



User Guide

Voice Circuit Provisioning

Author: City Computing Ltd
June 2008

Document reference: IRTMS-V VCP Issue 1.0



City Computing Limited,
City House,
Sutton Park Road,
Sutton,
Surrey, SM1 2AE.
United Kingdom

Tel: +27 (0)208 770 2110
Fax: +27 (0)208 770
2130
Email: info@cityc.co.uk
Web site: www.cityc.co.uk

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license. No responsibility is assumed for the use or reliability of software used on equipment that is not under license to contain the software.

The information contained in this document is subject to change without notice and should not be construed as a commitment by City Computing Ltd. City Computing assumes no responsibility for any errors that may appear in this document.

No part of this documentation may be reproduced without the prior written permission of City Computing Limited.

Copyright © 2008 City Computing Ltd, Sutton Surrey.

Table of Contents

1 Introduction 3

2 IRTMS and crosspoints : background information..... 4

3 Viewing PMAC information. Finding an RTU for a subscriber number 5

4 Harris RTU Crosspoint Panes 7

5 Allocating a crosspoint and editing crosspoint details 9

6 Marking a crosspoint good, suspect or bad 12

Table of Figures

Figure 1 : IRTMS New Voice Test form	5
Figure 2 : IRTMS New Voice Test form : PMAC details.....	5
Figure 3 : IRTMS New Voice Test form : RTU selection.....	6
Figure 4 : IRTMS New Voice Test form : RTU not found.....	6
Figure 5 : Harris RTU Cross Points.....	7
Figure 6 : Harris RTU Cross Points - filter rows based on site	8
Figure 7 : Harris RTU Cross Points - filter rows dialog box	8
Figure 8 : Edit Harris RTU Cross Point - Allocation tab.....	9
Figure 9 : Edit Harris RTU Cross Point - Details tab.....	10
Figure 10 : Edit Harris RTU Cross Point - Details tab.....	11

1 Introduction

This manual describes the IRTMS facilities for voice circuit provision. Companion guides are available describing IRTMS voice circuit testing and IRTMS Voice RTU maintenance.

Readers of this guide should be familiar with the Task Browser. Ideally they should have first read the "Task Browser General Guide" which is a brief introduction to how to work with Task Browser facilities.

If you haven't read the general guide, the key points to note are

- the Task Browser is a "multiple document interface" similar to Microsoft Word or Excel.
- Information is displayed in row-column views called "panes" and double-clicking on a row in a pane opens up a "property view" window.
- A right mouse click within a pane will bring up a context-sensitive menu offering options appropriate to the information shown in the selected row or relevant to the pane.
- Certain options cause forms or "web-tools" to appear which allow the user to enter or edit data.

Please note that there is an online help facility that gives further explanation.

This guide covers the following topics :

- Viewing PMAC information using IRTMS and finding an RTU for a given subscriber number
- Finding an unused crosspoint entry
- Allocating a crosspoint and editing crosspoint details
- Unallocating a crosspoint
- Marking a crosspoint good, suspect or bad

The guide assumes that the reader is familiar with the Harris RTU setup tables, in particular the RTU setup TMM table. Please refer to Harris/Fluke documentation for more details.

2 IRTMS and crosspoints : background information

In the existing legacy system, the RTU TMM table holds information describing how DLU/CSN line-bay devices are connected to RTU crosspoints for the purpose of test-bus access.

In the IRTMS model, this information becomes centralised and under IRTMS control. IRTMS holds database records describing the RTUs and the crosspoints.

After data migration from the legacy TAC system to IRTMS, IRTMS becomes the data master instead of the TMM table. The RTU TMM table will no longer contain switching module codes (SMCs) that map to DLU or CSN line bay numbers. Instead the odd numbered TMM crosspoint SMC values will be reprogrammed to run from 1 to 96 (by using an IRTMS tool). IRTMS also assumes that all accesses will be 4 wire (mode 1 or B) and even-numbered crosspoints on the RTU TMM table are redundant and IRTMS therefore clears them from the TMM table. (This TMM reprogramming is necessary to achieve the desired central control of information and also because of a technical restrictions within the RTU SUBS command which is limited to two digits).

