The CLX user manual

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A complete reference for users of the CLX DXCluster program.

Contents

1 Introduction

1.1 What is a DX Cluster?

A DX Cluster is a packet node where DX chasers on any band or mode can post rare or interesting stations that they have worked or heard. Of course other people are doing the same thing too, so you can find new DX as well as telling others about the stations you have worked. Clusters tend to be linked to each other so that the amount of people using them is increased, thereby increasing the amount of posted DX. Other information can be found on clusters such as on-line call books, mail etc. You can talk to other stations connected to the cluster network too, in real time, whether at the node you are logged into or on another node connected to the network. You can also use converse mode, where several stations can talk to each other in the same way. Of course, the DX is still posted to you all the while!

1.2 So what is CLX?

PacketCluster nodes have been around since roughly 1985. The original PacketCluster idea came from Dick Newell, AK1A, and ran under DOS. In about 1992 Dick stopped the development of the PacketCluster software for amateur radio. Many systems are still using this relatively old DOS software today.

There are several new compatible cluster programs around now, including CLX. CLX is a clone of PacketCluster software that runs under the Linux operating system. Linux is fast becoming the choice for amateur radio stations because of it's flexibility, reliability and the lack of the memory limitations of DOS. Linux supports multitasking and is also multiuser. It has support for AX25, ROSE, NetROM and TCPIP built in, making it the ideal choice for amateur radio. It is also totally free!

CLX which stands for 'CLuster software running under linuX' is written by Franta Bendl, DJ0ZY and Bernhard (Ben) Buettner, DL6RAI and has been under development since February 1994. To the user, its commands and features are mostly identical to a PacketCluster node. To PacketCluster nodes, CLX behaves exactly as they would expect, so can be integrated easily into a PacketCluster network.

This manual is designed to help you become familiar with the commands that CLX supports and to help you get the best from the program so you can enjoy working that rare DX! As CLX is being improved all the time, commands will be added as time goes by, so make sure you have the most upto date version of this manual. The version number of the manual will follow the CLX version number as closely as possible to help you check. If unsure, please ask your sysop.

2 Logins and logouts.

You might not think that there is a lot of point of including a section on how to log in and out of CLX. However, you would be suprised at the difficulties some people have in simply getting in and out of the cluster!

There are several ways a login might be achieved, dependant on how the sysop has CLX configured. It is impossible for me to cover all variations but here are the basic ones.

2.1 AX25 logins.

Simplicity itself. The usual **CONNECT** command will log you straight into the cluster and you will not have to do anything else. Obviously, you will have to connect to the correct callsign. Some nodes use an SSID with their call so you would have to add that.

Examples:

```
connect GB7MBC
connect GB7MBC-1
```

2.2 Netrom logins.

There are several possibilities here, dependant on how the sysop has configured his system. If you are connecting via netrom then you are most probably connecting from another station. Listing the nodes in that station with the **NODES** command will tell you what callsign or netrom alias to connect to. Then just issue the connect command from there. It is possible that the netrom alias may connect you to a node with an alias for the cluster, such as DXC. Just type this and you will be connected.

Example:

```
connect MBCDX
```

2.3 Telnet logins.

Because CLX runs under the Linux operating system, it is possible to make a direct telnet connection into the cluster. With telnet connections, the source callsign is not seen by CLX, so you will be asked to login with your callsign and a password to perform a security check. This is where a lot of people seem to struggle. When you first connect, you will be asked to enter a new password. When you have entered it, you will be asked to repeat the password for verification. Please make a note of it for the next time you wish to connect. Remember that the password is case sensitive **(ie wibble is not the same as WiBbLe)** or you will not be able to login! If you should lose or forget your password, contact your sysop and it can be reset for you.

To telnet to CLX, you would connect to a specific port. There is no standard at the moment for a cluster telnet port but ask the sysop if you are unsure.

Example:

```
telnet gb7mbc 9000
```

All the above are possible ways of connecting to a CLX cluster. You may have some or all of these available to you. There may be one or two additional ways to connect dependant on the network local to you. However I am sure you get the idea.

2.4 Logouts.

Logging out can be done by issuing one of two commands, **BYE** or **QUIT**.

You could also send a disconnect if you are using AX25, or a **CLOSE** command if you are connected via telnet. If you do not log out gracefully using one of the above commands, you may find you are unable to get a full connect next time. You may get connected, but nothing else will happen because the program thinks you are still connected and will not let you connect twice under the same call. However you could connect by using a different ssid on your call. This can be done by either altering your MYCALL setting in the TNC or by altering your program configuration. Dependant on the program you are running you could also use a different stream with a different ssid.

3 Setting your personal details.

Once logged in to the cluster, you should set your details so that anybody who wishes to contact you can find out who and where you are. There are four items to set, your name, qth, location and home node. Setting these details also allows the use of the SHOW/HEADING and SHOW/SUN commands from within the cluster. Unless you set your QTH and location, these commands cannot function. Once you have set your name, CLX will greet you with it next time you login. Your QTH setting is where you live and it is a good idea to add your locator to this as the location setting is converted to latitude and longitude once inputted. You can actually set your location in latitude/longitude or as a locator. Setting your home node will tell the program where you wish mail to be sent to you. If you do not set your home node, CLX will decide on its own by counting the number of logins at a specific node if it can be seen on the network. If you log in more than five times at the same node, it will assume that this is your (probably new) home node. However, if you set your home node, CLX will not alter it.

Examples:

```
set/name Ian
set/qth Morecambe, Lancashire IO84NB
set/location 48 34 n 12 12 e
set/location IO84NB
set/home gb7mbc
```

There are other helpful commands that you can set but we will look at those later.

4 Getting and posting DX.

When all is said and done, this is the main function of a DX cluster. In its simplest form you can just connect to the node and you will start to receive DX spots almost immediately! You can check on recent postings in either a general manner or on a particular band or mode. You can even check DX by callsign or a fragment of a callsign. Of course, once you get the hang of things, it is expected that you start posting some yourself! After all, there would be no clusters if people did not post DX and you get the added thrill of the hunt!

4.1 Receiving DX.

As we have already said, it is possible just to connect to the cluster and you will receive spots automatically. However, you may wish to check on spots just posted. Maybe you wish to see if a

particular band is open or if a certain callsign is active, perhaps a DX expedition. The command to do this is **SHOW/DX**. Without any other arguments, this command will output the last 5 spots posted. It is possible to look at more than this, for example the last 10 or 20 spots, by adding the number to the command. You can make it even more specific by adding a band in either wavelength or frequency, and/or the mode.

Examples:

```
show/dx
show/dx/10
show/dx/20
```

will show the last 5, 10 and 20 spots received by the cluster respectively.

Examples

```
show/dx 20      OR      show/dx 14
show/dx/10 20   OR      show/dx/10 14
show/dx/20 20   OR      show/dx/20 14
```

will show the last 5, 10 or 20 spots on 20 metres (14 MHz) only.

It is also possible to check for certain callsigns, or fragments of callsigns in the same way.

Examples:

```
show/dx g0vgs
show/dx/10 g0vgs
```

would show the last 5 or 10 dx spots containing the callsign g0vgs. Or perhaps you would like to know the last spots posted by a particular callsign.

Examples:

```
show/dxfrom g3izd
show/dxfrom/10 g3izd
```

Or you could just check spots by mode.

Examples:

```
show/dx #rtty
show/dx/10 #rtty
```

would show the last 5 or 10 spots posted in the RTTY portion of the band. Note the # in front of the mode name. If the # is not there, CLX will think rtty could be a callsign fragment and you will get incorrect information.

You can check for DX by offset, between 2 frequencies and also by specifying a comment to search for.

Examples:

```
show/dx/30-40
show/dx 14000-14033
show/dx 'iota'
```

would show the spots that arrived between 30 and 40 spots ago, the spots in the band segment 14.000 to 14.033 MHz and any spots with the word 'iota' in the comment field. The case of the comment is not important.

Checking DX posted on a certain date is possible too. All you have to do here is to specify the date like this ...

Example:

```
show/dx 2-JUL-1998
```

It is of course possible to specify multiple arguments.

Example:

```
show/dx/10 20 #RTTY kl7
```

This would show the last 10 spots posted in the RTTY portion of the 20 metre band containing the callsign fragment kl7.

As you can see the **SHOW/DX** command is very flexible, so if you are not sure whether something will work or not, try it and see!

4.2 Posting DX.

To post DX you use the **DX** command. The syntax is shown below.

Example:

```
dx (frequency) (callsign) (remarks)
```

Where frequency is in kilohertz and the callsign is the callsign of the station you have worked or heard, (ie not your own callsign!). The remarks section allows you to add information like the operators name or perhaps a location. The remarks section will allow upto 28 characters. Anything more than this will be truncated.

Example:

```
dx 14004.8 dl6rai OP Ben 599
```

Note that to specify 100Hz digits, you express them behind a decimal point, not a comma. The example above shows this expression.

The callsign will be converted into uppercase once it is posted. This posting, or callout as it is known, will be forwarded to all other connected stations both at the cluster you are connected to and other active clusters in the network. The callout will also be sent to you as proof of receipt. It is considered bad practice to post your own callsign as a DX callout and for that reason, CLX will not accept spots based on your own callsign.

5 Headings and propagation

There are three commands in CLX to help you get the best DX possible. These are **SHOW/SUN**, **SHOW/GRAYLINE** and **SHOW/HEADING**. These commands will only work for you if you have entered your personal details.

5.1 Sun

The **SHOW/SUN** command can be used in three different ways. It can be used to show sunrise and sunset times for a particular callsign, a prefix or a locator. The output of the command will vary depending on what information you give it but will always display the sunrise and sunset times for your location and for the location of the distant end.

Example:

```
show/sun ea
```

The output from this would look something like this ..

```
Sunrise/Sunset Times for 27 Sep 1998
------------------------------------------------------------------
Location                                        Sunrise Sunset
------------------------------------------------------------------
g0vgs  Morecambe, Lancashire IO84NB             06:31z  18:10z
ea     Spain-EA                                 06:26z  18:15z
ea6    Balearic-Is-EA6                          06:02z  17:52z
ea8    Canary-Is-EA8                            07:15z  19:10z
ea9    Ceuta-EA9                                06:33z  18:24z
ea9    Melilla-EA9                              06:25z  18:17z
------------------------------------------------------------------
6 location(s) found
```

5.2 Grayline

The **SHOW/GRAYLINE** command works in the same way as the **SHOW/SUN** command. This program however, calculates the dawn and dusk times for a given callsign, prefix or locator. This can be an invaluable aid in deciding when you will have the best chance of getting DX from a specific area or country.

Example:

```
show/grayline ea
```

The output from this command would look like this ..

```
Grayline Times for 27 Sep 1998
------------------------------------------------------------------------------
Location                              Begin     Sun-     Sun-      End
                                      of dawn   rise     set       of dusk
------------------------------------------------------------------------------
g0vgs  Morecambe, Lancashire IO84NB   05:56z    06:31z   18:10z    18:45z
ea     Spain-EA                       05:59z    06:26z   18:15z    18:42z
ea6    Balearic-Is-EA6                05:36z    06:02z   17:52z    18:18z
ea8    Canary-Is-EA8                  06:52z    07:15z   19:10z    19:34z
ea9    Ceuta-EA9                      06:08z    06:33z   18:24z    18:50z
ea9    Melilla-EA9                    06:00z    06:25z   18:17z    18:42z
------------------------------------------------------------------------------
6 location(s) found
```

You can see that there is the same information as the **SHOW/SUN** command, with the addition of dawn and dusk fields.

5.3 Heading

The **SHOW/HEADING** command works in the same way as the **SHOW/SUN** and **SHOW/GRAYLINE** commands but outputs beam headings for a specified callsign, prefix or locator. Reciprocal beam headings are also calculated.

Example

```
show/heading ea
```

The output from this command would look like this ..

```
Beam Headings for g0vgs
------------------------------------------------------------------------------
Location                              Heading     Distance    recip. Heading
------------------------------------------------------------------------------
ea     Spain-EA                       181 deg  1564 km   972 mi    0 deg
ea6    Balearic-Is-EA6                162 deg  1733 km  1077 mi  348 deg
ea8    Canary-Is-EA8                  206 deg  3089 km  1919 mi   16 deg
ea9    Ceuta-EA9                      186 deg  2016 km  1252 mi    4 deg
ea9    Melilla-EA9                    181 deg  2120 km  1317 mi    0 deg
------------------------------------------------------------------------------
5 location(s) found
```

If the location is over 8000 kilometres away, then the long path will also be calculated.

Example:

```
show/heading du
```

Would output something like this ..

```
Beam Headings for g0vgs
------------------------------------------------------------------------------
Location                              Heading     Distance    recip. Heading
------------------------------------------------------------------------------
du     Phillippines-DU                 54 deg 10784 km  6702 mi  331 deg
du     (Long Path)                    234 deg 29248 km 18177 mi  151 deg
------------------------------------------------------------------------------
1 location(s) found
```

6 Announcements.

6.1 Making announcements.

Occasionally, you may wish to post something that does not fall into the normal parameters for a DX callout. You may wish to tell everybody connected that 10 FM is open for example, or ask if anyone knows the QSL manager for a certain callsign etc. You can do this using the **ANNOUNCE** command.

