ar serv	vice ar	ea		/ polariz:C / area_no:a
p	Y				ulugiu	in when en	group						164
ł	CMD		Validatio Validatio	on No on Ru	: 643 /e: G: ser res	7.4 check who vice is allo triction - I	Applies to: geo ether the serv ocated, based BR Internal (V	o not ISS ice area e on the ref V)	xceed ferenc	s the r table	egions wher e of regional	e the	ce of the Earth, they s Max.Gain(Item B.3.a) · e.(CMD/R/CO (Gain C
e	1		Error Me	essag	e: xG Re	IMS: Unde	er No. 5.532B, the fixed-sate	the use o	f the b ce (E-t	band 2 to-S) is	4.65-25.25 G	iHz in arth	legion 1 by the fixed-
e	1				sta	tions usin	g a minimum	antenna o	diamet	ter of	4.5 m.		legion 1 by the fixed-
e	1							OK					atellite service is on a
e	1	٦.		-		Sec. 1.10	AGINIS: OTIO		<i>,</i>	nə warn	u, une anocau	on to the mo	atellite service is on a
e	1		647	4	w	C.11.a	xGIMS: Unde	er the revis	sion of	f No.5.5	521 by WRC-1	5, there is no	allocation for the fixed-sat
e	1		647	4	w	C.11.a	xGIMS: Unde	er the revis	sion of	f No.5.5	521 by WRC-	5, there is no	allocation for the fixed-sat
e	1	647 4 W C.11.a xGIMS: Under the revision of No.5.521 by WRC-15, there is no al						allocation for the fixed-sat					

SOME EXAMPLES: "Fatal Errors"

SNS Data Structure may have been modified

2	SFIX RE	SULT	Fatal I	Errors:2	Expo	ort 🔒	9		Q	-]	
												Drag a column header here to group by that column
	Beam	E/R	Grp Id	Table	Field	Value	Row	Valerr	Rule	F/	Ap4 Ref	Error Message
				phase	d_ref			9102	1	F.	A.4.b.4.k	DATABASE STRUCTURE: Mismatched field type/size. Expected type/size is:d_ref INTEGER
				phase	t_ref			9102	1	F.	A.4.b.4.I	DATABASE STRUCTURE: Mismatched field type/size. Expected type/size is:t_ref INTEGER

Frequency band may be subject to regional limitations

VA	LIDATION	RES	ULT: Fat	al Errors:	30 Warnings:	2922 Exp	ort 🕻) Y			🖶 Details	
	Beam	E	Grp Id	Table	Field	Value	Row	Valerr	Rule	F. ♥	Ap4 Ref	Error Message
•	KABSS	Е	1720	grp	area_no	1		647	4	F	C.11.a	xGIMS: No allocation in Region 1 and Region 3.
	KABSS	Е	1721	grp	area_no	1		647	4	F	C.11.a	xGIMS: No allocation in Region 1 and Region 3.

A diagram in GIMS (in this case, a service are adiagram) may not have been referenced in the SNS part

١	ALI	DATIO	ON RE	SULT:	Fatal E	rror:1	Warn	ings:2	1 Expo	ort 🕻	9		Details
	1	Beam	E/R	Grp Id	Table	Field	Value	Row	Valerr	Rule	F/W [♥]	Ap4 Ref	Error Message
	Þ								9000	1	F		EXTRA DIAG IN GIMS (beam_name:KR1R / emi_rcp:R / diag_type:SA/ polariz:C / area_no:2)

SOME EXAMPLES: Warnings

Unnecessary commitment: the condition for the commitment does not seem to exist in the database

١	/Al	IDATIO	ON RI	ESULT:	Fatal E	irror:1	Warn	ings:2	1 Expo	ort [9		Details
		Beam	E/R	Grp Id	Table	Field	Value	Row	Valerr	Rule	F/W	Ap4 Ref	Error Message
					geo	f_p	γ		105	4	w	A.16.c	Commitment is not required if grp not in accordance with Res 163/164

Limitations: frequency band may fall under Appendix 30/30A/30B depending on where it is used

TLM1 E 451 ass... fre... 12.... 1 752 4 W C.2.a.... AP30/30A#Art.2A may apply for R2 Downlink

Maximum period of validity should be 50

	Beam	E	Grp Id	Table	Field	Value	Row	Valerr	Rule	F/W	Ap4 Ref	Error Message
⊬	CD1R	Ε	1619	grp	prd_valid	99		604	2	w	A.2.b	Invalid value

Receiving system noise temperature not same for all groups in a beam (or for all associated earth stations with the same name

Beam	E	Grp Id	Table	Field	Value	Row	Valerr	Rule	F/W	Ap4 Ref	Error Message
CU1R	R	2425	grp	noise_t	500		643	5	w	C.5.a	Value not same for all groups of this beam

MORE INFORMATION about Validation Errors

can be found...