IRTMS does not use number range information to identify the RTU by which a subscriber circuit can be tested. Instead, IRTMS asks the inventory database PMAC to describe the circuit and obtains the DSSU, the MDF name ("site") and the rack number in return. IRTMS then checks against its RTU crosspoint records to see where the site and rack is registered against crosspoints. The corresponding RTUs are then located and used for the test.

3 Viewing PMAC information. Finding an RTU for a subscriber number

In order to check if an RTU test-bus access has been wired for a given subscriber number, the facilities of the "New Test" form can be used.

The tool is obtainable from
Tools→Voice Test→New Voice Test

The tool appears as below (with an example number completed)

The screenshot shows the 'NewVoiceTest' application window with the 'Test Details' tab selected. The form contains the following fields and controls:

- Full National Subscriber Number: 0119521950
- Test Type: FULL
- Test Priority: 1
- Max Queuing Time: 60 seconds
- Force test if line busy: Customer intrusion consent obtained
- IRTMS post-processing:

Buttons at the bottom: OK, Cancel, Help.

Figure 1 : IRTMS New Voice Test form

Selecting the second tab, the "Switch (PMAC) Details" tab allows you to interrogate PMAC for information concerning the DN. Pressing the **Fetch PMAC** obtains the PMAC data and returns the information to the form.

The screenshot shows the 'NewVoiceTest' application window with the 'Switch (PMAC) Details' tab selected. The form contains the following fields and controls:

- Buttons: Fetch PMAC, Clear
- Local Area Code: 011
- Switch Name (DSSU): KDP
- Switch Type: EWSD
- IRTMS Switch Service State: COMMISSIONED
- MDF name: RE00:01
- RTU site name: RE00
- Rack Type: DLU
- Rack Number: 110

Buttons at the bottom: OK, Cancel, Help.

Figure 2 : IRTMS New Voice Test form : PMAC details

The RTU site name is derived from the MDF name returned by PMAC and excludes any characters after the colon character.

If PMAC does not return adequate data (for example the directory number is unknown to PMAC, an error will be displayed.

The third tab on the form, the "RTU selection" tab looks up the RTU site name and Rack Number against the RTU cross-points in the IRTMS database and finds the RTU registered for that rack number

Continuing the example shown above, clicking on the "RTU Selection" tab and then using the pull-down option shows the following :

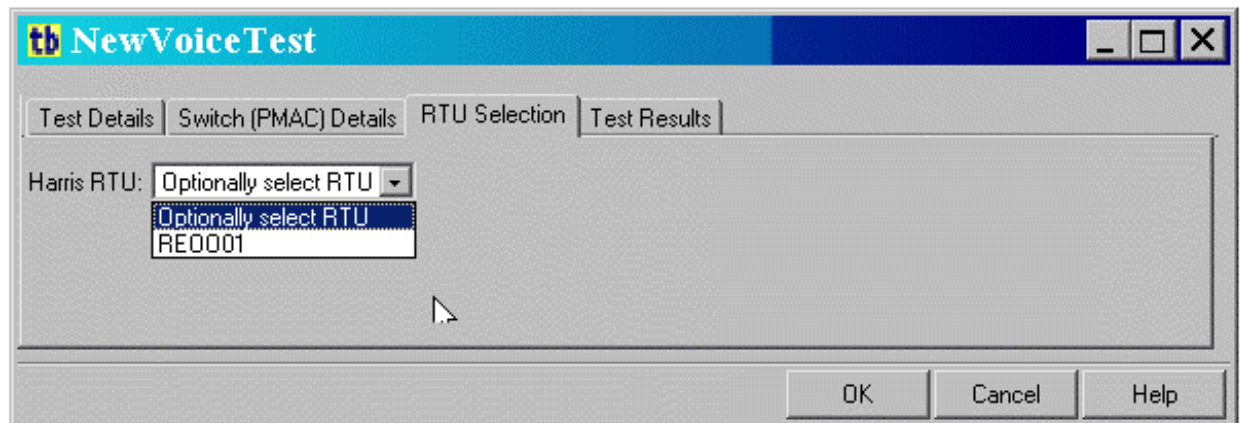


Figure 3 : IRTMS New Voice Test form : RTU selection

The pull-down shows RTUS that are currently able to access the circuit. The selection does not restrict to see if an RTU is in good condition or is commissioned or decommissioned.