Example:

```
announce 10 FM is open in IO84NB to europe.
```

That would let everyone know locally that this was the case, however it would not be forwarded to other nodes connected. To send announcements to other connected nodes as well, you would use the **FULL** extension.

Example:

```
announce/full Anyone seen SV1AAW today?
```

It is also possible to send an announcement to a specific connected node. This announcement would be posted locally only to the node in question.

Example:

```
announce/pe0mar-11 How is the wx in Holland?
```

As well as the above, you can announce to a distribution list. These lists are dealt with under the "'Mail"' section. Let's say there is a list called SIX for 50 Mhz enthusiasts. You can announce to just the people who are on this list.

Example:

```
announce/six looks like the band is opening!
```

6.2 Listing announcements.

You can list previous announcements in the standard format with the **SHOW** command. As before you can list just the last 5 or as many as you wish upto a limit of 99.

Example:

```
show/announcements
show/announcements/10
```

7 Nodes and users.

You can check which nodes are connected in the network, who is logged on locally, who is logged on at all the nodes or even just one node in particular. This is handy if you wish to see whether a friend is connected at the node they use. To see who is connected to the nodes, the **SHOW/CONFIGURATION** command is used.

Example:

```
show/configuration
show/configuration/nodes
show/configuration (node_call)
```

The first of our three examples would output something like this,

```
Node:           Connected stations:
gb7mbc              sv1aaw        g0vgs+
pi5ehv-8-
pe0mar-11=        pa3emf-1     pa3exx-1       pa0vha    pe1ooy-15
```

```
                    pd1aeu       pe0mar     pe1pzs-1       pi1hvh
gb7dxk-
sv1aaw              sv1dkr        sv1na
pe1awt
```

Note the symbols after the node callsigns. These denote the type of link to that node. In our example, the nodes pi5ehv-8 and gb7dxk are both passive links and pe0mar-11 is an active link. You will find more on this in the User Commands section.

You may also have noticed that the callsign G0VGS has a + symbol after it. This tells you that this user is in conference mode.

The second example would just show the nodes connected in the network, like this,

```
List of nodes:
        pi5ehv-8-  pe0mar-11=  gb7dxk-  sv1aaw  pe1awt
```

If we insert the node_call pe0mar-11 into the third example, then this would be the output,

```
Node:           Connected stations:
pe0mar-11=        pa3emf-1     pa3exx-1       pa0vha    pe1ooy-15
                    pd1aeu       pe0mar     pe1pzs-1       pi1hvh
```

As you can see, only the users of the requested node are shown.

To show the locally connected users, the **SHOW/USERS** command is used

Example:

```
    show/users
```

The output of this command would look like this,

```
User:
        sv1aaw  g0vgs+
```

8 Talk and conference modes.

You can send a single comment or start a dedicated talk session to another user by using the **TALK** command. However, if there are more than two people wanting to chat then it is easier to create a conference. In CLX it is possible to have many conferences in use at any one time.

8.1 Talk mode.

Talk mode is used to send a one line comment or greeting to a specific user connected either at your node or another in the network. You can also enter into a dedicated talk session with another user. Talks will be automatically forwarded to other nodes if the station you are talking to is not connected locally. However, if a user "'talks"' to you but their callsign is not shown in the user list you will have to specify a complete path. You can find out who is connected by using the **SHOW/CONFIGURATION** command, (described later).

Examples:

```
talk pe0mar Having a good day Mar?
talk pe0mar
```

The first example would send the line "'Having a good day Mar?"' to the user pe0mar but would leave you in normal mode. The second example would put you into a dedicated talk session with the user pe0mar.

If the user is connected to another node, you may have to use a slightly extended version of the **TALK** command.

```
talk pe0mar@pe0mar-11
talk pe0mar>pe0mar-11
```

Both these commands will have the same effect. Note, however that unlike PacketCluster, there are no spaces between the callsign and node fields.

To exit talk mode, you issue the command /**exit** or your exit string if you have set one, (see CLX user commands).

Whilst in talk mode you will still receive DX spots. This means that you can chat to a friend whilst working DX. You can also issue most of the standard CLX command set during a talk session. You do this by prefixing the command with *.

Example:

```
*show/dx
```

will output the last 5 dx spots posted in the usual way. These spots will only be sent to you though, not to the person you are talking to.

8.2 Conference mode.

Conference mode is more flexible than talk mode in that you can chat to more than one person at once. Many people can join in a conference and there can be multiple conferences in use at any one time. It is possible not only to join an existing conference but also to create a new conference with any subject you like. The easiest way to find out if any users are in conference is to use the **SHOW/USERS** command and look if any users have a + symbol after their callsign, however you can check for any existing conferences and their users by using the command **SHOW/CONFERENCE**.

Example:

```
show/conference
```

This command will output a list of conferences already running. To join one of these conferences you would use the **CONFERENCE** command along with the name of the conference you wish to join. The **CONFERENCE** command on it's own will start or join a conference with the node callsign as its title.

Example:

```
conference VHFDX
```

You would now join the conference named VHFDX. If however you did not wish to join an existing conference, you could create your own by using the same command with a unique name.

Example:

```
conference IOTA
```

Of course, the title could be anything you wished. It is a good idea to set a title that will attract people you wish to speak to. Obviously the above example would appeal to IOTA collectors. Just as in talk mode, DX spots will still be received whilst in conference mode and you can issue commands by using the prefix * in the same way.

9 Mail.

You can send and receive both personal mail and bulletins on CLX quite easily. Anybody may read ANY mail on the cluster, there is no personal mail in CLX.

9.1 The "'directory"' command.

To list mail you would use the **DIRECTORY** command. On its own, this command will output the last five messages received by the node. As with other commands you can display more by specifying a number with the command.

Example:

```
directory
directory/10
```

Of course most of the time you will only want to list new mail sent to you personally since your last login. However you might also like to check for general mail received by the node or occasionally check for mail to or from a particular callsign. In fact if there is new mail for you, CLX will tell you when you login. You will also be informed if new mail arrives for you during the time you are logged in. Mail is not only sent to callsigns though. Mail can also be sent to subjects like "'all"' or "'local"' or "'dx"' etc. You can treat these bulletins in the same way as personal mail with the directory command.

Examples:

```
directory/new
directory/own
directory/own/10
directory g0ylm
directory/10 g0ylm
directory all
```

There may be times when you want to check if mail you have sent to someone at another node in the network has been delivered. This can be done easily and you can even delete mail waiting to be forwarded to another node if you decide not to send it after all.

Examples:

```
directory/node
directory/node <nodecall>
```

The first example would list all messages sent by you in the forwarding queue, regardless of node identity. The second example is node specific. You could now delete the message(s) with the **DELETE** command.

There is a further option to the **DIRECTORY** command that is used to list bulletins in the bulletin area. You can read more about this in the section about the bulletin area.

9.2 Reading mail.

The output of the **DIRECTORY** command could be something like this.

```
Msg.    Size    To      From    Date            Time    Title
164 1   145     gb7mbc  gw7gwm  19-Feb-1998     0148Z   Link?
165 1   303     all     g4pdq   18-Feb-1998     1332Z   9M0C logs
166 2   464     all     gm4uzy  18-Feb-1998     1017Z   Island of
167 9   448     local   g0vgs   19-Feb-1998     0738Z   IOM link
175-1   351     g0vgs   g4afr   27-Feb-1998     2012Z   HALLO
```

Most of the above is self-explanatory but the first column seems to cause some confusion. Basically, the first number is the message number, for example 164. The number following it is the amount of times the message has been read. For example, message 167 has been read 9 times. Message 175 in our example has only been read once but the - sign between the two sets of numbers means that it has been read by the person it was sent to, in this case g0vgs.

Reading a message is as simple as typing read, followed by the message number that you wish to read.

Example:

```
read 25
```

will read message number 25. However the mail will be displayed in it's entirety unless you specify a page length. You can set your page length to any number you like and when the message reaches that number of lines you will get a prompt telling you to press <return> when ready.

Example:

```
set/page 20
```

9.3 Sending mail.

Sending mail is slightly different to the way mail is sent on a standard BBS in that the subject is included on the same line as the command and destination address. Doing things this way can save time and bandwidth on slow links.

Example:

```
send m0azm Sked on wednesday
```

This would send a message to M0AZM with the subject "'Sked on wednesday"'. The program will now prompt you for a message. You complete your message by typing **control-Z** or /**exit** on a new line. If you have set an exit string, you can use that also, (see CLX user commands). Bulletin addresses are accepted too, so you can mail to "'all"' or "'debate"' or any address you can think

of! Remember that any mail you send may be passed to all other connected nodes but will not be forwarded to the standard BBS system. Should you decide to abort the message during typing, you can do so by typing **control-Y** or /**abort**.

Whilst you are typing mail, you will find that the DX continues to come in. This can be disconcerting unless you can pretype the message. To overcome this problem you can use the **SHOW/NODX_ANNOUNCE** command, (see CLX user commands).

9.4 Replying to mail.

If mail is addressed to you or to a bulletin address, you can use the **REPLY** command to reply to it. Using this command, the subject will be automatically set for you as "'>: subject"', whatever the subject was. You can also reply and delete the original message in one command.

Examples:

```
reply 25
reply/delete 25
```

You can only delete messages sent to or received by yourself. Bulletins are dealt with automatically or by the sysop.

9.5 Distribution lists.

Distribution lists can be set up by the sysop so that mail can be sent to certain people by just mailing to the list. For example, your sysop could set up a distribution list with a title of "'CWDX"' and add users to the list. Let us say that 4 users are added, G3IZD, G3KKJ, G4AFR and G0YLM. Mail sent to CWDX would be sent individually to these 4 users. Of course, the usual commands **DIRECTORY**, **SEND** etc work here too. Users can be added to or removed from the list by the sysop at any time. You can check what lists are available and also who belongs to a list easily.

Examples:

```
show/distro
show/distro CWDX
```

The first example will list all the currently available lists, while the second will show the members of the list CWDX.

10 The bulletin area.

CLX has a bulletin area that your sysop can hold copies of DX bulletins in of any sort. You can list them, read them and also search them for a keyword such as a callsign. This is a good way of finding out who the QSL manager is for a specific DXpedition for example. Typical bulletins would be the OPDX bulletins. Bulletins are stored by year and you can specify which year you wish to search or search the whole database.

To list the bulletins available you use the **DIRECTORY** command.

Examples:

```
directory/bulletin
directory/bulletin opdx*
directory/bulletin 1997/opdx*
```

The first example would list the latest five bulletins in the current year. The second would list bulletins matching opdx* from the current year and the third would list any bulletins matching opdx* from the year 1997. The example above might output something like this ..

Example:

```
opdx375.98         14647     g0vgs 25-Sep-1998 1818Z
dxnews385.98        6364     g0ylm 25-Sep-1998 1934Z
```

You can now read the bulletin of your choice with the **TYPE** command.

Example:

```
type/bulletin opdx375.98
type/bulletin 1997/opdx325.97
```

The first example would output the specified bulletin in the current year whereas the second would output the bulletin from the specified year.

Searching for a callsign or a text string is accomplished with the **GREP** command. You should note that this command is case sensitive. This means that looking up G0VGS is different to looking up g0vgs. The output of this command will tell you which bulletin a specified search pattern is in, so you can simply read that bulletin, saving lots of time and effort!

Example:

```
grep DF7RX
```

11 Login profiles.

Generally, at login you would probably wish to check several things. Check the last few DX spots, any new mail that has arrived, which users are connected etc. To save you the trouble of typing these at login, you can set a profile to do it for you. Setting a profile is quite simple, with one or two small pitfalls to be wary of. To set a profile you use the **UPDATE/PROFILE** command. You then put in the profile the commands you wish to be issued when you login. It is important that you type the commands you want executed on separate lines and then finish on a new line with /exit or your exit string if you have set one. It is very easy on a busy link to think that a command you have entered has not been accepted and then try to exit from setting your profile with a variety of commands. This can lead to you putting a command into your profile that could potentially exit you from the cluster after running your profile! I have seen several examples of this and although it can be easily put right by the sysop, it can lead to a lot of frustration.

Example:

```
update/profile
```

The program will now tell you to go ahead. You would then enter each of the commands you wish to have the script run on login, ending with /exit on a new line.

Example:

```
show/users
show/dx
directory/new
/exit
```

You should now be returned to the prompt. It would now be prudent to check the profile you have set with the **SHOW/PROFILE** command. You can then overwrite it with **UPDATE/PROFILE** should it have any odd characters or commands in it before you actually use it! You can execute your profile at any time by issuing the **EXEC/PROFILE** command.

