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1



## Welcome to mIRC

mIRC is a full featured **Internet Relay Chat** client for Windows that can be used to communicate, share, play or work with others on IRC networks around the world, either in multi-user group conferences or in one-to-one private discussions.

It has a **clean, practical interface** that is highly configurable and supports features such as buddy lists, file transfers, multi-server connections, IPv6, SSL encryption, proxy support, UTF-8 display, UPnP, customizable sounds, spoken messages, tray notifications, message logging and more.

mIRC also has a **powerful scripting language** that can be used both to automate mIRC and to create applications that perform a wide range of functions from network communications to playing games.

If you are new to mIRC, the first few sections of the mIRC help file will introduce you to the basic features of mIRC and IRC. They will also guide you through the first few steps of <a href="Connecting">Connecting</a> to a server, <a href="Joining">Joining</a> a channel, and Chatting.

Once you have learned how to use the basic features of mIRC and IRC, you can move on to the more complex features, such as configuring mIRC for your own needs or learning how to create scripts and popups.

If you ever need help, remember that you can visit the <u>mIRC Website</u> for help resources and guides.

2

## **Connect to a Server**

Connecting to an IRC server is the first step to using IRC and is performed through the Connect dialog that pops up automatically when you first run mIRC.

You will need to enter some information about yourself in the <u>Connect</u> dialog, select an **IRC Server** from the servers list, and then click the **Connect** button to connect to the IRC Server.

You will know that you have connected to the IRC Server when you see a **Message Of The Day** in the mIRC status window. The Message of the Day contains information about the server, its owners and administrators, connection policies, and other helpful information.

At this point you will be able to Join a channel to start chatting.

## 2.1

## **Connection Issues**

If you are having difficulty connecting to an IRC network, the solution in almost all cases is to try a different server on that network until you find one that works for you.

However, if you are unable to connect to any servers on any IRC network, it may be that you are running anti-virus or firewall software that is blocking mIRC and preventing it from connecting, or Windows itself may be blocking mIRC for some reason. You would need to add mIRC to the allowed/exceptions list of your anti-virus or firewall software to allow it to connect.

There are also a few other situations where you might have difficulty connecting to an IRC network and these are described below.

### **Unable to resolve server**

If you try to connect to a server and see this message, the problem could be:

## An invalid or non-working server address

You might be trying to connect to an IRC Server that is currently not working, or perhaps is an old address and does not exist anymore. You should try another IRC Server.

## Your internet connect is not working correctly

This problem would also result in your being unable to connect to other internet services such as web sites. You should try again later.

### Unable to connect to server

If you try to connect to a server and see this message, the problem could be:

### IRC server is not working

You might be trying to connect to an IRC Server that is currently not working. This is the most likely problem. You should try another IRC Server.

## **Invalid port number**

The IRC Server address might be correct but you have specified the wrong port. Most servers operate at least on port 6667, so you should try that port to see if it solves the problem.

### Other messages

If you try to connect to a server and get **Disconnected** and see the message **Closing Link** followed by a comment such as **No Authorization** or **No More Connections**, it might be that you are too far away geographically from that server, or that the server is full and cannot handle anymore users, or there may be other reasons. You should try a different IRC Server until you find one works for you.

3

## Join a Channel

Once you have connected to an IRC Server, you can join a channel to talk to other people. There are several ways to join a channel. Each is explained below.

Remember that each network you connect to has its own unique list of channels, created by users on that network.

### The Favorites Folder

The easiest way to join a channel is through the favorites folder where you can store a list of your favorite channels. mIRC **automatically** pops up this folder the moment you connect to an IRC Server. You can join one of the listed channels by selecting it and clicking the **Join** button.

You can also view the favorites folder by clicking on the favorites folder button in the toolbar or through the Tools menu.

### **The Channels List**

Another way to join a channel is to download and search through the list of active channels on a server by using the <a href="#">Channels List</a> dialog.

## The /join Command

The format of the /join command, which is a <u>Basic IRC Command</u>, is **/join #channel** where #channel is the name of the channel you want to join. So if you wanted to join channel #mIRC, you would type **/join #mIRC** and press enter, and a moment later the #mIRC window will open indicating that you have joined it.

### Creating a channel

You can create a new channel if it does not already exist just by joining it. If you want to create a channel called #bubbles, you would just type /join #bubbles. If it does not exist it will be created for you. If it does exist, you will join it.

### Talking on a channel

You can talk to other people by typing in a message and pressing the enter key. Your message will be sent to the channel and everyone on the channel will see it. A good first message is just to say hello to everyone with a smiley face :-)

The **listbox** on the side of the channel window lists all of the people who are currently on that channel. If you click your right mouse button in the listbox, a popup menu with various options will appear.

**Popup menus** are actually used everywhere in mIRC, you can even click your right mouse button in the status window, or in the channel window itself, and a different popup menu will appear. These popup menus are configurable, you can change them in the Popups dialog to perform whatever functions you require.

### Leaving a channel

You can leave a channel by clicking the channel window close button, or you can use the **/part** command, which is another <u>Basic IRC command</u> similar to /join. The format of the /part command is **/part #channel** where #channel is the name of the channel you want to leave. If you type **/part** without a channel name and press enter, you will part the current channel.

Hint: you can click the top left corner button/icon in any window in mIRC to view the

System menu which contains useful features.

## 3.1

## **Channels List**

The Channels List dialog allows you to download the active channels on a server and to search the list for channels that match your interests.

On some networks, the list can be quite long, containing thousands of channels, and may take a few minutes to download. The list is saved once you have downloaded it to allow to you search through it quickly again. However, if you want an updated list you will need to download it again.

The channels list dialog can be accessed via its toolbar button, through the Tools menu, or by typing the key combination Alt+L.

**Note:** If you click your right mouse button in the channels list window, a popup menu with various options will appear.

## 4

## **Chat Privately**

As well as being able to chat on public **channels**, mIRC also allows you to chat **privately** with other people.

If you are **on a channel**, and you see someone you would like to chat with, you can **double-click** on their nickname in the nickname listbox and a private query window will open up. You can then start chatting privately to them through the query window. Alternatively, you can **click your right mouse button** on a nickname in the nickname listbox and a **popup menu** will appear with various options, one of which will be to open a private query window to the selected nickname.

If you are **not on a channel**, you can type the command **/query nickname**, where nickname is the person you want to chat with. Press the enter key, and a query window will open up and you can start chatting privately, assuming of course that the person is on IRC. You can **find out** if a person is on IRC by using the **/whois nickname** command.

There is another way to chat privately called **DCC Chat**. This method is more secure and usually faster because it does not rely on the IRC Server to relay your messages. Instead it connects **directly** to the other IRC Client. However it does need to use the IRC Server to **initiate** the chat session.

To DCC Chat with someone, click on the **Chat button** in the toolbar, and a DCC Chat dialog will pop up. Enter their nickname, and click on the Chat button, and if they **accept** your DCC Chat request, you will be able to start talking to them in private.

If someone sends **you** a chat request, a chat dialog will pop up asking you whether you want to accept their chat request. You can then accept or decline. You can find out more about DCC Chat related settings in the DCC section.

The **/dcc chat <nickname>** command is another way of initiating a dcc chat, where nickname is the user you with whom want to dcc chat.

**Note:** DCC Chat needs to use your IP address to initiate a connection with another client. If you are having trouble initiating a connection then your IP address might be wrong. See the Local section for more information.

5

## **Send and Receive Files**

The ability to Send and Receive files is one of the most useful features of mIRC since it allows you to share all kinds of information with other people on IRC.

**Warning:** If you have never shared files before, please read the <u>Accepting Files on IRC</u> section so as to be aware of the **dangers** of accepting files from others before you start.

On IRC, a method called DCC Send and DCC Get is used to connect **directly** to another IRC client to **Send** and **Get** files, instead of going through the IRC network. The IRC network is used only to initiate the DCC Send request.

### **DCC Send**

DCC Send allows you to send a file to another user. You can do this by clicking on the DCC Send toolbar button to open the DCC Send dialog. You can then enter the nickname of the user, select the file you want to send, and click on the Send button.

mIRC will then tell the user that you want to send them a file. The user then has to accept your send request, at which point the file transfer will begin.

**Note:** DCC Send needs to use your IP address to initiate a connection with another client. If you are having trouble initiating a connection then your IP address might be wrong. See the Local section for more information.

### **DCC Get**

Whenever someone tries to DCC Send a file to you, mIRC pops up the DCC Get and asks you if you want to accept the file. If you choose to **accept** the file, mIRC will ask the sender to begin the file transfer, at which point you should begin receiving the file.

### **DCC Resume**

This feature allows you to resume DCC transfers that failed to complete.

If a user tries to send you a file that already exists in your get directory then you will be shown a warning that the file exists. You then have the option to either overwrite, resume, or rename the file.

If you select overwrite then the whole file will be downloaded from the beginning and any existing file of the same name will be erased.

If you select resume then mIRC will attempt to negotiate a transfer resume to get the remaining part of the file. It will append this to the portion of the file you already have.

## **DCC Options**

You can also find other DCC related settings in the <u>DCC</u> dialog which can affect how file transfers behave.

## The /dcc send command

The /dcc send command can also be used to initiate a DCC Send to the specified nickname. The format of the command is:

## /dcc send [-clmn] <nick> <file1> [file2] ... [fileN]

If you specify more than one filename, multiple dcc send sessions to the specified user are initiated.

If you specify a wildcard filename, then the DCC Send dialog will display files matching the wildcard.

The **-c** switch makes the dcc window close automatically once the transfer has finished.

The -I switch limits the transfer rate to the max cps limit specified in the DCC Fileserver.

The **-m** switch makes the dcc window minimize automatically.

The -n switch allows the transfer rate to exceed the max cps limit specified in the  $\underline{\text{DCC}}$  Fileserver.

**Note:** If you want to connect to a DCC Server you can specify an IP Address and port instead of the nickname, eg. /dcc send ipaddress:port

## 5.1

## **Accepting Files on IRC and the Internet in General**

Sharing files on IRC is part of what makes IRC fun, however it is important to be **careful** about **who** you accept files from and **which** types of files you accept.

Although **most** files are safe, there are always a few that may be infected with a virus, or may be malicious programs that try to damage your computer. Since it is impossible to know in advance whether a file that is being sent to you might cause a problem, following a few common sense rules can help:

- 1) Install anti-virus and firewall software and make sure that they are always up-to-date. They should automatically scan any files that you download. However please note that since IRC is a highly interactive medium where information spreads very quickly, using anti-virus software does not guarantee that a file will be safe, as it takes time for anti-virus and firewall software to be updated.
- 2) Only accept files from people that you know and trust. You should **never** accept files from people you do not know and **never** accept files without knowing what their purpose

is, even from someone you know.

- 3) Files ending in .BAT, .COM, .EXE, .DLL have the most potential to cause problems. You should **not** accept such files from people you do not know or download them from sites that do not appear trustworthy.
- 4) Aliases, Popups, or Scripts that can be **loaded** or **typed** into your IRC client can also cause problems. mIRC, and most other IRC clients, allow you to create scripts that perform **useful** functions but these can also cause problems if misused. You should make sure that you know and trust the source of these files before using them.
- 5) Certain types of Document files can contain **macros** which are run by your Word Processor when you open the document to view it, so these are also potentially harmful. You should make sure that you have macro-warnings turned on in your Word Processor. It is also safer to view any documents that you receive in a plain-text editor first if possible.

6

## **Change Colors**

mIRC uses **black text** on a **white background** by default because this allows **colored** text to appear clearly and crisply. However, if you find the color scheme too bright, or if you want something a bit more fun, you can change the text and background, as well as other specific types of text eg. your own messages, to other colors.

To change the color settings, select the **Colors dialog** from the **View Menu**.

To **change** the color of an **item**, just **click** on it and you will see its **name** appear in the **listbox** at the bottom. Then **click** on any of the **colored squares**, and you will see the color of the text for that item change accordingly.

To **change** the **background color**, just **click** on the background itself and select a color as usual. You can also click on the background of the **editbox** and the **listbox** to change their colors as well.

If you do not like the changes you have made you can either click **cancel** or you can click the **reset** button which will reset the colors back to the **default** mIRC colors.

To **customize** the color of one of the color boxes, just click your **right mouse button** on it and a custom color dialog will pop up allowing you to choose a new color for it.

Once you have **finished** making changes, click on the **Ok** button, and hey presto you should now feel a bit more colorful!

mIRC also allows you to **interactively** change the color, as well as the **appearance**, of text as you type. You can find out how to do this in the <u>Control Codes</u> section.

## 6.1

## **Control Codes**

mIRC interprets control codes in text for **Bold, Underline, Reverse, Italic, and Color** and displays text in the specified format.

You can use the following key combinations to insert control codes in text:

Control+B for **bold** text Control+U for **underlined** text Control+R for **reverse** text Control+I for **italic** text Control+E for **strikethrough** text Control+K for **colored** text Control+O for **plain** text

## **Examples**

To underline a word:

- 1.Type Control+U
- 2. Type in the word
- 3.Type Control+U again

Only the text that is **enclosed** by the start and end codes will be affected. You can use this method with all of the other control codes.

To **color** a word you can use **Control+K** which allows you to specify a color number:

- 1.Type Control+K
- 2. Type a number between 0 and 15
- 3. Type the word
- 4. Type Control+K again

If you want to change the **background** color of a word, you would need to type **two numbers** separated by a **comma** instead of just one number. The first number is the **text** color, the second number is the **background** color.

The colors indexes range from **0 to 15** and are:

Index	Color	RGB
0	White	(255,255,255)
1	Black	(0,0,0)
2	Blue	(0,0,127)
2 3	Green	(0,147,0)
4	Light Red	(255,0,0)
5	Brown	(127,0,0)
6	Purple	(156,0,156)
7	Orange	(252,127,0)
8	Yellow	(255,255,0)
9	Light Green	(0,252,0)
10	Cyan	(0,147,147)
11	Light Cyan	(0,255,255)
12	Light Blue	(0,0,252)
13	Pink	(255,0,255)
14	Grey	(127,127,127)
15	Light Grey	(210,210,210)

The colors **0 to 15** can vary based on your settings in the color dialog, so every user might see a different color for these indexes.

You can also use colors **16 to 98** for a range of fixed colors that are the same for all IRC users.

You can use color 99 for the default text/background color for a line.

**Control+K** can pop up a color index dialog, depending on your setting in the <u>Keys</u> dialog.

If you want to enclose **existing** text in control codes, just **select** the text with your cursor, and then type the Control code. This will insert both starting and ending control codes around the text you selected.

You can enclose text in multiple control codes, so for example you could have a bold, underlined, and colored word.

**Note:** If you have the **Pop up color index** switch turned on in the Options dialog, mIRC will pop up a small color index showing you each color and its associated number so you do not have to memorize them.

If you want to strip out control codes from incoming private or channel messages, you can either change the strip settings in the <u>Messages</u> dialog, or you can use the <u>/strip</u> command.

7

## **Options**

The mIRC Options dialog allows you to change most of the settings that determine how mIRC works for you.

<u>Connect</u> <u>IRC</u> <u>Sounds</u>

**Options** Servers Requests **Options** Messages Speech Identd Catcher **Proxy** Logging Local Flood **DCC** Mouse Display Drag Drop **Options Options** Folders Ignore **Fserve** Server

Other Lock

## 7.1

## **Connect**

Before you can connect to a server and start chatting you will need to enter the following information into the connect dialog.

### **Nickname**

Your nickname is the name by which other people will know you on IRC. There are many people on IRC, so it is possible that someone might already be using the nickname you choose. If that is the case, you should choose a different nickname.

You can also enter an **Alternative** nickname which will be used if someone is already using your main nickname. If both nicknames are in use, mIRC inserts "/nick" into the status window edit box so that you can enter a new nickname and press the enter key.

### **Full Name**

This is optional. Whatever you enter here is visible to other people on IRC. You should normally not enter your real name. Most people enter a comment.

## **Email Address**

This is optional. You can enter your email address here if you wish.

### Server

This is the server that you will connect to when you click the **Connect** button.

### **New Window**

This option allows you to open a new server window so that you can connect to more than one server at a same time. Just check the new window checkbox and click the connect button. The checkbox setting is not remembered and will be **turned off** the next time you open the connect dialog. To open a new server window **without** connecting to a server, you can check the new window checkbox and then press the OK button.

#### **Connect**

Once you have filled in your details and selected a server, you can click the **Connect** button to connect to that server.

**Hint:** If you click your **right mouse button** on the connect toolbar button, a popup menu will appear that lists the most **recently** accessed IRC servers. If you press the **shift key** while selecting a server in the popup menu it will open in a new server window.

### 7.1.1

## Servers

The server you choose to connect to is the most important factor in determining how quickly and easily you connect. If it is taking a long time to connect to a server, choose a different one and try again.

A server is usually part of an IRC network. All servers that connect to a specific network will have the same users and the same channels.

When adding/editing a server, note that each server requires at least a description, an address, and a port.

An address looks something like "irc.dal.net".

The default **port** for most servers is 6667. If the server allows connections on different ports, you can enter them separated by commas, eg. 6667,6668,6669 and a port will be selected randomly each time you connect to the server. For secure connections to an SSL capable server, prefix the port with a plus sign, eg. +7001, and to a STARTTLS capable server, prefix the port with a star sign, eg. \*7001.

The **group** is the name of the IRC network to which the server belongs, to allow you to group servers for that network together.

A **password** is usually not needed, so you should not have to enter anything here.

The **login method** allows you to use a particular login method, if that is needed by the server you are using. You can also specify a login password. If you need to use **SASL**, select that as the method and enter your password as either **password** or **username:password**. If you need to identify your nickname to **NickServ**, and you use **/nickserv** or **/msg nickserv** on your server, select that as the method.

**Note:** If you are having problems connecting to an IRC Server, see the <u>Connection</u> <u>Issues</u> section.

## 7.1.2

## **Connect Options**

## **Connect on startup**

Makes mIRC connect to the default IRC server automatically when it is run.

#### **Reconnect on disconnection**

Makes mIRC reconnect automatically to a server if you were disconnected and you did not type /quit.

### Show connect dialog on startup

Pops up the connect dialog when you run mIRC.

### Move to top on connect

Moves a server to the top of the servers list when you connect to it.

### **Check connection time out**

Pings the server every so often to check that the connection is okay.

### **Preserve nicknames**

If enabled, nickname changes while online will not affect the nicknames you have specified in the connect dialog.

### **Invisible Mode**

If you turn on invisible mode, people will not be able to see you on IRC unless they already know your nickname, or if you join a channel or talk to them privately.

### **Default Port**

The default server port that will be used when connecting if one was not specified for that server.

### Perform...

This option allows you to specify a set of **commands** that you want mIRC to perform when it connects to a specific IRC network. You can specify a set of commands to be performed for **All** Networks, for a **specific** network, and for any **Other** networks that are not specifically assigned their own commands. To understand how commands work, see the <u>Aliases</u> help section.

## Retry...

This option allows you to set the number of times a connection attempt is retried when connecting to a server.

### SSL...

This option allows you to change various SSL-related settings.

## Ports...

These options are for advanced users and should normally not be changed.

The **Port range** option allows you to specify the range of ports that mIRC will use with server and/or DCC connections. This can be useful if you need to open up a specific range of ports on your firewall or router for incoming and outgoing connections.

The **Randomize ports** option makes mIRC use non-consecutive ports when creating listening sockets.

The **UPnP support** option makes mIRC use the UPnP feature of your router to open ports for incoming connections when needed. This greatly simplifies use of the identd server, file transfers and a number of other features. In order for mIRC to use UPnP, you

will need to enable UPnP support in Windows and in your router.

The **Bind to Adapter or IP address** option makes mIRC bind all sockets to a specific adapter or local IP address, in case you want to use a different outgoing network connection. If you specify an IPv4 or IPv6 adapter/address, DNS resolution and all connections will be made based on the adapter/address type. If you explicitly specify an IP address for a connection, such as in a /server or DCC connection, it overrides this setting. This option affects all features in mIRC, including commands such as /server and /dns.

The **If bind fails, use system default** option will try to use the default system adapter if the bind to the specified adapter or IP address fails. If you are using a VPN to keep your IP address private, you should disable this option.

The **Enable IPv6 support option** option allows mIRC to connect to IPv6 addresses. When you enable this option, mIRC will retrieve DNS results for both IPv4 and IPv6 and will prioritize IPv6 when connecting to servers. If no IPv6 addresses are available, IPv4 addresses are used. This option affects all features in mIRC, including commands such as /server and /dns.

## 7.1.3

## **Identd**

mIRC can act as an **identd server** and will send the specified **User ID** and **System** as identification. This server will be more useful to some people than others. In general it is better to leave it active as some systems might refuse a connection if there is no reply to an identd request.

### **Enable Identd Server**

Check/uncheck this to turn the identd server on or off

### **User ID**

This can be your account or user name on your system. For most people this will be the User ID portion of their email address (the text before the @ sign). Valid characters for a User ID are: . 0-9 A-Z \_ - a-z

#### System

This identifies your operating system. For all intents and purposes, replying with a value other than UNIX would not be very useful for most people.

### **Port**

This should usually be 113.

### **Show Identd requests**

This displays any identd requests sent to your identd server if it is turned on.

### **Enable only when connecting**

This turns the identd server on **only** when you are connecting to an IRC server. The moment an identd request is received and replied to, or the moment you connect to the IRC server and see the MOTD, the identd server is turned off.

**Note:** This server will reply to **all** identd queries sent to the specified port ie. it is not limited to replying to an IRC server for mIRC. If you have turned on the identd server and it is not replying to identd queries then it is probable that the type of internet account you have is preventing mIRC from replying, or that another program is running which has control of the identd port.

### Use ID from email address

Makes mIRC use the User ID from your email address in identd replies.

### The /identd command

You can also use the **/identd [on|off] [userid]** command to change the above settings.

### 7.1.4

## **Proxy**

mIRC can connect to an IRC Server through a **Socks4** or **Socks5 firewall**, or through a **Proxy**.

### Connection

You can choose to enable proxy support for **server** connections, **DCC** connections, or **both**.

### **Protocol**

You can select either Socks4, Socks5, or Proxy. Socks4 and Proxy are limited in functionality and only allow server connections.

**Note:** mIRC uses a passive protocol to establish **DCC** connections when a client is behind a **Socks5** firewall. This will **not** work with older versions of mIRC or other IRC clients because no standard exists. You can find out more about the protocol <u>here</u>.

### Hostname

The address of your firewall server, can be either a named address or an IP address.

#### User ID

Can be the account or user name on your system. For most people this will be the User ID portion of their email address (the text before the @ sign).

#### **Password**

The password required to access the firewall.

**Note:** If you are connecting via a proxy, and you enter a password, mIRC only supports http proxy **basic** authorization.

#### **Port**

This is usually 1080 for Socks firewalls.

### **Exception masks**

If you have the firewall enabled but would like to connect to some servers directly, you can enter their addresses here. Wildcards may be used. Any server addresses which match the exception masks will not use the firewall.

### The /proxy command

This command allows you to change the above firewall settings.

## /proxy [-cmN[+|-]d] [on|off] <server> <port> <userid> <password>

The **-c** switch clears the userid and password values.

The **-mN** switch set the connection type, where N is 4 or 5 for Socks4 or Socks5, or p for proxy.

The +|-d switch turns DCCs through a firewall on or off.

### 7.1.5

## Local

Your **Host name** and **IP address** are required when using the <u>DCC</u> features in mIRC. mIRC will try to retrieve these values itself however in some cases you may need to change the settings yourself.

### **Local Host**

If mIRC is unable to retrieve your local host name, and replies with the message **Unable to get local host,** then you will have to fill in your local host name manually. mIRC will then use whatever you have entered to get your IP address.

### **IP Address**

If mIRC is unable to retrieve your IP address then you will need to enter it manually. If it is not correct then you will not be able to initiate DCC sessions.

## On connect, always get...

These options allow you to change the way the local host and IP address are retrieved. There are many different types of Internet connections, so you will need to change these settings yourself to see which combination works best for you. If you do not know what kind of connection you have, you should normally leave both of these options checked.

### **Lookup Method**

If you find that mIRC is not resolving your IP address correctly you might try changing from **Normal** to **Server** or vice versa. With the **Normal** method, these details are retrieved locally. With the **Server** method, they are retrieved via the IRC Server.

**Note:** If changing the above switches does not solve the problem, or you do not know what to enter for your local host or IP address, you will need to contact your **Internet Provider** or **System Administrator**.

## 7.2

## **IRC**

## **Prefix own messages**

If this is selected, your nickname will prefix any messages you type in a channel/query/chat.

## **Show mode prefix**

If turned on, mIRC will prefix nicknames in channel messages with their .@%+ mode on a channel.

## Minimize query window

If someone sends you a query, the default is for the query window to open, ready for input. You can select this option to force mIRC to minimize the window preventing it from taking the focus from the window you are currently in.

## Use query for notify nicks

If the single message window option is enabled, and a user who is in your notify list messages you, mIRC will open a query for that nickname, over-riding the single message window option.

## Whois on query

Select this to have mIRC do a /whois nickname on any person that sends you a private message. The /whois will be done the first time the query window is opened.

## Use single message window

This directs all private messages from other users to one single message window. You will need to use the /msg command to reply. If you want to open a query window to a user, use the /query window.

**Note:** You can press the **Tab** key while in the message window to cycle through the list of nicknames who have recently messaged you.

### Copy messages to query

If you are talking to a user in the single message window and then decide to open a /query to the user, this copies the conversation you have had so far from the single message window to the query window.

## Auto-join channel on invite

This will make you automatically join a channel when you are invited to it. mIRC will also try to minimize the window, however this might not always work.

## Rejoin channel when kicked

If you are kicked from a channel, mIRC will immediately try to rejoin the same channel. It will not close the channel window unless it finds that you cannot rejoin the channel.

### Rejoin channels on connect

If this switch is turned on, mIRC will automatically rejoin channel windows which are open when you reconnect to an IRC server after being disconnected.

### Keep channels open on kick/disconnect

This will keep a channel window open if you are disconnected from the server or kicked from a channel.

## Keep channels open on part

This will keep a channel window open after you have parted the channel.

## **Hide channel key**

If this is turned on, mIRC will not display the channel key in the channel window titlebar.

### Show invites in active window

If this setting is turned off then invite messages will appear in the status window.

## Show queries in active window

Shows all queries in the active channel window instead of opening up a query window. However, if you are not in a channel window, a query window will be opened.

### Show notices in active window

Shows all notices in the active window instead of in the status window.

#### Show whois in active window

Shows /whois results in the channel, query/chat, or custom windows if it is turned on and if a /whois is issued inside one of these windows, otherwise all /whois results are shown in the status window.

### Show Ctcps in active window

Shows all Ctcp messages in the active window instead of the status window.

## **Show Away in active window**

If you have a query window open to a user, their away message will be displayed in the query window if this option is enabled, otherwise it will be displayed in the status window.

#### Events...

The events dialog allows you to change the default display settings for channel-related events, such as joins, parts, etc. You can change the settings for individual channels via the <a href="System Menu">System Menu</a> of a channel window.

## 7.2.1

## **IRC Options**

### Show short joins/parts

Checking this option makes mIRC display the join and part messages in a different, more compact format.

### **Show user addresses**

Display user addresses in events such as joins/parts/quits/invites on channels.

#### Show nicks on ioin

Displays channel nicknames in the status window when you first join a channel.

#### Flach on

These set the default flash option for any newly opened channel, query, or dcc chat window.

### **Skip MOTD on connect**

This makes mIRC hide any MOTD information which the server sends you when you first connect to it.

### Hide ping? pong! event

Occasionally an IRC server will send a ping to mIRC to check whether it is still connected.

If you prefer not to see the "Ping? Pong!" message in the status window you can enable this option.