If no RTU can be found, the display below will appear :

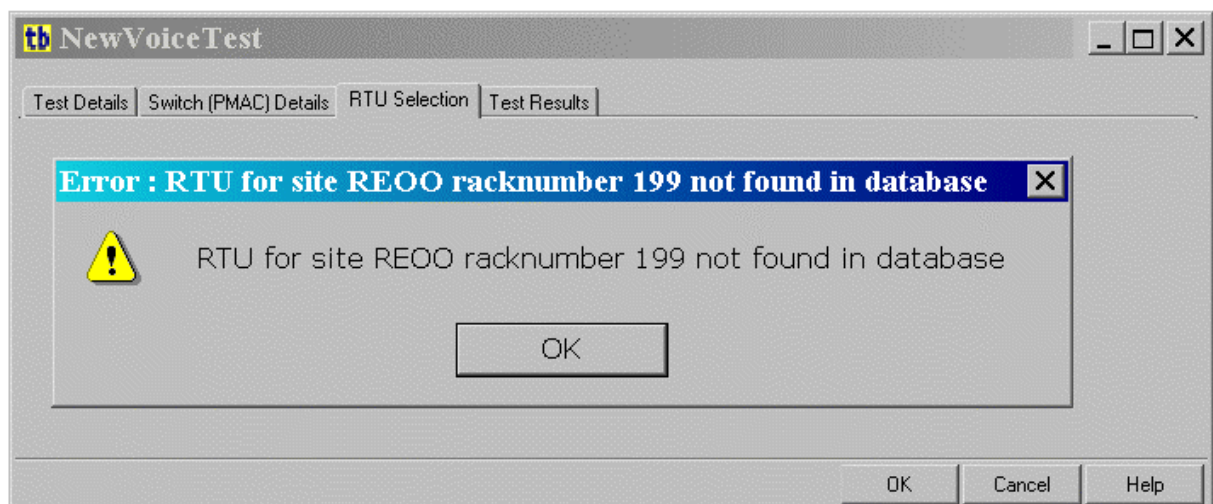


Figure 4 : IRTMS New Voice Test form : RTU not found

4 Harris RTU Crosspoint Panes

All Harris RTU crosspoint records can be viewed using the following menu option :

File→New→Equipment Panes→Harris RTUs→All Harris RTU Cross Points

A pane then appears showing all Harris RTU crosspoints, with the usual ability to filter and sort the data and change the column selections.

Views of this data also appear on the property pane for the Harris RTU (filtered for the specific RTU). The purpose of this pane from the equipment panes menu is to allow free and used RTU cross-points (TMM SMC slots) to be inspected on a central basis, for example for capacity planning.

Name	Xp Row	Xp Col	Site	Rack Number	Legacy Sm Mode	Legacy Sm Code	Condition State
TLEM01:XP_1	1	1			1		GOOD
TLEM01:XP_3	1	3	TLEM	005	1	005	GOOD
TLEM01:XP_5	1	5	TLEM	006	1	006	GOOD
TLEM01:XP_7	1	7			1		GOOD
TLEM01:XP_9	1	9			1		GOOD
TLEM01:XP_11	1	11			1		GOOD
TLEM01:XP_13	2	1	TLEM	071	1	071	GOOD
TLEM01:XP_15	2	3	TLEM	100	1	100	GOOD
TLEM01:XP_17	2	5			1		GOOD
TLEM01:XP_19	2	7			1		GOOD
TLEM01:XP_21	2	9			1		GOOD
TLEM01:XP_23	2	11			1		GOOD
TLEM01:XP_25	3	1			0		GOOD
TLEM01:XP_27	3	3			0		GOOD
TLEM01:XP_29	3	5			0		GOOD
TLEM01:XP_31	3	7			0		GOOD
TLEM01:XP_33	3	9			0		GOOD
TLEM01:XP_35	3	11			0		GOOD
TLEM01:XP_37	4	1			0		GOOD
TLEM01:XP_39	4	3			0		GOOD
TLEM01:XP_41	4	5			0		GOOD
TLEM01:XP_43	4	7			0		GOOD
TLEM01:XP_45	4	9			0		GOOD
TLEM01:XP_47	4	11			0		GOOD

Figure 5 : Harris RTU Cross Points

Unused crosspoints have an empty **Site** and **Rack Number** field.