Examples:

```
show/profile
exec/profile
```

You can delete your profile at any time by using the **CLEAR/PROFILE** command.

12 Reject filters.

It is possible to control what type of DX you see by setting reject filters. Filters enable you to customise the DX you receive from CLX so that it is valid to the way you operate. For example, you may only be interested in CW or RTTY. Or maybe you only wish to receive spots on the bands above 30 MHz. These filters are set by the sysop and the ones that are currently usable can be seen by using the **SHOW/FILTERS** command.

Example:

```
show/filters
```

This command will return something like this ...

```
(1) - VHF          144000.0-100000000.0
(2) - HF                 0.0-30000.0
(3) - TOP             1800.0-2000.0
(4) - CW              1800.0-1840.0          3500.0-3600.0
                      7000.0-7040.0         10100.0-10140.0
                     14000.0-14099.9        18068.0-18100.0
                     21000.0-21150.0        24890.0-24930.0
                     28000.0-28200.0        50000.0-50100.0
                    144000.0-144150.0      432000.0-432150.0
                   1296000.0-1296150.0    2320000.0-2320150.0
                  10368000.0-10370000.0  24048000.0-24050000.0
(5) - SSB             1840.0-2000.0          3600.0-3800.0
                      7040.0-7100.0         14100.0-14350.0
                     18110.0-18168.0        21150.0-21450.0
                     24930.0-24990.0        28200.0-29200.0
                     50100.0-50500.0      144150.0-144400.0
                    432150.0-432500.0     1296150.0-1296800.0
                   2320150.0-2320800.0   10368000.0-10370000.0
                  24048000.0-24050000.0
(6) - RTTY            1838.0-1842.0          3580.0-3620.0
```

```
                          7035.0-7045.0          10140.0-10150.0
                         14070.0-14100.0         18100.0-18110.0
                         21080.0-21120.0         24920.0-24930.0
                         28050.0-28151.0
(7) - WARC               10100.0-10150.0         18068.0-18168.0
                         24890.0-24990.0
```

Remember these are reject filters, so if you set filter number 7 you would NOT see any spots from the bands 10100-10150 MHz, 18068-18168 MHz and 24890-24990 MHz. It is possible to set multiple filters to enable you to get exactly the DX you prefer. If you find that the current filters do not quite work the way you wish, your friendly CLX sysop can set others for you.

To set a filter, you first need to decide what you do not wish to receive. If it is something simple like only wanting to receive DX on the HF bands, then all you have to do is set the VHF filter. If you wish to only receive spots on HF using CW, then you would set the VHF and SSB filters and maybe RTTY too.

Example:

```
set/filter 1
```

Filter 1 is VHF in our example so you would not now receive spots posted above 30 Mhz. You might also not wish to receive spots posted on the SSB section of the bands.

Example:

```
set/filter 5
```

You can now check what filters you have set with the **SHOW/FILTER** command. This would output the following for our example.

```
(1) - VHF          144000.0-100000000.0
(5) - SSB                1840.0-2000.0           3600.0-3800.0
                         7040.0-7100.0          14100.0-14350.0
                        18110.0-18168.0         21150.0-21450.0
                        24930.0-24990.0         28200.0-29200.0
                        50100.0-50500.0        144150.0-144400.0
                       432150.0-432500.0      1296150.0-1296800.0
                      2320150.0-2320800.0    10368000.0-10370000.0
                     24048000.0-24050000.0
```

You can remove filters one by one or all at a time. On its own, the command **SET/NOFILTER** will remove all filters you have set currently.

Example:

```
set/nofilter
```

would remove all filters you have set but the command,

Example:

```
set/nofilter 1
```

would only remove the VHF filter in our example, leaving filter 5 (SSB) still set.

13 Internet spot filtering.

One of the common debates of the day concerns the so called "'internet"' spots. These are spots posted in countries far away from the host country and therefore their validity is questioned by users. **CLX** has a filter to deal with this. The sysop can set up a filter by specifying a series of WAZ zones in the system configuration. The user can then switch this filter on and off at will. It is also possible for the sysop to use this filter on outgoing node links to prevent these spots propagating onto the network.

To check what WAZ zones have been allocated to the filter you use the command **SHOW/DXDEDX**. You can then switch on the filter by using **SET/DXDEDX** and switch it off again with **SET/NODXDEDX**.

This command will stay set until you switch it off manually no matter how often you log in and out of the cluster.

14 Callbook servers

CLX has several possible callbook servers. Your sysop may have one or more of them active. The two commands useable are **SHOW/CBA** and **SHOW/CALLBOOK**. The **SHOW/CALLBOOK** command is used to query a local callbook server, either on the hard disk or a QRZ callbook CDROM. **SHOW/CBA** is more flexible and can be arranged to query several other types of local CDROM or alternatively a remote callbook server.

15 Qsl details.

Sometimes you miss the QSL information for a station you have just worked or heard. This can be annoying, especially if it is a rare contact. Most DX expeditions appoint a QSL manager for the station and some permanent stations who do not have access to QSL bureaux or have problems with mail use a QSL manager in a different country. It is possible to get QSL or address details for a particular station using the **SHOW/QSL** and **SHOW/ADDRESS** commands. You can also find out what stations a particular callsign is manager for with **SHOW/MANAGER**.

Examples:

```
show/qsl 5n3cpr
show/address kp2a
show/manager w3hnk
```

Of course, it is quite possible that the one you are looking for is not in the database. If you work a station and know the QSL manager, it would be good to check if the database knows it. If it does not, then you can add the information to the database so others can find out. This way, the database is regularly updated. To do this, the **UPDATE** command is used. The correct syntax of the **UPDATE/QSL** command is like this,

```
update/qsl (dx-call) (manager) (comment)
```

The "'manager"' field only accepts one word, so anything else should go in the "'comment"' field.

Example:

```
update/qsl m0azm g0vgs or via bureau
```

The comments field is optional but the other fields must be completed. Once you have hit return, the entry will be added and you will be returned to the prompt. You can now check the entry with the **SHOW/QSL** command. You can also add addresses to the database. To do this use the command, **UPDATE/ADDRESS**.

Example:

```
update/address g0vgs
```

You will now be told to go ahead. Type in the address in the way you normally would and then exit it the usual way with /exit, or your exit string if you have set one, on a new line.

Example:

```
update/address g0vgs
Info will be stored for key "'g0vgs"'. Go ahead!
  21 Colwyn Avenue
  Morecambe
  Lancs
  England
  LA4 6EQ
/exit
```

You will now be returned to the prompt. Keeping the QSL and address databases upto date is everyones job and will help all the users of the cluster.

You can delete old QSL information by using the **CLEAR/QSL** command. To delete QSL information you have to specify both the DX callsign and the manager.

```
clear/qsl (dxcall) (manager)
```

16 WWV.

WWV information is an important part of any DXers armoury. WWV information can be inputted by a user easily. It is also possible to get the WWV information from in the database in a number of ways.

16.1 Inputting WWV information.

To post WWV, just enter the details in the following format.

```
wwv sf=?,a=?,k=?,comment;comment
```

where the question marks are figures. The following example should make it clear.

Example:

```
wwv sf=72,a=0,k=5,very low;gf quiet
```

16.2 Getting WWV information.

To get WWV information the **SHOW/WWV** command is used. You can get the last five postings or any number of postings in the normal way.

Example:

```
show/wwv
show/wwv 10
```

outputs the last five and ten WWV postings respectively. You can also get the information for a particular date,

Example:

```
show/wwv 22-jan-1998
```

will output the WWV data for the 22nd of January 1998.

It is also possible to show the maximum and minimum data over a period.

Examples:

```
show/wwv minimum
show/wwv maximum
```

will show the 5 minimum and maximum values in the database.

Examples:

```
show/wwv minimum 15
show/wwv maximum 15
```

will show the 5 WWV minimum and maximum postings over the last 15 days.

17 Contest information.

From version 3.03, CLX comes complete with a contest database. It is now possible to check what contests are happening during the current month. You can also look at contest dates both in the past and in the future. As well as the dates you can get the rules for any contest in the database. The collection of contest rule-files was done by DF7RX. The command **SHOW/CONTEST** would output something like this, where March 1998 is the current month.

```
Contest Time Table for March 1998
=================================

 Date      Time      Contest                              Rules-File
-------------------------------------------------------------------
 Mar  3    1800-2200 Nordic Activity Contest VHF          [nordic]
 Mar  3    1900-2100 YL-CW-Party                          [yl-cw-p]
 Mar  7- 8 0000-2400 ARRL International DX Contest SSB    [arrl]
 Mar  7- 8 0000-2400 Danish SSTV Contest                  [danish]
 Mar  8    0700-0900 UBA Spring Contest CW                [uba-80]
```

```
Mar 10    1800-2200 Nordic Activity Contest UHF          [nordic]
Mar 10    1900-2200 VRZA Regio - Contest                 [vrza-re]
Mar 14    1200-1700 DIG-QSO-Party                        [dig-qso]
```

This table is fairly straightforward. The comment in brackets at the end of each line is the rules filename for each contest. To show the rules for a particular contest you use the **SHOW/CONTEST** command again, but specifying the rules file you wish to read.

Example:

```
show/contest arrl
```

would output the rules file for the ARRL contest in the list. Be ready to capture the output as it can be a LOT of information!

It is possible to show contests over a year or a month, a month in a particular year or by a wildcard entry. A wildcard entry must at least start with an asterisk.

Examples:

```
show/contest 1/97
show/contest feb
show/contest *rtty
```

In the three examples above, example 1 would give a table for the month of January in 1997, example 2 would give a table for February of the current year and example 3 would list all RTTY contests for the current year.

18 Hints, tips and common questions.

Q.These commands seem very long! Can I shorten them?

A.Of course you can and the abbreviated forms can be found in the section "'CLX user commands"'.

Q.I am not sure if this command is correct. Can I cause any harm if I try it?

A.Do not be afraid to try a command to see if it will work, at the worst you will get an error message. If you require any help on a command, just type help followed by the command you want help on. Look at the "'CLX user commands"' section to see what help can be found.

Q.How should I use the announce command?

A.With respect. Use the command by all means, but please only use the "'full"' extension if absolutely necessary. It can create a LOT of messages passing between clusters.

Q.I like to be working in the shack while logged into the cluster but I can't be looking at the screen all the time. How can I be alerted when anything happens?

A.Use the **SET/BEEP** command. You can find information on this in the "'CLX user commands"' section.

Q.What do the strange "'=" and "'-" and "'^" and "'?"' characters mean against the nodes when I do **SHOW/CONFIGURATION**?

A.These characters denote the type and state of a link to a particular node. You can find a full description of their meanings in the section "'CLX user commands"'

Q.I keep getting disconnected from the cluster, what is happening and how can I stop it?

A.There is no timeout in CLX so what is probably happening is that a node is timing out because of inactivity. To attempt to stop this happening, use the "'set/alive"' command. This will make CLX send you a small packet every ten minutes to try to keep the link alive.

Q.I got disconnected from the cluster and now I can't log back in again. What is wrong?

A.Probably the cluster thinks you are still logged on and will not let you reconnect using the same call to prevent loops. Try logging on again adding an ssid to your callsign as CLX treats G0YLM and G0YLM-1 as different users.

Q.I notice that all the commands are shown in lower case in the main section of this manual, but in upper case in the "'CLX user commands"' section. Why is that?

A.It actually makes no difference to CLX which case you use. The upper case in the "'CLX user commands"' section is just for clarity and ease of reading.

Q.How do I know if I have got the latest version of the CLX user manual?

A.The version number will be the same as the CLX release currently in use at your node. You can check the CLX version number with the command **SHOW/VERSION**.

19 CLX Commands Reference

19.1 HELP

```
Help
Help <cmd>
```

HELP lists explanations for the different commands of **CLX**. **HELP OVERVIEW** will present you with an overview of all **CLX** commands. An additional parameter may be used if you want detailed information about a specific command. You may also request information for sub- commands like **HELP SHOW/DX** etc.

19.2 ANNOUNCE

```
Announce
Announce/Full
Announce/<node_call>
Announce/<distro>
Announce/SYSOP
```

Use this command to make an announcement to all connected stations. When using the /**FULL** extension, the announcement will also be forwarded to other nodes (otherwise it will only be broadcast locally). The /<node_call> extension allows an announcement to be made to a specific node, while the /<distro> extension allows an announcement to the members of a distribution list.

ANNOUNCE/SYSOP is a local announcement which allows the sysop to break through an existing **SET/NOANNOUNCE** setting - in order to inform the local users of an important event like shutdown of the system. It is a privileged command.

Example:

```
ANNOUNCE/FULL Good condx on 6 meters today - band open to S.A.
ANNOUNCE/SYSOP Node shutting down quickly for software upgrade
```

19.3 BYE

```
Bye
Quit
```

As you may have guessed, this is the command to gracefully say good-bye to **CLX** and disconnect. You can also issue a disconnect command on your local **TNC** or use the close command if connected via telnet.