## **Cancel away on message**

If you set yourself as away using the /away command, selecting this option cancels the your away status automatically the next time you send a message to a channel or a query/chat window.

## **Hide away reminders**

Hides repeat away messages in active query windows for ten minutes.

### 7.2.2

## Messages

## **Timestamp events**

This option timestamps various types of incoming/outgoing messages with the current time and date, using the format found in \$asctime().

## **Strip codes**

This allows you to strip out the <u>Control Codes</u> codes from incoming private messages or channel messages.

## **Ctcp finger reply**

The message a user receives when they /ctcp finger you.

### **Quit message**

The message displayed to other users when you quit IRC.

## Split long channel/query messages

If you type a message that is long enough that it might be chopped by the maximum message length allowed by a server, this option makes mIRC split the message into several smaller messages to make sure that it is sent intact.

## 7.2.3

## **Catcher**

This feature looks for any text that looks like a URL or Email address in incoming messages and saves it for your future reference.

## **Enable catching for...**

If this option is turned on mIRC will catch references to URLs and Emails and store them in the URLs list window.

mIRC looks for URLs beginning with "http://", "ftp://", "gopher://", "www.", and "ftp.". mIRC also checks to make sure addresses are not added to a list if they already exist.

mIRC will also catch any text that looks like an email as long as the word "mail" is mentioned in the same line of text as the email address.

### **Chat links**

These options enable or disable support for chat links, and allow you to specify whether you want a confirm dialog to be displayed whenever a chat link asks mIRC to connect to a server.

#### Web browser

When you open a URL, mIRC can optionally open a new browser window and activate it if required.

## Place? items at top

If this is checked then mIRC will place? marked URLs at the top of the URL list, otherwise they will be placed at the bottom of the list.

## **Delete? items on exit**

To prevent your URL list getting too long you can choose to have all? marked items deleted when you exit mIRC. Any items whose marker has been changed to something other than? will remain in your list for future reference.

### On Send

When sending URLs to a channel, query, etc. mIRC can send only the URL or both the URL and description.

**Hint:** You can click your right mouse-button in the URL window for a popup menu which provides various URL functions.

### 7.2.4

## Logging

This section allows you to changed various options relating to the logging of your conversations on IRC.

### Automatic log and reload...

This enables automatic logging for all channel or chat windows. This also enables reloading of the most recent logs (up to a maximum of 1000 lines) when a channel or chat window is opened.

### **Lock log files**

If this switch is turned off and your log files are being saved properly then you should leave it turned off, otherwise turn it on.

### **Trim log files**

This option limits the size of your log files to the specified size, each time they grow beyond this maximum the oldest part of the log at the top of the file is trimmed off so that the most recent part remains.

### **Timestamp logs**

If this option is enabled, all lines in a log file are timestamped using the format found in \$asctime().

### Strip codes

This makes mIRC strip any Bold, Underline, Reverse, or Color control codes from text

that is being logged to a file.

### **Line colors**

If turned on, lines saved to the log file will be prefixed with the line's color.

### **Include network**

If turned on, the name of irc network is included in the log filename.

If you enable the **make folder** option, a separate logs folder is created for each unique network that you use.

### **Date filenames**

This makes mIRC create filenames which are prefix with the current date to allow you to organize your logs by date.

You can choose to have filenames dated by day, week, or month. If dated by week, log files begin on days 1, 7, 14, and 21, and if dated by month, they begin on day 1 of that month.

Channel log files dated by day are closed at 12am and re-opened with the new date.

If you turn on the **except status** switch, the status window will not have its logfiles dated.

## **Logs and Buffer saves folder**

The folder in which all log files and buffer saves are stored.

### 7.2.5

## Flood

Flood protection attempts to prevent you from **flooding** a server with messages sent in **response** to requests from other users via CTCP or a script.

Flooding usually results in your being **disconnected** from IRC servers since they place a limit on how much information you can send at one time.

mIRC will count the number of bytes you send to a server, and will initiate a flood check if you exceed a certain maximum number of bytes.

### Trigger flood check after...

This is the number of bytes at which mIRC should check if it might be flooding the server or not. Setting this greater than 500 bytes is not too helpful since that might be the maximum amount a server allows. The lower the number, the more sensitive mIRC will be, and the slower it will reply. Default 400.

### Max. lines in buffer

The maximum number of lines mIRC will buffer.

### Max. lines per person

The maximum number of messages a user can have in the buffer.

## Ignore person for...

How long to ignore a user who has exceeded their maximum number of buffered messages. If zero, no ignore is done.

## **Enable protection for...**

This enables flood protection for ctcp replies, whois requests, and query windows.

## **Queue Op commands**

If this is enabled, the MODE and KICK commands are also queued in the flood queue.

## Queue own messages

If this is enabled, all of your own messages, such as notice and private messages, are queued in the flood queue.

## Show status updates

Displays the flood queue status a) when there is a new item in the queue, b) every 10 seconds, if the queue status changed, and c) when the queue becomes empty.

### The /flood command

This command allows you to turn flood protection on or off and to change the above settings. Typing /flood with no parameters gives you the current flood status. You can type **/flood on** to turn flood protection on with the default settings.

/flood [+c|-c] [on|off|clear] <bytes> <maxlines> <maxmessages> <ignoretime>

/flood 200 10 2 30

Here mIRC will check for flooding if it has sent 200 or more characters to the server, will buffer a maximum of 10 lines and ignore the rest, will only allow each user 2 buffered lines, and will ignore a user for 30 seconds if that user exceeded the maximum number of buffered messages.

You can also use **+c** or **-c** to enable or disable the ctcp flood protection.

The flood protection method also performs intelligent queuing in order to satisfy the maximum number of users as quickly as possible, so that no single user can hog the queue.

## 7.3

## Sounds

### **Enable sounds**

This enables or disables the playing of all sounds in mIRC.

### On Event, play sound...

This allows you to associate sounds with specific events, eg. for the disconnect event, if you are disconnected by the server without having typed /quit or selected the disconnect menu item, then mIRC will beep or play the specified sound to indicate that you are no longer connected to IRC.

### Beep on message...

This makes mIRC beep whenever a message is sent to a channel, query, or dcc chat window that is not currently the active window or while you are scrolling back through the buffer.

## **Event beep**

Sets the number of event beeps that are played on an event, as well as the millisecond delay. To turn off notification all together, specify zero beeps.

## **Use internal beep**

Makes mIRC use its own internal beep sound for events instead of the default windows sound.

## 7.3.1

## **Sound Requests**

Sound requests allow you to play sounds on a channel or in a query. When someone uses the **/sound** command, all users on the channel or in the query who have that same sound will hear it play.

### **Accept sound requests**

If this option is turned on, mIRC will listen for /sound requests from other users.

## On sound request...

If a sound is already playing and a new sound request is received, you can either have mIRC halt the currently playing sound and play the new sound, or you can choose to have mIRC ignore the new sound.

mIRC can also **warn** you if a user has requested a sound that you do not have so that you can then ask the user for that sound.

### **Listen for !nick file get requests**

If someone sends you a message starting with an exclamation mark prefixing your nickname mIRC will assume that they are requesting a sound file from you and will search your sounds directory for the file. If it finds it, it dcc sends it to the user.

## Send !nick file as private message

If this option is turned off and you send the message !nick file to a channel, everyone on the channel will see it. if you prefer not to crowd the channel with these messages, you can turn this option on and the user will receive the message privately.

### **Locations of sound files**

Whenever a sound is requested, mIRC will look in these directories and all of their **subdirectories** for it. These directories are also searched when you use the <u>/splay</u> command.

### The /sound command

You can send a sound request to another user using the /sound command.

### /sound [on|off|nick/channel] <file.wav|file.mid|file.mp3> <message>

If a nick/channel is not specified, the message is sent to the current channel or query

window.

The sound file must end in .wav, .mid, or .mp3, and may be located in the default sounds directory or in any of the subdirectories in the sounds directory. You do not need to specify a directory for the filename unless the file is not in the sounds directory.

The **message** is optional, if you do provide one it appears exactly like an action command.

### 7.3.2

## **Speech**

mIRC can speak the messages that you receive from other users in channels and private chats. Note that in order for this feature to work, your version of Windows must have a speech component installed.

## **Options**

The options dialog allows you to change the way text is spoken, such as the speed and pitch of the speaking voice.

#### **Events**

The events dialog allows you to specify the events that you want spoken for **channel**, **private**, and **other** events.

### Lexicon

The lexicon dialogs allows you to replace words or characters in spoken text with other words or characters, for example you could replace ":-)" with the words "smiley face".

## **Agent**

The agent dialog allows you to configure the use of Microsoft Agent. An **agent** is an animated character that can speak text and perform actions. You can select your default agent character, the size of the character, and various display options. The **auto-hide** feature hides the agent whenever mIRC is **minimized**, though note that if agent needs to **speak** it will become visible again.

**Note:** The agent dialog will only be visible if agent is already installed on your system. If it is not installed, you can find links to related websites and resources, as well as download information, on the mIRC website.

### The /speak command

You can make mIRC speak text by using the following command:

### /speak -spclu [speed] [pitch] [text]

If mIRC is already speaking text then the above command will add the new text to the end of the queue.

The **-s** switch sets the speaking speed, which ranges from 0 to 100.

The **-p** switch sets the speaking pitch, which ranges from 0 to 100.

The **-c** switch clears the queue of all text

The -I switch applies the lexicon settings in speech dialog

The **-u** switch applies the option settings in speech dialog

## The \$speak() identifier

You can use speak(N) to list all lines that are currently queued for speaking through the /speak command. If N = 0, returns the total number of queued lines.

## 7.4

## Mouse

The **double-click** feature allows you to specify a set of commands that will be executed whenever you double-click in a certain window.

For example, for the **channel nickname listbox** you could enter:

## /query \$1

which means that when you **double-click** on a nickname, a query window opens up and you can start talking with that nickname privately.

## 7.4.1

## **Drag Drop**

The **Drag Drop** feature allows you to **pick up files** from other programs eg. a file manager, and **drop** them on either **Message** or **Channel** windows. Depending on the type of file you drop onto a window, a different action will be performed according to the commands you have defined for that file type.

You can define different actions for different types of files by **associating a command** with **a file ending**.

For example, if you wanted to mIRC to **read** a text file to another user whenever you drop files ending in **.txt** then you might make an association such as:

```
*.txt:/play $1 $2-
```

In this case, **\$1** stands for the name of the user or channel where the file has been dropped, and **\$2-** stands for the name of the file that was dropped. The <u>/play</u> command would send each line in the specified text file to the user.

You can also have different aliases executed for the same file type depending on whether you hold down the **shift key** or not when you drop the file.

Currently the **default** settings for dropping files with **no shift key** pressed are:

```
*.wav:/sound $1 $2-
```

Which means that if you drop a Wave file, it will be played with the <u>/sound</u> command, and if you drop any other type of file it will initiate a <u>dcc send</u> to that user.

<sup>\*.\*:/</sup>dcc send \$1 \$2-

The **default** settings for dropping files with the **shift key** held down are:

\*.\*:/dcc send \$1 \$2-

Which is the same as above, initiating a dcc send to the active user.

Note: If you drop a file which has a space in it, it is enclosed in "" quotes.

## 7.5

## DCC

DCC allows you to connect **directly** to another IRC client, instead of going through the IRC Network, to **Send** and **Get** files, and to **Chat** privately over a more secure connection.

## On Send request

This option determines how mIRC behaves when someone tries to send you a file. By default, mIRC will pop up a dialog asking you if you want to accept the file, however if you select the **Auto-get file** option then mIRC will automatically accept the file. If you select **Ignore All** then all incoming dcc send requests are ignored.

If you choose to **accept** the file, mIRC will ask the sender to begin the file transfer, at which point you should begin receiving the file.

If someone tries to send you a file that already exists in your get directory then you will be shown a warning that the file exists. You then have the option to either overwrite the file, resume the transfer, or rename the file.

If you choose to overwrite the file then the whole file will be downloaded from the beginning and any existing file of the same name is erased.

If you select resume then mIRC will attempt to negotiate a transfer resume to get the remaining part of the file.

### If Auto-get and File exists

In the case where you have turned on the Auto-get file option, and you already have a file of the same name in your download folder, you have the option of mIRC popping up a dialog to ask if you want to accept the file, or to automatically resume or overwrite the existing file.

### **Trusted Users**

This section allows you to add a list of trusted nicknames, addresses, or user levels, from which mIRC will automatically accept dcc sends.

You can also use the **/dcc trust [-r] <on | off | nick | address | level>[:network]** command to change the trust list.

If you append :network to the address, where network is the network name, it will make the trust item network-specific.

Note: Please read about the dangers of Accepting Files on IRC before you accept files.

## On Chat request

This option determines how mIRC behaves if someone sends you a chat request. By default, mIRC will pop up a dialog asking you if you would like to accept the chat request, however you can make mIRC automatically accept the chat request, or just ignore all incoming chat requests.

The /dcc nick -sgcf <oldnick> <newnick> command allows you to change the nickname associated with a dcc send/get/chat/fserve and is used in the dcc remote event definition.

## **DCC Options**

## On completion

When a file transfer is completed, or a chat session ends, you can make mIRC close the window automatically, as well as beep to audibly indicate the end of a dcc session. The beep options depend on the settings in the <a href="Event Beeps">Event Beeps</a> dialog.

### **Time-out in seconds**

When a user sends you a Send or Chat request, a dialog pops up and waits for you to accept or decline. The Get/Chat Dialog time out value determines how long the dialog will wait for your reply before it closes.

During a file transfer mIRC will wait the number of seconds specified in the Send/Get Transfer Time Out settings for a response from the other client before closing the connection.

The Fileserver Time Out determines how long a user in a Fileserver session can remain idle before mIRC closes the connection.

## **Max Sends**

This limits the number of simultaneous remotely initiated DCC Sends mIRC will handle.

**Note:** This applies to users who request a DCC Send remotely ie. via a script file or via the DCC Server, not if you initiate a DCC manually.

### **Show Warning**

Displays the incoming file warning.

### **Passive DCCs**

Initiates passive DCC sends and chats, which might help if you are having trouble sending or chatting to other users.

You can also use the **/dcc passive [on | off]** command to enable or disable passive dcc connections.

## **Minimize Sends**

If enabled, dcc send windows will be minimized automatically.

#### Fill Spaces

Replaces spaces in long filenames with an underscore character. For more information read this.

#### **Packet Size**

The number of bytes that mIRC will send to another client in one packet.

#### **DCC Folders**

### **DCC Get Folders**

This allows you to specify dcc get directories where received files will be placed according to their extension. Files which do not match any of the extensions you specify are placed in the default get directory.

If you specify a **command** to be performed when a file is downloaded, the **\$1-** identifier refers to the filename.

You can manually redirect an incoming dcc send to a specific folder with **/dcc get <folder>**. You can use **/dcc reject** to reject the dcc send. Both of these commands must be called from within the <u>CTCP</u> event or the <u>on DCCSERVER</u> send event. \$filename returns name of file.

## **DCC Ignore**

### **Accepting or Ignoring files**

This allows you to specify the types of files that you want mIRC to accept or ignore automatically when someone tries to send you a file.

You can also use /dcc ignore [on | off | accept | ignore] to turn this feature on or off.

### Turn ignore back on

This option turns dcc ignore back on after a while if you **manually** turned it off temporarily in order to accept a file.

## **DCC Fileserver**

## **Max. Fileservers**

This limits the number of fileserver sessions that can be open simultaneously.

### Max. Gets per user

This limits the number of simultaneous DCC Gets a user can request.

### **Total Max. Cps**

This limits the maximum cps used by all dcc sends being sent by a fileserver.

The /dcc maxcps <N> command can be used to changed the Max Cps value on the fly.

**Note:** This setting is also applied to /dcc sends initiated in a script that responds to a server event. You can override this by using **/dcc send -n** which applies no cps limit.

## **Root folder**

This specifies the root directory that a user will see when they first enter a fileserver initiated via the DCC Server. The user will be able to access all files and directories within this root directory.

### Welcome text file

This specifies the welcome text file that will be sent to a user when they first connect to a fileserver.

## **Show fileserver warning**

If this option is checked, the fileserver warning is displayed whenever the /fserve command is used to initiate a fileserver session. To learn more about fileservers see the File Server section.

### **DCC Server**

The mIRC **DCC Server** listens for direct connections to your IP address from other **mIRC** clients.

## **Enable DCC Server**

This turns the DCC Server on or off.

### **Listen on Port**

The DCC Server listens on port 59 by default, however you can change this to another port number.

### Listen for...

You can have the DCC Server listen for only certain types of connections, such as DCC Sends, Chats, or Fileserver requests. For example, if you turn off the DCC Chat listen option, the DCC Server will ignore any chat requests.

## **Perform DNS lookup**

When someone connects to your DCC Server only their IP address is available for identification. If you check the DNS lookup switch, mIRC will perform a /dns on the IP address to try to resolve it to a named address.

**Note:** It can take anything from a second to more than minute to resolve an address depending on network conditions, and sometimes it may not resolve at all.

### The /dccserver command

You can change the settings of the DCC Server from the command line using:

## /dccserver [+|-scf] [on|off] [port]

You can Send/Chat to the DCC Server using the DCC Send/Chat dialogs and specifying an **IP address** instead of a nickname.

From the command line, you can use /dcc [send|chat|fserve] with an IP Address instead of a nickname to initiate a connection to the DCC Server.

Note: /dcc fserve only works for IP address connections and does not work via IRC.

### **Technical specifications**

For a technical explanation of how various DCC protocols are implemented in mIRC see the pages <u>Server</u>, <u>Resume</u>, <u>Socks5</u>, and <u>Long File Names</u>.

## 7.5.1

## **DCC Resume Protocol**

User1 is sending the file. User2 is receiving the file.

To initiate a DCC Send, User1 sends:

## PRIVMSG User2 :DCC SEND filename ipaddress port filesize

Normally, if User2 accepts the DCC Send request, User2 connects to the address and port number given by User1 and the file transfer begins.

If User2 chooses to resume a file transfer of an existing file, the following negotiation takes place:

User2 sends:

## PRIVMSG User1 :DCC RESUME filename port position

filename = the filename sent by User1. port = the port number sent by User1. position = the current size of the file that User2 has.

User1 then responds:

### PRIVMSG User2 :DCC ACCEPT filename port position

This is simply replying with the same information that User2 sent as acknowledgement.

At this point User2 connects to User1 address and port and the transfer begins from the specified position.

**Note:** Newer versions of mIRC ignore the filename since the port uniquely identifies the connection. However to remain compatible with older versions of mIRC the filename is sent as **file.ext** in both RESUME and ACCEPT.

### 7.5.2

## **DCC Server Protocol**

## **Chat Protocol**

Client connects to Server and sends: 100 clientnickname When Server receives this, it sends: 101 servernickname Connection is established, users can now chat.

### **Fserve Protocol**

Client connects to Server and sends:

110 clientnickname

When Server receives this, it sends:

111 servernickname

Connection is established, user can now access fserve.

### **Send Protocol**

Client connects to Server and sends:

120 clientnickname filesize filename

When Server receives this, it sends:

121 servernickname resumeposition

Where resumeposition is between 0 and filesize, and is required.

Connection is established, and Server dcc gets the file.

### **Get Protocol**

Client connects to Server and sends:

130 clientnickname filename

When Server receives this, it sends:

131 servernickname filesize

When Client receives this, it sends:

132 clientnickname resumeposition

Where resume position is between 0 and filesize, and is required.

Connection is established, and Server dcc sends the file.

#### Other

If server receives unexpected information, or does not receive info 15 seconds after initial connection, it closes the connection.

If service is unavailable, server sends:

150 unavailable

If server rejects connection, it sends:

151 rejected

### **Notes:**

The Get protocol has been implemented in this way mainly because I am assuming:

- 1) The client may not be able to open a socket to listen for and accept a connection (firewall etc.)
  - 2) The DCC Server may only be able to listen for connections on port 59 (firewall etc.)
- 3) Since the client was able to connect to the DCC Server the first time, it should have no problem connecting to the same port again.

Currently the Get Protocol is **only** used by the Fileserver when a user who has connected to a Fileserver via the DCC Server requests a "get filename". All other attempts to Get a file via the DCC Server are ignored.

## 7.5.3

## **DCC Socks5 Protocol**

mIRC uses a **passive** protocol to establish DCC connections when a client is behind a SOCKS5 firewall.

The method will work with SOCKS5 firewalls that both:

- i) Support listening/binding to a port of Zero for an incoming connection.
- ii) Assign outgoing connections an IP address that is the same as the SOCKS firewall IP address.

The DCC Send/Chat CTCP messages are extended by adding an extra number to the end of the message which uniquely identifies the negotiation, and a port of Zero is specified to indicate that this is a passive connection request. All other fields are identical to a standard DCC Send/Chat message.

### **DCC Chat Passive Protocol**

Client A, initiating the DCC Chat, sends the passive connection request below to Client B. The port is set to zero, and the id number is a unique integer identifying the connection:

DCC CHAT nickname address port id

If Client A is behind a firewall, the address is the ip address of its SOCKS firewall.

Client B receives the message and sets up a listening socket, and sends the IP address and port back to Client A, specifying the id number that identifies Client A's request:

DCC CHAT nickname address port id

If Client B is behind a SOCKS5 firewall, it requests a listening socket from the SOCKS5 firewall and specifies Client A's IP address as the binding address.

Client A then proceeds to connect to this address to chat. If Client A is behind a SOCKS firewall, it sends a connection request to it.

### **DCC Send Passive Protocol**

Client A, initiating the DCC Send, sends the passive connection request below to Client B. The port is set to zero, and the id number is a unique integer identifying the connection:

DCC SEND filename address port filesize id

If Client A is behind a firewall, the address is the ip address of its SOCKS firewall.

Client B receives the message and sets up a listening socket, and sends the IP address and port back to Client A, specifying the id number that identifies Client A's request:

DCC SEND filename address port filesize id

If Client B is behind a SOCKS5 firewall, it requests a listening socket from the SOCKS5 firewall and specifies Client A's IP address as the binding address.

Client A then proceeds to connect to this address to begin the transfer. If Client A is behind a SOCKS firewall, it sends a connection request to it.

Note: The DCC Resume and Accept protocols in mIRC are also extended by adding the id

number to the end of the CTCP message, but otherwise work in exactly the same way.

## 7.5.4

## Long File Names With. Spaces In Them

The DCC protocol does not take into account the possibility of a filename containing spaces, so most if not all IRC clients will incorrectly interpret the following DCC Send message:

PRIVMSG nick :DCC SEND This is a long file name with.spaces in it ipaddress port filesize

The **Fill Spaces** option will make mIRC fill spaces in a filename with the underscore character \_, which should then allow other clients to interpret the message correctly:

PRIVMSG nick: DCC SEND This\_is\_a\_long\_file\_name\_with.spaces\_in\_it ipaddress port filesize

If the Fill Spaces option is not selected, mIRC sends "Long File Names with.Spaces in them" enclosed in quotes. For example:

PRIVMSG nick :DCC SEND "This is a long file name with.spaces in it" ipaddress port filesize

## 7.6

## **Display**

### Multi-line toolbar

If this option is turned on, the toolbar is wrapped onto multiple lines if necessary when the main window is resized.

### Always highlight

Turning this on makes mIRC highlight buttons/icons whenever a new message appears in a window, even if the window is visible.

### Flash icons

Flashes the icons in switchbar/treebar buttons for query/chat windows if there is a message/highlight event, or a flash event.

### Fill switchbar

This option stretches buttons to fill the whole of the switchbar to make them easier to click.

### **Include DCCs**

This option allows you to choose between showing DCC Send/Get windows as buttons in the switchbar or as normal icons.

### **Include desktop windows**

If enabled, buttons for desktop windows are displayed in the switchbar. If disabled,

buttons for desktop windows are hidden from the switchbar.

#### **Sort buttons**

If this option is turned on, window buttons are sorted alphabetically as opposed to the order in which windows were opened.

#### **Buttons**

This sets the default size of the switchbar buttons.

#### Lines

This sets the height of the switchbar so as to display one or more rows of window icons. If set to **Auto** the switchbar automatically resizes as window icons are added or removed.

## **Event, Message, Highlight**

Whenever a new message is displayed in a channel or query window, mIRC highlights the switchbar icon for that window with the chosen color. The **event** color is used for all non-message events, such as joins, parts, modes, etc. The **Message** color is used for actual messages, and the **Highlight** color is used for highlighted messages, ie. messages that match your Highlight settings.

#### 7.6.1

# **Display Options**

## mIRC titlebar

This allows you to specify text that will be shown in the mIRC title bar.

#### Line spacing

This allows you to set the default line-spacing for messages in channels and chat windows.

**Note:** You can change the line-spacing for individual windows via the System Menu.

#### **Editbox lines**

This option allows you to choose between using a **single-line** editbox, a **multi-line** editbox which is two lines in height, and an **automatic** editbox, which dynamically changes height, up to the half the height of the window, to show all of the lines you have typed in.

**Hint:** If you type / into an editbox and press the enter key, it will show the last line you entered in that editbox. If you type /! it will show the last line you typed in the last window you were in.

#### Marker

When you minimize a channel or query window, or make it inactive, the line marker shows you where new messages have arrived since you last looked in the window. This allows you to scroll back and easily see which messages you have missed. You can press Control+L to scroll back to view the line marker. The line marker is **only** updated after you have scrolled back to view it.

## **Tips**

Allows you to change the Tips settings.

#### Tray

Allows you to change the Tray settings.

#### Windows

Allows to you to make specific windows open as desktop windows, ie. outside of the main mIRC window. This means you can keep specific windows open on the desktop and keep mIRC minimized at the same time.

You can also enable **transparency** for any mIRC windows that you place on the **desktop** .

If **hide desktop windows when minimized** is enabled, you can hold down the shift key when minimizing to prevent the window from being hidden.

#### 7.6.1.1

# **Tray**

## Always show mIRC icon in tray

Turning this option on makes mIRC always display an mIRC icon in the tray, even when it is not minimized.

## On startup minimize mIRC to tray

This option makes mIRC automatically minimize to the tray when it is first run.

#### Place mIRC in tray when minimized

If this option is turned on, the mIRC window is hidden when you minimize mIRC, and a small mIRC icon appears in the tray.

If this option is turned off, you can force mIRC to minimize to the tray by holding down the Shift key when you minimize mIRC.

If you hold down the Shift key when you quit mIRC, the next time you run it, it will be minimized.

If you right-click on the mIRC icon in the tray, a popup menu listing your current channels/queries appears; those that have a check mark next to them have had their icons highlighted due to incoming messages. You can click a menu item to open the window.

If you double-click on the mIRC tray Icon and mIRC is the active window, it will be minimized, if it is already minimized, it will be restored.

## Animate icon when there is activity

This option animates the mIRC tray icon by flashing the letters in the icon when there is activity, and by turning the icon purple when it is connected, as well as showing a revolving planet when trying to connect to an IRC Server.

## Single click on tray icon to open

By default mIRC requires you to double-click on the tray icon to open and close the mIRC window. This option allows you to open and close mIRC with a single click on the tray icon instead.

#### Location and name of icon to use in tray

This allows you to specify a different icon in place of the standard mIRC icon in the tray.

## /tray -iNmNsNtNaN <filename>

This command changes the mIRC Tray icon to the Nth icon in the specified file (which might be an .exe, .dll, or .ico).

The -msta switches enable or disable the tray settings in the Options dialog, where N is 0 or 1.

Note: The animate icon option cannot work if you have selected a custom icon.

#### 7.6.1.2

# **Tips**

Tips are **text balloons** that pop up near the **Windows tray** to notify you of various events such as incoming messages or users in your notify list coming on or leaving IRC. Tips only appear when mIRC is **not** the active application and are **hidden** the moment mIRC becomes active.

#### **Events**

Tips can be enabled for channel, private, and other events.