Two predefined browser filters exist to show "**Allocated XPs**" and "**Unallocated XPs**"

To find crosspoints that reference specific sites, you can use the standard right-click pop-up menu option **"Filter rows based on"**
 Perform the right-click operation with the cursor within the "Site" column and you will get the pop-up menu option below.

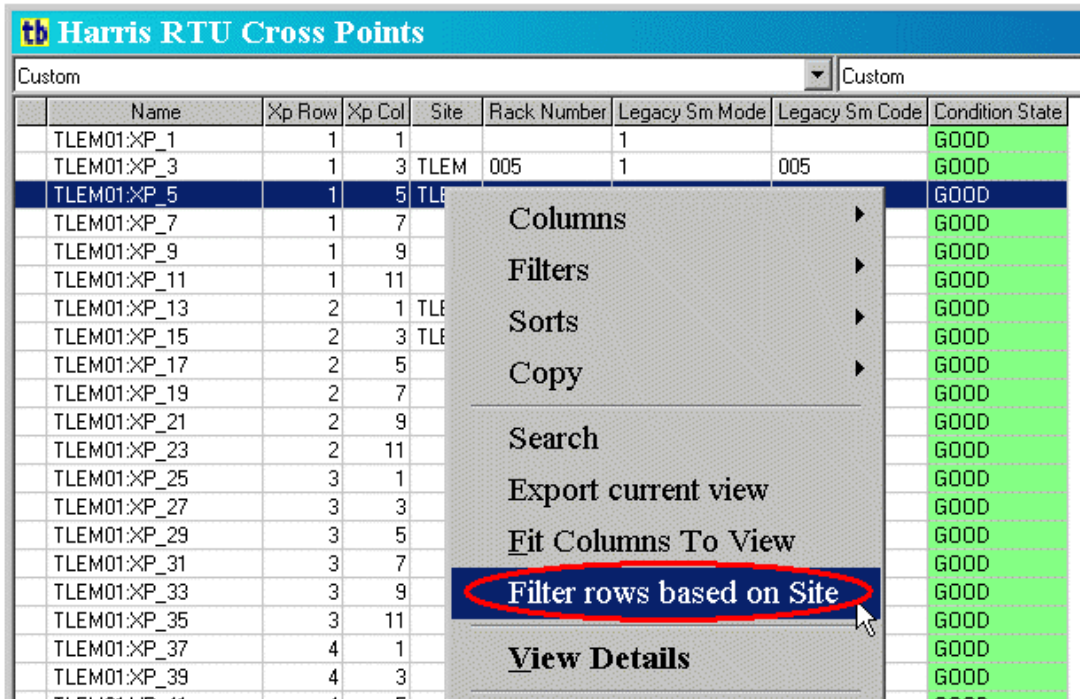


Figure 6 : Harris RTU Cross Points - filter rows based on site

Selecting the "Filter rows based on site" option and entering the appropriate site name will show all crosspoints that reference that site. (The percent character % can be used as a wildcard pattern match, as is customary for SQL matches)

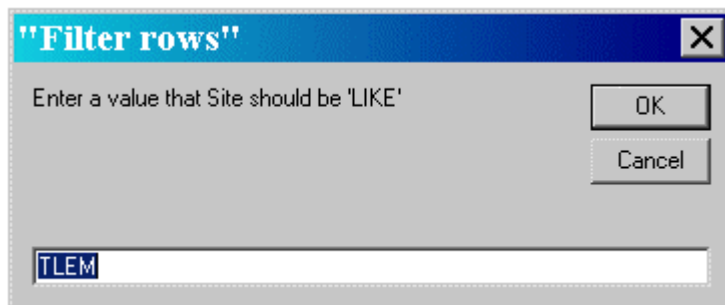


Figure 7 : Harris RTU Cross Points - filter rows dialog box

Custom filters can also be specified to show matches against site and rack number - refer to the Task Browser general guide for more details.