19.4 CLEAR

```
CLear/QSL <dx-call> <manager>
CLear/PROFILE
```

This command is used to delete entries from the database. Also it can be used to delete one's startup script.

19.4.1 CLEAR/PROFILE

```
CLear/PROFILE
```

To clear your own user profile you just enter **CLEAR/PROFILE**.

Example:

```
CLEAR/PROFILE              Deletes your profile
```

19.4.2 CLEAR/QSL

```
CLear/QSL <dx-call> <manager>
```

If you want to delete **QSL** information, you have to specify both the DX call and the callsign of the **QSL** manager.

Example:

```
CLEAR/QSL LX7A DL7MAE      Clears this record from the QSL database
```

19.5 CONFERENCE

```
CONFERence
CONFERence <name>
```

This command puts you into conference mode. This allows you to have a conversation with several people at once. Everything you write will be sent to the other stations sharing the same conference.

Unlike PacketCluster, with **CLX** several conferences can be going on at the same time. When specifying a name with the **CONFERENCE** command, you will either join the existing conference or start up a new one. There is no difference between the name "'m15"' and "'M15"' in the conference name. Users in conference mode will be shown with a "'+"' following their callsign.

From inside the conference mode you can issue **CLX** commands by using the escape character "'*"'. For example, ***SH**/**DX**/20 will bring you the last 20 DX spots from within conference mode.

19.6 CONNECT

```
CONNECT <callsign>
```

This command is used to trigger **CLX** to initiate a connect to another link partner. **CLX** normally builds up these connects itself after a certain delay time, but to avoid waiting you may use this command to immediately start up the connection.

This is a privileged command.

19.7 CREATE

```
CREATE/UDT <tablename>[/<flags>] [<cmnt>]
CREATE/!UDT <tablename>[/<flags>] [<cmnt>]
DESTROY/UDT <tablename>
INFO/UDT <tablename>
```

These commands are used to administer private database tables. Sysops may define any number of new databases using the **CREATE/UDT** command. Additionally read and write flags may be specified plus a comment which is shown with the **SHOW/COMMANDS** command.

The flags are defined as follows:

```
++      User may read and write the table
+-      User may read the table only (this is the default)
-+      User may write the table (but not read --- does this make sense?)
--      User may not read nor write the table
```

UDTs may also have an executable attribute which allows the definition of aliases or make a database table accessible from another network node. This is when you are using the **CREATE/!UDT** command.

DESTROY/UDT removes a database definition and also removes all the data in the table. The table is basically destroyed, just like the command says.

INFO/UDT is used to show information about a database table, like number of entries, when the table was created and what the access rights are.

CREATE/UDT and **DESTROY/UDT** are privileged commands, while **INFO/UDT** may also be used by a normal user.

19.8 DB_MAINT

```
DB_MAINT
```

This is a menu driven database engine interface which lets you perform different tasks, both statistics and maintenance like deleting old user records, cleaning up the mail directory, purging the user log and showing number of records in different tables. To make this command usable even through packet radio, there is only a one-line prompt, but if you wish to see all available options, use the command H (for help).

This is a privileged command.

19.9 DELETE

```
DELete <nr1> [,nr2,...nrX>]
DELete/NODE <nr1> [,nr2,...nrX>]
DELete/BULletin <filename>
DELete/BULletin <year>/<filename>
```

The **DELETE** command is used to delete one or several messages. You can delete the message(s) only if you are the originator or the addressee of the mail message. You can delete several messages at a time by specifying the numbers separated with commas.

If your message is not kept locally but goes into a mail forwarding queue, you can list the message with the **DIR/NODE** command and delete the files with **DELETE/NODE**.

DELETE/BULLETIN allows you to delete a specific bulletin file from the bulletin file area. This is a privileged command.

Examples:

DELETE 803	Delete message 803
DELETE 803,805,807	Delete messages 803, 805 and 807
DELETE/NODE 1205	Delete message 1205 in the forwarding queue
DELETE/BULLETIN OPDX352.98	Delete the bulletin named "'opdx352.98"' in the current year directory.
DELETE/BULLETIN 1997/OPDX324.97	Delete the bulletin named "'opdx324.97"' in the 1997 directory.

19.10 DESTROY

DESTROY: → **CREATE**.

19.11 DIR

DIR: → **DIRECTORY**.

19.12 DIRECTORY

```
DIRectory
DIRectory/<n>
DIRectory/New
DIRectory/Own
DIRectory/Own/<n>
DIRectory <call>
DIRectory/<n> <call>
DIRectory/NODE
DIRectory/NODE <node_call>
DIRectory/BULletin <expr>
DIRectory/BULletin <expr>/<year>
```

DIRECTORY shows a directory listing of the last five mail messages on the system. **CLX** does not differentiate between private mail and public messages. Everybody can read and see everything.

With an additional parameter <n> you can choose how many messages are displayed. **DIRECTORY**/10 for example lists the last 10 messages. The maximum for <n> is 99.

DIRECTORY/NEW lists only new messages after the last **DIRECTORY/NEW** command was issued.

Other extensions are **DIRECTORY/OWN** to list your own messages and **DIRECTORY** <call> where you can list messages from and to a specific callsign.

Messages which were read by the receiver are marked with a dash "'-"' next to the message number. A figure after this symbol shows how often the message was read, either by the addressee or by others.

Messages which have to be forwarded to another node can be listed only with the **DIRECTORY/NODE** <node_call> command. These files are physically located in a spool directory and will be automatically deleted after forwarding has completed. **DIRECTORY/NODE** without a node_callsign will show messages from you which are to be forwarded to other nodes.

DX bulletins are collected in a special directory. The list of bulletins is available with the **DIRECTORY/BULLETIN** command. As an argument, you must specify at least three leading characters of the file name, you are searching for. Additionally, a year number (four digits) may be specified before the filename or search mask.

Examples:

```
DIRECTORY                    Lists the most recent 5 messages
DIRECTORY/20                 Lists the most recent 20 messages
DIRECTORY/NEW                Lists all new messages
DIRECTORY/OWN                Lists your own messages
DIRECTORY DL7MAT             Lists messages to or from DL7MAT
DIRECTORY/NODE               Lists messages which will be forwarded later
DIRECTORY/NODE DB0CLX        Lists messages which will be forwarded to
                             DB0CLX at a later time
DIRECTORY/BULLETIN opdx*     Lists any bulletins matching "'opdx*"' from the
                             current year.
DIRECTORY/BULLETIN 1997/opdx* Lists any bulletins named "'opdx*"' from the
                             1997 directory.
```

19.13 DISCONNECT

`DISCONNECT <callsign>`

This command is used to immediately disconnect a specific callsign, either a user or a node callsign. The station will be signed out as if it had sent a **BYE** command. Unfortunately, the command will always return with a message saying "'Disconnecting ..."' although the station may not be logged in at all. Check with **SHOW/USERS** if your disconnect command was successful.

This is a privileged command.

19.14 DX

`DX <call> <freq> [<rmx>]`

The DX command is used to make DX callouts. This callout follows a specific scheme, which always contains callsign and frequency, often accompanied by additional remarks.

The callout will be forwarded to all other stations connected including yourself (as a control). DX information which cannot be expressed in a callout, should be announced via the **ANNOUNCE** command.

The frequency has to be specified in kHz. If you want to specify 100 Hz digits, you must put them behind a decimal point (not a comma). Additional information can be added up to 28 characters in length. Anything longer will be truncated.

Examples:

```
DX EA8ZS 3535.3
DX A61AJ 7013.7 up
```

19.14.1 FORWARD/OPERNAME

`FORWard/OPERName <callsign>`

This is a privileged command. It generates an appropriate PC41 telegram containing user info (Name, **QTH** and geographic location) of a specific user. This command is used by the DX-Spider software to collect cluster user info world-wide.

Example:

```
FORWARD/OPERNAM dl6rai       forwards DL6RAI's user info
```

19.15 GET

GET: → **PUT**.

19.16 GREP

`GREP <pattern>`

The **GREP** command helps you to look up information in bulletin files. When specifying a pattern, all available bulletin files are scanned in full-text mode and the lines containing the pattern are printed together with the name of the file in square brackets.

This is a support tool allowing you to retrieve specific DX information from a (probably, hopefully) huge and complete collection of electronic DX bulletin data.

Unlike other **CLX** commands, the search pattern is case dependent, so looking for "'DF7RX"' will give different results than looking for "'df7rx"'.

Example:

```
GREP DF7RX                  Scan bulletins for the string "'DF7RX"'
```

19.17 INFO

INFO: → **CREATE**.

19.18 LS

LS: → **PUT**.

19.19 MONITOR

```
MONITOR <callsign>
```

This utility allows you to trace a user's (or maybe a link partner's) activity. The command depends on your sysop having enabled logging to the clx_us/log/io.log. If there is no such file, the command returns with an error message.

After having entered the command, any input and output of the user is being traced and sent back to you indicating the callsign and the data direction with -> and <-. If you decide to follow another user, use the command "'f <callsign>"'. To leave **MONITOR**, use "'q"'.

When you are running **MONITOR**, no other commands are available. DX spots and other general broadcast messages will intermix with the output of **MONITOR**.

MONITOR is a privileged command.

19.20 PUT

```
GET <filename>
LS <filename>
PUT <filename>
RM <filename>
```

These are privileged commands.

These four commands operate on the files and directories under clx_us/box. This directory contains all kinds of different changible files like mail messages, spool directories for mail fowarding, login scripts, the welcome message, help files and DX bulletins.

The LS command lists files, **GET** reads a file, **PUT** writes a file and RM erases a file. These are raw commands, sometimes used to delete a user's broken profile or remove mail forwarding messages to a specific node. Do not mix up these commands with the equivalent Unix commands. The difference is that the **CLX** commands both remove the file from the directory and additionally delete the entry in the database table. Doing only one of the two would lead to an inconsistency and will generate a warning message at next **CLX** startup.

Examples:

```
GET batch/start/dk3gi   Read DK3GI's startup file
RM batch/start/dk3gi    Erase DK3GI's startup file
LS iclb/ok0dxi          List messages to be forwarded
                        to OK0DXI
```

19.21 PW

```
PW
PW OFF
```

The PW command is used to initiate the Baycom password dialog. If a Baycom password has been defined by the sysop, **CLX** prompts you with five numbers which are the positions of the characters in the password. As an answer you are sending these characters, optionally with leading and trailing "'noise"' characters. If you sent the correct password, you will be in sysop mode.

PW **OFF** turns off sysop mode again.

The sysop level is probably also available through the **SET/PRIVIGLEGE** command, however a different procedure is being used here.

19.22 QUIT

QUIT: → **BYE**.

19.23 RCMD

`RCMD/<node_call> <command>`

The **RCMD** command allows any user to execute commands on a remote node. The execution is limited to certain subset of commands, no privileged commands can be run. The result of the remote command is sent back prefixed with the callsign of the remote node.

Example:

```
RCMD/DB0CLX SHOW/USERS                  Send a remote command to DB0CLX
```

The response would be like this:

```
Remote command sent to db0clx.
dl6rai de db0bcc   19-Jul-1998 0824Z   clx >
db0clx: User:
db0clx:     db0wgs-15     dk2wv    oe5ukl     dl5no     dj0zy    ik5pwl
db0clx:     dk2oy
db0clx: dl6rai de db0clx   19-Jul-1998 0824Z   clx >
```

19.24 READ

`Read <n>`

Read mail message number <n>. Message numbers can be listed with the **DIRECTORY** command.

19.25 REPLY

`REPly <n>`
`REPly/DELete <n>`

Use **REPLY** to answer a mail message. Contrary to PacketCluster you must always specify the message number to be replied to. The subject field will automatically be changed to "'>:"' <old_subject>.

The optional modifier /**DELETE** will delete the original message after your reply is sent.

Examples:

```
REPLY 807          prepares an reply for msg nr. 807
REPLY/DELETE 807   prepares an reply for msg nr. 807 and
                   additionally removes msg nr. 807 after
                   successful completion of the new message.
```

19.26 REREAD

`REREAD`

Use this command to force **CLX** to re-read the files adv_txt, clx_par and cluster_par after applying changes. **CLX** detects a change of these files normally within five minutes but if you require immediate action, you can use this command to trigger a re-read.

This is a privileged command.

19.27 RINST

`RINST/<node_call> <command>`

The **RINST** command allows a sysop to execute commands on a remote node. The effect of this command is that an appropriate PC34 message is generated and sent to the remote node. Replies are silently ignored and no feedback message is returned. This command should be used to allow simple tasks like setting time on remote AK1A-based nodes (this was the original idea for this command).

Example:

```
RINST/DB0CLX SET/DATE 9-MAR-2000
RINST/DB0CLX SET/TIME 03:36
```

19.28 RM

RM: → **PUT**.

