ICOM CI-V INFO : MEMORY STRUCTURES FOR IC-7000 AND IC-7400/IC746PRO

SEE ALSO THE PAGE ABOUT MY **ICOM MEMORIES MANAGER SOFTWARE (/~vk4adc/web/index.php/software-projects/55-vk4adc-utils/185-pskreporter-viewer)** THAT USES THIS INFORMATION

The DF4OR web site has a wealth of information about the CI-V structures (http://www.plicht.de/ekki/civ/index.html) however it hasn't been updated for a while and two Icom models which haven't got full memory data documentation are the IC-7000 and the IC-7400/IC-746Pro. There seems to be a complete lack of data elsewhere on the web as well.

I have recently purchased a 7000 and spent some time looking at the CI-V command and response streams, the 7400 I have had for some years but haven't overly wondered about programing memories via the CI-V. The structures for the memory contents is as follows...

The data displayed is as determined by writing/reading an actual IC-7000 at address $70…

# 4.3.10 Command $1A Details IC-7000

## $1A $00 Read/Write Extended Memory Command

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $FE | $FE | $70 | $E0 | **$1A** | **$00** | Bnk | **mn1** | **mn2** | **sel** | **$f_1$5** | **$f_1$4** | **$f_1$3** | **$f_1$2** | **$f_1$1** | **$mo_1$** | **$fi_1$** | **$fg_1$** | **$S_{Tx1}$1** | **$S_{Tx1}$2** | **$S_{Tx1}$3** | **$S_{Rx1}$1** | **$S_{Rx1}$2** | **$S_{Rx1}$3** |

Continuing with ….

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **$DCS_1$1** | **$DCS_1$2** | **$DCS_1$3** | **$f_2$5** | **$f_2$4** | **$f_2$3** | **$f_2$2** | **$f_2$1** | **$mo_2$** | **$fi_2$** | **$fg_2$** | **$S_{Tx2}$1** | **$S_{Tx2}$2** | **$S_{Tx2}$3** |
| **$DCS_2$1** | **$DCS_2$2** | **$DCS_2$3** | **n1** | **n2** | **n3** | **n4** | **n5** | **n6** | **n7** | **n8** | **n9** | $FD | |

Purpose:

Read/Write extended memory contents

Write:

Write

Remarks:

The data layout is specific to the IC-7000. The second set of data (Frequency, Mode, Filter, Flags, Subtones) probably uses only the frequency when in split mode. Use the Read command below to receive back the actual contents of any memory location.

Reply:

*OK* if data is acceptable
*NG* if any data item is not in range.

*$FF if the memory is blank*

Data

**Bnk Bank number** , A = 1, B = 2, C = 3, D = 4, E=5

**mn1, mn2** Memory number in BCD. (2 bytes)

**sel Selected for scans, typically $00**
**$f_1$5-1** Frequency 1, RX frequency when dup or split (5 bytes)
**$mo_1$** Mode for frequency 1 (1 byte)
**$fi_1$** Filter for frequency 1 (1 byte)
**$fg_1$** Flags for freq.1: $01=Tx Subtone on, $02=Rx Subtone on, $10 DUP-, $20 DUP+
**$S_{Tx1}$**TX-Subtone for frequency 1 (3 bytes)
**$S_{Rx1}$** RX-Subtone for frequency 1 (3 bytes)

**$DCS_1$DTCS code #1 (3 bytes)**
**$f_2$5-1** Frequency 2, TX frequency when dup or split (5 bytes)
**mo $_2$**Mode for frequency 2 (1 byte)
**$fi_2$** Filter for frequency 2 (1 byte)
**$fg_2$** Flags for freq. 2: $01=Tx Subtone on, $02=Rx Subtone on, $10 DUP-, $20 DUP+
**$S_{Tx2}$** TX-Subtone for frequency 2 (3 bytes)
**$S_{Rx2}$** RX-Subtone for frequency 2 (3 bytes)

**$DCS_2$DTCS code #2 (3 bytes)**
**n1-9** Memory name, ASCII (9 bytes)

## $1A $00 Read Extended Memory Command IC-7000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| $FE | $FE | $70 | $E0 | **$1A** | **$00** | Bnk | **mn1** | **mn2** | $FD |

Purpose:

Read extended memory contents

Write:

N/A

Remarks:

The data layout is specific to the IC-7000.