Space Information System (SNS v9

Selected database: 120520174 MADAR-82W SG.mdb

...when you open BR SIS from SAM and select Validation...

...or from the Preface...

Radiocommunication Sector (ITU-R)

RADIOCOMMUNICATION BUREAU

PREFACE

TO THE BR INTERNATIONAL FREQUENCY INFORMATION CIRCULAR BR IFIC (Space Services)

...or in the Radio Regulations and Rules of Procedure

Preparing a MOD

To modify previously published information

- Only NEW and/or MODIFIED data (delete before submitting all UNCHANGED data)
- If something is being MODIFIED, what is it and how is it being modified?

DELETE

previously submitted data that remains unchanged

??

BEAMS:

NEW (ADD) beams or changes (MOD) to "existing" (previously submitted) beams?

GROUPS:

ADD beam *automatically* means NEW groups (no need to indicate) NEW groups to an "existing" beam or MODifications to "existing" groups?

TIP: It is not usually worthwhile to try to modify existing groups; add NEW ones

the previously published notice to a new database

EXPORT

SpaceCapture V9 - [Set Notice Template] File Edit Tools Template Window Help 🛤 🗸 여이 >>> 🚳 🛃 🗐 🐒 📰 CR/NOTIF 5 API 🖏 RAST 5 PLAN 5, RS49/5 SpaceCap Notice Explorer - AP4/II and AP4/III 1 Notice id. Type Adm./Org. Orb. Pos. Date rov. Status 🔌 2 Station name Control Box 🖉 Database to open X B « WRS-2020 > Capture_Validation CRC presentation Search Capture_Validation CR... 🔎 ~ Ō Orga III - III (?) Name Status Date modified Type ific2929.mdb C 04.11.2020 15:26 Micro s\users\j) (ub2) (O:) (Q:)) (R: 👳 xchange (\\blue\dfs) (X:) 👳 appxchg (\\blue\dfs) (Y:) 🐂 Libraries A Network V < File name: Open Cancel _______________

KEEP original group numbers

394 0 04 🚢		107 20	CANCAT CO	00 11 2010
22 23 26	-Target Database	ngres		
26 26 26				Set Target
26 08	Keep History Group Ids			☐ Flag for Coc Agreement
09 11	C Renumber Group Ids	🖲 Keep G	roup Ids of the source	
12	-Notice Already in Target	database —		
17 17	 Give a new Notice Id 	C Replace	Notice in Target 🔿 Do	o not export
15 .	- Export			
15 15	 Run Export now 	C Schedu	le Export to run later	
16 04 05		ОК	Cancel	
051[2	A] G RUS/	165E	SKY-F-165E	13.04.2020

ACTION CODES help the Bureau to understand what you are modifying and how

	Notice Explorer - AP4/II and AP4/III						
	🥥 Notic	ce id. 🛛 1	ype /	Adm./Org.	Orb. P	08.	Station name
	🗆 🔊 List	of noti	ces				
	-120520	0058 [A]	G	ATG/	14	.5E	MY_SATELLITE
	d−120520	0999 [M]	G	ATG/	14	.5E	MY_SATELLITE
rer		Beam id:	ISR24	4G [M]			
		Beam id:	ISR33	3G [M]			
	Beam id: KAU[M]						
	¢-7/	Beam id:	KAUEI	R [M]			
е		Grou	p id:	265[M]	(p10)	{tgt	_id=44}
		Grou	p id:	266[M]	(p11)	{tgt	_id=45}
	- A I	Beam id:	KAUR	[M]			
2		Beam id:	QU [M]	1			
		Beam id:		4]			
		Beam id:	TCS []	4]			

A = ADD (new) M = MOD (changed) NEW BEAMS (action code A) Groups in a new beam are always new, so no code

OLD BEAMS (action code M)
a) Remove unnchanged "existing" groups
b) NEW GROUPS in OLD beam → Action Code A
c) Changed groups in OLD beam → Action Code M

OLD BEAMS or GROUPS (action code S) To officially SUPPRESS (delete) beams or groups that are no longer valid or relevant

NOTE: Groups with action code M or S must have the appropriate group number from the target notice

Thank you!

ITU – Radiocommunication Bureau Questions to <u>brmail@itu.int</u> or <u>brsas@itu.int</u>