19.29 SEND

`Send <call> <subject>`
`Send <call>><node_call> <subject>`
`Send <call>@<node_call> <subject>`
`Send/Copy <#msg> <call>`

This command is used to generate a mail message either to one specific user or to a bulletin address. Unlike PacketCluster you must specify everything on one line with the send command. The title may be 30 characters long at maximum.

The system will then prompt you to enter the message. To abort the message use ctrl-Y. To end the message, use either "'/exit"' on a new line, ctrl-Z or "'***end"'. You may also use your exit string if you have defined one. As a check, you could now list the message with the "'directory"' command and read it if you wished.

Clx does not differentiate between private and public messages. Everything can be read by everybody. Messages however, can only be deleted by the addressee or the originator.

If the message is to be forwarded to another cluster or **CLX** node, you must use the forward symbols "'>"' or "'@"'. You must not put blanks between the callsign of the addressee and the cluster/**CLX** node call. Messages for users who have an entry in the home node table, will automatically be routed there.

SEND/COPY may be used to send a copy of a message to another user.

Examples:

```
SEND DL6RAI So ein Mist!        Prepares a message to Dl6RAI with
                                the title "'So ein Mist!"'
SEND DJ0ZY@DB0CLX Hallo         Prepares a message to DJ0ZY (to
                                be forwarded to DB0CLX) with the
                                title "'Hallo"'.
SEND/COPY 807 DL2NBU            Sends a copy of msg nr. 807 to
                                DL2NBU
```

19.30 SET

`SET/...`

The set command allows the change of user specified settings. These are the set commands:

```
SET/ALARM, SET/NOALARM
SET/ALIVE, SET/NOALIVE
SET/ANSI, SET/NOANSI
SET/BEEP, SET/NOBEEP
SET/CHARSET
SET/DISTRO, SET/NODISTRO
SET/DX_ANNOUNCE, SET/NODX_ANNOUNCE
SET/DXDEDX, SET/NODXDEDX
SET/EXIT
SET/FILTER, SET/NOFILTER
SET/HERE, SET/NOHERE
SET/HOME_NODE
SET/LANGUAGE
SET/LOCATION
SET/LOCKOUT, SET/NOLOCKOUT
SET/LOGIN_ANNOUNCE, SET/NOLOGIN_ANNOUNCE
SET/NAME
SET/PAGE
SET/PRIVILEGE, SET/NOPRIVILEGE
SET/QTH
SET/SPOTS, SET/NOSPOTS
SET/TALKTIME
```

Further assistance may be requested by specifying the appropriate command with **HELP**, like **HELP SET/LANGUAGE**.

19.30.1 SET/ALARM

`SEt/ALarm <string>`

This feature allows you to wait for a special string to show up either in 1. Login/Logout 2. DX spots (call and comment field) 3. Accouncements

It can be useful when you are waiting for a rare DX call or a friend. The matching is case independent and the alarm will produce a long beep (3 times ctrl-G) when it is triggered.

The alarm function can be disabled by using **SET/NOALARM**. The setting is volatile, so it is not remembered over a **CLX** session.

19.30.2 SET/ALIVE

`SEt/ALive [<char>]`

This command switches on an anti-timeout poll. **CLX** will send you a binary ctrl-A character every ten minutes in an attempt to keep your connection busy during quiet periods. If you specify an optional character, **CLX** will send this character instead of the ctrl-A. Characters may be specified hexadecimal or decimal.

Example:

```
SET/ALIVE 13          Will make CLX send you a carriage return
  -- or --           character ten minutes.
SET/ALIVE 0xd
```

19.30.3 SET/ANNOUNCE

`SEt/Announce`

This command turns the reception of announcements on after having turned them off with **SET/NOANNOUNCE**.

19.30.4 SET/ANSI

`SEt/ANSI`

Turns on color attributes for DX spots, announce, talk messages, new mail and login/logout messages. This works only for an **ANSI**-based Terminal. This command is permanent and the setting will be saved in your user record.

19.30.5 SET/BEEP

`SEt/BEep`

Turn beeps on for **TALK**, DX, **ANN** and **NEW MAIL**. Default is off. Following PacketCluster conventions, this is the number of ctrl-G- characters (Bell or Beep characters) sent:

```
Announce = ^G
    Talk = ^G
      DX = ^G^G
New Mail = ^G^G^G
```

19.30.6 SET/CHARSET

`SEt/CHARSet <charset>`
`SEt/CHARSet`

Selects your preferred character set. Default is **IBM**, so that most user will never have to touch this parameter. However, if you are running under Unix or another strange opreating system and have problems reading the special "'umlaut"' characters of your native language, try this. By default, the following character sets are defined in **CLX**: **ISO**, **IBM** and **DIN**. Specifying the command without an argument will switch back to the default setting.

Examples:

```
SET/CHARSET ISO
```

19.30.7 SET/DISTRO

```
SET/DISTRO <listname> <callsign>
SET/NODISTRO <listname> <callsign>
```

Adds or removes a callsign to or from a distribution list. If the list does not exist, it will be created. If the last member of a list is being removed the list will be removed too. Callsigns have to be added one by one.

This is a privileged command.

Examples:

```
SET/DISTRO UKW DL5MAE       Puts DL5MAE on the UKW list
SET/NODISTRO UKW DL5MAE     Removes DL5MAE from the UKW list
```

19.30.8 SET/DX_ANNOUNCE

```
SEt/DX_announce
```

This command turns the reception of DX spots on after having turned them off with **SET/NODX_ANNOUNCE**.

19.30.9 SET/DXDEDX

```
SEt/DXDedx
```

When you have previously disabled DX spots from other continents, you can re-enable them with **SET/DXDEDX**.

19.30.10 SET/EXIT

```
SEt/EXit <string>
```

This command allows you to enter a different "'exit"' string for terminating messages, files etc. The default is "'/exit"', "'^Z"', "'***end"' or "'**NNNN**"' on a new line.

Example:

```
SET/EXIT /ex          Changes your exit string to "'/ex"'
```

19.30.11 SET/FILTER

```
SEt/FIlter <nr1,nr2,..,nrX>
```

This command lets you set reject filters as defined by your sysop. You first should look up which filters are defined at your **CLX** node. This is the default list:

```
Filter   Meaning
-------------------------------------
  1      VHF 144.000 MHz and up
  2      HF  30.000 MHz and down
  3      TOP 1.800-2.000 MHz
```

```
  4      all the CW band segments
  5      all the SSB band segments
  6      all the RTTY band segments
  7      all the WARC bands
-----------------------------------
```

Your sysop may or may not have defined further filters. You can find out by using the **SHOW/FILTERS** command.

After you have decided which filters you would like to switch in, you use the command as follows:

```
SET/FILTER 4,6
```

This turns on the CW and **RTTY** filters, so will leave you only with **SSB** spots. To further narrow the filter settings, you can add more filters:

```
SET/FILTER 1,3
```

The setting is now 1,3,4 and 6 which eliminates all spots except **SSB** spots on the HF bands from 80 to 10 meters, including the **WARC** bands.

19.30.12 SET/HERE

```
SEt/HERE
```

This command removes the away flag from your callsign if you have set it with the **SET/NOHERE** command, thus telling users that you are at your console.

19.30.13 SET/HOME_NODE

```
SEt/HOME_node <call>
```

State to which **CLX** or PacketCluster node mail messages for your should be forwarded. This information will also be passed around on the net. If no callsign is given, then the presently registered information will be deleted.

If you do not set the home_node explicitly, **CLX** will decide on its own by counting the number of logins at a specific node. If you log in more than five times at the same node, it will assume that this is your (probably new) home node. However, if you have ever manually set this information, **CLX** will not change it on its own.

19.30.14 SET/LANGUAGE

```
SEt/LAnguage <language>
```

This command lets you select the preferred language for interacting with the **CLX** system. You may lookup which languages are available with the **SHOW/LANGUAGES** command. This command refers to normal system messages as well as **HELP**. Using **SET/LANGUAGE** with no argument will switch back to the default, which could be English or any other language your Sysop has defined to be the default.

19.30.15 SET/LOCATION

```
SEt/LOCation <coordinates or qth locator>
```

This command allows you to enter geographical coordinates in degrees and minutes North/South, East/West. This information is needed when sunrise/sunset is calculated and when beam headings or propagation forecasts are made. As an alternative, you can specify your location with the Maidenhead **QTH** locator which is probably better known to you than the geographical position. The **QTH** locator will then be converted into degrees and minutes.

Examples:

```
SET/LOCATION 48 34 N 12 12 E
SET/LOCATION JN58UD
```

19.30.16 SET/LOCKOUT

```
SET/LOCKOUT <callsign>
SET/NOLOCKOUT <callsign>
```

This is a privileged command. Sets or resets the "'login_ignored"' flag in the callsign's record so that connects from this station are refused. When the station tries to connect, it will receive the connect but immediately followed by a disconnect.

To change a station's entry back to the default, use **SET/NOLOCKOUT**.

Example:

```
SET/LOCKOUT dl6rai          locks out DL6RAI
SET/NOLOCKOUT dl6rai        allows DL6RAI to connect again
```

19.30.17 SET/LOGIN_ANNOUNCE

```
SEt/LOGin_announce
```

Set to see user logins and logouts locally. For each login or logout (user or cluster node), a message is sent to you from the system:

```
Login at 1929Z: DL6RAI
Logout at 1930Z: DK2OY
```

On a busy node this will generate a lot of traffic. Users who are connecting to so-called "'local nodes"' (as defined by the sysop), are also shown - with a trailing '@' character to denote that they are not directly connected to this node.

19.30.18 SET/MOTD

```
SEt/MOTD
```

Use this command to change or create a new login message which is presented to each user at login. Send the command **SET/MOTD**, then return, wait for the system to prompt you, and then start entering the message. Finish with "'/exit"'.

This is a privileged command.

19.30.19 SET/NAME

`SEt/NAME <name>`

This command allows you to enter your name. After you have done this, **CLX** will usually greet you at login with your name. The default name is "'om"'.

19.30.20 SET/NOALARM

`SEt/NOALarm`

Turns off a previously set alarm with **SET/ALARM** <string>.

19.30.21 SET/NOALIVE

`SEt/NOALive`

This command switches off an anti-timeout poll. If on, **CLX** will send you a binary '0' character every ten minutes in an attempt to keep your link alive.

19.30.22 SET/NOANNOUNCE

`SEt/NOAnnounce`

This command turns the reception of announcements off. This could, for example be used if you were reading a lengthy message and did not want announcements in between the lines or if you are tired of reading announcements in Japanese and Finnish. This command is permanent, it will disable the receiving of announcements to you until you re-enable them with **SET/ANNOUNCE**.

19.30.23 SET/NOANSI

`SEt/NOANSI`

Turns off color attributes previously switched on using **SET/ANSI**.

19.30.24 SET/NOBEEP

`SEt/NOBEep`

Turn beeps off for **TALK**, DX,**ANN** and **NEW MAIL**.

19.30.25 SET/NODISTRO

SET/NODISTRO: → **SET/DISTRO**.

19.30.26 SET/NODX_ANNOUNCE

`SEt/NODX_announce`

This command turns the reception of DX spots off. This could, for example be used if you were reading a lengthy message and did not want DX spots in between the lines. This command is permanent, it will disable the sending of DX spots to you until you re-enable them with **SET/DX_ANNOUNCE**.

19.30.27 SET/NODXDEDX

```
SEt/NODXDedx
```

This command is used to turn off so-called internet spots when correctly configured by the sysop. DX spots originating from specific **WAZ** zones are not forwarded to you when you have issued a **SET/NODXDEDX** command. This flag is saved in your user record so you will only have to specify it once to turn these (for you) annoying messages of. The default is to send all DX spots.

For example, your sysop could have defined zones 03, 04, 05 and 25 as DX zones. If you then turn on the NO-DX-de-DX filter, you will never again receive any spots from these areas although other users probably will.

This command also applies to plain **SHOW/DX** and **SHOW/DX**/<n> requests.

To look up, which zones were being defined as DX zones, use the command **SHOW/DXDEDX**.

19.30.28 SET/NOFILTER

```
SEt/NOFIlter <nr1,nr2,..,nrX>
```

To remove a filter from your selection, you can use the **SET/NOFILTER** command. You can remove specific filters by adding the filter number as an argument.

```
set/nofilter 1
set/nofilter 1,3
```

Without any arguments, **SET/NOFILTER** will delete all filters and you will receive everything once more.

19.30.29 SET/NOHERE

```
SEt/NOHERE
```

This command is used to indicate to other users that you are not currently at your computer's console and so they will probably be waiting in vain for a quick response from your side. Use this command if you are away. After sending a **SET/NOHERE** to **CLX**, your callsign will show up in brackets in the user list. Also your prompt will change and show your callsign in brackets. After you return, issue a **SET/HERE** command and everything will return to normal.

Even when you are away, you will still continue to receive DX spots, announcements and talks.

19.30.30 SET/NOLOCKOUT

SET/NOLOCKOUT: → **SET/LOCKOUT**.