#### **Queue Size**

This setting limits the maximum number of queued tips. If a new tip is added to the queue while the queue is full, the oldest tip is removed. New tips are queued until older tips time-out. Tips time-out at a slower rate if they are not at the head of the queue.

#### **Display Time**

Each tip is displayed for **at least** the number of seconds specified in the tips dialog. For tips with long messages, display time is automatically extended based on the size of the message.

### Hide tips when full screen application is active

Tips can be set to be **hidden** whenever a full screen application becomes active. This applies to both game and non-game applications.

## **Tips Commands and Identifiers**

#### /tips [on|off]

Turns tips on or off.

## \$tips

Returns \$true or \$false depending on whether tips are on or off.

## \$tip(name,title,text,delay,iconfn,iconpos,alias,wid)

Allows you to create scripted tips that are independent of normal tip events. Returns Nth position of tip if it was successfully created, zero if not.

name - name of the tip
title - title
text - text
delay - from 3 to 60 seconds
iconfn - icon filename
iconpos - icon position in filename
alias - alias to perform when tip is double-clicked
wid - id of window to which tip belongs

name, title, text are required. delay, iconfn, iconpos, alias, and wid can be \$null.

#### \$tip(name/N)

Returns properties for the specified tip.

Properties: name, title, text, delay, iconfn, iconpos, alias, wid

## /tip <-ct> <name/N> [text]

Manipulates an existing tip, where **-c** closes the tip and **-t** changes the text of the tip.

#### Other features

Right-clicking in a tip pauses the time-out for all tips.

Left-clicking in a tip while pressing the shift key closes that tip.

Double-clicking in a tip triggers the alias if one is defined, or opens the associated window if not.

A tip automatically fits the text into it and will at most widen to quarter of your screen width.

If window id is not specified, the tip belongs to the status window of the currently active connection.

A tip is closed if the window it belongs to is made active or is closed or if mIRC is made active and the tip belongs to an MDI window. This does not apply if you are using \$tip() to create and manage your own tips.

The Highlight dialog in the Address Book also supports tips.

## 7.7

## **Other**

## **Command Prefix**

The default standard prefix to a command is a / character, however you can specify another character if the / key is hard to access on your keyboard. Regardless of the character you choose here, mIRC still recognizes the / character and uses it internally.

#### Window buffer

This limits the scrollback buffer to the specified number of lines. Note that if a scrollback buffer already contains more than the specified number of lines it will be shortened. You can always use the **/clear** command in a window to clear the scrollback buffer completely. If you are scrolling back through the buffer, lines will not be removed until you return to the bottom of the buffer.

#### Line separator

You can specify a line separator to be used in the status window. You can use a space to have a blank line. If you leave the box empty, lines in the status window will not be separated.

#### **Confirm**

#### When closing status window, confirm if...

Pops up a confirmation dialog if you try to close a status window, if any of the checked items apply.

## When closing mIRC, confirm if...

Pops up a confirmation dialog asking you if you would like to close mIRC, if any of the checked items apply.

#### Confirm toolbar disconnect...

Requires you to press the toolbar disconnect button twice to disconnect from a server.

#### Confirm when pasting more than...

Pops up a dialog asking if you really intended to paste the specified number of lines.

## Confirm when using a command...

Pops up a dialog asking if you really intended to run a command or script.

## **Keys**

## Control enables mark/copy

If this is turned on, the control key needs to be pressed to enable mark/copy of text in a window.

#### **Control+K pops up color index**

If this is turned on, a color index dialog will pop up when you press **Control+K** in an editbox to insert a <u>control code</u>.

#### Control+Tab uses switchbar order

This changes the normal **Control+Tab** behaviour when switching windows so that it follows the current window order on the switchbar.

## Shift enables hotlinks

By default, when you move the mouse over an address/nickname/channel/etc. the mouse turns into a hotlink pointer. By turning this option on, the hotlink will only appear if you have the **shift key** pressed.

## Shift enables right-click on titlebar

If turned on, you have to hold down the shift key when you click your right mouse button

on a window titlebar to open/close the window.

#### Alt+Z closes active window

This allows you to close the currently active window with Alt+Z.

## **Escape minimizes window**

To make a window minimize whenever you press the **ESCape** key, enable this option.

## Right-click in listbox selects line

If turned on, this feature makes mIRC select the line under the mouse when you **right-click** in a listbox.

## Tab changes editbox focus

This switches the focus to the next editbox or listbox in a channel window if it is pressed in an empty editbox or if the cursor is not next to a word. If enabled, you need to use **Shift-Tab** instead of **Tab** to cycle between the list of nicks that messaged you.

#### Tab completion

Allows adding a suffix to the first tabbed and other tabbed words.

#### DDF

This allows you to change the <u>DDE Server</u> settings.

#### **Enable SendMessage Server**

This enables or disables support for receiving SendMessage messages.

#### **Check for updates**

If enabled, mIRC will check for and notify you of any new versions of mIRC.

## 7.7.1

## Lock

The Lock dialog allows you to lock various features in mIRC.

#### Lock

This allows you to set a password which locks the options in the lock dialog.

#### **Ask for Password**

If this is turned on and you have set a password by using the **Lock** button, mIRC will ask you for a password each time it is run.

## Disable...

This allows you to disable features relating to Sending/Receiving files and the Fileserver.

You can also disable **private messages** and **dcc chats**, useful if you want to limit conversations to public channels.

#### Hide trav menu...

This hides the list of channels/queries in the tray menu when mIRC is locked and minimized to the tray.

#### Hide tips...

This hides any currently visible Tips when mIRC is locked and minimized to the tray.

#### Limit channels...

This feature allows you to limit the channels that mIRC can join when on IRC. mIRC will only be able to join the channels specified in this list.

**Note:** If you hold down the **Control** key when you **minimize** mIRC, it will ask you for the password when you try to open the mIRC window later. If you use Control+Minimize with no password set, mIRC will ask you for a **temporary** password.

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## **Basic IRC Commands**

IRC commands allow you to perform specific functions on IRC, such as maintaining control of a channel and the users on it. The following list of **basic IRC commands** will help you get started. There are also other mIRC Commands that you can look at later.

#### **General Commands**

#### /away [message]

Leaves a message indicating that you are currently not paying attention to IRC. When someone sends you a message, they will automatically see your away message. Using /AWAY with no message marks you as no longer being away and removes your previous message.

example: /away Off to get something to eat, back in a moment.

#### /invite nickname #channel

Invites a nickname to a channel that you are on.

#### /join #channel

Joins the specified channel.

example: /join #irchelp

This will make you join the #irchelp channel. Once on a channel, anything you type will be seen by all the users on this channel. The #irchelp channel is very useful, so say hello and then ask any questions you want. If the channel you specified does not exist, a channel with that name will be created for you.

Some channels may also have keys ie. a password, which you need to specify when using the /join command.

example: /join #irchelp trout

This will make you join the #irchelp channel using "trout" as the password.

## /list [#channel] [-MIN #] [-MAX #]

Lists currently available channels. You can also tell mIRC to show only channels with a

minimum and a maximum number of people. If you specify a #channel then mIRC will only list information for that channel. If you specify wildcards, eg. \*mirc\* then mIRC will list all channels that contain the word **mirc** in them.

example: /list

example: /list -min 5 -max 20

example: /list #mirc example: /list \*mirc\*

**Note:** mIRC also supports a /list **-n** switch that minimizes the list window when it is opened.

## /me message

Sends an action message to the current channel or query window. To send an action message to a **specific** channel or nickname, see the /describe command.

#### /msg nickname message

Sends a private message to nickname without opening a guery window.

Note: mIRC also supports /msg switches as described here.

#### /nick nickname

Changes your nickname to a new nickname.

## /notice nickname message

Sends a private message to nickname without opening a query window for either you or them.

## /part #channel

Leaves a channel that you are on.

#### /privmsg nickname message

Sends a private message to nickname that will open a query window for the other user.

## /query nickname message

Opens a query window to this nickname and sends them a private message.

**Note:** mIRC also supports /query switches as described here.

#### /quit [message]

Disconnects you from IRC and will give the optional message as the reason for your departure. (this message only appears to people who are on the same channels as you).

## /topic #channel newtopic

Changes the topic for a channel that you are on.

#### /whois nickname

Shows you information about a nickname.

## **Channel and User Commands**

If you have Op status, the following commands give you control over both a channel and the users on it.

#### /kick #channel nickname

Kicks a nickname off a channel that you are on.

## /mode #channel|nickname [[+|-]modechars [parameters]]

This is a powerful command that gives channel operators control of a channel and the users on it.

## Channel modes

\_\_\_\_\_

ModeChar	Effects on channels
$\sim\sim\sim\sim\sim\sim$	$\alpha$
b <person></person>	ban somebody, <person> in "nick!user@host" form channel is invite-only</person>
I <number></number>	channel is limited, <number> users allowed max</number>
m	channel is moderated, (only chanops can talk)
n	external /MSGs to channel are not allowed
o <nickname:< td=""><td>&gt; makes <nickname> a channel operator</nickname></td></nickname:<>	> makes <nickname> a channel operator</nickname>
p	channel is private
S	channel is secret
t	topic limited, only chanops may change it
k <key></key>	set secret key for a channel

#### User modes

-----

ModeChar	Effects on nicknames
$\sim\sim\sim\sim\sim\sim$	$\alpha$
i	makes you invisible to anybody that does
	not know the exact spelling of your nickname
0	IRC-operator status, can only be set
	by IRC-ops with OPER
S	receive server notices
V	gives a user a voice on a moderated channel

Here a few examples of the MODE command:

**To give someone op status:** /mode #channelname +o nickname

Giving someone op status means giving them control over the channel and the users on it. Give this out sparingly and to people you trust.

To op several people: /mode #channelname +ooo nick1 nick2 nick3

**To de-op someone:** /mode #channelname -o nickname

**To ban someone:** /mode #channelname +b nickname (or user address)

**To unban someone:** /mode #channelname -b nickname (or user address)

To make a channel invite only: /mode #channelname +i

You must now **invite** a user for them to be able to join your channel.

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## **mIRC Commands**

The following commands are mostly unique to mIRC, though some are only modifications or extensions of standard IRC commands.

## /ajinvite [on | off]

Turns auto-join on invite on or off.

## /alias [filename] <aliasname> <command>

Adds, removes, replaces aliases; it is limited to single line aliases and will not affect multiple line definitions.

/alias /moo /me moos!

This will replace the first matching alias with the new command. To remove an existing aliases:

/alias /moo

To add an alias to a specific alias file, you would use:

/alias moo.txt /moo /me moos!

If you do not specify a filename, it defaults to using the first filename in which the alias exists, or if it does not exist then it uses the first loaded aliases file.

#### /amsg <message>

This and the **/ame** command send the specified message or action to all open channel windows.

#### /anick <nickname>

Changes your alternate nickname.

## /autojoin [-nsdN]

Can be used in the <u>on CONNECT</u> event or <u>Perform</u> section to delay or prevent autojoining of channels

Where -n = join now, -s = skip autojoin, -dN = delay autojoin for N seconds.

**Note:** This also affects the rejoining of open channel windows during a reconnect.

## /background [-abemsgdluhcfnrtpx] [window] [filename]

Changes the background picture setting for a window. This can also be changed via a windows System Menu.

- -a = active window
- -m = main mIRC window
- -s = status window
- -d = single message window

```
-e = set as default
```

-cfnrtp = center, fill, normal, stretch, tile, photo

```
-1 = toolbar
```

-u = toolbar buttons

-h = switchbar

-b = treebar

You can right-click in the toolbar/switchbar to pop up a menu for changing these settings. Toolbar buttons can use RGB Color **255,0,255** for transparency, the BMP must be of the same form as that in mIRC resources. It should be a 16 or 256 color BMP.

-x = no background picture

**Note:** The **window** name should only be specified if none of the window switches are specified. The **filename** does not need to be specified if you are only changing the display method.

**/ban [-kruNbeIq] [#channel] <nickname|address> [type] [kick message]**Bans someone from the current channel using their address. To do this, it first does a /userhost on the nickname to retrieve the address and then does a /mode # +b.

If you specify the **-k** switch, mIRC performs a ban/kick combination on the nickname, with the optional kick message.

If you specify the **-uN** switch, mIRC pauses N seconds before removing the ban.

If you specify the **-r** switch, /ban **removes** the ban of the specified type for that nickname, eg. /ban -r nick 2

If you do not specify a ban type, then mIRC uses the whole nick!\*user@host to do the ban. If you are banning an IP address then a wild card replaces the last number of the IP address. If you are on the channel then the #channel specification is not necessary.

If you specify a wildcard address it is used as-is, if you specify a full address then the type mask is applied to it.

For a list of ban types see the \$mask identifier.

The **-beIq** switches apply the command to the ban/except/invite/quiet list. If none of these switches are used, it applies only to the ban list.

**Note:** This command uses the IAL maintained by mIRC.

## /beep <number> <delay>

Beeps a number of times with a delay.

## /channel [#channel]

Pops up the channel central window for the channel window you are currently in. You can also specify a #channel name to open the channel central for a channel you have already joined but which is not the active window.

## /clear [-sghlc] [windowname]

Clears the buffer of the current window. If you specify a window name, that window's buffer will be cleared.

The **-s** switch clears the status window.

The -I switch clears the side-listbox in a custom window.

The **-c** switch clears the click history in a <u>picture</u> window.

The **-h** switch clears the editbox command history for a window.

## /clearall [-snqmtgua]

Clears the buffers of the specified windows, where s = status, n = channel, q = query, m = message window, t = chat, u = custom, a = all windows on all connections.

If no switches are specified all windows are cleared.

## /clipboard [-an] <text>

Copies the specified text to the clipboard. The **-a** switch makes it append the text to any existing text in the clipboard. The **-n** switch appends a \$crlf to the text.

## /close [-axicdfgklmnstu@] [nick|window] ... [nick|window]

Closes windows of the specified type, matching the specified nicknames, where c = chat, f = fserve, g = get, s = send, m = query, d = single message window, t = status window, l = channels list, k = links list, n = notify list, k = links lis

The **-a** switch applies the command to all server connections.

The -x switch applies the command to the current server connection.

The **-i** switch closes only non-connected status windows or inactive chat/fserve/send/get windows.

If no nick or window names are given, all windows of the specified type are closed.

You can specify the Nth window for -cfgs by appending a number, eg. /close -s4 nick, would close the 4th open dcc send to nick.

You can also use a **wildcard** as the window name and all matching windows will be closed.

## /color [-lrs] <name> <index>

Allows you to change the color settings for items in the Colors dialog.

The **-I** switch reloads the color settings from the mirc.ini file.

The **-r** switch resets the Nth color (index 0 to 15) in the 16 color palette to its default RGB value, with /color -r <N>. To change the color of the Nth color (index 0 to 15) in the 16 color palette to a new value, you can use /color <index> <rgb>

To change the color of a text item in the color dialog, you can specify the name of the item, eg. Normal text, along with a new palette index.

The -s switch changes the active scheme, with /color -s <scheme name>

**Note:** this command also supports color indexes 16 to 99 that are standard colors across IRC clients.

## /copy [-aofp] <filename> <filename>

Copies a file to another filename or directory. You can also use wildcards for the source filename, and a directory name for the destination.

The **-a** switch appends the first file to the second one.

The **-o** switch overwrites a file if it exists.

The **-f** switch flushes the copy to disk immediately.

The **-p** switch preserves access/creation/modified timestamps.

## /creq [+m|-m] [ask | auto | ignore]

This is the command line equivalent of setting the DCC Chat request radio buttons in the dcc options dialog (see  $\underline{\mbox{sreq}}$  below). The +m|-m switch turns the minimize setting on of.

## /ctcpreply <nick> <ctcp> [message]

Sends a reply to a ctcp query.

/ctcpreply goat HELP no help available.

## /debug [-cinptrNoN] [N] [on | off | @window | filename] [identifier]

Outputs raw server messages, both incoming and outgoing, to a debug.log file, or a custom @window.

/debug -n @moo, opens a custom @window minimized

/debug -c off, turns off debugging and closes the associated custom @window

/debug -pt, wraps or timestamps messages

/debug N @moo, uses color N for messages

The -i switch calls the specified identifier before a debug line is logged. The return value of the identifier is used as the debug line.

The **-rN** and **-oN** switches set the incoming and outgoing line colors.

The **\$debug** identifier returns the name of debug file or @window.

**Note:** /debug works independently for each server connection.

## /describe <nick|channel> <message>

Sends an action to the specified nickname or channel.

#### /disconnect

Forces a disconnect from a server. This is different from the /quit command which sends a quit message to the server and waits for the server to disconnect you.

### /dll <name.dll> <procname> [data]

This allows you to call routines in a <u>DLL</u> designed to work with mIRC.

## /dns [-46ch] [nick|address]

Resolves an address. If mIRC sees a "." in the name you specify it assumes it is an

address and tries to resolve it. Otherwise it assumes it is a nickname and performs a /userhost to find the user's address and then resolves it. If you specify an IP address, it looks up the host name.

You can queue multiple /dns requests, and you can view the current queue by using /dns with no parameters.

The **-46** switches make /dns return results for IPv4, IPv6, or both types of addresses.

The **-c** switch clears all currently queued DNS requests, except for the one currently in progress.

The **-h** switch forces /dns to treat the parameter as a hostname.

**Note:** /dns can also parse a nick!user@host format and extract the nick for lookup or the host for resolution.

#### /donotdisturb [on|off]

Enables or disables the Do Not Disturb option.

This allows you to temporarily disable all visible/audible notifications such as sounds, tips, flashing window icons, tray icon animations, and more.

The **\$donotdisturb** identifier returns \$true/\$false depending on whether this feature is enabled or disabled.

Note: This option can also be enabled or disabled via the Tools menu in the menubar.

#### /dqwindow [on|off|show|hide|min]

Manipulates the single message window.

#### /ebeeps [on | off]

Enables or disables the sounds in the <u>Sounds</u> dialog.

/echo [color] [-cdeghiNtsaqlbfnmr] [color name] [#channel|[=]nick] <text> Prints text in the specified window using the specified color (0 to 15).

/echo 3 #mIRC Testing

would print "Testing" in the color green in channel window #mIRC, assuming it is already open.

If a channel/nickname is not specified, the **-s** switch echoes to the status window, the **-d** switch echoes to the single message window, and the **-a** switch echoes to the currently active window.

The **-e** switch encloses the line in line separators.

The **-iN** switch indents the wrapped line by N characters.

The **-h** switch forces lines to hard-wrap so resizing the window does not change the line.

The **-tN** switch prefixes the line with a timestamp if global time stamping is on or timestamping is on for that window. N is optional and is the UTC value to use for the timestamp.

The -q switch makes it not display the text if called from an alias using the . prefix.

The -I switch makes it apply the highlight settings to the line that is displayed.

The -bf switches make it apply the beep/flash settings in the window it is echoing to.

The **-n** switch prevents the echo from highlighting the window switchbar icon.

The -m switch indicates that the line should be treated as a user message.

The **-g** switch prevents the line from being logged to the log file.

The **-r** switch applies the strip settings in the <u>messages</u> dialog.

The **-c** switch uses the specified color name from the colors dialog.

**Note:** This text is only displayed in your own window, it is not sent to the server, no one else can see it.

## /editbox [-saf[N]nopbNeNvrqN] [window] <text>

Fills the editbox of the current window with the specified text.

The -s switch specifies the Status window.

The -a switch specifies the Active window.

To specify a dcc chat window, prefix the nickname with an = equal sign.

The -f[N] switch where N = 1 sets focus and N = 2 uses editbox with focus

The **-p** switch indicates that a space should be appended to text.

The **-n** switch fills the editbox and presses the enter key in the editbox.

The **-o** switch applies the command to the second editbox in a channel window.

The **-bNeN** switches set the start and end of the selection in the editbox.

The **-v** switch prevents the editbox contents from being changed.

The **-r** switch allows insertion of text that contains \$cr and/or \$If characters.

The **-qN** switch enables/disables/toggles the second editbox.

#### /emailaddr <address>

Changes the email address in the Connect dialog.

#### /exit [-nr]

Close down mIRC and exit.

The **-n** switch disables the exit confirmation dialog.

The **-r** switch restarts mIRC.

# /filter [-asdfhNkwxnpriocteubglLz] [n-n2] [c s] <infile | dialog id> <outfile | dialog id | alias> [alias] <matchtext>

This command scans lines of text in a window or file and if any of them contain matchtext, they are written out to another window or file which you can then use.

The **infile** can be a filename or a window name (custom or normal). The **outfile** can be a filename or a custom window name. You should specify the **-fw** switches if the names are ambiguous eg.

/filter -ff in.txt out.txt \*mirc\*

This indicates that both are filenames, and:

/filter -wf #in.txt #out.txt \*help\*

indicates that the first is actually a window name, and the second is a filename.

The **-a** switch **sorts** filtered lines by calling the optional **[alias]**. The alias is passed two lines in \$1 and \$2, it must compare these and return -1, 0, or 1 to indicate relative sort order of these lines to each other.

The **-x** switch excludes matching lines.

The **-n** switch prefixes lines with a line number.

The **-s** switch makes the status window the infile.

The **-d** switch makes the single message window the infile.

The **-p** switch wraps the text output in a custom window.

The **-hN** switch indents wrapped text N characters when the -p switch is used.

The **-r** switch specifies the range of lines **n to n2** for filtering.

The **-b** switch strips BURK codes when matching text.

The **-g** switch indicates that matchtext is a <u>regular expression</u>.

The **-z** switch retains line colors when filtering between custom windows.

The **-k** switch indicates that you have specified an <alias> as the output instead of a window name. The alias will be called with the result of each filtered line.

The **-i** switch indicates that you have provided a [dialog id] <u>custom dialog</u> control as the input.

The **-o** switch indicates that you have provided a [dialog id] <u>custom dialog</u> control as the output.

The -c switch clears the output window/file before writing to it.

The **-t** switch sorts the output based on [c s], column C using character S as the columns separator.

The **-e** specifies a descending sort, and **-u** a numeric sort.

The -I switch filters from the side-listbox in the first window, and -L filters to the side-listbox in the second window.

You can filter blank lines by specifying \$crlf for the matchtext.

This command also fills the **\$filtered** identifier with the number of matches found, if any.

**Note:** If the input and output are the same window/file, mIRC will process the request correctly.

## /findtext -n <text>

This searches active window for the specified text (same as  $\frac{\text{Control}+F}{\text{Control}+F}$ ).

#### /flash [-bNwNrNc] [window] <text>

This flashes the specified window/icon but **only** if mIRC is not the active application.

If you specify a text message, it will be displayed in the mIRC window titlebar.

The **-bN** switch makes mIRC beep N times.

The -wN switch makes mIRC play the Flash sound specified in the Event Beeps section N

times.

The **-rN** switch makes mIRC repeat the flash N times.

The -c switch clears the flash status of all windows.

In all cases, if N is not specified the flash/sound continues indefinitely.

**Note:** As with the <u>Highlight</u> feature, if text contains identifiers or variables, they are evaluated at every flash.

#### /flushini <filename>

Flushes the specified INI file to the hard disk. INI files are cached in memory, so you may want to do this to make sure that your INI is updated properly.

#### /font [-asbidz|window] <fontsize> <fontname>

This allows you to change the font for the current window. If no parameters are specified, the font dialog pops up, otherwise the specified parameters are used.

The -a switch applies the setting to the active window, -s to the status window.

The **-b** switch makes the font bold and the **-i** switch makes it italic.

The **-d** switch makes the font the default for that type of window, eg. for all channels, or all chats.

The **-z** switch clears all font settings and sets all windows to the specified font. If no font is specified, all windows are set to default font settings.

**Note:** If you use a negative number for the font size, it will match the size of fonts in the font dialog.

## /fullname <name>

Changes the full name in the connect dialog.

## /help [keyword]

Brings up the section in the mIRC help file which matches the specified keyword.

#### /hop [-cn] [#channel] [message]

Parts the current channel and joins a new one. If no new channel is specified, it parts and rejoins the current channel without closing the window.

The **-c** switch cycles the specified channel by parting and rejoining it.

The **-n** switch minimizes the channel window.

## /join [-inxmd] <#channel>

This is a standard IRC command for joining a channel.

The -i switch makes you join the channel to which you were last invited.

The **-n** and **-x** switches set the minimize/maximize state for new channel windows.

The **-m** and **-d** switches set the mdi/desktop state for new channel windows.

## /linesep [-sa|window]

Prints the line separator, set in the Options dialog, in the specified window.

The **-s** switch prints to the status window.

The -a switch prints to the active window.

#### /links [-nx]

Retrieves the servers to which your current server is linked.

The **-n** and **-x** switches minimize/maximize the window when it opens.

## /load <-aN|-pscqnm|-ruvsN> <filename>

Loads the specified alias, popup, or script.

/load -a aliases.ini loads an aliases file

If you specify  ${\bf N}$  with /load -aN, this loads/reloads the file into the Nth position in the aliases list.

```
/load -ps status.ini loads a status window popup /load -pc status.ini loads a channel popup loads -pq status.ini loads a query popup /load -pn status.ini loads a nickname list popup loads -pm status.ini loads a menubar popup /load -ru users.ini loads a users file /load -rv vars.ini loads a variables file /load -rs script.ini loads a scripts file
```

If you try to load a file that is already loaded, its contents are updated and its position in the alias/script processing order is maintained.

You can also use the **/reload** command with the same parameters to reload a file without triggering the on start/load events in the script being loaded.

If you specify **N** with /load -rsN, this loads/reloads the file into the Nth position in the scripts list.

**Note:** You can only load one section at a time.

/loadbuf [lines] [-apirslecNnomt<topic>] <window | dialog id> <filename> Loads the specified number of lines from the end of filename into the specified window.

/loadbuf 20 @test info.txt

This loads the last 20 lines of info.txt into custom window @test.

/loadbuf 10-40 @test info.txt

This loads lines 10 to 40 of info.txt into custom window @test.

The -a switch loads the text into the active window.

The -p switch forces lines of text to wrap when added to the window.

The **-i** switch makes sure that lines are indented if they wrap.

The **-r** switch clears the contents of the output window.

The **-s** switch applies the command to the status window.

The -I switch applies the command to the side-listbox in a custom window.

The **-e** switch evaluates variables and identifiers in the line being read.

The **-cN** switch specifies the default color for lines.

The **-n** switch logs the loaded text to a log file, if logging is enabled for that window. The **-m** switch indicates that the text is already timestamped.

The **-o** switch indicates that you have specified [dialog id] parameters instead of a window name in order to load text into a custom dialog control.

The -t switch loads the text under the [topic] section in an INI or plain text file.

## /localinfo -uhp [host] [ip]

Looks up and sets your <u>Local</u> settings. The **-u** switch performs a /userhost lookup, the **-h** switch performs a normal lookup, and the **-p** switch performs a UPnP lookup through your router, if that is available. If you wish, you can also specify the hostname and IP address values manually.

## /log <on|off> <window> [-f filename]

Turns logging on and off for a window, if you specify a filename the logs file dialog is not popped up.

## /logview -nN <filename>

Displays a text file in mIRC using the same method as the Log Files dialog.

The **-nN** switch scrolls the opened file to the specified line.

#### /menubar <on|off>

Changes the menubar display state. The **\$menubar** identifier can be used to determine its state.

#### /mdi -act

Allows you to arrange icons, and cascade/tile windows.

#### /mkdir <dirname>

Creates the specified directory.

## /mnick <nickname>

Changes your main nickname.

## /msg [-snx] <nick> <message>

Sends a private message to nickname without opening a query window.

The **-snx** switches set the active/minimize/maximize state for a query window if it exists.

### /nick <nickname>

Changes your nickname.

#### /noop

Performs no operation, parameters are evaluated as with a normal command.

## /omsg [#channel] <message>

This and the **/onotice** command sends the specified message to all channel ops on a channel. You must be a channel operator to use these commands. If the #channel is not specified, then the current channel is used.