5 Allocating a crosspoint and editing crosspoint details

Crosspoints are automatically added to the system when an RTU is added. The number of the crosspoints is determined by the type of RTU added.

Allocations to crosspoints are made and crosspoint details edited by using the "Edit" option from the right-click pop-up menu.

The edit form appears as below (image adjusted slightly to fit on page):

Figure 8 : Edit Harris RTU Cross Point - Allocation tab

The form has three tabs and what you are able to do will depend on your privileges. It is possible to set up a user role so that only the allocation tab can be used and the other tabs operate in "view only" mode. Should you need greater access you will need to contact your system administrator.

The three tabs are :

Allocation	Allows a crosspoint to be allocated or unallocated
Details	Allows the RTU TMM entries to be adjusted, both on the RTU and in the database.
Calibration	Adjusts the calibration settings for circuits on this crosspoint

Data entry options for the allocation tab

Site	Site name, must match an MDF name as returned by PMAC (excluding data after the colon, if PMAC includes it) so that the correct RTU cross-reference can be made.
Rack Number	This is the rack number as returned by PMAC and is used directly by IRTMS as the DLU number or CSN/CSE number for the customer service. (The Harris rule as used by the TMM table where TMM SM code is set to DLU number without the final zero, e.g. 110 → 11 does not apply to the rack number field. The rack number should always hold the full DLU number e.g. 110 in the previous example.

The form insists that either both **Site** and **Rack Number** values are supplied.
Alternatively both values can be cleared to unallocate a crosspoint.