19.30.31 SET/NOLOGIN_ANNOUNCE

```
SEt/NOLOGin_announce
```

Set if you do not wish to see user and node logins and logouts locally. The default is off.

19.30.32 SET/NOMOTD

```
SEt/NOMOTD
```

This command is used to delete the login message previously created with the **SET/MOTD** command.

This is a privileged command.

19.30.33 SET/NOPRIVILEGE

```
SEt/NOPRIVILEGE
SEt/NOPRIVILEGE <user>
```

This command is for sysops and administators of the node only. When the command is issued, any priveleges that were set are removed and you become a normal user again.

19.30.34 SET/NOSPOTS

```
SEt/NOSPots
```

This command turns the reception of DX spots, announcements and login/logout messages off.

19.30.35 SET/NOTALKTIME

```
SEt/NOTalkTime
```

This turns off the option which makes talk messages directed to you show up with a time indicator previously enabled with the command **SET/TALKTIME**.

19.30.36 SET/NOWATCHDOG

SET/NOWATCHDOG: → **SET/WATCHDOG**.

19.30.37 SET/PRIVILEGE

```
SEt/PRIVILEGE
SEt/PRIVILEGE <user>
```

This command is for sysops and administators of the node only. When the command is issued, **CLX** responds with a string which you have to reply to correctly. Further details are described in the **CLX** sysop manual.

Administrators may switch another user into sysop mode during their current session by specifying a callsign after the **SET/PRIVILEGE** command.

19.30.38 SET/QTH

```
SEt/QTH <name>
```

This command allows you to enter your city, town, village - whatever you like to specify here. This information will show up when you request sunrise/sunset calculations, beam headings or propagation forecasts.

19.30.39 SET/SPOTS

`SEt/SPots`

This command turns the reception of DX spots and announcements back on.

19.30.40 SET/TALKTIME

`SEt/TalkTime`

This command makes talk messages directed to you show up with time field so you know when the talk message was sent to you.

before:

```
dl6rai de df3cb: Helo
```

after:

```
dl6rai de df3cb(1726Z): Helo
```

This option is kept in your user record so you need to specify it only once. To turn this option off, use the command **SET/NOTALKTIME**.

19.30.41 SET/WATCHDOG

`SET/WATCHDOG`
`SET/NOWATCHDOG`
`SHOW/WATCHDOG`

This is a privileged command. Activates or deactivates the **CLX** watchdog or shows its status. This command is used to actively disable the watchdog when you are planning to do an update of the **CLX** software or other very cpu-intense tasks where the watchdog could probably "'think"' that **CLX** was dead and initiate a shutdown.

19.31 SHOW

`SHOW/...`

The show command is used for accessing different tables and data bases of **CLX**. These are the available **SHOW** commands:

```
SHOW/ANNOUNCEMENTS
SHOW/ANNOUNCEMENTSFROM
SHOW/BANDS
SHOW/CALLBOOK
SHOW/CBA
SHOW/CHARSET, SHOW/CHARSETS
SHOW/CLUSTER
SHOW/COMMANDS
SHOW/CONFERENCE
SHOW/CONFIGURATION
SHOW/CONTEST
SHOW/DISTRO
```

```
SHOW/DX
SHOW/DXCC
SHOW/DXDEDX
SHOW/DXFROM
SHOW/DXSTATISTIC
SHOW/EXIT
SHOW/FILTER, SHOW/FILTERS
SHOW/GRAYLINE
SHOW/HEADING
SHOW/LANGUAGE, SHOW/LANGUAGES
SHOW/LOG
SHOW/MANAGER
SHOW/PREFIX
SHOW/PROFILE
SHOW/QSL
SHOW/SETTINGS
SHOW/STATION
SHOW/SUN
SHOW/SYSOP
SHOW/UPTIME
SHOW/USERS
SHOW/VERSION
SHOW/WWV
```

Further assistance may be requested by specifying the appropriate command with **HELP**, like **HELP SHOW/DX**.

19.31.1 SHOW/ANNOUNCEMENTS

```
SHow/ANNouncements
SHow/ANNouncements/<n>
SHow/ANNouncements '<string>'
```

Show the latest announcements. With the optional parameter <n>, (where "'n"' is a number), you may request a specific number of announcements. Adding a string (enclosed in single quotes) to the **SHOW/ANNOUNCEMENTS** command looks up and announcements containing <string>. This helps you look up specific information in announcements.

19.31.2 SHOW/ANNOUNCEMENTSFROM

```
SHow/AnnouncementsFrom <call>
SHow/AnnouncementsFrom/<n> <call>
```

This command lets you select announcements from a specific logger. For example, with **SHOW/ANNF**/10 HB9DFG you will see the last 10 announcements that were entered by HB9DFG.

19.31.3 SHOW/BANDS

```
SHow/BANDS
SHow/BANDS <mode>
```

This command lists all bands and frequency limits known by **CLX**. This way you can find out which argument to use when, for example, you are looking for spots from 47 GHz.

Example:

```
SHOW/BANDS                  Lists all available bands
SHOW/BANDS RTTY             Lists all RTTY segments known to CLX
```

19.31.4 SHOW/CBA

`SHow/CBA <call> [<call>...]`

Depending on whether the sysop has installed this information database, this command prints callbook information for the specified callsign(s).

Examples:

```
SHOW/CBA DK3GI              looks up Callbook information for
                            DK3GI.

SHOW/CBA DK3GI DF4RD        looks up Callbook information for
                            DK3GI and DF4RD.
```

19.31.5 SHOW/CHARSET

`SHow/CHARSet`

This command shows the character set currently in use by you. You may change the character set with the **SET/CHARSET** command to fit your operating system or local conventions. This may help to show special national characters correctly on your screen.

19.31.6 SHOW/CHARSETS

`SHow/CHARSets`

This command shows a listing of the currently available character sets.

19.31.7 SHOW/CLUSTER

`SHow/CLuster`

This command shows the current cluster configuration with number of links, local users and total nodes in the network. Additionally, the start time is printed and the uptime in days, hours, minutes and seconds.

19.31.8 SHOW/COMMANDS

`SHow/COMmands`

Shows all user data tables, i.e. address database, **IOTA** database or whatever your sysop has installed as a database including the creation date of the file and its permissions. Some databases may be read-only for users, that is you are not allowed to add or change any data. Others may allow updating.

19.31.9 SHOW/CONFERENCE

```
SHow/CONFERence
```

CLX allows multiple conferences to exist simultaneously. Anybody can start a new conference if they so wish by using an argument to the **CONFERENCE** command.

To list the active conferences (if any are in use), use the **SHOW/CONFERENCE** command.

19.31.10 SHOW/CONFIGURATION

```
SHow/Configuration
SHow/Configuration/Nodes
SHow/Configuration/Links
SHow/Configuration <call>
```

Show connected nodes and (as far as known) the users logged on. If a node callsign is given, the current users of that node will be shown. With the extension /**NODES** only direct links will be shown. With the /**LINKS** extension, directly linked nodes will be shown with their respective network nodes.

Direct links are marked with a symbol:

```
= Active connection
- Passive connection
~ Trying connection
^ Initialization started
? Status uncertain
```

CLX distinguishes between so-called active and passive cluster connections. On active connections DX spots are exchanged between nodes. On passive connections **CLX** sends nothing and only receives. These types of passively received DX-Spots are not passed on to other AK1A-nodes because they would create loops and circulating DX spots. They are only broadcasted locally and passed on to other **CLX** nodes in the network.

19.31.11 SHOW/CONTEST

```
SHow/CONTEST <month>
SHow/CONTEST <month>/<year>
SHow/CONTEST <year>
SHow/CONTEST <title>
SHow/CONTEST <wildcard>*
```

This command lets you retrieve contest dates and rule information from DF7RX's famous collection of contest rules. You may either specify a month in numerical or abbreviated form, a year (like 1998), the name of a rules file (shown in the monthly or yearly overview) or a wildcard like "'rsgb*"' to look up all **RSGB** contests. Dates and times are computed for the month specified.

Examples:

```
SHOW/CONTEST            Shows contest dates and times for current month.
SHOW/CONTEST 1          Shows contest dates and times for January.
SHOW/CONTEST 1/97       Shows contest dates and times for January 1997.
SHOW/CONTEST 99         Shows contest dates and times for the year 1999.
SHOW/CONTEST WAE        Shows complete contest rules including current
```

```
                          dates for the WAE DX Contest.
SHOW/CONTEST RSGB*        Shows a listing of all RSGB contests in the
                          database.
```

19.31.12 SHOW/COORDINATES

`SHow/COORDINATES <location> [<location> ...]`

This command calculates the geographical coordinates in degrees and minutes. Latitude is shown North (N) or South (S) of the equator, longitude is shown East (E) or West (W) of Greenwich. Additionally the Maidenhead **QTH** locator is calculated.

Several arguments can be specified at the same time.

Examples:

SHOW/COORDINATES KL7 Calculates geographical coordinates of your **QTH** and all known KL7 locations.

```
SHOW/COORDINATES JN58VF JN68BM  Calculates geographical coordinates of
                                your QTH and the locations JN58VF and
                                JN68BM.
```

19.31.13 SHOW/CSTAT

`SHOW/CSTAT [<call> ...]`

This command gives you a short overview of connect characteristics for users of link partners. It lists the number of connects in the log file, the total amount of time connected and the average connect time for each of the callsigns specified or - if no callsign is given - for your own callsign. You may use wildcard characters like ? and * to specify callsign groups. Also you can use the special word "'**LINKS**"' to check all link partners.

This is a privileged command.

Example:

```
SHOW/CSTAT db0*
SHOW/CSTAT links
```

19.31.14 SHOW/DISTRO

`SHow/DISTRO`
`SHow/DISTRO <listname>`

Distribution lists are a means to automatically reach several people with one single mail message. After having entered the message with a regular **SEND** command, the message will be copied to each single callsign on the distribution list. This command serves to look up available distribution lists and find out who is on which.

Examples:

```
SHOW/DISTRO             Lists all available distribution lists
SHOW/DISTRO UKW         Lists members of the dirtribution list "'UKW"'
```

19.31.15 SHOW/DX

```
SHow/DX
SHow/DX/<n>
SHow/DX <band>
SHow/DX [*]<fragment>[*]
SHow/DX #<mode>
SHow/DX/<n>-<m>
SHow/DX <freq1>-<freq2>
SHow/DX 'comment'
SHow/DX <date>
```

This command is used to query the DX spots database. There are several selction options which may be used as a single command or in combination.

You may select:

```
- by number of spots shown
- by band (MHz or meters)
- by callsign (fragment)
- by mode
- by offset
- by exact frequency
- by comment
- by date
```

The **SHOW/DX** command is the most widely used command on **CLX**.

Examples:

```
SHOW/DX/20              Shows last 20 DX spots
SHOW/DX 20              Shows the last 5 spots on 20 meters
SHOW/DX/20 20           Shows the last 20 spots on 20 meters
SHOW/DX KL7             Shows the last 5 spots from KL7 stations
SHOW/DX *KL*            Shows the last 5 spots from stations with
                        the letters 'KL' somewhere in the callsign
SHOW/DX KL*             Shows the last 5 spots from stations starting
                        with 'KL'
SHOW/DX *KL             Shows the last 5 spots from stations ending
                        in 'KL'
SHOW/DX #RTTY           Shows the last 5 spots in RTTY. Other known
                        modes are: #CW, #SSB, #SAT and #BEACON
SHOW/DX/30-40           Shows last 30 to 40 spots. This works only
                        with the last 999999 spots and only one
                        year back maximum.
SHOW/DX 14000-14033     Shows spots between 14.000 MHz and 14.033 MHz.
SHOW/DX 'pile'          Shows spots with the word 'pile' in the
                        comment field. (Case insensitive).
SHOW/DX 2-JUL-1998      Shows DX spots from July 2, 1998
SHOW/DX/3 10 #CW KL7    A combination of the above: lists the three
                        most recent spots from KL7 on 10 meters CW
```

With the plain **SHOW/DX** and **SHOW/DX**/<n> command, the settings of **NODXDEDX** are honored.

19.31.16 SHOW/DXCC

`SHow/DXCC <call or prefix>`

This command is used to query **CLX**'s **DXCC** database for a callsign or prefix. This information is gathered from a recent version of **CTY.DAT**, the country information file of the popular contest software CT, (c) K1EA.

19.31.17 SHOW/DXDEDX

`SHow/DXDedx`

Lists zones, which were defined as DX zones with respect of the originator of a DX spot. This list is used when you are using the **SET/NODXDEDX** function to disable receiving spots originating from other continents probably brought in by Internet links. See **HELP SET/NODXDEDX** for further details.

19.31.18 SHOW/DXFROM

`SHow/DXFrom <call>`
`SHow/DXFrom/<n> <call>`

This command lets you select DX spots from a specific logger. For example, with **SHOW/DXFROM**/10 G0SWR you will see the last 10 DX spots that were entered by G0SWR.