## /partall [message]

Parts all of the channels you are currently on. On certain IRC Servers, you can also specify a message.

## /pdcc [on | off]

If turned on, tries to speed up dcc sends by sending packets ahead of acks.

### /perform [on|off]

Enables or disables the Perform form section.

# /play [-escpbnx q# m# f# rl# t#] [channel/nick/stop] <filename> [delay]

This plays a text file to a user or a channel.

## /pop <delay> [#channel] <nickname>

Performs a delayed op on a nickname. The purpose of this command is to prevent a channel window filling up with op mode changes whenever several users have the same nickname in their auto-op section.

mIRC will pause around <delay> seconds before performing the op. If <delay> is zero, it does an immediate op. Before performing the op it checks if the user is already opped. If you do not specify the #channel, the current channel is assumed.

## /pvoice <delay> [#channel] <nickname>

Works the same way as the /pop command except that voices a user.

#### /qmsg <message>

This and the **/qme** command send the specified message or action to all open query windows.

## /query [-snxmd] <nick> [message]

Opens a query window to the specified nickname. If a message is provided, it is sent.

The **-snx** switches set the active/minimize/maximize state for a new/existing query window.

The **-md** switches set the mdi/desktop state for a new query window.

## /queryrn <nick> <newnick>

Changes the nickname of an open query window.

#### /raw [-qn] <command>

Sends the specified command directly to the server. You **must** know the correct raw format of the command you are sending.

/raw PRIVMSG nickname :Hello there!

The **-q** switch makes the command work quietly without printing what it is sending.

The -n switch prevents characters in the range 0-255 from being UTF-8 encoded, as long

as the line contains characters only in the range 0-255. If there are characters outside 0-255, the whole line is UTF-8 encoded.

**Note:** This command does the same thing as **/quote** in other IRC clients.

## /remini <inifile> <section> [item]

Deletes whole sections or single items in an INI file.

/remini my.ini DDE ServerStatus

This would delete the ServerStatus item, and:

/remini my.ini DDE

Would delete the DDE section.

See the /writeini command below for a related example.

**Warning:** Do not use this command to modify any of the INI files currently being used by mIRC.

## /remove [-b] <filename>

Deletes the specified file.

The **-b** switch deletes the file and moves it to the recycle bin.

#### /rename [-fo] <filename> <newfilename>

Renames a file, can also be used to move a file from one directory to another.

The **-f** switch flushes the rename to disk immediately.

The **-o** switch allows the overwrite of an existing file.

Note: This can also be used to rename directories.

#### /resetidle [seconds]

This resets the \$idle identifier to zero or to the number of seconds you specify.

#### /rmdir <dirname>

Deletes the specified directory.

**Note:** If the directory contains files, it cannot be deleted.

## /run [-ahnp] <filename> [parameters]

Runs the specified program with parameters.

The **-a** switch runs the file as an administrator.

The **-h** switch attempts to hide the window of the application being run.

The **-n** switch minimizes the window of the application being run.

The **-p** switch sets the working path to the path of the application being run.

You can enclose the filename or parameters in quotes if you need to. If you specify a **non-executable** file, mIRC tries to open it with the application associated with that file.

## /save <-pscqnm|-ruv> <filename>

Saves the specified popup or remote users/variables file.

```
/save -ps status.ini saves the status popup to status.ini saves the nickname list popup to nick.ini
/save -ru users.ini saves the user list to users.ini saves the variables list to vars.ini
```

Note: You can only save one section at a time.

## /savebuf [-saolpn] [lines] <window | dialog id> <filename>

Saves the specified number of lines from the end of the buffer of the specified window into the specified filename.

/savebuf 20 @test info.txt

This saves the last 20 lines in custom window @test to info.txt.

/savebuf 10-40 @test info.txt

This saves lines 10 to 40 in custom window @test to info.txt.

The **-s** switch saves the status window buffer.

The -a switch makes it append the text to the end of a file instead of overwriting it.

The **-o** switch indicates that you have specified [dialog id] parameters instead of a window name in order to save text from a custom dialog control.

The -I switch saves the contents of the side listbox, if there is one.

The **-p** switch strips control codes from saved lines.

The **-n** switch treats wrapped lines as a single line.

## /saveini

Updates all mIRC-related INI files with the current settings.

#### /say <message>

This sends a message to the current channel or query window. So "/say Hello there" would be the same as just typing "Hello there".

**Note:** You cannot use this command in the remote section. Use /msg #channel <message> instead.

/server [-46demntpfoczu] <address/group> [port] [password] [-I method password] [-keytype global/local] [-key filename] [-itype global/local] [-i nick anick email name] [-encoding N] [-jn #channel pass]

Connects you to a server, first disconnecting you from the current server.

/server irc.undernet.org 6667 mypassword

If you type /server with no parameters, mIRC will connect to the last server you used. If you use the server command while still connected, you will be disconnected with your normal quit message and will then connect to the specified server.

You can also use /server N which connects to the Nth server in the server list in the connect dialog.

You can also use /server group which will cycle through all the servers in the server list which have that group name until it connects to one of them.

The -46 switches make /server connect to either IPv4, IPv6, or both types of addresses.

The **-d** switch allows setting the current status window's connection details without connecting.

The **-e** switch initiates a secure connection to an SSL capable server. Alternatively you can prefix the **port number** with a plus sign, eg. +7001.

The **-m** switch creates a new server window for that connection and connects to the server. The **-n** switch does the same thing but does not connect to the server.

The **-t** switch initiates a secure connection to a STARTTLS capable server. Alternatively you can prefix the **port number** with a star sign, eg. \*7001.

The **-pfoc** switches prevent perform, popup favorites folder, autojoin channels, and the on connect event when you connect to a server.

The **-z** switch minimizes the new server window.

The **-u** switch bypasses server requests for STS secure connections.

The -I switch specifies the login method, which can be: sasl, external, ecdsa, scram, msg, or nickserv.

The **-key** switch specifies the private certificate filename for SSL connections.

The **-i** switch specifies the nick, alternative nick, email, and name to use for this connection.

In addition, the switches **-sar** enable the following behaviour:

/server -sar [address] [-d description] [-p port] [-g group] [-w password] [-l method password] [-keytype global/local] [-key filename] [-itype global/local] [-i nick anick email name]

- -s sorts the servers list
- -a adds a server. If it exists, it is updated
- -r removes a server

mIRC tries to find a match for either the server **address** or the **description** in the existing servers list.

#### /setlayer <N> [window]

Sets the transparency of the main window to N, where N is between 0 and 255. If a window name is specified, such as a channel or query window name, the transparency is applied to that window.

## /showmirc -mnrstxoplf

Manipulates the display of the main mIRC window, where -n = minimize, -r = restore, -s = show, -t = tray, -x = maximize, -o = on top, -p = not on top, -m = minimize according to tray settings, -f = full screen.

The -I switch can be used with the -nt switches to lock mIRC.

### /sline [-a|r] <#channel> <N|nick>

Selects or de-selects lines in a channel nickname listbox. It can select either the Nth nickname in a listbox, or a specified nickname.

If you do not specify any switches, any existing selections in the listbox are cleared. If you specify the **-a** switch then the specified is selected without affecting the selection states of other lines. If you specify the **-r** switch then the specified item is de-selected.

## /speak <text>

Speaks the specified text, see the Speech section for more information.

## /splay [-cwmpq] <filename>

Plays the specified sound, see the Playing Sounds section.

## /sreq [+m|-m] [ask | auto | ignore]

This is the command line equivalent of setting the DCC Send request radio buttons in the dcc options dialog (see  $\underline{\text{creq}}$  above). The +m|-m switch turns the minimize setting on loff.

#### /strip [+-buriec]

Turns control code stripping options in Options dialog on/off.

/strip +bur-c

would turn bold, underline, reverse stripping on, and turn color stripping off.

## /switchbar <on|off>

Changes the menubar display state. The **\$switchbar** identifier can be used to determine its state.

# /timer[N/name] [-cdeomhipPrzN] [time] <repetitions> <interval> <command>

Starts a timer that performs a command at the specified interval and for the specified number of repetitions.

The N/Name parameter is an optional timer id. If not specified, the next available id is assigned to the timer.

If you are not connected to a server and you start a timer, it defaults to being an offline timer which means it will continue to run whether you are connected to a server or not.

If you are connected to a server and you start a timer, it defaults to being an online

timer, which means that if you disconnect from the server, it will be turned off. You can specify the **-o** switch to force it to be an offline timer.

/timer1 0 20 /ame is AWAY!

Timer1 will repeat an all channel action every 20 seconds until you stop the timer.

If you specify a delay of 0 seconds, the timer will trigger immediately after the calling script ends.

/timer5 10 60 /msg #games For more info on the latest games do /msg GaMeBoT info

Timer5 will repeat this message to channel #games every sixty seconds and stop after 10 times.

/timer9 14:30 1 1 /say It is now 2:30pm

This will wait until 2:30pm and will then announce the time once and stop.

To see a list of active timers type /timers. To see the setting for timer1 type /timer1. To deactivate timer1 type /timer1 off. To deactivate all timers type /timers off. If you are activating a new timer you do not need to specify the timer number, just use:

/timer 10 20 /ame I am not here!

And mIRC will allocate the first free timer it finds to this command.

If you specify the **-c** switch, this makes mIRC "catch up" a timer by executing it more than once during one interval if the real-time interval is not matching your requested interval.

If you specify the -m or -h switch, this indicates that the interval delay is in milliseconds.

**Note:** The **-h** switch creates a high-resolution multimedia timer. This type of timer should **only** be used in critical timer situations since it uses system resources heavily.

The **-d** switch ensures that a timer and any subsequent timers using the -d switch are triggered in that order.

If you specify the **-e** switch, this executes the specified timer name. This also works if you specify a wildcard name.

Instead of using a number you can also specify a **name** for a timer:

/timershow 0 10 echo -a \$nick \$server \$time

The **\$Itimer** identifier returns the timer id of the last timer that was started by the /timer command.

You can force identifiers to be re-evaluated when used in a /timer command by using the format \$!me or \$!time.

If you wish to turn off a range of timers, you can use a wildcard for the number, for

example:

/timer3? off

Will turn off all timers from 30 to 39.

The -p switch pauses execution of the command. The timer continues counting down.

The **-P** switch pauses execution of the command and the countdown.

The **-r** switch resumes a paused timer.

The -i switch makes a timer dynamically associate with whatever happens to be the active connection. If a server window is closed, the timer is associated with the next available server window.

The **-zN** switch resets the <u>Online Timer</u>, where N=0 resets current and total time, N=1 resets current time, and N=2 resets total time.

## /timestamp [-fgs|a|e] [on|off|default] [windowname]

Turns timestamping of events **on** or **off**. If you specify **default**, uses the global <u>timestamp</u> setting.

- -s = for status window
- -a = for active window
- -e = for every window

If a windowname is not specified, then the global timstamp switch is turned on or off.

The -f switch allows you to set the event timestamp format, eg. /timestamp -f [HH:nn]

The **-g** switch allows you to set the logging timestamp format.

## /titlebar [@window] <text>

Sets the main application titlebar. If you specify a custom @window name, then the titlebar for that custom window is changed.

#### /tnick <nickname>

Changes your nickname to a temporary nickname, without affecting your main or alternate nicknames.

## /tokenize <c> <text>

Fills the \$1 \$2 ... \$N identifiers with tokens in <text> separated by character <c>, eg.:

/tokenize 44 a,b c,d,e

The above command would set \$1 = a, \$2 = b c, \$3 = d, \$4 = e

### /toolbar <on|off>

Changes the toolbar display state. The **\$toolbar** identifier can be used to determine its state.

## /treebar <on|off>

Changes the treebar display state. The **\$treebar** identifier can be used to determine its state.

#### /unload <-a|-nrs> <filename>

Unloads the specified alias or remote script file.

/unload -a aliases.ini unloads the alias.ini file /unload -rs script.ini unloads the script.ini file

The **-n** switch prevents a script from having the <u>on unload</u> event triggered.

Note: You can only unload one script at a time.

### /updatenl

Usually the channel nicknames list and IAL in a kick/part/quit script event are updated after the script finishes, this command updates them immediately.

## /url [on | off | show | hide | -dranils] [[N | mark ] | address]

Show or hides the URL list window, and allows you to modify the current list of addresses in it.

The -r switch deletes the Nth item, or all items that match the mark you specify.

The **-an** switches allow you to open a browser window to an address, where -a = activate browser, and -n = use a new browser window.

The -ils switches allow you to insert an item, load, and save the list, respectively.

#### /winhelp <filename> [key]

Opens a help file with the specified search key.

## /write [-cidnalNsNwNrNmN] <filename> [text]

Writes lines to a text file. For example:

/write store.txt This line will be appended to the end of file **store.txt** 

The **-c** switch clears the file completely before writing to it, so it allows you to start with a clean slate.

/write -c info.txt This file will be erased and have this line written to it

The **-IN** switch specifies the line number where the text is to be written.

/write -I5 info.txt This line will overwrite the 5th line in the file

The -i switch indicates that the text should be inserted at the specified line instead of overwriting it. If you do not specify any text then a blank line is inserted. If you do not specify a line number then a blank line is added to the end of the file.

/write -il5 info.txt This line will be inserted at the 5th line in the file

The **-d** switch deletes a line in the file. If you do not specify a line number then the last line in the file is deleted.

/write -dI5 info.txt

The above command will delete the 5th line in the file.

The **-sN** switch scans a file for the line beginning with the specified text and performs the operation on that line.

/write -dstest info.txt

This will scan file info.txt for a line beginning with the word "test" and if found, deletes it.

If you do not specify any switches then the text is just added to the end of the file.

The **-wN** switch scans a file for the line containing the specified wildcard text and performs the operation on that line. The **-rN** switch implies a regex match. The scan text can be enclosed in quotes if it contains spaces.

The **-mN** switch changes how CRLFs are written to the end of a file, where N=0 is the default behaviour, N=1 adds CRLF to end of file if it is not already there before writing a line, and N=2 never adds CRLF to end of file before writing a line.

The **-a** switch indicates that mIRC should append the line of text you specified to the existing text of the specified line.

The **-n** switch prevents it from adding a \$crlf to the end of the text.

**Note:** You cannot use this command to write to an INI file. If you do so, you will most likely corrupt the INI file.

#### /writeini -nz <inifile> <section> <item> <value>

Writes to files in the standard INI file format.

If the -n switch is specified, it will attempt to write to the .ini file even if it is larger than 64k

If the -z switch is specified, it write an empty value.

A part of the mirc.ini file looks like this:

[DDE]
ServerStatus=on
ServiceName=mirc

You could achieve this with /writeini by using:

/writeini my.ini DDE ServerStatus on /writeini my.ini DDE ServiceName mirc

You can delete whole sections or items by using the /remini command.

**Warning:** Do not use this command to modify any of the INI files that mIRC is currently using.

# **mIRC Scripts**

Scripts are short programs (sets of instructions) that can be used to automate tasks in mIRC. mIRC has its own scripting language which can be used to perform many different types of tasks, from managing your IRC channels to playing multi-user online games.

mIRC scripts can also be used to perform tasks that are not IRC-related, such as managing files on your computer, sending emails, or backing up your web server.

In order to write a script, you will need to learn the basics of the mIRC scripting language by reading through the mIRC Scripts sections step by step, trying out the examples, and experimenting.

To begin, you will need to know a handful of <u>Basic IRC Commands</u> and <u>mIRC Commands</u>. Commands are the instructions that tell mIRC what to do. Once you are comfortable with using commands, you can then take a look at the <u>Aliases</u>, <u>Popups</u>, and <u>Remote</u> sections. In order to write scripts, you will also need to learn how to use <u>Variables</u> and <u>Identifiers</u>.

mIRC scripting also supports a whole range of technical features, from processing binary files, calling COM objects, DLL support, creating Graphical windows, regular expressions, creating sockets for network communications, and hash tables, among others.

If you need help, or are looking for scripting examples or tutorials, you can find quite a few mIRC scripting websites on the internet, some of which are listed on the  $\underline{\text{mIRC}}$  website.

## 10.1

## **Aliases**

mIRC allows you to create aliases and scripts to speed up your IRC session or to perform repetitive functions more easily. To create aliases you must know some <a href="Basic IRC">Basic IRC</a> commands.

Aliases can be called from the **command line**, from **other aliases**, and from **popup** and **remote** scripts. An alias **cannot** call itself recursively mainly because this seems to cause more problems for users than it solves.

#### **Examples**

The following examples show you how to create aliases that perform simple functions.

/gb /join #gb

If you now type **/gb** this is the same as typing **/join #gb**.

/j /join \$1

We have now added a **parameter** string. If we type **/j #gb** this is the same as typing **/join #gb**. The **\$1** refers to the first parameter in the line that you supply.

/yell /me \$2 \$1

If you now type **/yell There! Hello** the action command will be **/me Hello There!** The number after \$ specifies the number of the parameter in the string that you entered.

/jj /join \$?

The **question mark** indicates that you should be asked to fill in this parameter. The parameter you supply will be inserted in the line at that point. So if you type **/jj** a dialog will pop up asking you for the channel you want to join. If you enter **#gb** then the final command will be **/join #gb**.

/jj /join #\$1

the **# sign** indicates that the parameter you specify should be **prefixed** with a hash indicating that it is a **channel**.

/jj /join \$?="Enter channel to join:"

This does the same thing but now the dialog will have the "Enter channel to join:" line displayed inside it.

/aw /away \$?="Enter away message:" | /say \$!

This is similar to the line above except for the addition of the **\$!** parameter. This refers to the text you **just** typed into the parameter box. ie. the away message. This saves you having to type the same message twice.

/give /me gives \$\$1 a \$\$2

The **double** \$\$ means that this command will **only** be executed if a parameter is specified. If you specify only one parameter in the above command it will **not** be executed. You can also do \$\$?1 or \$?1 which means try to fill this value with parameter one if it exists. If parameter one does notexist, ask for it. In the first case the parameter is necessary for the command to be executed, in the second case it is not.

/slap /me slaps \$1 around with \$2-

The \$2- indicates that everything following and including **parameter 2** should be appended to the command line. if you type **/slap sheepy a large trout** the final line will be **/me slaps sheepy around with a large trout**.

You can also specify **\$2-5** which means use only parameters 2 to 5.

/laugh /me laughs at \$1's joke

Anything appended to a \$ parameter is appended to the final parameter. So if in the above example we type **/laugh goat** the final command would be **/me laughs at goat's joke**.

```
/silly /say Hel $+ lo th $+ ere $+!
```

Parameters are normally separated by a space. To make mIRC **combine** parameters you can use the **\$+** identifier. The above line will say **Hello there!**.

```
/p /part #
```

The **# sign** refers to the **channel** you are currently on. So if you are on channel #blah, and you type **/p** then mIRC replaces the # sign with #blah, and the final command is **/part #blah**.

```
/op /mode # +o $1
```

To op someone you can now just type **/op goat** instead of the whole /mode command.

```
/dop /mode # -ooo $1 $2 $3
```

You can now deop three users by typing /dop goat dog cat.

For **multiple commands** you should use a | character (the shifted character usually under the \ key). So to write an alias that kicks and bans someone:

```
/dkb /kick # $1 | /mode # +b $1
```

#### The [] evaluation brackets

If you want greater control over the order of evaluation of identifiers, you can use the [ ] **brackets**. Identifiers within these brackets will be evaluated first, from left to right. You can **nest** brackets.

```
/say % [ $+ [ $1 ] ]
```

You can also **force** a previously evaluated identifier to be re-evaluated by using extra [ ] brackets.

```
/set %x %y
/set %y Hiya!
/echo [ [ %x ] ]
```

#### The { } brackets

You can create **multi-line** scripts by using the **{ } brackets**. This allows you to create an alias which performs several commands.

```
/poem {
  /msg $1 The Wendigo, the Wendigo,
  /msg $1 Its eyes are ice and indigo...
}
```

## The If-then-else statement

You can use <u>if-then-else</u> statements to decide which parts of your script executes based on the evaluation of a comparison.

```
/number {
  if ($1 == 1) echo One
```

```
elseif ($1 == 2) echo Two
else echo Unknown number!
}
```

This creates an alias which tests if the parameter you supplied is the number 1 or the number 2.

For more information, see the <u>if-then-else</u> section.

#### The Goto command

The /goto command allows you to **jump** from one point in a script to another point.

```
/number {
  if ($1 == 1) goto one
  elseif ($1 == 2) goto two
  else goto unknown
  :one
  echo One
  halt
  :two
  echo Two
  halt
  :unknown
  echo Unknown number!
  halt
}
```

Using a **goto** incorrectly could lead to an **infinite loop**. You can **break** out of a currently running script by pressing **Control+Break**.

**Note:** I did not prefix the above commands with the / command prefix. This is because the command prefix is really only needed when entering a command on the command line. In scripts, all lines are assumed to start with a command, so you do not need to use the / command prefix.

#### **Error handling**

Script errors can be caught by adding an **:error** goto point to your script. When an error occurs, the script will jump to :error and continue running. **\$error** returns the error message.

You can reset the error with **/reseterror**. If you do not reset the error, it will propagate backwards to any calling aliases until an :error is found and will halt the script as usual.

#### While Loops

Repeats a loop containing a set of commands while the expression in brackets is true.

```
var %i = 1
while (%i <= 10) {
  echo 2 %i
  inc %i
}</pre>
```

The expression in brackets uses the same format as an if-then-else statement.

Multiple while loops can be embedded. You can use **/break** to break out of the current loop, and **/continue** to jump to the beginning of the loop.

#### The Return command

The /return command halts a currently executing script and allows the calling routine to continue processing.

You can also optionally specify a return value which will be stored in the \$result identifier. The \$result can then be used in the calling routine.

/return [value]

#### The Halt command

The /halt command halts a script and prevents any further processing. You can use this in <u>remote scripts</u> to prevent mIRC from replying to normal ctcp messages, or in aliases to halt an alias, and any calling aliases, completely.

#### **Identifiers and Variables**

An **Identifier** returns the value of a built-in mIRC variable. For example, \$time would return the current time. Whenever mIRC finds an identifier in your command, it replaces it with the **current** value of that identifier.

For a list of identifiers, see the Identifiers section.

**Variables** are identifiers whose values you can create and change yourself and use later in your scripts.

For more information on variables, see the Variables section.

## **Custom Identifiers**

A custom identifier is just an **alias** which returns a value, and you can use that aliases name with an identifier prefix.

For example, create an /add alias such as:

```
add {
  %x = $1 + $2
  return %x
}
```

And then use it in a command:

```
//echo Total is: $add(1,2)
```

You can supply as many parameters as you want, ie. 4d(1,2,...,N).

You can also use the **\$prop** identifier to refer to your own custom properties:

```
add {
%x = $1 + $2
if ($prop == negative) return $calc(-1 * %x)
return %x
```

```
}
//echo Total is: $add(1,2).negative
```

Note: Built-in identifiers of the same name have priority.

#### **Remote Scripts**

You can add aliases to <u>remote scripts</u> by using the **alias** prefix and then entering your alias as usual.

```
alias add {
    %x = $1 + $2
    return %x
}
```

This is the same custom identifier as above, except it uses the alias prefix.

If you specify the **-I** switch in the alias definition, the alias becomes accessible only by commands in the same script and invisible to the command line and other scripts.

```
alias -l add {
    %x = $1 + $2
    return %x
}
```

## **Function Key support**

You can **redefine** function keys to perform certain commands, just like aliases. For example:

```
/F1 /say Hello!
/sF2 /query $1
/cF3 /ctcp $1 version
```

The **s** and **c** prefixes for **Shift** key and **Control** key respectively.

**Note:** A function key will behave **differently** depending on the window in which it is used. For example, when using it in a **query window** the \$1 parameter refers to the selected users nickname. If you are on a **channel** and the **nickname listbox** is active then the function key will work on the selected nicknames. If the listbox is **not** active, the function key will just work on the channel.

#### **Command prefixes**

If you are executing a command from the command line ie. by typing it into an editbox, you can **force** mIRC to **evaluate** identifiers in that command by prefixing it with two **//** instead of one **/**. For example:

/echo My nickname is \$me

Would print out "My nickname is \$me" and would not evaluate the \$me.

//echo My nickname is \$me

Would print out "My nickname is somenick" if your nickname was somenick.

If you want to force a command to perform **quietly** ie. without printing out any information, then you can prefix it with a "." full stop. For example:

/ignore somenick

Would print out information telling you that you are now ignoring "somenick". If you do not want this information to be displayed, then you can use:

/.ignore somenick

If you want to perform a command without it being processed as an **alias**, you can prefix it with a ! exclamation mark.

#### **Comments**

You can add **comments** to your scripts by using the ; **semi-colon** at the start of a line, or /\* and \*/ to enclose text.

```
;This is a comment

/*
This is a comment
*/
```

You can place comments anywhere in a script, they are ignored during processing.

#### The \$& identifier

This identifier allows you to break up a single line into multiple lines which are combined when the script is performed, so you can edit long commands more easily:

```
longline {
  echo This is an example of a long $&
  line that has been split into multiple lines $&
  to make it easier to edit
}
```

## 10.1.1

# **If-then-else statements**

The **If-then-else** statement allows you to **compare** values and **execute** different parts of a script based on that comparison.

## **Basic format**

```
if (v1 operator v2) { commands }
elseif (v1 operator v2) { commands }
else { commands }
```

The ( ) brackets enclose comparisons, whereas the { } brackets enclose the commands you want to be performed if a comparison is true. You must make sure that

the number of ( ) and { } brackets match to make sure that the correct comparisons are made, and that the correct commands are executed.

Using brackets **speeds up** processing. If an alias uses **too few** brackets then the statement might be **ambiguous** and the alias will take longer to parse, might be parsed incorrectly, or might not be parsed at all.

You can **nest** as many if-then-else statements as you want inside each other.

## **The Operators**

```
equal to
       ==
              equal to (case-sensitive)
              not equal to
              less than
       <
              less than or equal to
       <=
              greater than
       >
              greater than or equal to
       >=
              v2 is a multiple of v1
       //
              v2 is not a multiple of v1
       //
              bitwise comparison
       isin
              string v1 is in string v2
       isincs string v1 is in string v2 (case sensitive)
       iswm wildcard string v1 matches string v2
                     wildcard string v1 matches string v2 (case sensitive)
       isnum number v1 is a number in the range v2 which is in the form n1-n2 (v2
optional)
       isletterletter v1 is a letter in the list of letters in v2 (v2 optional)
                     text contains only letters and numbers
       isalphatext contains only letters
       islowertext contains only lower case letters
                     text contains only upper case letters
       isupper
              nickname v1 is on channel v2
       ison
              nickname v1 is an op on channel v2
       isop
       ishop nickname v1 is a halfop on channel v2
       isvoice nickname v1 has a voice on channel v2
       isreg nickname v1 is a normal nick on channel v2
       ischan if v1 is a channel which you are on.
       isban if v1 is a banned address in internal ban list on channel v2
       isinviteif v1 is on the invite list of channel v2
                     if v1 is on the except list of channel v2
       isexcept
       isaop if v1 is a user in your auto-op list for channel v2 (v2 optional)
       isavoice
                     if v1 is a user in your auto-voice list for channel v2 (v2 optional)
       isignore
                     if v1 is a user in your ignore list with the ignore switch v2 (v2
optional)
       isprotect
                     if v1 is a user in your protect list for channel v2 (v2 optional)
                     if v1 is a user in your notify list.
       isnotify
```

To **negate** an operator you can prefix it with an ! exclamation mark.