Reply:

*OK* if data is acceptable
*NG* if any data item is not in range.

*$FF if the memory is blank*

**Bnk Bank**number (1 byte), A = 1, B = 2, C = 3, D = 4, E=5
**mn1, mn2** Memory number in BCD. (2 bytes) 00-99 for normal, 0100 – 0108 for scan edges and VHF & UHF call channels

The data displayed is as determined by writing/reading an actual IC-7400 at address $66…

# 4.3.7 Command $1A Details IC-7400 /IC-746Pro

## $1A $00 Read/Write Extended Memory Command

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $FE | $FE | $66 | $E0 | **$1A** | **$00** | **mn1** | **mn2** | **sel** | **$f_1$5** | **$f_1$4** | **$f_1$3** | **$f_1$2** | **$f_1$1** | **$mo_1$** | **$fi_1$** | **$fg_1$** | **$S_{Tx1}$1** | **$S_{Tx1}$2** | **$S_{Tx1}$3** | **$S_{Rx1}$1** | **$S_{Rx1}$2** | **$S_{Rx1}$3** |

Continuing with ….

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **$DCS_1$1** | **$DCS_1$2** | **$DCS_1$3** | **$f_2$5** | **$f_2$4** | **$f_2$3** | **$f_2$2** | **$f_2$1** | **$mo_2$** | **$fi_2$** | **$fg_2$** | **$S_{Tx2}$1** | **$S_{Tx2}$2** | **$S_{Tx2}$3** |
| **$DCS_2$1** | **$DCS_2$2** | **$DCS_2$3** | **n1** | **n2** | **n3** | **n4** | **n5** | **n6** | **n7** | **n8** | **n9** | $FD | |

Purpose:

Read/Write extended memory contents

Write:

Write

Remarks:

The data layout is specific to the IC-7400. The second set of data (Frequency, Mode, Filter, Flags, Subtones) probably uses only the frequency when in split mode. Use the Read command below to receive back the actual contents of any memory location.

Reply:

*OK* if data is acceptable
*NG* if any data item is not in range.

*$FF if the memory is blank*

Data

**mn1, mn2** Memory number in BCD. (2 bytes), 00-99 plus 0100 - 0102
**$f_1$5-1** Frequency 1, RX frequency when dup or split (5 bytes)
**$mo_1$** Mode for frequency 1 (1 byte)
**$fi_1$** Filter for frequency 1 (1 byte)
**$fg_1$** Flags for freq.1: $01=Tx Subtone on, $02=Rx Subtone on, $10 DUP-, $20 DUP+
**$S_{Tx1}$** TX-Subtone for frequency 1 (3 bytes)
**$S_{Rx1}$** RX-Subtone for frequency 1 (3 bytes)

**$DCS_1$DTCS code #1 (3 bytes)**
**$f_2$5-1** Frequency 2, TX frequency when dup or split (5 bytes)
**mo $_2$**Mode for frequency 2 (1 byte)
**$fi_2$** Filter for frequency 2 (1 byte)
**$fg_2$** Flags for freq. 2: $01=Tx Subtone on, $02=Rx Subtone on, $10 DUP-, $20 DUP+
**$S_{Tx2}$** TX-Subtone for frequency 2 (3 bytes)
**$S_{Rx2}$** RX-Subtone for frequency 2 (3 bytes)

**$DCS_2$DTCS code #2 (3 bytes)**
**n1-9** Memory name, ASCII (9 bytes)

## $1A $00 Read Extended Memory Command - IC7400

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $FE | $FE | $66 | $E0 | **$1A** | **$00** | **mn1** | **mn2** | $FD |

Purpose:

Read extended memory contents

Write:

N/A

Remarks:

The data layout is specific to the IC-7400.

Reply:

*OK* if data is acceptable
*NG* if any data item is not in range.

*$FF if the memory is blank*

**mn1, mn2** Memory number in BCD. (2 bytes) 00-99 for normal, 0100 – 0102 for scan edges and call channel