19.31.19 SHOW/DXSTAT

SHOW/DXSTAT: → **SHOW/DXSTATISTIC**.

19.31.20 SHOW/DXSTATISTIC

`SHow/DXStatistic`

This command lets you query statistical data about the DX database for the last hour, the last six hours and the last 24 hours. A band-by-band listing will be generated showing the number of DX spots reported during these time intervals.

19.31.21 SHOW/EXIT

`SHow/EXit`

This command shows your personal current exit string which can be changed with **SET/EXIT**.

19.31.22 SHOW/FILTER

`SHow/FIlter`

The command **SHOW/FILTER** shows your current filter settings. Normally there are no filters at all but if you specified some with **SET/FILTER**, you will see which filters are set. See **HELP SET/FILTER** for further details.

19.31.23 SHOW/FILTERS

`SHow/FIlterS`

This command shows which filters are available on the system.

19.31.24 SHOW/GRAYLINE

`SHow/GRAYLINE <location> [<location> ...]`

Like **SHOW/SUN**, this command calculates sunrise and sunset times for a specific location from a user's call, a prefix from the **DXCC** database, the system file location.dat or a **QTH** locator. Additionally the beginning of dawn and the end of dusk are calculated too. This allows you to see grayline-windows for specific locations. The grayline window may be as short as 20 minutes and as long as 24 hours depending on where you are on this world and what time of the year.

There are five different cases that can happen:

1. We have dawn, sunrise, day, sunset, dusk and night, the normal case 2. Polar day, sun always above horizon. 3. Polar day, with dawn and dusk but no night phase. Dawn begins at local midnight, when dusk ends. 4. Polar night, no dusk or dawn. 5. Polar night with dawn and dusk but no day phase.

For these five cases we have different forms of output formats:

```
   begin                end
   of     sun-   sun-   of
   dawn   rise   set    dusk
------------------------------
1. 03:46  04:01  18:07  18:22
2. --:--  00:00  24:00  --:--
3. 23:04  04:01  18:07  23:04
4. --:--  --:--  --:--  --:--
5. 03:46  --:--  --:--  18:22
------------------------------
```

Examples:

SHOW/GRAYLINE calculates the sunrise/sunset and grayline times for your own **QTH** (if you have set your location data with **SET/LOCATION**).

```
SHOW/SUN JN58VF DJ0ZY KL7       calculates the sunrise/sunset and
                                grayline times for your own QTH,
                                the place located in JN58VF, the
                                location of DJ0ZY, and for any of
                                the KL7 locations in the system
                                file location.dat.
```

19.31.25 SHOW/HEADING

`SHow/HEADING <location> [<location> ...]`

This command calculates beam heading, distance and reciprocal beam heading for a specific location from a user's call, a prefix from the **DXCC** database, the system file location.dat or a **QTH** locator. What is a reciprocal beam heading you ask? It is the beam heading that your partner needs to turn his antenna to. For locations further away than 8,000 kilometers, the long path will also be calculated.

Several arguments can be specified at the same time.

Examples:

SHOW/HEADING KL7 calculates the distance and beam heading from your **QTH** to KL7, Alaska. If there is no location information for your station, the location of your country in the country database will be used.

```
SHOW/HEADING JN58VF JN68BM      Calculates the distance and beam heading
                                from your QTH to JN58VF and to JN68BM.
```

19.31.26 SHOW/LANGUAGE

`SHow/LAnguage`

Shows the system language you have selected at the moment. This language is used with system messages and help information. You may change this with the **SET/LANGUAGE** command.

19.31.27 SHOW/LANGUAGES

`SHow/LAnguages`

This command shows which languages are available on the system.

19.31.28 SHOW/LOCATOR

`SHow/LOCATOR <location> [<location> ...]`

This command calculates the geographical coordinates in degrees and minutes. Latitude is shown North (N) or South (S) of the equator, longitude is shown East (E) or West (W) of Greenwich. Additionally the Maidenhead **QTH** locator is calculated.

Several arguments can be specified at the same time.

Examples:

SHOW/LOCATOR KL7 Calculates geographical coordinates of your **QTH** and all known KL7 locations.

```
SHOW/LOCATOR JN58VF JN68BM      Calculates geographical coordinates of
                                your QTH and the locations JN58VF and
                                JN68BM.
```

19.31.29 SHOW/LOG

`SHow/LOg`
`SHow/LOg/<n>`
`SHow/LOg <call>`

Shows times for login and logout of users and nodes in the system. The default is to show the last five log messages. If you wish to see more, you may add a figure to the command like **SHOW/LOG**/20 to see the last 20 logins/logouts.

You may also select a specifiy callsign. **SHOW/LOG** DL2NBU shows the last five logins/logouts from DL2NBU with any **SSID**. If you specify the **SSID**, only those records will be listed.

Example:

```
SHOW/LOG                Shows the last 5 logins/logouts
SHOW/LOG DL2NBU         Shows the last 5 logins/logouts of DL2NBU
SHOW/LOG/10 DL2NBU      Shows the last 10 logins/logouts of DL2NBU
SHOW/LOG/10 DL2NBU-3    Shows the last 10 logins/logouts of DL2NBU-3
```

19.31.30 SHOW/MANAGER

`SHow/MANAGer <call>`

Show the stations for whom a particular callsign is **QSL** manager

The **QSL** database like other databases, may or may not be open for user updates. This depends on how your sysop has configured the database.

Example:

```
SHOW/MANAGER W3HNK     shows for which stations W3HNK is a
                       QSL manager
```

19.31.31 SHOW/MOON

`SHow/MOON <location> [<location> ...]`

This command calculates azimuth, elevation and the time of the next moonset and moonrise for any given location from a user's call, a prefix from the **DXCC** database, the system file location.dat or a **QTH** locator. Several arguments can be specified at the same time. A negative elevation indicates that the moon is below the horizon. If the moonset or moonrise was on a previous day or will be on the next day a + or - character will be shown in front of the times given to indicate this.

An algorithm based on the program **MOONTRAK.BAS** originating from WB7CCI and G3RWL is used for this calculation. The results were checked and verified against W5UN's MS-**DOS** program **MOONBRAT.EXE**.

Examples:

SHOW/MOON calculates the moon data for your own **QTH** (if you have set your location data with **SET/LOCATION** and **SET/QTH**).

```
SHOW/MOON JN58VF DJ0ZY KL7      calculates the moon data
                                for your own QTH, the place
                                located in JN58VF, the location of
                                DJ0ZY, and for any of the KL7 locations
                                in the system file location.dat.
```

19.31.32 SHOW/PREFIX

`SHow/PREfix <call or prefix>`

This command is used to query **CLX**'s **DXCC** database for a callsign or prefix. This information is gathered from a recent version of **CTY.DAT**, the country information file of the popular contest software CT, (c) K1EA.

19.31.33 SHOW/PROFILE

`SHow/PROFile`
`SHow/PROFile <call>`

This command lists your personal login profile script which is always executed when you login to the system. This is often used for listing recent DX spots, users etc. Your profile may be changed with the **UPDATE/PROFILE** command. If you want to take a look into another's user profile, you can use **SHOW/PROFILE** <call>

19.31.34 SHOW/QSL

`SHow/QSL <call>`

CLX has a structured **QSL** information database for DX stations and their **QSL** managers. Here, only DX callsigns and manager callsigns are to be found. Direct mail addresses are stored elsewehere. The reason for this is that the **QSL** database may be used in reverse to look up for which stations a **QSL** manager is acting using the **SHOW/MANAGER** command.

The output for **SH/QSL** shows DX station, **QSL** manager and who entered this information on which date. Additionally, a comment may have been entered.

The **QSL** database, like other databases may or may not be open for user updates. This depends on how your sysop has configured the database.

Example:

```
SHOW/QSL LX7A          shows QSL manager for LX7A
```

19.31.35 SHOW/SCATTER

SHOW/SCATTER: → **SHOW/TRIGPOINT**.

19.31.36 SHOW/SETTINGS

`SHow/SEttings`

SHOW/SETTINGS shows current user settings like **ANSI**, **DXDEDX**, **BEEP**, Filter settings etc.

19.31.37 SHOW/STATION

`SHow/STATion <call>`

This command is used to show the personal data of another **CLX** user like name, **QTH**, location, last login etc. The first line indicates to which node the station is connected or if it is not connected at all.

19.31.38 SHOW/SUN

`SHow/SUN <location> [<location> ...]`

This command calculates sunrise and sunset times for a specific location from a user's call, a prefix from the **DXCC** database, the system file location.dat or a **QTH** locator. Several arguments can be specified at the same time.

Examples:

SHOW/SUN calculates the sunrise/sunset times for your own **QTH** (if you have set your location data with **SET/LOCATION**).

```
SHOW/SUN JN58VF DJ0ZY KL7       calculates the sunrise/sunset
                                times for your own QTH, the place
                                located in JN58VF, the location of
                                DJ0ZY, and for any of the KL7 locations
                                in the system file location.dat.
```

19.31.39 SHOW/SYSOP

```
SHow/SYSOP
```

This command allows you to find the name of the system operator for this **CLX** installation if he has chosen to put this information into the system. If not, a message is displayed saying that no information is present.

19.31.40 SHOW/TRIGPOINT

```
SHow/TRIGPOINT [<location1>] <heading1> <location2> <heading2> [<location>]
SHow/SCATTER [<location1>] <heading1> <location2> <heading2> [<location>]
```

This command calculates a triangulation point for beam headings from two locations. This is what you get when you draw beam headings on a map from two points to find out where they cross. This command can be used for determinating scatter areas for 10 and 24 GHz rain scatter propagation, finding **FAI** points for 50 and 144 MHz or for locating an unknown signal source with known beam headings from two locations.

This is a very sophisticated feature, based on a **BASIC** program written by OE5VRL. If additional locations are mentioned, the beam heading from these locations to the trigpoint will be calculated too, enabling you to predict where other stations will have to point their antenna. If <location1> is left off, your own location (if it has been entered) will be used.

There are some situations where the command may fail or give incorrect results, like when the two beam headings are identical or very close. However, the algorithm has been of practical use among GHz enthusiasts.

SHOW/SCATTER and **SHOW/TRIGPOINT** are identical.

Examples:

```
SHOW/SCATTER 35 JN68AH 330          Calculates trigpoint for
                                    a beam heading of 35 degrees
                                    from my QTH and 330 degrees
                                    from JN68AH.

SHOW/SCATTER JN58VF 35 JN68AH 330   Calculates trigpoint for a
                                    beam heading of 35 degrees
                                    from JN58VF and 330 degrees
                                    from JN68AH.
```

19.31.41 SHOW/UPTIME

```
SHow/UPTime
```

This command shows the system uptime in days, hours minutes and seconds after the last start.

19.31.42 SHOW/USERS

`SHow/Users`

Shows users who are locally connected to the system. Users which have set the not-here flag are shown in brackets. Users in conference mode will be shown with a '+' character at the end.

19.31.43 SHOW/VERSION

`SHow/VErsion`

This command shows the current version of the **CLX** software running on the system and some copyright information.

19.31.44 SHOW/WATCHDOG

SHOW/WATCHDOG: → **SET/WATCHDOG**.

19.31.45 SHOW/WCY

`SHow/WCY`
`SHow/WCY/<n>`
`SHow/WCY <date>`
`SHow/WCY MAXimum <days>`
`SHow/WCY MINimum <days>`

Shows solar and geomagnetic data collected and transmitted by the DK0WCY Aurora Beacon System at Scheggerott near Kiel, northern Germany. By default, the five last **WCY** spots are shown. You may request more spots by adding a figure behind the command, like **SHOW/WCY**/20. Additionally, you may specify a date to look up **WCY** data from a specific date, like **SHOW/WCY** 12-**FEB**-2000. You may also specify the parameters **MAXIMUM** or **MINIMUM** to list maximum or minimum solar flux spots in the last <n> days.

The data is structured into eight fields. The meaning of these fields is as follows:

k: k-Index (0..9) The k index is an indicator for geomagnetic activity over the last of the eight 3-hours measuring periodes, which start at 0 utc (0-3, 3-6, 6-9, 9-12, 12-15, 15-18, 18-21, 21-24 utc). Its value is from 0 to 9, where 0 means a very quiet geomagnetic field and 9 indicates a severe magnetic storm.

expK: expected k-index for the next hour (0..9) The k index expected represents the already measured activity - starting from the beginning of the current 3-hours measuring periode.

A: A-Index (0..400) The A index is also a measure for the geomagnetic field, but smoothed over the last 24 hours and on a scale of 0 to 400, where 0 means a very quiet geomagnetic field, while > 50 means very stormy conditions, it may reach 400.

R: Sunspot Number (0..300) The sun spot number is an indicator for solar activity. It is calculated on the number of visible spots on the sun in relation to the number of spot groups. During low sunspot activity years, numbers around 0..50 are common, while during periods of high activity, values of up to 300 can be observed.