#### \$v1 & \$v2

Returns the first and second parameters of an if-then-else comparison. So, in the case of this comparison:

```
if (text isin sometext) { ... }
$v1 will return "text" and $v2 will return "sometext".
```

#### **Combining comparisons**

You can combine comparisons by using the **&& for AND** and **|| for OR** characters.

```
number {
  if ((\$1 > 0) \&\& (\$1 < 10)) {
    if (\$1 < 5) echo Number is less than five else echo Number is greater than five }
  else echo Number is out of bounds }
```

This alias checks if the number you specify, when you type /number <value>, lies within the required range.

## The ! not prefix

You can use the ! prefix in front of variables and identifiers in an if-then-else statement to negate a value. The following statements are equivalent.

```
if (%x == \$null) echo x has no value
if (!%x) echo x has no value
```

#### **Examples**

```
listops {
  echo 4 * Listing Ops on #
  set %i 1
  :next
  set %nick $nick(#,%i)
  if %nick == $null goto done
  if %nick isop # echo 3 %nick is an Op!
  inc %i
  goto next
  :done
  echo 4 * End of Ops list
}
```

This alias lists the Ops on the current channel. It does this the hard way since we could just use \$opnick() instead but using \$nick() serves as an example of how **isop** can be used and how **\$null** is returned once we reach the end of the list.

```
GiveOps {
%i = 0
%nicks = ""
:nextnick
```

```
inc %i
if ($snick(#,%i) == $null) { if ($len(%nicks) > 0) mode # +oooo %nicks | halt }
%nicks = %nicks $snick(#,%i)
if (4 // %i) { mode # +oooo %nicks | %nicks = "" }
goto nextnick
```

This is a popup definition which Ops the nicknames which are selected in the current channel nicknames listbox.

```
on 1:ctcpreply:PING* {
  if ($2 == $null) halt
  else {
    %pt = $ctime - $2
    if (%pt < 0) set %pt 0
    if (%pt < 5) echo 4 [PING reply] $nick is too close for comfort
    elseif (%pt < 20) echo 4 [PING reply] $nick is at just about the right distance
    else echo 4 [PING reply] Earth to $nick earth to $nick
  }
  halt
}</pre>
```

This intercepts a ping reply and prints out a message based on how far away the person is.

# 10.2

# **Popups**

mIRC allows you to create custom popup menus for the status window, query/chat windows, channel windows, the channel nickname listbox, and main menubar. To create these you must know how to use <u>Basic IRC commands</u>, how to create <u>Aliases</u>, and how to use <u>Identifiers</u> and <u>Variables</u>.

If you click the right mouse-button in a window, the popup menu for that window will appear and you can select menu-items which you have defined to perform certain tasks, such as opping a user or joining a channel.

#### **Examples**

Popup menu definitions use the format:

```
<menuitem>:<commands>
```

#### Get Help:/join #irchelp

The words before the ":" colon are the name of the menuitem. The words after the ":" colon are the commands that are to be performed. In this case, the menuitem you would see is "Get Help". The command that would be performed if you select this menuitem would be "/join #irchelp", as if you had typed it.

The format of the commands follows precisely the same as those in normal aliases. See the <u>Aliases</u> section to learn about aliases.

To create a **Submenu**, use a "." full stop.

```
Join a Channel
.Get IRC help!:/join #irchelp
.Visit the folks at #friendly:/join #friendly
.Who shall we join?:/join $?
```

In this case, the name of the submenu is "Join a Channel". All the commands following it beginning with a "." are part of this submenu.

To create **menus within a submenu**, you just add more full stops:

```
Channels
.Help
..irchelp:/join #irchelp
..mIRC:/join #mirc
..newbies:/join #newbies
.Other Channels
..Visit #friendly:/join #friendly
..Wibble Wobble:/join #wibble
.Join?:/join #$$?="Enter a channel name:"
```

To **separate** menuitems, you can use a single "-" dash on a line by itself.

```
whois ?:/whois $?

-
Misc
.Edit Temp:/run notepad.exe temp.txt
.say?: /say $?
.action?:/me $?
Names
.#irchelp: /names #irchelp
.#friendly: /names #friendly
.names ?:/names $?
-
channel list:/list
-
Join a Channel
.Get IRC help!:/join #irchelp
.Visit the folks at #friendly:/join #friendly
.Who shall we join?:/join $?
```

To use the popup menu for a channel nickname listbox, you need to select a nickname before the menu will pop up. Here is a simple nickname listbox popup menu:

```
Who Is?:/whois $1
-
Modes
.Op:/mode # +o $1
.Deop:/mode # -o $1
.Kick, Ban:/kick # $1 | /ban $1
```

```
DCC Send:/dcc send $1
DCC Chat:/dcc chat $1
-
Slap!:/me slaps $1 around a bit with a large trout
Query:/query $1 Hey you! hello? are you there...?
```

If you want to create a popup menu item which performs **several commands**, you can use the { } brackets. See the <u>Aliases</u> section for more information on how to use these.

```
Cookie {
  if ($1 == $me) echo I give myself a cookie!
  else echo I give $1 a cookie!
}
```

The above menitem can be used in the channel nicknames listbox. The \$1 refers to the nickname of the user you have selected in the listbox. In this case, it checks to see if I have selected my own nickname, and if so displays the first message, otherwise it displays the second message.

The popup menus for the **Query/Chat** and the **MenuBar** work the same way as the channel listbox popup menu.

#### **Identifiers and Variables**

Variables or identifiers that are a part of a the title of a menu definition are evaluated each time the popup appears. This allows you to create popup menus that vary in appearance. If an entire menu item evaluates to \$null, it is not displayed.

#### **Remote Scripts**

You can place **menu** definitions in your remote scripts by using the **menu** prefix.

```
menu status {
    Server
    .Links:/links
    .Lusers:/lusers
    .Motd:/motd
    .Time:/time
}
```

This definition would add a submenu to your status window popup menu.

You can also specify channel, query, nicklist, and menubar as the menu name, and this will add menuitems to your current popup menus for each of these windows.

```
menu nicklist {
   Slap
   .Haddock:/me prods $1 with a haddock
}
```

This definition would add a submenu to your channel nickname listbox popup menu.

You can also specify popup menus for <u>custom windows</u> by specifying the custom window name.

```
menu @test {
  dclick:/echo double-click!
}
```

The **dclick** item allows you to specify a command that will be performed when you double-click in a custom window listbox. You can also refer to \$1 which holds the line number of the line that was double-clicked.

You can also specify multiple window names for a menu, eg.:

```
menu @dogs,@cats,@goats {
  dclick: /echo double-click in $active
  close: window -c $active
}
```

You can use the **\$menu**, **\$menutype**, and **\$menucontext** identifiers to refer to the menu that is about to pop up or that is associated with the script being performed. This allows you to modify the form of the popup based on whether it is a query, channel, etc. popup menu:

```
menu query,nicklist {
   $iif($menu == nicklist,Op):/mode # +o $$1
}
```

#### **Menu Styles**

You can place a check mark or create a disabled menu item by using the \$style(N) identifier, where N = 1 for checked, N = 2 for disabled, and N = 3 for both. The \$style(N) identifier must be the first word in the menu definition.

```
menu status {
   $iif($server == $null,$style(2)) Server Info
   .Motd:/motd
   .Time:/time
}
```

The above definition creates a submenu in your status window popup which is only enabled when you are connected to an IRC server.

#### \$submenu(\$id(\$1))

This identifier allows you to dynamically create a list of menu items, and can only be called from a popup menu definition.

It calls \$id(\$1), where \$id() is the name of your identifer, and where \$1 = 1, and increases by 1 with each call, **adding** whatever is returned by \$id() to the popup menu.

The value that \$id() returns must be a one line definition format for a popup menu.

The iteration **ends** when \$id() returns no value.

```
menu status {
  Animal
  .$submenu($animal($1))
}
```

```
alias animal {
  if ($1 == begin) return -
  if ($1 == 1) return Cow:echo Cow
  if ($1 == 2) return Llama:echo Llama
  if ($1 == 3) return Emu:echo Emu
  if ($1 == end) return -
}
```

The **begin** and **end** values are sent to check if the item should be enclosed in separators.

**Note:** You cannot use this to create nested submenus, it will only build one single submenu.

## 10.3

# Remote

The **remote** allows you to create scripts that react to IRC Server events, such as when a user joins a channel or sends you a message. This tool is the most complex part of mIRC and to use it you must already know how to use <u>Basic IRC Commands</u>, how to create Aliases, and how to use <u>Variables</u> and <u>Identifiers</u>.

The remote consists of **three** distinct sections:

The **Users** section, where user addresses with assigned access levels are listed. Each User in your Users section can be assigned one or more levels. These access levels dictate which events a user will be able to access.

The **Variables** section, where the currently active variables are listed.

The **Scripts** section, where the scripts that you create are listed. You can load **multiple** scripts which work **independently** of each other. This means that a single IRC Server event can trigger events in **one or more** scripts. Scripts consist of **events** which can only be triggered by **users** who have the **required** access levels. You can also place <u>Aliases</u> in your scripts by using the **alias** prefix, and <u>menus</u> in your scripts by using the **menu** prefix.

Since <u>Access Levels</u> play an important part in the way scripts work, you should read about them carefully before proceeding. You should also take a look at remote <u>Commands</u>, <u>Identifiers</u>, and the <u>Internal Address List</u>, and the section on how to <u>Halt</u> <u>default text</u> being displayed if you want to display your own custom messages for events.

All of the following **Events** use the same general format except for the **ctcp** and **raw** events. The sections below provide you with **information** on each event as well as **examples** and **tips** on how to use them.

<u>Action</u>	<u>Error</u>	<u>Mode</u>	<u>Serv</u>
<u>Active</u>	<u>Exit</u>	Mp3End	<u>ServerMode</u>
Agent	<u>FileRcvd</u>	<u>Nick</u>	<u>ServerOp</u>
<b>AppActive</b>	FileSent	NoSound	Signal
<u>Ban</u>	<u>GetFail</u>	<u>Notice</u>	<u>Snotice</u>

<u>Chat</u>	<u>Help</u>	Notify	Start
Close	<u>Hotlink</u>	<u>Op</u>	<u>Tabcomp</u>
Connect	Input	<u>Open</u>	Text
Ctcp	<u>Invite</u>	<u>Part</u>	<u>Topic</u>
CtcpReply	<u>Join</u>	<u>Ping</u>	<u>UnBan</u>
<u>DccServer</u>	<u>KeyDown</u>	<u>Pong</u>	<u>Unload</u>
<u>DeHelp</u>	<u>KeyUp</u>	<u>PlayEnd</u>	<u>Unotify</u>
<u>DeOp</u>	<u>Kick</u>	Quit	<u>UserMode</u>
<u>DeVoice</u>	<u>Load</u>	Raw	<u>Voice</u>
<u>Dialog</u>	Logon	<u>RawMode</u>	<u>Wallops</u>
<u>Dns</u>	<u>MidiEnd</u>	<u>SendFail</u>	<u>WaveEnd</u>

Here is an <u>example script</u> that shows you how you can place aliases, popups, and events in a single file making it easier to distribute your scripts to other people.

Note: You should never load or use a script that you do not understand.

#### 10.3.1

# **Remote Commands**

The following commands are used to modify settings in scripts and in the remote section.

#### **General Commands**

#### /ctcps [on|off]

This switches processing of ctcp events on/off.

#### /events [on|off]

This switches processing of named events on/off.

## /dlevel <level>

This changes the default user level to the specified level.

## /raw [on|off]

This switches processing of numeric events on/off.

#### /remote [on|off]

This switches processing of all scripts on/off.

#### **Group Commands**

These commands allow to turn groups on and off in remote scripts. You can find out about groups in the Access Levels section.

#### /enable <group1 group2 ... groupN>

This enables the specified groups in all scripts.

/enable #one #two #three

You can also specify a wildcard to enable all matching groups:

/enable #help\*

## /disable <group1 group2 ... groupN>

This disables the specified groups in all scripts.

/disable #one #two #three

You can also specify a wildcard to disable all matching groups:

/disable #help\*

## /groups [-e|d]

This displays a list of either all, enabled, or disabled groups in your scripts.

#### **User and Level Commands**

You can use the following three commands to add and remove users to the users list, as well as to add and remove levels from existing users.

## /auser [-a] <levels> <nick|address> [info]

This adds the specified nick/address exactly as it is given to the users list with the specified levels. If you specify [-a], then if the user already exists, the specified levels are added to the current levels the user has. Remember, if the first level is not preceded by an equal sign then it is a general access level.

/auser 1,2,3 Nick

This adds this nick with these access levels to the user list (replacing an existing user of the same name).

/auser -a 1,2,3 Nick

This adds the specified levels to this user. If the user does not exist, it is created.

/auser -a = 1,2,3 Nick

This looks like the above command, however the =1 is very important. The =1 means that the initial general access level is **not** replaced. If you had used 1 then the initial access level would be replaced.

The **info** parameter allows you to append text to the entry that is added to the users list, you can reference this later with the **\$ulist()** identifier.

## /flush [-I] [levels]

This clears the remote user list of nickname definitions that are no longer valid.

/flush 1,2,3

For each nick in the remote user list that matches the specified levels mIRC checks to see if that nick is on any of the channels that you are currently on. If not, the nick definition is removed from the remote user list. If you do not specify levels then mIRC clears all nicks from the remote user list that do not exist on channels you are on.

You can use the **-I** switch to remove only the specified levels from entries in the user list, instead of removing the entries.

## /guser [-a] <levels> <nick> [type] [info]

This works the same as the /auser command except that it looks up address of the specified nick and adds it to the user list. It does this by doing a /userhost on the given nickname, and returning an address in the format specified by type. If no type is specified then a default address format is selected.

The **info** parameter allows you to append text to the entry that is added to the users list, you can reference this later with the **\$ulist()** identifier.

## /iuser <nick | address> [info]

This allows you to set or remove the **info** appended to a user list entry.

# /ruser [levels] <nick | address> [type]

If used without specifying levels, this removes the specified user from the user list. If you specify levels then these levels are removed from the current access levels of this user. If all a user's levels have been removed, the user is removed. If you specify a type then the users address is looked up with a /userhost and any users in the users list matching this address are removed.

```
/ruser Nick
/ruser 1,2,3 Nick
/ruser 1,2,3 Nick 1
```

If you use /ruser Nick! (with an exclamation mark at the end), it removes all users with an address beginning with Nick!.

## /rlevel [-r] <levels>

This removes all users from the remote users list with the specified general access level.

```
/rlevel 20
/rlevel =10
```

If the -r option is specified, then this applies to all the access levels for a user (not just the first general access level). Any matching levels are removed. If a user has no more levels left then the user is also removed.

```
/rlevel -r 1,5,7,8
```

#### /ulist [<|>] <level>

This lists users which have the specified access levels.

```
/ulist <10 lists users with access levels less than or equal to 10 /ulist >5 lists users with access levels greater than or equal to 5 /ulist 4 lists users with access level 4
```

**Note:** The /guser and /ruser commands do a /userhost on a nick to find the nick's address, thus they are delayed commands since they need to wait for a reply from the server. mIRC tries to get around this delay by maintaining its own <a href="Internal Address List">Internal Address List</a> which will speed things up in certain situations.

#### 10.3.2

# **Remote Identifiers**

You can use the following identifiers in scripts to refer to values relating specifically to events. There are also quite a few other identifiers which relate only to specific events, these are described with the events themselves in other parts of the help file. There are also other identifiers which can be used in both remote and non-remote scripts.

#### **\$1-**

You can use the \$1 \$2 ... \$N identifiers to refer to individual parameters in a line. You can also use \$N- to refer to parameters N and onwards, and \$N-M to refer to parameters \$N through to \$M. So to refer to a whole line, you would use \$1-.

#### \$0

Returns the number of space-delimited tokens in the \$1- line.

## \$(...)

This identifier can only be used in the **text match** section of an **event** definition. It allows you to create a match parameter dynamically. You can use **\$1-** to reference the incoming line.

on 1:TEXT:\$(\*hello \$me \$+ \*):?:echo hello back!

#### **\$address**

Returns the address of the user associated with an event in the form user@host.

#### \$chan

Returns the name of the channel for a specific event. For all non-channel events \$chan will be \$null.

#### **\$clevel**

Returns the matching event level for a triggered event.

#### \$dlevel

Returns the current default user level.

### \$event

Returns the name of the event that was triggered.

#### **\$eventid**

Returns a unique value to identify the event that can be used, for example, in SendMessage().

#### \$fulladdress

Returns the full address of the user triggering an event in the form nick!user@host.

#### \$group(N/#)

Returns the name or status of a #group in a script.

Properties: status, name, fname

```
$group(0) returns the number of groups

$group(1) returns the name of the first group

$group(1).status returns on or off for the first group

$group(#test)returns on or off for group #test

$group(#test).fnamereturns the script filename in which the group exists

$group(3).name returns the name of the 3rd group
```

## **\$maddress**

Returns the address that was matched for the triggered event.

#### **\$matchkey**

Returns wildcard matchtext that was used in the matching remote event.

#### \$mode(N)

Returns the Nth nick affected by a channel mode change.

Properties: op, deop, ban, unban, voice, devoice, help, dehelp

The properties can be used to specify which type of mode change you want to check.

```
$mode(0).op returns the number of opped nicks
$mode(1).op returns the first opped nick
```

**Note:** This identifier is only used in conjunction with the on OP/DEOP etc. events.

#### \$nick

Returns the nickname of the user associated with an event.

#### \$numeric

Returns the numeric for the matching numeric event.

#### \$rawbytes

Returns raw server line for server events prior to any parsing/decoding

#### \$rawmsq

Returns raw server line for server events.

#### \$remote

Returns a bitwise integer indicating if ctcps/events/raws are enabled.

```
if ($remote & 1) echo ctcps are enabled if ($remote & 2) echo events are enabled if ($remote & 4) echo raws are enabled
```

#### \$script

Returns the filename of the currently executing remote script.

#### \$script(N/filename)

Returns the filename for the Nth loaded script file. If you specify a filename, it returns \$null if the file is not loaded.

```
$script(0) return the number of script files loaded
$script(2) returns the filename of the 2nd loaded script file
```

\$script(moo.txt) returns \$null if the file is not loaded, or moo.txt if it is.

Note: This cannot be used to reference the users or variables files.

## \$scriptdir

Returns the directory of the currently executing remote script.

## \$scriptline

Returns line number in current script.

#### \$site

Returns the portion of \$address after the @ for the user associated with an event in the form user@host.

## **\$target**

Returns the target of an event.

## **\$ulevel**

Returns the user level that was matched for the currently triggered event.

## \$ulist(nick!userid@address,L,N)

Returns the Nth address in the Users list that matches the specified address and level.

## **Properties:** info

You can specify a wildcard address or a \* to match any address in the user list. If you do not specify a full address, it completes the address with wildcards. If you do not specify N, the first matching address is returned.

If you specify L, only matching addresses that contain the specified level are returned.

Note: L and N are optional, but if you specify L, you must specify N.

#### **\$wildsite**

Returns the address of the user who triggered an event in the form \*!\*@host.

#### 10.3.3

# **Access Levels**

Access levels are assigned both to a user and to an event and serve to limit a user's access to only certain events.

The **default access level** is 1 for users that are not listed in the Users list. All users can access level 1 events. The higher a user's access level is, the more events that user can access. You can change the default user level to allow unlisted users to access more commands.

#### **User List**

In the Users section you can specify a **list of users** and their access levels using the format:

<level1,level2,...,levelN>:<useraddress>

3,5,6:nick!user@mirc.com

The **first** level is a general access level, which means that the user can access all levels equal to or less than 3. All the **other** levels are levels that an event must specifically have to allow a user to access it.

If you want to **force** the first access level to be a specific level instead of a general access level, you can prefix it with an equal sign.

=3,5,6:nick!user@mirc.com

Now this user has access specifically to level 3, 5, and 6 event and to no other events.

#### **Event Format**

In general the format of an event is:

<prefix> <level>:<event>:<window>:<commands>

ctcp 1:HELP:\*:/msg \$nick No help is available for level 1 users

The above ctcp command can be accessed by all users because it is a level 1 command. So if a user with nickname goat sends you a /ctcp yournick HELP, your script will send them the above reply.

Only the **highest level** matching event is triggered for a user.

#### **Named Levels**

You can also used **named levels** which work the same way as a specific level but are easier to understand and read than a number.

friend:nick!user@mirc.com

on @friend:JOIN:#mIRC:/mode \$chan +o \$nick

This treats the word **friend** as a specific access level and matches the user with the event, and because the user is your friend, you give him ops.

## **Event Prefixes**

You can limit access to an event by specifying a special prefix which determines how an event is processed or triggered by users.

# The me prefix

You can limit an event to trigger only to your actions by using the me prefix. For example, the following event will only trigger when you join a channel:

on me:\*:JOIN:#:/msg # Hello to one and all!

# The ^ prefix

You can prevent the default text for an event from being shown by using the ^ prefix in an event definition. See Halting Text for details.

#### The + prefix

You can limit an event to users with a specific access level by using the + prefix.

10:nick!user@mirc.com

ctcp +5:HELP:\*:/msg \$nick You have accessed a level +5 event

The above user cannot access this ctcp event even though he has an access level higher than 5 because the event is limited only to level 5 users.

## The \* prefix

You can allow any user to trigger an event regardless of their access level by using the \* prefix.

on \*:TEXT:help:#:/msg \$nick you have accessed a \* level event

## The! prefix

You can prevent an event from being triggered if it was initiated by you by using the ! prefix.

ctcp !2:HELP:\*:/msg \$nick You have accessed a level 2 event

You would be unable to access the above event regardless of your access level.

## The @ prefix

You can limit events to being executed only when you have Ops on a channel by using the @ prefix.

10:nick!user@mirc.com

on @2:JOIN:#mIRC:/mode \$chan +o \$nick

When the above user joins channel #mIRC and you have Ops on #mIRC, the associated /mode command will be executed, in this case giving the user Ops. If you do not have Ops, the event will not trigger.

#### The & prefix

You can prevent an event from being triggered if a previous script used **/halt** or **/haltdef** to halt the display of default text for an event by using the & prefix.

on &1:TEXT:\*:?:/echo this event will not trigger if \$halted is true

# The \$ prefix

Indicates that the matchtext section of a definition contains a regular expression.

on \$\*:TEXT:m/regular expression/switches:#:/echo message: \$1-

The **m** and the **switches** are optional. The // are required. If switches are used they must be standard PCRE switches, otherwise the match will fail. You can use switch **S** to strip control codes from \$1-.

#### The = suffix

You can prevent users with higher access levels from accessing all lower access level

events by using the = suffix.

10:nick!user@mirc.com

```
ctcp 2:HELP:*:/msg $nick You have accessed a level 2 event
ctcp 5:HELP:*:=
```

The above user cannot access any of these events because the level 5 event prevents him from accessing all HELP events with access levels lower than 5.

#### The! suffix

You can prevent commands for a certain event level from being processed by using the ! suffix.

```
ctcp 5:PING:*:echo PING!
ctcp 5:*:*:!
```

The ! at the end of the line tells the remote to halt any further processing of level 5 commands.

#### **Groups**

You can create separate groups in scripts by using the # hash prefix.

```
#group1 on
...
[ list of events ]
...
#group1 end
```

You can use the <u>/enable and /disable</u> commands to enable or disable groups. A group that is disabled will be ignored when processing events. A disabled group looks like this:

```
#group1 off
...
[ list of events ]
...
#group1 end
```

You cannot have groups within groups.

## **Order of definitions**

Many of the prefixes and controls are sensitive to numerical order of the definitions. The safest thing is to order your definitions starting with the lowest access levels first and increasing numerically down the list, this makes it easier to keep track of which events should trigger first.

# 10.3.4

# **Ctcp Events**

**CTCP** stands for **Client-To-Client-Protocol** which is a special type of communication between IRC Clients. By creating CTCP events, you can make your mIRC react to

commands or requests from other users. CTCP events use the format:

```
ctcp <level>:<matchtext>:<*|#|?>:<commands>
```

The **level** is the access level required to access this event, the **matchtext** is the actual CTCP being sent, the **\*#?** specify whether to react to any message, to channel messages, or to private messages respectively, and the **commands** are the commands that will be performed if this event triggers successfully.

#### **Examples**

The following examples should give you an idea of how to create simple CTCP events.

#### **A Basic CTCP event**

ctcp 1:help:\*:/msg \$nick help yourself!

The above ctcp event would react to a **/ctcp yournick help** message either in a channel or private message. Since it has access level 1, this means that any user can access it because 1 is the lowest access level.

## Giving Op status to a friend

```
=5:*!user@mirc.com
```

```
ctcp 5:opme:?:/mode $2 +o $nick ctcp 5:inviteme:?:/invite $nick $2
```

These definitions would allow the above level 5 user to send you the ctcp /ctcp yournick opme #mIRC and if you are on an Op on channel #mIRC, the above script would automatically Op him. The user can also send you the ctcp /ctcp yournick inviteme #mIRC, and you would invite him to channel #mIRC.

**Note:** By giving the user access level =5, the user is limited only to level 5 events. If I had given the user access level 5, then the user would be able to access all events which have access level 5 **and** below.

## **Changing a standard CTCP reply**

```
ctcp 1:ping:?:/notice $nick Ouch! | /halt
```

This will react to the standard ping CTCP and will reply with "Ouch!". The /halt at the end of the line prevents the standard ping reply from being sent. If you do not use the /halt, the standard reply to PING will be sent.

ctcp 1:time:?:/notice \$nick The time here is around \$time | /halt

This will react to the standard time CTCP and will reply with the above message. Again, the /halt prevents the standard time reply from being sent.

Note: You cannot prevent the standard version reply from being sent.

# Controlling your mIRC remotely

100:\*!user@mirc.com

ctcp 100:quit:?:/notice \$nick Okay boss, I am quitting... see you later! | /quit

The above definition shows how you can give yourself a high access level to access the quit event, and you can tell your mIRC to quit IRC from another IRC Client.

ctcp 100:send:?:/dcc send \$nick \$1-

This definition allows you to ask your mIRC to send you whatever file you specify to the IRC Client you are using from another location, for example by using the ctcp /ctcp yournick send homework.txt.

ctcp 100:\*:?:\$1-

This event definition allows you to execute any command remotely. So if you send a **/ctcp yournick echo Hi!**, your script will execute the command **echo Hi!**. This is a potentially dangerous event definition since if you allow anyone else to access it, they will be able to perform any command they want on your computer.

#### **Wildcards and Variables**

ctcp 1:\*help\*:#:/notice \$nick I can see that you need some help

By using the \* and ? wildcard characters, you can match any incoming text. So if a user sends you a ctcp which has the word help in it anywhere, the above notice will be sent.

ctcp 1:%password:?:/notice \$nick Your access has been authorized

By using <u>Variables</u> in the matchtext section, you can change the value of %password whenever you want without having to change the event definition. So if you set %password to the value "moo" and someone sends you a "moo" ctcp, it will match %variable and the notice will the above message will be sent.

#### 10.3.5

## **Raw Events**

The raw event allows you to process numeric server messages that are identified only by a **number**, and non-numeric server messages which mIRC does not recognize internally.

There are a large number of raw events, far too many to go into here, so it is recommended that you check out the <u>mIRC website</u> for technical information. The document you are looking for is called **RFC1459**. There is also a numerics help file available which is more up-to-date than this document.

**Filtering** and **handling** raw messages can be very **time-consuming** because of the large number of messages that a server can send, so you should try to make sure that your scripts process this information as quickly as possible. The format of the raw event definition is:

raw <numeric>:<matchtext>:<commands>

## **Examples**

The following script filters out the **channels list** numeric when you use the /list command.

```
raw 322:*mirc*:/echo 5 raw $numeric: $1-
```

The above script matches numeric 322 which is the channels /list numeric and if the line returned by this numeric has the word **mirc** in it, it is printed out in the status window.