The details tab appears as below

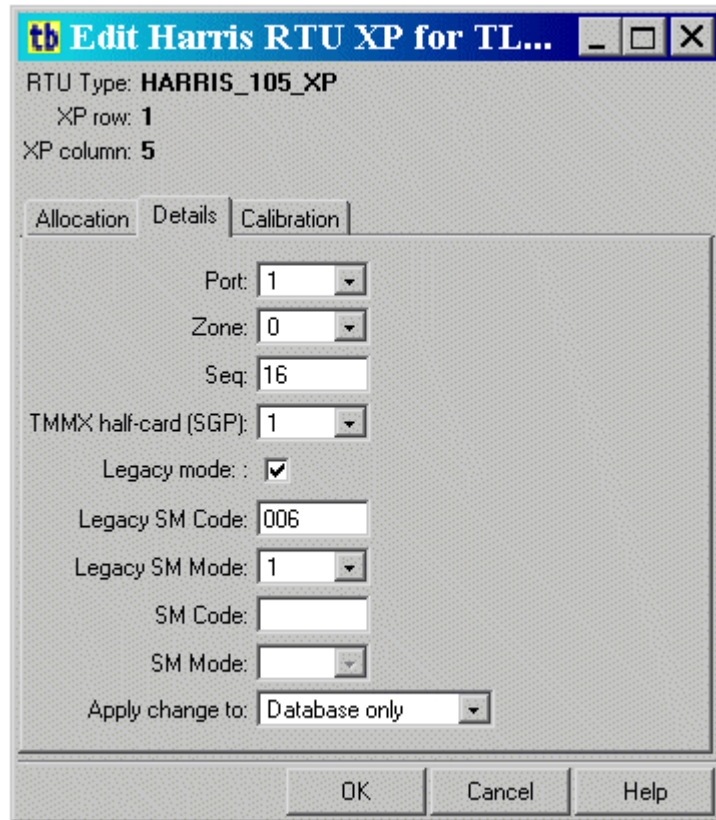


Figure 9 : Edit Harris RTU Cross Point - Details tab

Data entry options for the details tab

Port	Port as seen on the RTU TMM table
Zone	Zone as seen on the RTU TMM table
Seq	Seq as seen on the RTU TMM table
TMMX half-card	SGP as seen on the RTU TMM table
Legacy mode	Determines whether IRTMS uses the legacy SM Code and legacy SM Mode when making circuit access, or whether the RTU has been reprogrammed to run in IRTMS mode with sequential crosspoint SM codes
Legacy SM Code	Setting only applies when legacy mode is in effect. It is the SM code that IRTMS will use in the SUBS=xxx command in order to access the circuit via the test-bus connected to the RTU. This code is also the code that the Migrate TMM tool will use if it is told to reprogram the RTU to legacy mode (see RTU maintenance documentation)
Legacy SM Mode	Setting only applies when legacy mode is in effect. It is the mode that IRTMS will use to access circuit via the test-bus connected to the RTU. This mode is also the mode that the Migrate TMM tool will use if it is told to reprogram the RTU to legacy mode (see RTU maintenance documentation)
SM Code	Setting only applies when legacy mode is NOT in effect. It is the SM code that IRTMS will use in the SUBS=xxx command in order to access the circuit via the test-bus connected to the RTU. This code is also the code that the Migrate TMM tool will use if it is told to reprogram the RTU to IRTMS mode (see RTU maintenance documentation)

SM Mode	Setting only applies when legacy mode is NOT in effect. It is the mode that IRTMS will use to access circuit via the test-bus connected to the RTU. This mode is also the mode that the Migrate TMM tool will use if it is told to reprogram the RTU to IRTMS mode (see RTU maintenance documentation)
Apply changes to	Database only or Database and RTU The first setting applies the changes to the database only (and therefore may leave the database out of alignment with the RTU). The second setting applies the changes to both the database and the RTU.

The calibration tab appears as below

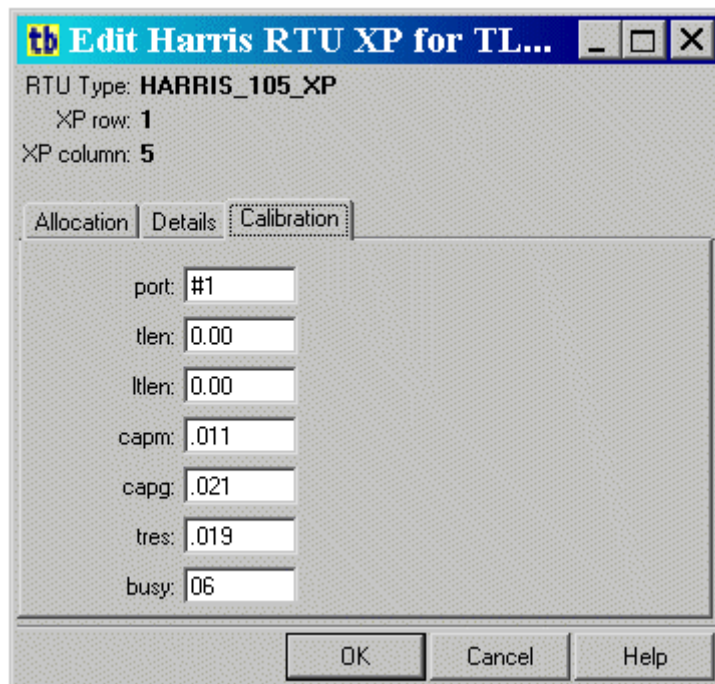


Figure 10 : Edit Harris RTU Cross Point - Details tab

Data entry options for the calibration tab

Port	Port as seen on the RTU TP1 table
Tlen	Tlen as seen on the RTU TP1 table
Ltlen	Ltlen as seen on the RTU TP1 table
Capm	Capm as seen on the RTU TP1 table
Capg	Capg as seen on the RTU TP1 table
Tres	Tres as seen on the RTU TP1 table
Busy	Busy as seen on the RTU TP1 table

Note on IRTMS calibration values.

It was originally anticipated that IRTMS would reprogram the TP1 table with the appropriate values for the crosspoint calibration immediately before each test. There are now some concerns over the number of times RTU memory can be cycled, so currently the existing TP1 values still apply, with IRTMS providing the **Edit TP1** tool to simplify changing the TP1 table when necessary.

6 Marking a crosspoint good, suspect or bad

Exactly like other elements, the condition state and service state of the RTU crosspoints will normally follow the condition state and service state of the parent RTU.

It is however possible to independently mark a crosspoint as good, suspect or bad by using the right click pop-up menu options. The RTU crosspoint will then not follow the condition state changes of the parent and will independently remain good, bad or suspect. This allows a damaged crosspoint to be marked in such a way that allocations will not be made to it.

< END OF DOCUMENT >