SF: Solar Flux Index (65..300) The Solar Flux Index is another, more objective means of describing solar activity. The value shows the amount of the energy flux to earth (sun noise), measured at 2800 MHz.

SA: Sun Activity (qui,eru,act,maj,pro,war,nil) The Sun Activity is classified as follows:

```
qui = quiet
eru = eruptive
act = active
maj = major flare
pro = proton flare
war = warning conditions
nil = no info available
```

It is a classification of the current sun conditions with reference to the solar cycle.

GMF: Geomagnetic Field (qui,act,min,maj,sev,mag,war,nil) The geomagnetic field is classified as follows:

```
qui = quiet
act = active
min = minor storm
maj = major storm
sev = severe storm
mag = magstorm in progress
war = warning conditions
nil = no info available
```

AU: Aurora Status (no,aurora,strong) The Aurora status as oberved at DK0WCY. Currently the aurora status is set manually but in the near future, it will be determined automatically by processing the SK4MPI 2m-beacon signals received at DK0WCY using **DSP** methods.

The Aurora status is classified as follows:

```
no = no Aurora
aurora = Aurora is reported
strong = strong Aurora is reported
```

Examples:

```
SHOW/WCY                Shows the last 5 WCY spots
SHOW/WCY/20             Shows the last 20 WCY spots
SHOW/WCY 12-FEB-2000    Shows up to 5 spots from February 12, 2000
SHOW/WCY MAXIMUM 60     Shows the 5 spots with the highest SF number
                        in the last 60 days.
```

19.31.46 SHOW/WWV

```
SHow/Wwv
SHow/Wwv/<n>
SHow/Wwv <date>
SHow/Wwv MAXimum <days>
SHow/Wwv MINimum <days>
```

Shows **WWV** propagation data in the fixed **CLX** format. By default, the five last spots are shown. You may request more spots by adding a figure behind the command, like **SHOW/WWV**/20. Additionally, you may specify a date to look up **WWV** data from a specific date, like **SHOW/WWV**

29-**NOV**-1997. You may also specify the parameters **MAXIMUM** or **MINIMUM** to list maximum or minimum solar flux spots in the last <n> days. In addition to the solar flux, the relative sunspot number (R) is caluclated as this is more common in some areas of the world.

Examples:

```
SHOW/WWV                SHows the last 5 WWV spots
SHOW/WWV/20             SHows the last 20 WWV spots
SHOW/WWV 13-NOV-1997    SHows up to 5 spots from November 13, 1997.
SHOW/WWV MAXIMUM 60     SHows the 5 spots with the highest SF number
                        in the last 60 days.
```

19.32 TALK

```
Talk <call> <text>
Talk <call>><node_call> <text>
Talk <call>@<node_call> <text>
Talk <call>
```

TALK is used to send a short talk message to another user who is also connected to the system. See if your partner is connected with the **SH/USERS** command and then send the text: T <call> <text>.

If you want to start a lengthy conversation, use the second method: Send T <call> once. Now **CLX** will switch you into Talk Mode. You will be notified that all you type from now on will be sent to your partner. You finish Talk Mode with "'/exit"' on a new line.

From within the Talk Mode you can issue **CLX** commands by prefixing them with an asterisk ("'*"'). For example, ***SH/DX** 20 will output the last 20 DX callouts without leaving Talk Mode.

Talks will automatically be forwarded to other nodes if your partner station is not connected locally. However, if the callsign is not shown in the user list (**SHOW/CONFIGURATION**), you may have to force forwarding by specifying the target node on the command line, either using the character > or @. Note that unlike PacketCluster, you must **NOT** put blanks between the two callsigns.

Examples:

```
TALK DL2NBU Hi Peter, good evening!     Send a one-liner to DL2NBU
TALK DL2NBU                             Turn on Talk mode to DL2NBU
TALK DJ0ZY>DB0BCC Hello Radio!          Explicitly specify where you
TALK DJ0ZY@DB0BCC Hello Radio!          wish to send the talk message.
```

19.33 TYPE

```
TYpe/BULletin <name>
TYpe/BULletin <year>/<name>
```

This command displays the bulletin file specified on the command line. The bulletin tag may be abbreviated and if the year is not specified, the current year is assumed.

Example:

```
TYPE/BULLETIN OPDX352.98            output OPDX nr. 352 from
                                    the current year which was
                                    uploaded with the name
                                    "'opdx352.98"'.
```

```
TYPE/BULLETIN 1997/OPDX324.97        output OPDX nr. 324 from
                                     the 1997 directory.
```

19.34 UPDATE

```
UPDate
```

The **UPDATE** command is used to enter data into a database table. For example, the **QSL** database may be updated by using this command.

See **HELP UPDATE/QSL** and **HELP UPDATE/PROFILE** for more details.

19.34.1 UPDATE/PROFILE

```
UPDate/PROFILE
```

UPDATE/PROFILE is used to upload or overwrite your login script. This is similar to PacketCluster's **UPLOAD/USERCMD**. The login script often contains routine commands which are executed at login, like **DIR/NEW**, **SH/DX** 10. You can test your profile by using the command **EXEC/PROFILE** and list it by using **SHOW/PROFILE**.

19.34.2 UPDATE/QSL

```
UPDate/QSL <dx-call> <manager> [<comment>]
```

This command is used to update the **QSL** database. If you wish to enter data, you must follow the syntax above. Entering a comment is optional. Entries may be deleted with the **CLEAR/QSL** command.

19.35 UPLOAD

```
UPLoad/BULletin <name>
UPLoad/BULletin <year>/<name>
```

This command is used to upload a bulletin file into the bulletin area. If the year is not specified, then the current year will be assumed. Otherwise, the year must be specified as a four-digit number. The name of the bulletin file is automatically converted to lower-case letters.

Examples:

```
UPLOAD/BULLETIN OPDX359.98        upload the OPDX nr. 359 to the
                                  current-year directory
UPLOAD/BULLETIN 1997/OPDX324.97   upload the OPDX nr. 324 to the
                                  1997-year directory
```

19.36 WCY

```
WCY k=<k-index>,expk=<expected-k>,a=<a-index>,r=<sunspot number>,
sf=<solar flux index>,sa=<sun activity>,
gmf=<geomagnetic field>,au=<aurora>
```

The **WCY** command is used to enter DK0WCY sun and geomagnetic information into the **CLX** system. The DK0WCY Aurora Beacon system is providing current data transmitting 24 hours on

10.144 MHz and on 3.579 MHz (7-8, 15-18 utc, summer: -1) from Scheggerott (near Kiel, northern Germany) in CW. The beacon is popular all over Europe among HF and **VHF** enthusiasts. Further information about DK0WCY can be found on the internet at http://www.dk0wcy.de

Information is structured into the eight data fields:

```
   k: Kiel k-Index  (0..9)
expK: expected Kiel k-index for the current 3-h-measuring periode
   A: Kiel A-Index (0..400)
   R: Sunspot Number, SSN (0..300)
  SF: Solar Flux Index (65..300)
  SA: Sun Activity (qui,eru,act,maj,pro,war,nil)
 GMF: Geomagnetic Field (qui,act,min,maj,sev,mag,war,nil)
  AU: Aurora Status (no,aurora,strong)
```

For detailed explanation of the parameters, please consult the **SHOW/WCY** help file.

While A- and k-index are measured at the DK0WCY location near Kiel, the other information is retrieved from Space Environment Center at Boulder/**CO**.

DK0WCY connects to the **CLX** system at regular intervals to report the **WCY** status. Only one status report per hour is accepted. In areas of the **CLX** network, where DK0WCY messages cannot be received, users may optionally enter **WCY** data from listening to the 10.144 MHz or 3.579 MHz transmission.

Example:

```
WCY k=6,expk=5,a=25,r=220,sf=202,sa=act,gmf=act,au=strong
```

19.37 WWV

`Wwv sf=<flux>,a=<a-index>,k=<k-index>[,<comment>]`

The **WWV** command is used to enter **WWV** propagation data into the **CLX** system. It is used in a special format where you must specify Flux, A and K index plus an optional comment.

Example:

```
WWV SF=94, A=6, K=4 SA=moderate, GF=unsettled
```

20 CLX Short Reference

Only the upper case parts of the commands have tp be entered, the lower case part is optional: **SHOW/CONFIGURATION/NODES** is identical to **SH/C/N**. Arguments in [square brackets] denote optional characters. They may or may not be entered. Arguments in "'<"' and "'>"' are variables. For <call> you must specify a real callsign. **CLX** does not care if you use upper case letters or lower case.

```
ANNOUNCE            Announcement to all locally connected users
BYE                 Terminate connection
CLEAR/PROFILE       Delete user profile
CLEAR/QSL           Delete QSL information
CONFERENCE          Enter the conference named <name>
DELETE              Delete messages <nr1,..,nrX>
```

```
DIRECTORY            List last five messages
DX                   Enter a DX spot
GREP                 Scan all bulletins for the string <pattern>
HELP                 Help for CLX commands
QUIT                 Terminate connection
READ                 Read message <nr>
REPLY                Reply to message <nr>
SEND                 Send a message to <call> at <nodecall>
SET/ALARM            Set a warning alarm for a specific string
SET/ALIVE            Turn on the alive timer
SET/ANNOUNCE         Turn on Announcements
SET/ANSI             Turn on some colour attributes
SET/BEEP             Turn on beep with DX und ANN
SET/CHARSET          Define character-filter
SET/DISTRO           Add the user <call> to the list <listname>
SET/DXDEDX           !Switch off "'internet"' spots
SET/DX_ANNOUNCE      Turn on show dx-spots
SET/EXIT             Define exit string for talk, send etc.
SET/FILTER           Set freq. or mode filter number <nr1,..,nrX>
SET/HERE             Set the here - flag
SET/HOME_NODE        Set home-node for messages
SET/LANGUAGE         Define preferred language
SET/LOCATION         Define location of your station
SET/LOGIN_ANNOUNCE   Show user login and logout
SET/NAME             Enter your name
SET/NOALARM          Turn off the warning alarm
SET/NOALIVE          Turn off the alive timer
SET/NOANNOUNCE       Turn off announcements
SET/NOANSI           Turn off colour attributes
SET/NOBEEP           Turn off beep with DX and ANN
SET/NODISTRO         Remove a user from the list <listname>
SET/NODXDEDX         !Turn on "'internet"' spots
SET/NODX_ANNOUNCE    Turn off show dx-spots
SET/NOFILTER         Unset all filters or only number <nr1,..,nrX>
SET/NOHERE           Set the nohere - flag
SET/NOLOGIN_ANNOUNCE Turn off user login and logout show
SET/NOTALKTIME       Turn off the time in talks
SET/QTH              Enter your QTH (Name)
SET/TALKTIME         Set a time flag for talk sessions
SHOW/ANNOUNCEMENTS   Show last five announcements
SHOW/BANDS           List all segments known for <mode>
SHOW/CBA             !Get callbook information for <call>
SHOW/CHARSET         Show character-set currently in use
SHOW/CHARSETS        Show all available character-sets
SHOW/CLUSTER         Show cluster configuration information
SHOW/COMMANDS        Show all udt-tables incl. info header
SHOW/CONFERENCE      List all conferences going on
SHOW/CONFIGURATION   Show users at node <call>
SHOW/CONTEST         Show contests that fit a wildcard
SHOW/DISTRO          Show members of the list <listname>
SHOW/DX              Show spots from a certain date
SHOW/DXCC            Show DXCC Country of <call>
SHOW/DXDEDX          Show zones defined as "'internet"' spots
SHOW/DXFROM          Show which last five callouts <call> has made
SHOW/DXSTATISTIC     Query which bands have had the most DX over three time periods
```

```
SHOW/EXIT           Show exit string
SHOW/FILTER         Show which filter is set
SHOW/FILTERS        Show all defined filters
SHOW/GRAYLINE       Show grayline times for a given locator
SHOW/HEADING        Show beam headings for a given locator
SHOW/LANGUAGE       Show which language is set
SHOW/LANGUAGES      Show all present languages
SHOW/LOG            Show the last five logins/logouts of <call>
SHOW/MANAGER        !Show DX calls for which <call> is manager
SHOW/PREFIX         Show DXCC Country of <call>
SHOW/PROFILE        Show private profile
SHOW/QSL            !Show QSL information for <call>
SHOW/STATION        Show personal information of <call>
SHOW/SUN            Calculate sunrise/sunset for <qthloc>
SHOW/SYSOP          Shows who is the sysop for this node
SHOW/UPTIME         Show the uptime of the node
SHOW/USERS          List of locally connected users
SHOW/VERSION        Show CLX version
SHOW/WWV            Show recent WWV data from <date>
TALK                Switch to talk mode with <call>
UPDATE/PROFILE      Modify/create login script
UPDATE/QSL          Enter QSL information
WWV                 Input WWV data
```

Commands marked with a ! are sysop configurable optional commands and may not be available.

To find out differences between **CLX** and AK1A's PacketCluster software, use **HELP PACKCLUS**.