You can process **non-numeric** server messages by specifying the name of the event:

```
raw PROP: *mirc*:/echo 5 raw $event: $1-
```

**Note:** You can prevent most raw server messages from printing out their default text by using the /halt command.

10.3.6

## Other Events

As well as the <a href="Ctcp">Ctcp</a> and <a href="Raw">Raw</a> events, mIRC supports a range of other events that can be triggered in various situations, such as when a user joins a channel or sends you a message. The following list of items describes all of the events that mIRC supports.

10.3.6.1

# on ACTIVE/APPACTIVE

The **on ACTIVE** and **on APPACTIVE** events trigger when a window in mIRC is activated or when its active status changes.

Format: on <level>:ACTIVE:<\*#?=!@>:<commands>

Example: on 1:ACTIVE:#mirc:/echo Channel window #mIRC has been activated

# **Examples**

```
on 1:ACTIVE:*:echo Activated: $active De-Activated: $lactive
```

The above event triggers whenever a window in mIRC is activated. The **\$active** identifier returns the name of the currently active window, and the **\$lactive** identifier returns the name of the window that was just de-activated. You can also use the **\$activecid** and **\$lactivecid**, see the **Multi-Server** section for more information.

**Note:** It is possible for either or both \$active and \$lactive to return \$null.

on 1:APPACTIVE:echo mIRC active status: \$appactive

The above event triggers when the active status has changed. The **\$appactive** identifier

returns \$true if mIRC is active, or \$false if it is not.

#### 10.3.6.2

## on AGENT

The **on AGENT** event triggers when an Agent has finished speaking.

Format: on <level>:AGENT:<commands>

Example: on 1:AGENT:/echo Agent \$agentname has finished speaking

# **Examples**

on 1:AGENT:/echo Agent \$agentname has finished speaking

The above event triggers when an Agent has finished speaking. The **\$agentname** identifier returns the name of the agent associated with the event.

#### 10.3.6.3

# on BAN/UNBAN

The **on BAN** and **on UNBAN** events trigger when a user on a channel is banned or unbanned.

Format: on <level>:BAN:<#[,#]>:<commands>

Example: on 1:BAN:#mirc,#irchelp:/msg \$nick Sorry but you are not allowed on

\$chan

#### **Examples**

on 9:BAN:#newbies:/mode \$chan -o \$nick | /mode \$chan -b \$banmask

This triggers when someone bans a user with access level 9. The nick who did the banning is de-opped and the banmask is set again. **\$banmask** refers to the banmask used to ban the user.

on 1:UNBAN:#:/msg \$bnick You have just been unbanned

This triggers when any user is unbanned from any channel. **\$bnick** refers to the banned users nickname, however this would actually only be filled if the banmask itself includes a nickname. If the banmask does not include a nickname, \$bnick is \$null.

Remember that **\$banmask** is usually a **wildcard string** which means that it will match both wildcard and non-wildcard user strings in your remote users section.

#### Comparing levels

You can **compare the levels** of the banner and the banned by prefixing the line with <,>,<=,=>,<>, or =, in the following way:

on >=2:BAN:#mIRC:/msg \$chan \$nick banned \$banmask (legal) on 1:BAN:#mIRC:/msg \$chan \$nick banned \$banmask (illegal)

In this situation, if the banners level is greater than or equal to the banned users level, then it is a legal ban. Otherwise, it defaults to the second ON BAN line which indicates that it is an illegal ban. Remember, this is comparing the banners and banned users levels and has nothing to do with the level 2 in the definition.

**Note:** These events only work on nicknames because the IRC server only sends the nickname of the user being banned/unbanned and not an address. Also, IP addresses will not be matched against named addresses, and banmasks ending in @\* will be ignored since this can match almost any user address.

10.3.6.4

# on CHAT/SERV

The **on CHAT** and **on SERV** events trigger when a message is sent to a dcc chat or dcc fserve window.

Format: on <level>:CHAT:<matchtext>:<commands>
Example: on 1:CHAT:\*help\*:/msq \$nick what is the problem?

For an explanation of **matchtext** see the on TEXT event.

# **Examples**

on 1:CHAT:boo!:/msg =\$nick Boo back at ya!

This triggers when someone in a dcc chat window says boo! The equal sign in **=\$nick** is required to send the reply as a dcc chat message. If no equal sign is used, the message is sent as a private irc server message.

on 1:SERV:bye:/msg =\$nick Thanks for using my fileserver, bye!

This triggers when a user in a dcc fileserver session says the word bye to quit the fileserver. You can also refer to the **\$cd** identifier to reference the current directory a fileserve is in.

**Note:** These events react to **all** users level 1 and above because of the way dcc chat works.

10.3.6.5

## on CONNECT

The **on CONNECT** event triggers when mIRC connects to an IRC Server right after the MOTD is displayed.

Format: on <level>:CONNECT:<commands>
Example: on 1:CONNECT:/join #new2irc

The **on DISCONNECT** event uses the same format as above and triggers when you quit or are disconnected from an IRC Server.

The **on CONNECTFAIL** event uses the same as above and triggers when a connection attempt (including all retries) has failed. **\$1-** is set to the connect error message.

# **Examples**

on 1:CONNECT:/echo Connected to \$server at \$time with nickname \$nick

This triggers after mIRC connects to a server.

on 1:DISCONNECT:/echo Disconnected from \$server at \$time with nickname \$nick

This triggers when mIRC is disconnected from a server.

#### 10.3.6.6

# on CTCPREPLY

The **on CTCPREPLY** event triggers when a user sends a standard ctcp reply to a ctcp that you initiated.

Format: on <level>:CTCPREPLY:<matchtext>:<commands>

Example: on 1:CTCPREPLY:VERSION\*:/echo \$nick is using IRC client: \$1-

For an explanation of **matchtext** see the on TEXT event.

#### **Examples**

on 1:CTCPREPLY:PING\*:/echo \$nick replied to my ping!

This triggers when a user replies to a ctcp PING that you sent.

#### 10.3.6.7

## on DCCSERVER

This event triggers when someone tries to connect to your <u>DCC Server</u>. The purpose of this event is to allow you to monitor connections and to prevent someone from connecting to your server by using /halt.

Format: on <level>:DCCSERVER:<Chat|Send|Fserve>:<commands>

Example: on 1:DCCSERVER:Send:echo \$nick \$address wants to send you \$filename

#### **Examples**

on 1:DCCSERVER:Chat:/echo \$nick \$address wants to chat with you!

on 1:DCCSERVER:Send:if (.exe isin \$filename) /halt

The above event checks triggers when someone wants to send you a file, and if the file they are sending ends in .exe, it cancels the send by using the /halt command.

#### 10.3.6.8

# on DNS

The **on DNS** event triggers when a <u>/dns</u> query either succeeds or fails.

Format: on <level>:DNS:<commands>

Example: on 1:DNS:/notice \$me Resolved: \$raddress

## **Examples**

```
on 1:DNS:{
  var %n = $dns(0)
  echo 4 Found %n addresses
  while (%n > 0) {
    echo 4 dns: $dns(%n) nick: $dns(%n).nick addr: $dns(%n).addr ip: $dns(%n).ip
    dec %n
  }
}
```

**Note:** This event is also triggered if you try to /dns a nickname, and the nickname is not on IRC.

#### The \$dns(N) identifier

This identifier can be used only in the on DNS event, and returns the address that was resolved and any associated IP addresses.

Properties: nick, addr, ip

\$dns(N) without a property returns the address being resolved.

You can use N = 0 to return the **number** of addresses found.

You can use \$dns(0).nick/addr/ip to reference properties if an address could not be resolved.

#### 10.3.6.9

# on ERROR

The **on ERROR** event triggers when an IRC Server sends an ERROR message, this usually occurs on a disconnection.

Format: on <level>:ERROR:<matchtext>:<commands>
Example: on 1:ERROR:\*server full\*:/echo Try another server!

For an explanation of **matchtext** see the <u>on TEXT</u> event.

#### **Examples**

on 1:ERROR:\*banned\*:/echo I am banned from this server \*mumble\*!

This triggers when you try to connect to a server and it tells you that you are banned. The **\$1-** parameters refer to the full error message.

Note: This event is not related to any kind of error reporting in mIRC itself.

#### 10.3.6.10

## on EXIT

The **on EXIT** event triggers when mIRC itself is closed.

Format: on <level>:EXIT:<commands> Example: on 1:EXIT:/echo exiting mIRC!

#### **Examples**

The main purpose of this command is to allow scripts to exit cleanly, unset variables, save settings, etc. when mIRC exits.

#### 10.3.6.11

# on FILESENT/FILERCVD

The **on FILESENT** and **on FILERCVD** events trigger when a dcc send or dcc get succeeds.

Format: on <|evel>:FILESENT:<filename[,filename]>:<commands>

Example: on 1:FILESENT:\*.txt:/msg \$nick I have successfully sent you the \$filename

text file

The **on SENDFAIL** and **on GETFAIL** events use the same format as above, and trigger when a dcc send or dcc get fails.

## **Examples**

on 1:FILESENT:\*.txt,\*.ini:/echo Sent \$filename to \$nick \$address

This triggers when a dcc send succeeds in sending a .txt or .ini file to a user. **\$filename** refers to the filename that was transmitted.

on 1:FILERCVD:\*.txt,\*.ini:/echo Received \$filename from \$nick | /run notepad.exe \$filename

This triggers when a dcc get succeeds in getting a .txt or .ini file from a user.

on 1:SENDFAIL:\*.txt:/echo I failed to send the text file \$filename to \$nick

This triggers when a dcc send failed to send a .txt file to a user.

on 1:GETFAIL:\*.zip:/echo I failed to get the zip file \$filename from \$nick

This triggers when a dcc get failed to get a .zip file from a user.

**Note:** you can use **\$send(-1)** or **\$get(-1)** to refer to the dcc associated with these events.

#### 10.3.6.12

# on HOTLINK

The **on HOTLINK** event triggers when you move your mouse over a specific word in a line of text in a window.

Format: on <level>:HOTLINK:<matchtext>:<\*#?=!@>:<commands>

## **Examples**

This event works somewhat differently from other events, and is best explained with an example:

```
on ^1:HOTLINK:*help*:#:{
  if ($1 == helpme) return
  halt
}
```

on 1:HOTLINK:\*:\*:echo clicked word \$1 in line \$hotline \$hotlinepos

The first ^ event is triggered when you move your mouse over a word that matches \*help\* in a channel window. You can then check \$1 to see if you want the hotlink hand to appear over the word. If you halt the event, no hand will appear. This allows you to filter a word based on context.

The **\$hotline** identifier returns the full line which contained the hotlink trigger.

The **\$hotlinepos** identifier returns the line number and word position of the trigger.

The ^ event also triggers on a right-click. You can use \$mouse.key to check if the right mouse button is pressed.

The second non-^ event is triggered when you double-click on a word which has been filtered through the first hotlink event.

**Note:** The script for hotlink events should be as small and as fast as possible since the event triggers each time the mouse is moved over a word.

## on INPUT

The **on INPUT** event triggers when you enter text in an editbox and press enter.

Format: on <level>:INPUT:<\*#?=!@>:<commands>

Example: on 1:INPUT:#mIRC:/echo You entered the text " \$1- " in the #mIRC window

## **Examples**

```
on 1:INPUT:#:/echo I just mumbled " $1- " in a channel
```

Triggers when you enter text in an editbox in a channel window and press enter. The **\$1**-parameters refer to the text that you entered. If you <u>/halt</u> this event, you can prevent mIRC itself from processing your message.

```
on 1:INPUT:?:/echo I just mumbled " $1- " in a query window on 1:INPUT:=:/echo I just mumbled " $1- " in a dcc chat on 1:INPUT:!:/echo I just mumbled " $1- " in a fileserver
```

You can also specify a specific channel/window name instead of \*#?=!@.

You can use the **\$ctrlenter** identifier to test whether Control+Enter was pressed when the user entered the text.

**Note:** You can use commands such as /say with on INPUT and they will send the message to the window in which you are typing, however most commands/events do not work this way and require you to specify the actual destination of a message.

#### 10.3.6.14

# on INVITE

The **on INVITE** event triggers when a user invites you to a channel.

Format: on <level>:INVITE:<#[,#]>:<commands>

Example: on 1:INVITE:#mIRC:/join \$chan

#### **Examples**

on 2:INVITE: #:/join \$chan | /timer 1 3 /describe \$chan appears in a puff of smoke!

This triggers when a user with access level 2 invites you to any channel.

**Note:** If you want to automatically join a channel when someone invites you, it is easier to turn on the Auto-Join option in the Options dialog.

# on JOIN/PART

The **on JOIN** and **on PART** events trigger when a user joins or parts a channel.

Format: on <level>:JOIN:<#[,#]>:<commands>
Example: on 1:JOIN:#mirc,#irchelp:/msg \$nick hiya!

## **Examples**

on 1:JOIN:#:/msg \$chan Welcome \$nick

This triggers when any user joins any channel which you are on.

on 5:PART:#mIRC,#newbies:/describe \$chan waves bye-bye to \$nick \*sniff\*

This triggers when a user with access level 5 leaves channels #mIRC or #newbies.

#### 10.3.6.16

# on KEYDOWN/KEYUP

The **on KEYDOWN** and **on KEYUP** events trigger when a user presses or releases a key in a custom window.

Format: on <level>:KEYDOWN:<@>:<key,...,keyN>:<commands>
Example: on 1:KEYDOWN:@:\*:echo User pressed key \$keyval in \$active

The **on CHAR** event returns translated keyboard presses and uses the same format as above.

#### **Examples**

on 1:KEYDOWN:@frog:32:echo user pressed space bar in @frog

This triggers when a user presses the space bar key in window @frog.

on 1:KEYDOWN:@:37,38,39,40:echo pressed cursor key \$keyval \$keyrpt

This triggers when a user presses any of the cursor keys in any window.

**\$keyval** returns the key code of the key being pressed.

**\$keychar** returns the actual letter of the key being pressed.

**\$keyrpt** returns \$true if the key is repeating due to a user holding down the key.

**\$keylparam** returns the result of the IParam value in the keyboard event.

## on KICK

The **on KICK** event triggers when a user is kicked from a channel.

Format: on <level>:KICK:<#[,#]>:<commands>
Example: on 1:KICK:#mirc,#irchelp:/msg \$nick Oops! ;)

## **Examples**

on 5:KICK:#:/invite \$knick \$chan | /msg \$nick Hey, \$knick is my friend!

This triggers when a user who has access level 5 is kicked out of any channel. **\$knick** refers to the nickname of the user who was kicked.

# **Comparing levels**

You can **compare the levels** of the kicker and the kicked users by prefixing the line with <,>,<=,=>,<>, or =, in the following way:

```
on >=2:KICK:#mIRC:/msg $chan $nick kicked $knick (legal) on 1:KICK:#mIRC:/msg $chan $nick kicked $knick (illegal)
```

In this situation, if the kickers level is greater than or equal to the kicked users level, then it is a legal kick. Otherwise, it defaults to the second on KICK event which indicates that it is an illegal kick. Remember, this is comparing the **kickers and kicked users levels** and has nothing to do with the level "2" in the definition.

**Note:** This event only works on a nickname because the IRC server only sends the nickname of the user being kicked and not an address.

#### 10.3.6.18

# on LOAD/START

The **on LOAD** event triggers the first time a script file is loaded.

Format: on <level>:LOAD:<commands>
Example: on 1:LOAD:/echo mIRC Script Loaded!

The **on START** event uses the same format, and triggers the first time a script is loaded and every time after that when mIRC is run.

#### **Examples**

on 1:LOAD:/echo Performing one-time initialization for this script!

Triggers the first time a script is loaded. The purpose of this event is to perform a one-time initialization of settings.

on 1:START:/echo Performing regular initialization for this script!

Triggers the first time a script is loaded, and each time after that when a script is loaded when mIRC is run. The purpose of this event is to perform general initialization settings.

**Note:** When a file is loaded in the remote dialog, its initialization sections are not run until after the dialog is closed. Only **one** of each of these events is allowed in a script.

10.3.6.19

# on LOGON

The **on LOGON** event triggers before and after mIRC sends the standard PASS, NICK, and USER messages to the server.

Format: on <level>:LOGON:\*:<commands>
Example: on 1:LOGON:\*:/echo Logged on to server

#### **Examples**

on ^\*:LOGON:\*:echo Logging on to \$network \$server

Triggers **before** mIRC sends the standard logon messages to the server. If you /halt this event, mIRC will not send the standard logon messages, allowing you to send your own messages.

on \*:LOGON:\*:echo Logged on to \$network \$server

Triggers **after** mIRC has sent the standard logon messages.

10.3.6.20

# on MIDIEND/WAVEEND/MP3END

The **on MIDIEND**, **on WAVEEND**, and **on MP3END** events trigger when mIRC finishes playing a sound.

Format: on <level>:MIDIEND:<commands> Example: on 1:MIDIEND:/splay jazzy.mid

## **Examples**

on 1:WAVEEND:/echo Finished playing \$filename

Triggers when a wave file finishes playing. See the <u>Playing Sounds</u> section for more information.

**Note:** These events will not trigger if you use <u>/splay</u> to play another sound or to stop a sound being played, they only trigger if the sound finishes playing completely.

# on MODE

The **on MODE** event triggers when a user changes a channel mode.

Format: on <level>:MODE:<#[,#]>:<commands>

Example: on 1:MODE:#mIRC:/notice \$me \$nick changed \$chan mode to \$1-

The **on SERVERMODE** event uses the same format, and triggers when an IRC Server changes a channel mode.

## **Examples**

on @1:MODE:#:/notice \$me \$nick changed \$chan mode to \$1-

This triggers when a user changes a mode on any channel where you have Ops (the @ sign specifies the Op requirement, see the <u>Access Levels</u> section for more info). The actual parameters of the mode change are stored in **\$1-** which you would need to parse yourself to enforce a particular mode.

**Note:** These events only trigger on **channel** mode changes not user mode changes such as ops, bans, etc.

#### 10.3.6.22

# on NICK

The **on NICK** event triggers when a user changes nickname while on the same channel as you.

Format: on <level>:NICK:<commands>

Example: on 1:NICK:/echo \$newnick was previously known as \$nick

#### **Examples**

on 1:NICK:/describe \$newnick thinks \$nick was a nicer nickname!

This triggers when a user changes their nickname on a channel.

#### 10.3.6.23

## on NOSOUND

The **on NOSOUND** event triggers when a user sends a <u>Sound Request</u> to play a sound and you do not have that sound.

Format: on <level>:NOSOUND:<commands>

Example: on 1:NOSOUND:/notice \$me Oops, \$nick has \$filename and I do not!

## **Examples**

on 1:NOSOUND:/msg \$nick ! \$+ \$nick \$filename

This triggers when you do not have the requested sound. **\$filename** refers to the name of the file that was requested.

**Note:** This will trigger whether the <u>Warn if sound does not exist</u> option is turned on or off.

#### 10.3.6.24

# on NOTIFY/UNOTIFY

The **on NOTIFY** and **on UNOTIFY** events trigger when a user in your <u>notify list</u> joins or leaves IRC.

Format: on <level>:NOTIFY:<commands> Example: on 1:NOTIFY:/msg \$nick Hiya!:)

## **Examples**

on 1:NOTIFY:/msg \$nick Hi! I am in #mIRC\_Lounge, come over!

This triggers when a user in your notify list joins IRC.

on 1:UNOTIFY:/notice \$me \$nick just left IRC \*sniff\*

This triggers when a user in your notify list leaves IRC.

#### 10.3.6.25

# on OP/DEOP

The on OP and on DEOP events trigger when a user on a channel is opped or deopped.

Format: on <level>:OP:<#[,#]>:<commands>

Example: on 1:OP:#mirc,#irchelp:/msg \$opnick Please do not abuse your Op status

The **on VOICE/DEVOICE** and **on HELP/DEHELP** events use the same format and trigger when a user is voiced/devoiced or helped/dehelped respectively.

The **on SERVEROP** event also uses the same format and triggers when a user is opped by a **server**.

The **on RAWMODE** event triggers independently of these events and allows you to parse the raw mode line yourself.

#### **Examples**

on 9:OP:#:/mode \$chan -o \$opnick

```
on 9:VOICE:#:/mode $chan -v $vnick on 9:HELP:#:/mode $chan -h $hnick
```

This triggers when a user with access level 9 is opped/voiced/helped on any channel. **\$opnick** refers to the nickname of the person being opped/deopped, **\$vnick** the person being voiced/devoiced, and **\$hnick** the person being helped/dehelped.

```
on 1:DEOP: #beginner:/mode $chan +o $opnick
```

This triggers when any Op is deopped on channel #beginner.

```
on 1:SERVEROP:#:/mode $chan -o $opnick
```

This triggers when an irc server ops a user on any channel. You immediately deop them.

The **\$modefirst** and **\$modelast** identifiers return \$true or \$false depending on whether the event is the first or last to trigger.

#### **Comparing levels**

You can **compare the levels** of the opper and the opped by prefixing the line with <,>,<=,=>,<>, or =, in the following way:

```
on >=1:DEOP:#mIRC:/msg $chan $nick deopped $opnick (legal) on 1:DEOP:#mIRC:/msg $chan $nick deopped $opnick (illegal)
```

In this situation, if the deoppers level is greater than or equal to the deopped users level, then it is a legal deop. Otherwise, it defaults to the second line which indicates that it is an illegal deop. Remember, this is comparing the oppers and opped users levels and has nothing to do with the level 2 in the definition.

**Note:** These events only work on nicknames because the IRC server only sends the nickname of the user being affected and not their address.

#### on RAWMODE

on @1:RAWMODE:#:/echo \$chan Raw mode line: \$nick set \$1-

The **on RAWMODE** event allows you to parse the raw mode change yourself, the raw mode text is in \$1-.

You can use the  $\frac{\text{smode}(N)}{\text{ode}(N)}$  identifier with these events to list the nicks that are being affected.

#### 10.3.6.26

# on OPEN/CLOSE

The **on OPEN** and **on CLOSE** events trigger for various events relating to the opening and closing of a window of different types of windows. In the case of dcc sessions, they trigger when a dcc connection has opened or closed.

Format: on <level>:OPEN|CLOSE:<?|@|=|!|\*>:<matchtext>:<commands>

Example: on 1:CLOSE:?:echo -s closed \$target query window

For an explanation of **matchtext** see the <u>on TEXT</u> event.

## **Examples**

```
on ^1:OPEN:?:*:if ($nick == goat) halt
```

The above open event is an example of a <u>^ prefix event</u>, which allows you to halt events. In this example, if the incoming message is from a user with the nickname goat, the query window is prevented from opening by using the /halt command.

**Note:** If you halt an on ^open event triggered by an incoming private message, no on TEXT/ACTION events are triggered.

```
on 1:OPEN:?:*:/echo -s Just opened $target query window
```

The above example triggers just **after** a query window is opened.

```
on 1:OPEN:?:*hello*:/echo -s $nick just said hello!
```

This example triggers if the message which trigger on OPEN contained the word **hello**. This allows you to react to user message in on OPEN instead of waiting for on TEXT to trigger.

```
on 1:CLOSE:?:/echo -s you just closed $target query window
```

This triggers when you close a query window.

```
on 1:OPEN:=:/msg =$nick Hi! I will be with you in a second...
```

This triggers when a dcc chat connection is first established. The equal sign in **=\$nick** is required to send the reply as a dcc chat message.

```
on 1:CLOSE:=:/notice $me $nick just left the discussion!
```

This triggers when a dcc chat session ends, or when you close your chat window manually.

```
on 1:OPEN:!:/msg =$nick Welcome to my fileserver!
on 1:CLOSE:!:/echo -s $nick just ended her fileserver session
```

These trigger when a dcc filserver session is first established and when it is closed.

Note: DCC events react to all users level 1 and above because of the way DCCs work.

```
on 1:CLOSE:@:/echo -s Just closed $target custom window
```

The above triggers when a custom window is closed. The OPEN event does not trigger for custom windows.

**Note:** These events do not trigger for any other types of windows. Channel windows are handled by the on JOIN/PART events.

10.3.6.27

## on PARSELINE

The **on PARSELINE** event triggers before incoming/outgoing server lines are received/sent and allows a script to modify them.

Format: on <|evel>:PARSELINE:<|in|out|\*>:matchtext:<commands>

Example: on \*:PARSELINE:\*:\*:echo \$parsetype \$parseline

## The /parseline command

The incoming/outgoing server line can be modified using the following command:

/parseline -iotbqpnuN [text|&binvar]

-i or -o = required to specify an in/out line.

-t or -b = required to specify text or &binvar.

-q = add a new line to the end of the in/out queue. It can be used inside and outside the PARSELINE event. New lines are processed after the script/event exits.

-p = use with -g to indicate that the new line should trigger the PARSELINE event.

-n = add a CRLF to the end of the line, if it does not have one, when sending the line to a server.

 $-uN = where \ N$  is 0 or 1 and either disables or enables UTF-8 encoding/decoding for the line.

**Note:** A script must check \$parseutf to know whether mIRC will be UTF-8 encoding/decoding a line. For outgoing lines, if \$parseutf is \$true, after the PARSELINE event, mIRC will UTF-8 encode the line before sending it to the server. You can prevent this by using -u0. For incoming lines, if \$parseutf is \$true, after the PARSELINE event, mIRC will UTF-8 decode the line before processing it. You can prevent this by using -u0.

**Warning:** This feature should only be used, for example, to support features and/or protocols that mIRC does not already support, not to modify standard lines. mIRC maintains internal states based on incoming and outgoing lines. If lines are modified, mIRC may not work correctly.

#### **Examples**

```
; This example converts incoming/outgoing lines to upper case
on *:PARSELINE:*:*:{
  echo PARSELINE: $parsetype : $parseutf : $parseline
  if ($parsetype == in) {
    var %pl = $parseline
```

```
; UTF decode the line ourselves
  if ($parseutf) %pl = $utfdecode(%pl)
  ; Convert the line to upper case
  %pl = \sup(%pl)
  ; Replace the current incoming line with our line
  ; We use -u0 to prevent mIRC from UTF decoding the line as we have already done
that
  parseline -itu0 %pl
  ; The line will only be processed after our script returns
  return
 if ($parsetype == out) {
  var %pl = $parseline
  ; Convert line to upper case
  %pl = \sup(%pl)
  ; UTF encode the line ourselves
  if ($parseutf) %pl = $utfencode(%pl)
  ; Replace the current outgoing line with our line
  ; We use -u0 to prevent mIRC from UTF encoding the line as we have already done
that
  parseline -otu0 %pl
  ; The line will only be processed after our script returns
  return
 }
; The original incoming/outgoing line will be processed as normal }
```

**Note:** If the IRCv3 echo-message token is enabled on a server, the **\$parseem** identifier is set to \$true if the current line is considered an echoed line that is not meant to be displayed.

## 10.3.6.28

# on PING/PONG

The **on PING** event triggers when a server sends you a PING message to see if you are still connected.

The **on PONG** even triggers when you receive a PONG reply from the server after sending it a ping.

Format: on <level>:PING:<commands>

Example: on 1:PING:/echo -s \$nick sent me a PING

# **Examples**

on 1:PING:/notice \$me Wake up! The server is PINGing you: \$1-

This triggers when the server pings you. The **\$1-** parameters hold the ping message.

on 1:PONG:echo pong reply: \$1-

This triggers when the server replies to your ping.

**Note:** You cannot use this to intercept /pings to your own nickname, this is used internally by mIRC.

10.3.6.29

## on PLAYEND

The **on PLAYEND** event triggers when the /play command has finished playing a file.

Format: on <level>:PLAYEND:<commands>

Example: on 1:PLAYEND:/echo The play command has finished playing \$filename

**Note:** Text files can be played ie. sent to users or channels on IRC by using the <u>/play</u> command.

10.3.6.30

# on QUIT

The **on QUIT** event triggers when a user quits IRC while on the same channel as you.

