2016-09-10

Beginning with version 10.3.9, Commander responds to directives conveyed via TCP/IP messages.

TCP/IP Port

DXLab applications that respond to directives conveyed via TCP/IP messages utilize a block of adjacent ports. By default, port 52000 is the base of this block. DXKeeper responds to messages received via the second port in the block (default: 52001); Commander responds to messages received via the third port in the block (default:52002).

To specify a different block of ports,

1. Click the **Net Serv** button in the Radio panel on Commander's Configuration window
2. In the **Network Service** window that appears, specify the **Base Port** of the desired block of ports, and click the **Restart** button

Message Format

Messages are conveyed using ADIF field syntax, e.g.

<FieldName:FieldLength>FieldValue

Every message specifies two fields: the first conveying a command, and the second conveying all parameters

<CommandField><ParameterFields>

<Parameterfields> conveys 0 or more parameters.

Parameters are also conveyed using ADIF field syntax, e.g.

```
<parameters:33><xcvrfreq:5>14080<xcvrmode:4>RTTY
```

but frequencies are conveyed using the locally-defined decimal separator.

Messages accepted by Commander

1. Set RX frequency and mode in a manner that works with all supported xcvrs, e.g.

```
<command:14>CmdSetFreqMode<parameters:56><xcvrfreq:5>14080<xcvrmode:4>RTTY<preservesplita
nddual:1>N
```

Valid modes are (AM, CW, CW-R, DATA-L, DATA-U, FM, LSB, USB, RTTY, RTTY-R, WBFM)

`<preservesplitanddual:1>N` means reset Split and reset Dual
(default if `<preservesplitanddual:1>` is not present)

`<preservesplitanddual:1>Y` means leave Split and Dual unchanged

Commander's QSXMode state variable is set to the specified mode

2. Set TX frequency and set Split and set Dual in a manner that works with all supported xcvrs, e.g.

```
<command:11>CmdQSXSplit<parameters:57><xcvrfreq:5>14085<SuppressDual:1>N<SuppressModeChange:1>N
```

`<SuppressDual:1>N` means set Dual if the transceiver supports it and Commander is configured to accept "Dual Rcv On"

`<SuppressDual:1>Y` means don't set Dual

<SuppressModeChange:1>N means set the TX Mode to the mode specified by Commander's QSXMode state variable (default if `<SuppressModeChange:1>` is not present

<SuppressModeChange:1>Y means leave the TX Mode unchanged

3. Set RX frequency, e.g.

```
<command:10>CmdSetFreq<parameters:17><xcvrfreq:5>21230
```

The currently-selected VFO's frequency is set to the specified value.

4. Set TX frequency, e.g.

```
<command:12>CmdSetTXFreq<parameters:17><xcvrfreq:5>21231
```

If split is disabled, the currently-selected VFO's frequency is set to the specified value. If split is enabled, the not-currently-selected VFO's frequency is set to the specified value.

5. Set Mode, e.g.

```
<command:10>CmdSetMode<parameters:7><1:2>CW
```

Valid modes are (AM, CW, CW-R, DATA-L, DATA-U, FM, LSB, USB, RTTY, RTTY-R, WBFM)

6. Set Split, e.g.

```
<command:8>CmdSplit<parameters:7><1:2>on

<command:8>CmdSplit<parameters:8><1:3>off
```

7. Select VFO, e.g.

```
<command:12>CmdSelectVFO<parameters:6><1:1>0

<command:12>CmdSelectVFO<parameters:6><1:1>1
```

0 selects VFO A or the Main VFO

1 selects VFO B or the Sub VFO

Not all transceivers respond to this directive.

8. Transmit, e.g.

```
<command:5>CmdTX<parameters:0>
```

9. Receive, e.g.

```
<command:5>CmdRX<parameters:0>
```

10. Report RX frequency using comma and period as thousands and decimal separator characters respectively, e.g.

```
<command:10>CmdGetFreq<parameters:0>
```

returns a single field in ADIF syntax specifying the RX frequency in kilohertz, e.g.

```
<CmdFreq:10>14,010.500
```

If the transceiver is not split, the RX frequency is also the TX frequency.

If the transceiver has not reported its RX frequency, the response will be

```
<CmdFreq:4>.000
```

11. Report TX frequency using comma and period as thousands and decimal separator characters respectively, e.g.

```
<command:12>CmdGetTXFreq<parameters:0>
```

returns a single field in ADIF syntax specifying the TX frequency in kilohertz, e.g.

```
<CmdTXFreq:10>14,011.500
```

If the transceiver is not split, the RX frequency is also the TX frequency.

If the transceiver has not reported its TX frequency, the response will be

```
<CmdTXFreq:4>.000
```

12. Report RX frequency using the current locale’s thousands and decimal separator characters, e.g.

```
<command:11>CmdSendFreq<parameters:0>
```

returns a single field in ADIF syntax specifying the RX frequency in kilohertz, e.g.

```
<CmdFreq:10>14,010.500
```

If the transceiver is not split, the RX frequency is also the TX frequency.

If the transceiver has not reported its RX frequency, the response will be

```
<CmdFreq:4>.000
```

13. Report TX frequency using the current locale’s thousands and decimal separator characters, e.g.

```
<command:13>CmdSendTXFreq<parameters:0>
```

returns a single field in ADIF syntax specifying the TX frequency in kilohertz, e.g.

```
<CmdTXFreq:10>14,011.500
```

If the transceiver is not split, the RX frequency is also the TX frequency.

If the transceiver has not reported its TX frequency, the response will be

```
<CmdTXFreq:4>.000
```

14. Report mode, e.g.

```
<command:11>CmdSendMode<parameters:0>
```

returns a single field in ADIF syntax specifying the radio's mode, e.g.

```
<CmdMode:2>CW
```

Valid modes are (AM, CW, CW-R, DATA-L, DATA-U, FM, LSB, USB, RTTY, RTTY-R, WBFM)

If the transceiver has not reported its mode, the response will be

```
<CmdMode:0>
```

15. Report split, e.g.

```
<command:12>CmdSendSplit<parameters:0>
```

returns a single field in ADIF syntax specifying the state of the transceiver's split, e.g.

```
<CmdSplit:3>OFF
```

or

```
<CmdSplit:2>ON
```

16. Report transmit status, e.g.

```
<command:9>CmdSendTX<parameters:0>
```

returns a single field in ADIF syntax specifying whether the transceiver is transmitting, e.g.

```
<CmdTX:3>OFF
```

or

```
<CmdTX:2>ON
```

Not all transceivers respond to this directive.

17. Direct an Icom transceiver to synchronize its transceiver frequencies

```
<command:11>CmdSyncIcom<parameters:0>
```