Format: on <level>:QUIT:<commands>

Example: on 1:QUIT:/notice \$me \$nick just quit IRC with the message \$1-

#### **Examples**

on 1:QUIT:/ame waves bye-bye to \$nick \*sniff\*

This triggers when a user quits IRC while on the same channel as you. The **\$1**-parameters hold the user's quit message.

10.3.6.31

## on SNOTICE

The **on SNOTICE** event triggers when you receive a server notice.

Format: on <level>:SNOTICE:<matchtext>:<commands>

Example: on ^1:SNOTICE:\*client connecting\*:/halt

For an explanation of **matchtext** see the on TEXT event.

## **Examples**

```
on 1:SNOTICE:*hack*:/splay hack.wav
```

This triggers when a server notice contains the word hack.

#### 10.3.6.32

# on TABCOMP

The **on TABCOMP** event triggers when you press the TAB key in an editbox and mIRC is about to perform tab completion.

Format: on <level>:TABCOMP:<\*#?=!@>:<commands>

Example: on 1:TABCOMP: #mIRC:/echo event: \$event target: \$target line: \$1-

Halting this event prevents default tab completion.

**Note:** This event is not triggered in an empty editbox if you have the <u>Tab key changes</u> <u>editbox focus</u> option enabled.

#### 10.3.6.33

## on TEXT

The **on TEXT** event triggers when you receive private and/or channel messages.

Format: on <level>:TEXT:<matchtext>:<\*><?><#[,#]>:<commands>
Example: on 1:TEXT:\*help\*:#mirc,#irchelp:/msg \$nick what is the problem?

The **on ACTION** and **on NOTICE** events use exactly the same format as on TEXT, and trigger on an action and on a notice event respectively.

The **match text** can be a **wildcard** string, where:

- \* matches any text
- & matches any word

text matches if text contains only this word

text\* matches if text starts with this word

\*text matches if text ends with this word

\*text\* matches if text contains this word anywhere

The **match text** can also be a regular expression. See the **\$ prefix** section in <u>Access</u> Levels.

The **location** where this event occurs can be specified using:

- ? for any private message for any channel message
- #mirc for any messages on channel #mirc
- \* for any private or channel messages

# **Examples**

on 1:TEXT:hello\*:#:/msg \$chan Welcome to \$chan \$nick!

This listens on any channel for any line beginning with the word hello and welcomes the user who said it to the channel.

```
on 1:TEXT:*cookie*:#food:/describe $chan gives $nick a cookie :)
```

This listens on channel #food for any message containing the word cookie and gives the user who said it a cookie.

```
on 1:ACTION:moo:#:/msg $chan Aha, I see we have a cow among us.
```

This listens on any channel for an action that contains the word moo and responds accordingly.

```
on 1:NOTICE:*:?:/msg $nick I am AFK, back in a moment!
```

This listens for any private notice and responds with the message that you are away from the keyboard.

For more flexibility, you can also use <u>Variables</u> in place of both the matchtext and the channel parameters.

```
on 1:TEXT:%matchtext:%channel:/msg $nick You just said $1- on channel %channel
```

The value of %matchtext will be matched against whatever text the user sends, and the value of %channel will be matched against the channel to which the message was sent.

**Note:** You cannot test out these events by typing text to yourself. They can only be initiated by someone else saying something in a channel or in a private message.

#### 10.3.6.34

# on TOPIC

The **on TOPIC** event triggers when a user changes a channel topic.

Format: on <level>:TOPIC:<#[,#]>:<commands>

Example: on 1:TOPIC:#mIRC:/msg \$chan Hmm, odd topic!

#### **Examples**

on 1:TOPIC:#mIRC4Dummies:/describe \$chan admires \$nick \$+ 's new topic!

This triggers when a user changes the topic on channel #mIRC4Dummies. The \$1-

parameters hold the actual text of the new topic.

#### 10.3.6.35

# on UNLOAD

The **on UNLOAD** event triggers in a script when the script is unloaded.

Format: on <level>:UNLOAD:<commands>

Example: on 1:UNLOAD:/echo mIRC Script unloading

# **Examples**

on 1:UNLOAD:/echo Unloading script \$script

Triggers in the script when it is unloaded. The purpose of this event is to allow a script to cleanup.

#### 10.3.6.36

# on USERMODE

The **on USERMODE** event triggers when you change your usermode.

Format: on <level>:USERMODE:<commands>

Example: on 1:USERMODE:/echo You changed your usermode to \$1-

## **Examples**

on 1:USERMODE:/echo Usermode for \$nick is now \$1-

Triggers when your usermode changes. The **\$1-** parameters refer to the new usermode.

## 10.3.6.37

# on WALLOPS

The **on WALLOPS** event triggers when you receive a wallops message.

Format: on <level>:WALLOPS:<matchtext>:<commands>

Example: on 1:WALLOPS:\*warning\*:/echo \$nick issued warning at \$time

For an explanation of **matchtext** see the <u>on TEXT</u> event.

## **Examples**

on 1:WALLOPS:\*oink\*:/splay oink.wav

This triggers when a wallops notice contains the word oink.

#### 10.3.7

# **Halting text**

mIRC displays its own default text for various types of IRC Server events, such as users joining or parting a channel, however you can modify or suppress this by using a script.

#### The ^ event prefix

You can prevent the default text for an event from being shown by using the ^ prefix in an event definition. This allows you to show your own custom event messages.

```
on ^1:JOIN:#:echo $chan Joins: $nick | halt
```

This line is triggered by a JOIN event and shows your own custom join event message, /halt prevents the normal message from being shown.

The ^ events **do not replace** your existing events; your normal events are independent and are **still** processed whether there is a ^ event in a script or not.

If you only want to halt the default text without /halting the entire script, you can use the **/haltdef** command.

You can check if a script has already halted the default text by using the **\$halted** identifier; it returns \$true if a user has used /halt or /haltdef in a ^ event, and \$false if not.

The ^ event prefix works **only** on certain events, such as ACTION, TEXT, JOIN, and so on. You would need to try out the ^ prefix with an event to see if it works with it.

**Note:** Halting the default text for an event affects how mIRC displays the most basic information about IRC events to a user, so it should be used carefully.

#### 10.3.8

# **Example Script**

The following example script shows you how you can place related aliases, popups, and events in a single file making it easier to distribute a whole script to other people.

```
;Moo Script v1.0 - contains moo related functions
;This menu definition adds a submenu to your channel popup menu
menu channel {
    Moo
        .happily:/describe # moos happily
        .woefully:/describe # moos woefully
        .philosophically:/describe # MUs
        .colorfully:/describe # moos in several hues
```

```
;These add aliases for shortcuts to often used messages
alias how /msg $1 How now brown cow?
alias moo /sound moo.wav moooos
;This adds a ctcp command which reacts to a moo ctcp from someone
ctcp 1:moo:*:/notice $nick Sorry, I am all out of moos right now.
;These add events which react to specific words said on a channel
on 1:text:*moo*:#:/msg $chan okay, who let the cow loose?
on 1:text:*grass*:#:/describe $chan dribbles hungrily
;These add join and part events which react to a user joining/parting
;the channel #moo
on 1:join:#moo:{
 /msg $nick Welcome $nick to channel #moo!
 /msg $nick This is a herd-oriented channel, there are calfs present!
 /msg $nick Please refrain from profane mooing and/or bleating
 /msg $nick Mammals engaging in such acts will be promptly demooted
on 1:part: #moo:/msg $nick Thanks for grazing with us on #moo!
The following line is processed while you are doing a channels list. It
; prints to the status window any channel name/topic that has the
;word moo in it
raw 322:*moo*:/echo -s $2-
```

# 10.4

# **Variables**

**Variables** are temporary storage areas to which you can assign **values** which you can use later in your scripts.

If a variable is referred to and it does not exist, it returns the value **\$null**. The **\$null** value can be used in comparisons in <u>if-then-else</u> statements to control branching etc.

The following **commands** allow you to create and set the values of variables.

## /set [-snzeglkipuN] <%var> [value]

This sets the value of %var to the specified value.

If you specify the **-uN** switch, %var is unset after N seconds, assuming it is not set again by another script. If you specify a zero for N, the variable is unset when the script finishes.

The **-g** switch sets a global variable. Normally, if a local variable already exists, it takes

precedence, so this switch allows you to override that.

```
The -k switch keeps the current -uN setting for a variable.
```

The **-n** switch prevents mathematical operations.

The -z switch decreases %var until it reaches zero and then unsets it.

The **-e** switch unsets the variable when mIRC exits.

The -I switch makes the variable a local variable.

The -i switch initializes a variable only if it does not already exist.

The **-p** switch treats value as literal text, including quotes and spaces.

# /unset [-sgl] <%var>

This unsets and removes the specified variables from the variables list. If you specify a variable with **wildcard** characters then all matching variables will be removed.

The **-gl** switches unset a global or local variable respectively.

/unset %test\*

This will **remove** all variables beginning with the word %test.

You can also set/unset dynamic variables using [] brackets:

```
vartest {
  set %a [ $+ b ] 1
  set %a [ $+ c ] 2
  set %a [ $+ d ] 3

  echo ab = %ab
  echo ac = %ac
  echo ad = %ad

  unset %a [ $+ b ] %a [ $+ c ] %a [ $+ d ]
}
```

#### /unsetall

This unsets and removes all variables from the variables list.

#### /inc [-cszeuN] <%var> [value]

This increases the value of %var by value.

If you specify the **-uN** switch, %var is increased by the value **once** and then %var is unset N seconds later, assuming it is not set again by another script.

The **-c** switch increases %var once per second.

The -z switch decreases %var until it reaches zero and then unsets it.

The **-e** switch unsets the variable when mIRC exits.

## /dec [-cszeuN] <%var> [value]

This decreases the value of %var by value.

If you specify the **-uN** switch, %var is decreased by the value **once** and then %var is unset N seconds later, assuming it is not set again by another script.

```
The -c switch decreases %var once per second.
```

The -z switch decreases %var until it reaches zero and then unsets it.

The **-e** switch unsets the variable when mIRC exits.

# **Assigning values**

The **equal** sign can be used to **assign** values to variables:

```
%i = 5
%xyzi = 3.14159
%count = $1
%text = how now brown cow?
```

#### **Mathematical operations**

The following **operations** can be performed when using the **equal** sign:

```
%x = 5 + 1
%x = 5 - %y
%x = %x * 2
%x = %z / $2
%x = $1 % 3
%x = 2 ^ %w
```

Only a **single** operation can be performed in an assignment.

**Note:** operations are performed on the final contents of the value being assigned. This means that the -n switch, with /set or /var, will need to be used, as in the following example, to prevent a double evaluation.

```
If %y is the literal text 1 + 2:
```

```
set %x %y
echo x: %x is equal to 3
set -n %x %y
echo x: %x is equal to 1 + 2
```

You can also use the **\$calc()** identifier which allows you to perform complex calculations.

```
//echo 1 $calc(3.14159 * (2 ^ %x % 3) - ($ticks / (10000 + 1)))
```

For **floating point** numbers you can also use the **\$round(N,D)** and **\$int(N)** identifiers to handle precision of the decimal digits. The number of decimals is currently limited to 5 digits.

#### **Local Variables**

Local variables are variables that exist **only** for the **duration** of the script in which they are created and can **only** be accessed from **within** that script. They can be created with the /var command:

```
/var %x
```

This creates the local variable %x in the current routine and can only be referenced from inside this routine.

```
/var %x = hello
```

This creates a local variable %x and **assigns** it the value **hello**.

You can create **multiple** local variables by separating them with commas:

```
/var %x = hello, %y, %z = $me

loop {
    var %x = 1
    :next
    echo item %x
    inc %x
    if (%x < 10) goto next
```

Note: This uses the same switches as the /set command.

## **Identifiers**

# \$var(%var,N)

Returns the Nth matching variable name.

Properties: value, local, secs

You can use a wildcard in the variable name.

If N = 0, returns total number of matching variable names.

Note: This searches both local and global variables.

# **Big Float**

If a script needs to perform calculations with very large numbers, it can enable big float support either for a specific command or for the whole script using the following methods:

To enable big float for a command, use a variable with a **.bf** extension, such as **%var.bf**. When used in a command/identifier, this enables big float calculations for that command/identifier.

To enable big float for the whole script, use the **/bigfloat [on|off]** command. This will affect all calculations in commands and identifiers until the script exits.

A script can check if big float is currently enabled by using the **\$bigfloat** identifier.

**Note:** Big float calculations are much slower than normal calculations, so should only be used when necessary.

# 10.5

# **Identifiers**

**Identifiers** return specific values, eg. **\$time** would return the **current time**. Whenever mIRC finds an identifier in a command or script, it **replaces** it with the **current value** of that identifier. Many identifiers also perform actions on data that you supply and then return a result.

Identifiers that cannot be evaluated or evaluate to no value return the value **\$null**. The **\$null** value can be used in comparisons in <u>if-then-else</u> statements to control branching etc. You can also place identifiers or variables **inside** the brackets of other identifiers and they will be evaluated.

The identifiers are organized by groups as follows:

File and Directory Identifiers
Nick and Address Identifiers
Text and Number Identifiers
Time and Date Identifiers
Token Identifiers
Window Identifiers
Other Identifiers

There are also special identifiers for <u>Remote Scripts</u>, as well as for many other script-related features.

#### 10.5.1

# **File and Directory Identifiers**

#### \$abook(nick,N)

Returns information about nicknames listed in the <u>address book</u>.

Properties: nick, info, email, website, picture, noteN

Allowed formats: \$abook(nick) \$abook(N) \$abook(nick,N) where nick can also be a wildcard.

## \$alias(N/filename)

Returns the filename for the Nth loaded alias file. If you specify a filename, it returns \$null if the file is not loaded.

\$alias(0) return the number of alias files loaded \$alias(2) returns the filename of the 2nd loaded alias file \$alias(moo.txt) returns \$null if the file is not loaded, or moo.txt if it is.

## \$crc(text|&binvar|filename,[N])

Returns the CRC checksum of the specified item, where N=0 for plain text, 1 for &binvar, 2 for filename (default).

Note: \$crc64() can also be used to return the 64bit checksum.

#### \$disk(path|N)

Returns information about the specified hard disk, where N=0 for total available drives, and N>0 to access each drive.

Properties: type, free, label, size, unc, path

\$disk(c:) returns \$true if drive c: exists, otherwise \$false

The **unc** property returns the path for a network drive.

# \$exists(file/dir)

Returns \$true if a file or dir exists and \$false if it does not.

\$exists(mirc.exe) returns \$true or \$false.

# \$file(filename)

Returns information about the specified file.

**Properties:** size, ctime, mtime, atime, shortfn, longfn, attr, sig, version, path, name, ext

```
$file(mirc.exe).size returns the file size
$file(mirc.exe).ctime returns creation time
$file(mirc.exe).mtime returns last modification time
$file(mirc.exe).atime returns last access time
```

#### \$filtered

Returns the number of lines that were filtered when using the /filter command.

## \$finddir(dir,wildcard,N,depth,@window | command)

Searches the specified directory and its subdirectories for the Nth directory name matching the wildcard specification and returns the full path and directory if it is found.

Properties: shortfn

\$finddir(\$mircdir,logs\*,1) returns the first directory name beginning with "mirc"

If you specify a custom @window (with a listbox) instead of the N parameter, mIRC will fill the custom @window listbox with the results.

If you specify a command, the command is performed on every directory that is found. You can use \$1- to refer to the directory name, eg. //echo 1 \$finddir(\$mircdir,\*.\*,0,echo \$1-)

If you use /halt in the command/alias, this halts the search.

If you specify a depth, mIRC will only search N directories deep for matching filenames.

The **\$finddirn** identifier returns the Nth position of directory that was found.

Note: Both the depth and @window/command parameters are optional.

# \$findfile(dir,wildcard,N,depth,@window | command)

Searches the specified directory and its subdirectories for the Nth filename matching the wildcard file specification and returns the full path and filename if it is found.

Properties: shortfn

\$findfile(\$mircdir,\*.exe,1) returns the first .exe file it finds

If you specify a custom @window name (with a listbox), the custom @window listbox will be filled with the results.

If you specify a command, it will be performed on every filename that is found. You can use \$1- to refer to the filename, eg. //echo 1 \$findfile(\$mircdir,\*.\*,0,echo \$1-)

If you use /halt in the command/alias, this halts the search.

If you specify a depth, mIRC will only search N directories deep for matching filenames.

You can specify multiple wildcards by separating them with semi-colons, eg. \*.exe;\*.txt;\*.hlp.

The **\$findfilen** identifier returns the Nth position of file that was found.

Note: Both the depth and @window/command parameters are optional.

#### **\$getdir**

Returns the DCC Get directory specified in the DCC Options dialog.

#### \$getdir(filename)

Returns the DCC Get directory for the specified filename. You can also specify a file type such as \*.txt.

#### \$ini(file,topic/N,item/N)

Returns the name/Nth position of the specified topic/item in an ini/text file.

\$ini(mirc.ini,0) returns total number of topics in mirc.ini

\$ini(mirc.ini,1) returns name of 1st topic in mirc.ini

\$ini(mirc.ini,help) returns Nth position of topic help if it exists, or returns 0 if it does not exist

The item/N parameter is optional. If you specify N=0, it returns the total number of topics/items.

**Note:** The behaviour of this identifier varies across versions, where either 0 or \$null may be returned for a non-existent item.

#### \$isdir(dirname)

Returns \$true if the specified directory exists, otherwise \$false.

## \$isfile(filename)

Returns \$true if the specified file exists, otherwise \$false.

## \$lines(filename)

Returns the total number of lines in the specified text file.

# \$logdir

Returns the Logs directory as specified in the Logging section of the Options dialog.

# \$longfn(filename)

Returns long version of a short filename.

#### \$mididir

Returns the Midi directory specified in the Sound Requests section of the Options dialog.

#### **\$mircdir**

Returns the directory where mIRC stores its settings, such as mirc.ini, and other files and folders.

#### **\$mircexe**

Returns the full path and filename of the mIRC executable file.

#### \$mircini

Returns the name of the main .ini file, usually mirc.ini.

## \$mklogfn(filename)

Returns the filename format that the logging feature uses. Appends date to filename if you have the dated logfiles option turned on in the logging dialog.

You can also use \$mknickfn(nickname) to fix a nickname for use as a filename, and \$mkfn(filename) to fix a filename, both of which may replace/remove invalid characters.

## \$msfile(dir,title,oktext)

Displays the multiple select file dialog and returns N, the number of selected files. \$msfile(N) returns each file. If too many files are selected, \$msfile() returns -1. Title and oktext are optional. See **\$sfstate** for cancel/error handling.

## \$nofile(filename)

Returns the path in filename without the actual filename.

#### \$nopath(filename)

Returns filename without a path, if it has one.

# \$read(filename, [ntswrp], [matchtext], [N])

Returns a single line of text from a file.

This identifier works in conjunction with the /write command.

//echo \$read(funny.txt)

Reads a random line from the file funny.txt.

//echo \$read(funny.txt, 24)

Reads line 24 from the file funny.txt.

```
//kick # $1 $read(kicks.txt)
```

Reads a random kick line from kicks.txt and uses it in the kick command.

```
//echo $read(info.txt, s, mirc)
```

Scans the file info.txt for a line beginning with the word **mirc** and returns the text following the match value.

```
//echo $read(help.txt, w, *help*)
```

Scans the file help.txt for a line matching the wildcard text \*help\*. The  $\mathbf{r}$  switch implies a regex match.

If you specify the s, w, or r switches, you can also specify the N value to specify the line you wish to start searching from in the file, eg.:

```
//echo $read(versions.txt, w, *mirc*, 100)
```

If the  $\mathbf{n}$  switch is specified then the line read in will not be evaluated and will be treated as plain text.

If the  ${\bf p}$  switch is specified, command | separators are treated as such instead of as plain text.

If the **first line** in the file is a **number**, it must represent the **total number of lines** in the file. If you specify N = 0, mIRC returns the value of the first line if it is a number.

If the  ${\bf t}$  switch is specified then mIRC will treat the first line in the file as plain text, even if it is a number.

#### \$readn

Returns the line number that was matched in a previous call to \$read(). If no match was found, \$readn is set to zero.

## \$readini(filename, [np], section, item)

Returns a single line of text from an ini file

This identifier works in conjunction with the /writeini command.

```
//echo $readini(mirc.ini, mIRC, nick)
```

Reads your nickname from the mirc.ini file.

If the **n** switch is specified then the line read in will not be evaluated and will be treated as plain text.

If the  ${\bf p}$  switch is specified, command | separators are treated as such instead of as plain text.

# \$samepath(path1,path2)

Returns \$true/\$false if paths refer to the same file/dir. It resolves relative paths and

converts long/short filenames.

# \$sdir(dir,title)

Displays the select folder dialog and returns the selected folder. **Title** is optional. See **\$sfstate** for cancel/error handling.

#### \$sfile(dir,title,oktext)

Displays the select file dialog and returns the selected filename. **Title** and **oktext** are optional. The **dir** can include a wildcard as a file mask. See **\$sfstate** for cancel/error handling.

#### **\$sfstate**

Returns **cancel** if a user cancels the dialog or **error** if there is an error.

# **\$shortfn(filename)**

Returns short version of a long filename.

# \$sysdir(item)

Returns system folders for the current user where item can be profile, desktop, documents, downloads, music, pictures, and videos.

# \$tempfn

# \$tempfn(path)

Returns a unique temporary file/folder name located in the mIRC folder, using the same method that mIRC uses internally. To use a different folder, specify its path as a parameter.

#### \$zip(file.zip,cetlpo,file|dir,password,N)

Enables creation and extraction of zip files.

Properties: size, crc, mtime, cm, em, idx

Supports the following switches: c = create, e = extract, t = test, l = list, p = password, o = overwrite existing file/dir.

The N parameter is used with the list option, where 0 = return number of items, otherwise return Nth item, with properties: size.

If password is specified when creating a zip, encrypts the zip file using AES.

# 10.5.2

# **Nick and Address Identifiers**

#### **\$address(nickname,type)**

Searches the Internal Address List for the address associated with the specified nickname. You must read about the <u>IAL</u> before you use this identifier.

\$address(nick,1) returns \*!\*user@host

If the Internal Address List does not contain a matching nickname, the identifier returns \$null.

See **\$mask()** for a list of types.

#### \$anick

Returns your alternate nickname.

# \$comchan(nick,N)

Returns the names of channels which both you and nick are on.

Properties: op, help, voice

```
$comchan(nick,0) returns the total number of common channels
$comchan(nick,1) returns the first common channel name
$comchan(nick,1).opreturns $true if you are an op on the channel
```

#### \$ial

Returns \$true or \$false depending on whether the IAL is on or off.

# \$ial(nick/mask,N)

Returns the Nth address matching mask in the IAL.

#### \$ialchan(nick/mask,#,N)

Returns the Nth address on the specified channel matching mask in the IAL.

Properties: pnick

```
$ibl(#channel,N)
$iel(#channel,N)
$iil(#channel,N)
```

\$iql(#channel,N)

Returns Nth item in the internal ban/exception/invite/quiet list, or if N is 0 returns total number of items in that list.

Properties: by, date, ctime

```
$ibl(#mirc,1) returns the first address in the ban list
$ibl(#mirc,1).by returns the address of the user who set the ban
$ibl(#mirc,1).date returns the date when the user set the ban
$ibl(#mirc,1).ctime returns $ctime format for ban date
```

Note: See \$chan() for more information.

# \$level(address)

Finds a matching address in the remote users list and returns its corresponding levels list.

```
$level(*!*@mirc.com) returns =5,10,20,21,32
```

#### \$link(N)

Returns the Nth item listed in the server Links window.

Properties: addr, ip, level, info

```
$link(0) returns the total number of links in the links window
$link(1) returns the Nth server address in the links window
```

# \$mask(address,type)

Returns address with a mask specified by type.

```
$mask(nick!user@mirc.com,1) returns *!*user@mirc.com
$mask(nick!user@mirc.com,2) returns *!*@mirc.com
```

The available types are:

- 0: \*!user@host
- 1: \*!\*user@host
- 2: \*!\*@host
- 3: \*!\*user@\*.host
- 4: \*!\*@\*.host
- 5: nick!user@host
- 6: nick!\*user@host
- 7: nick!\*@host
- 8: nick!\*user@\*.host
- 9: nick!\*@\*.host

You can also specify a type of 10 to 19 which correspond to masks 0 to 9, but instead of using a \* wildcard to replace portions of the host, mIRC uses ? wildcards to replace the numbers in the address.

This standard set of masks is also used in other identifiers and commands.

#### \$me

Returns your current nickname.

## \$mnick

Returns your main nickname.

## \$nick(#,N/nick,aohvr,aohvr)

Returns Nth nickname in the channels nickname listbox on channel #.

Properties: color, pnick, idle

```
$nick(#mIRC,0) returns the total number of nicknames on #mIRC
$nick(#mIRC,1) returns the 1st nickname on #mIRC
```

Both **aohvr** parameters are optional. The first specifies which nicks you would like included, and the second specifies the nicks you would like excluded, where:

```
a = all nicks, o = ops, h = halfops, v = voiced, r = regular
```

\$nick(#mIRC,1,0) return the first op on #mIRC
\$nick(#mIRC,0,a,0) return the total number of nicks not including ops on #mIRC

The **pnick** property returns the nickname in a .@%+nick format.

The idle property returns the time the user has been idle on the specified channel, ie.

the time since the user last sent a message to the channel.

**Note:** See the \$prefix identifier for more information.

#### \$nickmode

Returns the channel nickname modes supported by the current server.

#### **\$notify**

Returns \$true or \$false depending on whether the notify list is on or off.

# \$notify(N/nick)

Returns the Nth nickname in your Notify list.

Properties: ison, note, sound, sound2, whois, addr, network

```
$notify(0) returns the number of nicknames in your notify list.
$notify(3) returns the 3rd nickname in your notify list.
$notify(3).ison returns $true if this user is on IRC, $false if not.
$notify(goat) returns the Nth position of nickname goat in the notify list.
$notify(3).addr returns the address associated with a notify nick if an IRC server supports this in notify replies or if the IAL is filled.
```

#### \$snicks

Returns a string of the currently selected nicknames in the active channel listbox in the form:

nick1,nick2,nick3,...,nickN

#### \$snick(#,N)

Returns the Nth selected nickname in the channel listbox on channel #.

```
$snick(#mIRC,0) returns the total number of selected nicknames on #mIRC
$snick(#mIRC,1) returns the 1st selected nickname on #mIRC
```

**Note:** If the N parameter is not specified, it returns a line containing all selected nicknames.

#### \$snotify

Returns the currently selected nickname in the notify list box.

# \$trust(N)

Returns the Nth item in the dcc trust list, or if N is 0 returns total number of items in list.

## 10.5.3

# **Text and Number Identifiers**

#### \$abs(N)

Returns the absolute value of number N.

```
$abs(5) returns 5
$abs(-1) returns 1
```

# \$and(A,B)

Returns A binary and B.

# \$asc(C)

Returns the ascii number of the character C.

```
$asc(A) returns 65
$asc(*) returns 42
```

## \$base(N,inbase,outbase,zeropad,precision)

Converts number N from inbase to outbase. The last two parameters are optional.

```
$base(15,10,16) returns F
$base(1.5,10,16) returns 1.8
$base(2,10,16,3) returns 002
```

#### \$biton(A,N)

Returns the A value with the Nth bit turned on.

## \$bitoff(A,N)

Returns the A value with the Nth bit turned off.

## \$bytes(N,bkmpgt3d)

Returns comma formatted file-size.

Properties: suf

The **bkmgt** options return the result as bytes, kilobytes, etc.

The **3** option returns a result in 3 digit format and overrides the other options.

The **d** option retains decimal point values.

The **.suf** property appends the b, k, M, G, T suffixes to the result.

## \$calc(operations)

Returns the result of the specified operations. This identifiers allows you to perform multiple operations easily. For example:

```
$calc(3.14159 * (2 ^ %x % 3) - ($ticks / (10000 + 1)))
```

# \$cbrt(N)

Returns the cube root of N.

#### \$ceil(N)

Returns N rounded to the next highest integer.

#### \$chr(N)

Returns the character with ascii number N.

```
$chr(65) returns A
$chr(42) returns *
```

# \$compress(file|&bvar, blNmN) \$decompress(file|&bvar)

Compresses the specified file or binary variable. Returns 1 for success, 0 for failure.

The **b** option indicates that the first parameter is a binary variable.

The **IN** option sets a compression level of 1 to 9 (default is 6).

The mN option sets the compression method, where N=1 is raw, N=2 is zlib (the default), and N=3 is gzip.

# \$cos(N), \$cosh(N), \$acos(N)

Return the cosine, hyperbolic cosine, and arccosine of N.

Properties: deg

# \$count(string,substring,substring2,...,substringN)

Returns the number of times substring occurs in string.

```
$count(hello,el) returns 1
$count(hello,l) returns 2
```

**Note:** \$countcs() is the case-sensitive version.

```
$encode(%var | &binvar, amubt, N)
$decode(%var | &binvar, amubt, N)
```

Encode or decode text in %vars or &binvars.

The second parameter consists of switches, where a = base32, m = mime, u = uucode (default), v = z85, b = &binvar, and t = text (default).

If encoding/decoding a &binvar, the identifiers return the actual number of characters written to the &binvar. Note that encoding uses more storage space than the original data.

The last two parameters are optional, default to uuencode, and N = 1.

If you want to retrieve the result in chunks, you can use the  $\bf N$  parameter to retrieve the Nth encoded chunk. N=0 returns the total number of chunks. This only applies when encoding. When decoding, one line of combined chunks must be decoded at once, so N=0 always return 1.

These identifiers also support blowfish encryption. The identifier format is:

```
$encode(%var | &binvar, switches, key, [salt | iv])
$decode(%var | &binvar, switches, key, [salt | iv])
```

Where the switches are:

```
method: c = cbc or e = ecb encryption (one or the other)
key: l = literal key (optional)
salt/iv: s = salt or i = iv or r = randomiv (all optional)
padding: z = zeros, n = one and zeros, p = spaces (all optional)
```

## \$floor(N)

Returns N rounded to the next lowest integer.

# \$gcd(N,N2,...)

Returns the greatest common divisor of a list of numbers.

#### \$hypot(N,M)

Returns the length of the hypotenuse.

#### \$int(N)

Returns the integer part of a floating point number with no rounding.

\$int(3.14159) returns 3

## \$intersect(x1,y1,x2,y2,x3,y3,x4,y4,method)

Returns the point at which two lines/rays intersect.

The method parameter is optional. If not specified, two lines are compared. If specified, it can be lr, rl, rr = line/ray, ray/line, ray/ray.

#### \$isbit(A,N)

Returns 1 if the Nth bit in number A is turned on.

## \$islower(text)

Returns \$true if text is all lower case.

# \$isnum(N,sd,I,J)

Returns true if N is a number, where s = allow +/- sign, d = allow decimal, and range is between I and J.

The switches and range parameters are optional.

#### \$isupper(text)

Returns \$true if text is all upper case.

# \$lcm(N,N2,...)

Returns the least common multiple of a list of numbers.

#### \$left(text,N)

Returns the N left characters of text.

\$left(goodbye,4) returns good

If N is a negative value, it returns all but N characters.

#### \$len(text)

Returns the length of text.

\$len(#mIRC) returns 5

# \$log(N), \$log2(N), \$log10(N)

Returns logarithms of N.

## \$longip(address)

Converts an IP address into a long value and vice-versa.

```
$longip(158.152.50.239) returns 2660774639
$longip(2660774639) returns 158.152.50.239
```

## \$lower(text)

Returns text in lowercase.

\$lower(HELLO) returns hello

# \$mid(text,S,N)

Returns N characters starting at position S in text.

\$mid(othello,3,4) returns hell

If N is zero, it returns the number of characters from S to the end of the line.

You may also use negative numbers for S or N.

# \$min(N)/\$max(N)

Return minimum/maximum of a list of values. Defaults to numbers.

**Properties:** .alpha, .alphacs, .alnum, .alnumcs, .nick.

If a single parameter is used, it is treated as a space-delimited list of values.

If two or more parameters are used, each is treated as a separate value.

#### \$not(A)

Returns the binary not value of A.

#### **\$or(A,B)**

Returns A binary or B.

#### \$ord(N)

Appends st, nd, rd, th as appropriate to the number N.

#### \$pi

Returns the value of the mathematical constant pi to 20 decimal places.

# \$pos(text,string,N)

Returns a number indicating the position of the Nth occurrence of string in text.

```
$pos(hello there,e,1) returns 2
$pos(hello there,e,2) returns 9
$pos(hello there,a,1) returns $null
```

If N is zero, it returns the number of times string appears in text.

Note: You can use \$poscs() for a case-sensitive version.

# \$powmod(B,E,M), \$modinv(B,M)

Returns the modular exponentiation, and inverse, of the base, exponent, and modulus.

# \$qt(text) \$noqt(text)

Add/remove outer enclosing quotes around text.

#### **\$rand(v1,v2)**

This works in two ways. If you supply it with numbers for v1 and v2, it returns a random number between v1 and v2. If you supply it with letters, it returns a random letter between letters v1 and v2.

```
$rand(a,z) returns a letter in the range a,b,c,...,z
$rand(A,Z) returns a letter in the range A,B,C,...,Z
$rand(0,N) returns a number in the range 0,1,2,...,N
```

Note: You can use \$rands() for a cryptographically secure random number.

# \$remove(string,substring,...)

Removes any occurrence of substring in string.

\$remove(abcdefg,cd) returns abefg

You can also specify **multiple** remove parameters:

\$remove(abcdefg,a,c,e,g) returns bdf

Note: You can use \$removecs() for a case-sensitive version.

#### \$replace(string,substring,newstring,...)

Replaces any occurrence of substring in string with newstring.

\$replace(abcdefg,cd,xyz) returns abxyzefg

You can also specify **multiple** replace parameters:

\$replace(abcdefg,a,A,b,B,c,C,d,D) returns ABCDefg

Note: You can use \$replacecs() for a case-sensitive version.

#### \$replacex(string,substring,newstring,...)

Replaces any occurrence of substring in string with newstring except for replacements that have already been made.

Note: You can use \$replacexcs() for a case-sensitive version.

#### \$right(text,N)

Returns the N right characters of text.

\$right(othello,5) returns hello

If N is a negative value, it returns all but N characters.

## \$round(N,D)

Returns the specified floating point number rounded to the Dth decimal digit.

\$round(3.14159,2) returns 3.14

The D parameter is optional.

## \$sin(N), \$sinh(N), \$asin(N)

Return the sine, hyperbolic sine, and arcsine of N.

Properties: deg

# \$sqrt(N)

Returns the square root of N.

#### \$str(text,N)

Returns text repeated N times.

\$str(ho,3) returns hohoho

# \$strip(text,buriecmo)

Returns text with bold, underline, reverse, italic, strikethrough, and color control codes stripped out.

The second parameter is optional, if used, it strips only the specified types of characters.

The m applies the strip settings in the <u>Messages</u> dialog, and the o applies the "only if..." settings in the messages dialog.

#### **\$stripped**

Returns the **number** of control codes that were stripped from an incoming message, if any. This can be used in any script event that triggers when a message is received from a user.

## \$tan(N), \$tanh(N), \$atan(N), \$atan2(N,M)

Return the tangent, hyperbolic tangent, and arctangent of N, and the arctangent of N/M.

Properties: deg

#### \$upper(text)

Returns text in uppercase.

\$upper(hello) returns HELLO

# \$utfencode/\$utfdecode(text)

Returns text UTF-8 encoded or decoded.

#### \$wrap(text, font, size, width, biptw, N)

Returns Nth line in text wrapped to the specified width in pixels.

Where **biptw** set the options for bold, italic, process control codes, process tabs, and use word wrap. Each of these can be followed by an N value of zero or one to indicate whether they are disabled or enabled respectively.

You can specify 0 for N to return the total number of wrapped lines.

# \$xor(A,B)

Returns A binary xor B.

#### 10.5.4

# **Time and Date Identifiers**

## **\$asctime(N,format)**

Returns the time and date in text format associated with the \$ctime time value.

\$asctime(793947600) returns the default text format for this time value \$asctime(hh:nn:ss) returns the current time in this format \$asctime(793947600,dd/mm/yy) returns the date for this time value

The identifiers \$time(), \$date(), and \$gmt() can also be used with the format specification below.

The format parameter is **optional**, if it is not provided, a default format is used. The format can be a combination of the following items:

Year	уу	99
	уууу	1999
Month	m	1
	mm	01
	mmm	Jan
	mmmm	January
Day	d	1
	dd	01
	ddd	Mon
	dddd	Monday
Hours	h	5
	hh	05
	Н	13
	HH	13
Minutes	n	1
	nn	01
Seconds	S	1
	SS	01
AM/PM	t	a/p
	tt	am/pm
	Т	A/P
	TT	AM/PM
Ordinal	00	st/nd/rd/th
Timezone	Z	+0
	ZZ	+0000
	ZZZ	+0000 GMT

Note: You can specify both the N and format parameters, or only one or the other.

# \$ctime

Returns total number of seconds elapsed since 00:00:00 GMT, January 1, 1970 based on

your system time.

# \$ctime(text)

Returns the number of seconds elapsed since 00:00:00 GMT, January 1, 1970 based on the date that you specify.

```
$ctime(January 1 1970 00:00:00)
$ctime(3rd August 1987 3:46pm)
$ctime(21/4/72 1:30:37)
$ctime(Wed 1998-3-27 21:16)
```

#### \$ctimer

Returns name of /timer that triggered the current script.

# \$date

Returns the current date in day/month/year format.

For the date in US format you can use \$adate.

#### \$day

Returns the name of the current day ie. Monday, Tuesday, etc.

#### \$daylight

Returns seconds offset if daylight savings is in effect, and 0 if not.

# \$duration(seconds,N)

Returns the specified number of seconds in a week/day/hour/minute/second format.

The N parameter is optional. If N = 2, the result does not include the seconds value. If N = 3, the result is in hh:nn:ss format.

Note: This identifier can also take its own output and change it back into seconds.

#### \$fulldate

Returns the current date in the format: Wed Jun 26 21:41:02 1996

#### \$amt

Returns the current GMT time value in \$ctime format.

#### \$idle

Returns your current idle time (same time as that returned by a ctcp finger).

# \$logstamp

Returns the current time based on the logging timestamp format as defined in the logging dialog.

#### \$logstampfmt

Returns the logging timestamp format as defined in the logging dialog.

# \$Itimer

Returns the timer id of the last timer that was started by the /timer command.

#### **\$online / \$onlineserver / \$onlinetotal**

Returns the number of seconds elapsed in the **Online Timer** dialog.

#### \$ticks

Returns the number of ticks since your operating system was first started.

#### \$ticksqpc

Returns the number of ticks since your operating system was first started using a high resolution tick counter.

#### \$time

Returns the current time in hour:minute:second format.

#### \$timer(N/name)

Returns the timer id of the **Nth** timer in the timers list. You can also specify a timer **name** instead of a number. This identifier works in conjunction with the <u>/timer</u> command.

**Properties:** com, time, reps, delay, type, secs, mmt, anysc, wid, cid, hwnd, pause, name

```
$timer(0) returns the number of active timers
$timer(1) returns the timer id of the 1st timer in the list
$timer(1).com returns the command for the 1st timer in the list
$timer(3).type returns online/offline status for the 3rd timer in the list
$timer(3).secs returns number of seconds left before timer is triggered
$timer(3).mmt returns $true if timer is a multimedia timer
$timer(3).anysc returns $true if the /timer -i switch was specified
```

**Note:** The **name** property treats the specified parameter as a timer name (in case the name is a number) and returns the timer N position.

#### \$timestamp

Returns the current time based on the event timestamp format as defined in the <u>message</u> dialog.

#### \$timestampfmt

Returns the event timestamp format as defined in the message dialog.

#### \$timezone

This returns your current timezone setting in seconds.

## \$uptime(mirc | server | system, N)

Returns uptime in milliseconds for specified item.

N is optional, N = 1 returns same format as duration(), N = 2 returns same format as duration() but without seconds, and N = 3 returns seconds instead of milliseconds.

## 10.5.5

# **Token Identifiers**

\$addtok(text,token,C)

Adds a token to the end of text but only if it is not already in text.

```
$addtok(a.b.c,d,46) returns a.b.c.d
$addtok(a.b.c.d,c,46) returns a.b.c.d
```

The **C** parameter is the ascii value of the character separating the tokens.

Note: \$addtokcs() is the case-sensitive version.

# \$deltok(text,N-N2,C)

Deletes the Nth token from text.

```
$deltok(a.b.c.d,3,46)returns a.b.d
$deltok(a.b.c.d,2-3,46) returns a.d
```

You can specify a negative value for N.

# \$findtok(text,token,N,C)

Returns the position of the Nth matching token in text.

```
$findtok(a.b.c.d,c,1,46) returns 3
$findtok(a.b.c.d,e,1,46) returns $null
```

If you specify **zero** for N, it returns the total number of matching tokens.

**Note:** \$findtokcs() is the case-sensitive version.

## \$gettok(text,N,C)

Returns the Nth token in text.

```
$gettok(a.b.c.d.e,3,46) returns c
$gettok(a.b.c.d.e,9,46) returns $null
```

You can also specify a range of tokens:

```
$gettok(a.b.c.d.e,2-,46) returns 2nd token onwards b.c.d.e
$gettok(a.b.c.d.e,2-4,46) returns tokens 2 through 4 b.c.d
```

You can specify a negative value for N.

# \$instok(text,token,N,C)

Inserts token into the Nth position in text, even if it already exists in text.

```
$instok(a.b.d,c,3,46) returns a.b.c.d
$instok(a.b.d,c,9,46) returns a.b.d.c
```

You can specify a negative value for N.

#### \$istok(text,token,C)

Returns \$true if token exists, otherwise returns \$false.

**Note:** \$istokcs() is the case-sensitive version.

#### \$matchtok(tokens,string,N,C)

Returns tokens that contain the specified string.

```
$matchtok(one two three, e, 0, 32) returns 2
$matchtok(one two three, e, 2, 32) returns three
```

If you specify **zero** for N, it returns the total number of matching tokens.

Note: \$matchtokcs() is the case-sensitive version.

#### \$numtok(text,C)

Returns number of tokens in text.

# \$puttok(text,token,N,C)

Overwrites the Nth token in text with a new token.

```
$puttok(a.b.c.d,e,2,46) returns a.e.c.d
```

You can specify a negative value for N.

## \$remtok(text,token,N,C)

Removes the Nth matching token from text. If N = 0, applies to all matching items.

```
$remtok(a.b.c.d,b,1,46) returns a.c.d
$remtok(a.b.c.d,e,1,46) returns a.b.c.d
$remtok(a.c.c.d,c,1,46) returns a.c.d
```

**Note:** \$remtokcs() is the case-sensitive version.

## \$reptok(text,token,new,N,C)

Replaces the Nth matching token in text with a new token. If N = 0, applies to all matching items.

```
$reptok(a.b.c.d,b,e,1,46) returns a.e.c.d
$reptok(a.b.c.d,f,e,1,46) returns a.b.c.d
$reptok(a.b.a.c,a,e,2,46) returns a.b.e.c
```

**Note:** \$reptokcs() is the case-sensitive version.

#### \$sorttok(text,C,ncra)

Sorts the tokens in text.

```
$sorttok(e.d.c.b.a,46) returns a.b.c.d.e
$sorttok(1.3.5.2.4,46,nr) returns 5.4.3.2.1
```

The default is an alphabetic sort, however you can specify n = numeric sort, c = channel nick prefix sort, r = reverse sort, a = alphanumeric sort.

**Note:** \$sorttokcs() is the case-sensitive version.

#### \$wildtok(tokens,wildstring,N,C)

Returns the Nth token that matches the wildcard string.

\$wildtok(one two three, t\*, 0, 32) returns 2 \$wildtok(one two three, t\*e, 1, 32) returns three

If you specify **zero** for N, it returns the total number of matching tokens.

Note: \$wildtokcs() is the case-sensitive version.

#### 10.5.6

# **Window Identifiers**

#### **\$active**

Returns the full name of the currently active window.

**Note:** This identifier also has a multi-server counterpart.

#### **\$activewid**

Returns window id for the currently active window.

#### \$appactive

Returns **\$true** if mIRC is the active application, otherwise it returns **\$false**.

## \$appstate

Returns the display state of the mIRC window: minimized, maximized, full, normal, hidden, or tray.

#### \$chan(N/#)

Returns information on channels that you are currently on.

**Properties:** topic, mode, key, limit, ial, logfile, stamp, status, inwho, wid, cid, hwnd, ibl, iel, iil, iql, idle

If you specify a number N, the Nth channel name is returned.

\$chan(0) returns the number of channels you are on schan(2) returns the name of the 2nd channel you are on \$chan(2).key returns the key of the 2nd channel you are on

\$chan(4).ial returns \$true if <u>Internal Address List</u> contains addresses of all users on this channel, \$false if it does not.

\$chan(4).inwho returns \$true if you sent a /who #channel to the server to fill the IAL with addresses from that channel, and the /who is still in progress.

\$chan(1).ibl/iel/iil/iql return \$true if mIRC has already seen a **/mode +b/e/I/q** and has a ban/exception/invite/quiet list for the channel, \$false otherwise. If in the process of retrieving a list, return \$inmode. See the \$\frac{\sibl()}{2}\$ identifier for more information.

If you specify a channel name, information on that channel is returned but only if you are on that channel.

\$chan(#mIRC).mode returns the mode of channel #mIRC

The **status** property returns the value joining, joined, or kicked.

## \$chat(N/nick[,N])

Returns the name of the Nth open dcc chat window.

Properties: ip, status, logfile, stamp, wid, cid, hwnd, idle

```
$chat(0) returns the total number of open dcc chats
```

\$chat(1) returns the nickname of the 1st dcc chat window

\$chat(2).ip returns the ip address of the 2nd open dcc chat window

If you specify a nick and N, it will return info on the Nth window for that nick.

## \$compact

Returns the normal/compact status of the main mIRC window.

#### \$dqwindow

Returns the state of the single message window. When used in on TEXT/ACTION events, it also returns opening/writing/written states.

```
echo State: $iif($dqwindow & 1,enabled,not enabled)
echo State: $iif($dqwindow & 2,open,not open)
echo State: $iif($dqwindow & 4,opening,not opening)
```

echo State: \$iif(\$dqwindow & 4,0pening,not opening) echo State: \$iif(\$dqwindow & 8,writing,not writing) echo State: \$iif(\$dqwindow & 16,written,not written)

#### \$fserve(N/nick,[N])

Returns the name of the Nth open fileserver window.

Properties: ip, status, cd

```
$fserve(0) returns the total number of open fserves
$fserve(1) returns the nickname of the 1st fserve
$fserve(1).cd returns the current directory of the 1st fserve
```

If you specify a nick and N, it will return info on the Nth window for that nick.

#### \$fullscreen

Returns 1 if an application is currently running in full screen mode, 0 if not. This applies to both game and non-game applications.

## \$get(N/nick,[N])

Returns the nickname and filename of the Nth open dcc get window.

**Properties:** ip, status, file, path, size, rcvd, cps, pc, secs, done, resume, wid, cid, hwnd, idle

```
$get(0) returns the total number of open dcc gets

$get(2) returns the nickname of the 2nd dcc get

$get(2).rcvd returns the number of bytes received for the 2nd dcc get

$get(2).cps returns the character per second rate for the 2nd dcc get

$get(3).pc returns the percent complete of transfer for the 3rd dcc get
```

```
$get(1).secs returns the number seconds connection has been open
$get(1).done returns $true if transfer was successful, $false otherwise
$get(1).resume returns resume position if file was resumed
```

If you specify a nick and N, it will return info on the Nth window for that nick.

\$get(1).status returns "sent" and "failed" if a transfer has been sent successfully or failed.

#### \$lactive

Returns full window name of the last active window.

#### \$lactivewid

Returns window id for the last active window.

#### \$query(N/nick)

Returns the nickname of the Nth open query window.

Properties: addr, logfile, stamp, wid, cid, hwnd, idle

```
$query(0) returns the total number of open query windows $query(2) returns the name of the 2nd open query window
```

\$query(N).addr returns the address of the Nth query, however note that this address is not available until after the user has sent you a message, and that this address **might not** be correct.

#### \$send(N/nick[,N])

Returns the nickname and filename of the Nth open dcc send window.

**Properties:** ip, status, file, path, size, sent, Ira, cps, pc, secs, done, resume, wid, cid, hwnd, idle

```
$send(0) returns the total number of open dcc sends
$send(2) returns the nickname of the 2nd dcc send
$send(2).sent returns the number of bytes sent for the 2nd dcc send
$send(2).lra returns the last received ack for the 2nd dcc send
$send(3).pc returns the percent complete of transfer for the 3rd dcc send
$send(3).status returns active, inactive, or waiting for the 3rd dcc send
$send(1).secs returns the number seconds connection has been open
$send(1).done returns $true if transfer was successful, $false otherwise
$send(1).resume returns resume position if file was resumed
```

If you specify a nick and N, it will return info on the Nth window for that nick.

#### \$wid

Returns window id for current script.

#### 10.5.7

# Other Identifiers

## \$+(n1,...,nN)

Combines all of the specified parameters, the same as using \$+ in between each item.

## \$?\*!="message"

Prompts the user for input and returns the result.

```
//echo $?="What is your name?"
```

If the user enters their name in the editbox and presses the OK button, \$? will return whatever the user entered. If the user clicks on the Cancel button, \$? returns nothing.

```
//echo $?*="What is your password?"
```

In this case the \$?\* makes any text that the user types into the editbox appear as \*\*\*\*\* characters to prevent anyone seeing what is being entered.

```
//echo $?!="Shall I continue?"
```

In this case, a Yes/No dialog pops up. If the user clicks on Yes, \$true is returned, otherwise \$false is returned.

The input dialog is extended vertically to display the whole message if it is very long. You can also make text appear on different lines by using the \$crlf identifier to separate the lines, eg.

//echo \$?="This is on the first line. \$crlf \$+ And this is on the 2nd line."

**Note:** This identifier cannot be used in a script event. One way around this is to use a /timer to initiate an input request after the script ends.

#### \$ansi2mirc(text)

Returns text with the ANSI codes converted into mIRC color codes.

#### \$away

Returns the value **\$true** or **\$false** depending on whether you are marked as away or not.

You can also use **\$awaymsq** and **\$awaytime** to return your current away settings.

## \$caller

Returns the type of feature that directly called the current command or identifier.

The type can be: activex, command, dde, dll, dragdrop, editbox, event, funckey, identifier, menu, mouse, play, sendmsg, tabcomp, timer, or other.

#### \$cb

Returns the clipboard contents.

#### \$cb(N,u,%var|&binvar)

Returns \$crlf delimited lines from text currently in the clipboard.

if **N** is -1, stores entire clipboard.

If the **u** parameter is specified, returns UTF-8 encoded text.

The **%var|&binvar** parameters are optional. If specified, results are stored in them and the identifier returns the length of the text.

## Properties: len

\$cb(0) returns the number of lines in the clipboard \$cb(0).len return the total length of all lines in the clipboard \$cb(1) returns line 1 from the clipboard

\$cb(1).len returns the length of line 1

# **\$chantypes**

mIRC supports numeric 005 token CHANTYPES, and can handle a dynamic set of channel prefixes. \$chantypes returns the list of channel prefixes which can be joined. When **not connected** to a server, mIRC uses a default \$chantypes value of CHANTYPES=#&.

#### \$chanmodes

mIRC supports numeric 005 token CHANMODES, and can handle a dynamic set of channel modes. The \$chanmodes identifier returns the list of supported channel modes. When **not connected** to a server, mIRC uses a default \$chanmodes value of CHANMODES=bIe,k,l.

#### \$cmdbox

Returns \$true if a command or script was initiated via the command editbox in a channel window.

#### \$cmdline

Returns the command line that was passed to mIRC when it was first run.

#### \$codepage(N)

Returns the list of available codepages on your system.

Properties: name, desc, id

# \$color(name/N)

Returns the Nth color index of the specified color name eg. \$color(action text). If you do not specify the full name the first partial match is returned eg. \$color(action)

If you specify an N value, returns the RGB value for the Nth color box.

# Properties: dd

\$color(action).dd returns number in double-digit format

# \$comchar

Returns the command prefix character.

#### \$cr

Returns the **carriage return** character, the same as \$chr(13).

#### \$creq

Returns current /creq settings in the DCC Options chat section dialog.

#### \$crlf

Returns a carriagereturn/linefeed combination.

#### \$dccignore

Returns \$true if ignore types is turned on in the <u>DCC</u> Folders dialog, otherwise returns \$false.

# \$dccignore(N/filename)

Returns the Nth item in the dcc ignore types editbox in the DCC Folders dialog.

If n is zero, returns number of items in list, otherwise returns Nth item in list. If a filename is specified, returns \$true if it matches item in list, otherwise \$false.

#### **\$dccport**

Returns the port being used by the DCC Server.

# \$dll(name.dll,procname,data)

Returns the value resulting from a call to a DLL designed to work with mIRC.

#### \$ebeeps

Returns \$true if sounds are enabled in the Sounds dialog.

# \$editbox(window,N)

Returns the text in the editbox of the specified window. If N = 1, returns the text in the second editbox in a channel window, if it is open.

Properties: selstart, selend

## \$emailaddr

Returns the email address specified in the Connect dialog.

# \$eval(text,N)

Evaluates the contents of text N times. If N is not specified, the default is N = 1. If N is zero, text is not evaluated.

This allows you to recursively evaluate identifiers and variables in a line of text.

#### **\$eventparms**

Returns the event-specific parameters passed to an executed command in a script.

# \$envvar(name|N)

Returns environment variables. If N is zero, returns total number of environment variables.

Properties: name, value

#### **\$exiting**

Returns 0, or 1 if mIRC is in the process of exiting, and 2 if mIRC is exiting and restarting.

#### \$font(N/Name)

Returns the list of available fonts on the system.

Properties: size, pitch, type

#### \$fromeditbox

Returns \$true/\$false if command or identifier was called directly from an editbox.

#### \$fullname

Returns the full name specified in the Connect dialog.

# \$hash(text,B)

Returns a hash number based on text where B is the number of bits to use when calculating the hash number.

## \$highlight

Returns \$true if highlighting is turned on in the <u>Highlight</u> dialog, otherwise returns \$false.

# \$highlight(N/text)

Returns the Nth line in the highlight listbox, or if text is specified, returns the properties for the highlight line that matches text.

Properties: text, color, sound, flash, message, nicks, regex, cs, chans

# \$hmac(text|&binvar|filename, key, hash, N)

Returns an HMAC (keyed-Hash Message Authentication Code) based on the supplied key where hash = md5, sha1 (default), sha256, sha384, or sha512, and N=0 for plain text (default), 1 for &binvar, 2 for filename.

#### \$host

Returns your Local host name.

## \$hotp(key, count, hash, digits)

Returns an HOTP (HMAC-based One-Time Password) based on the specified parameters.

The key is required and can be in a hex format of 40/64/128/256 chars, base32 format of 16/26/32 chars, or plain text. It can also be in a Google Authenticator format ie. lowercase with spaces.

The hash can be md5, sha1, sha256, sha384, sha512.

The digits can range from 3 to 10.

The count is required, and hash and digits are optional and default to sha1 and 6.

#### \$iif(C,T,F)

Returns T or F depending on whether the evaluation of the Conditional C is true or false.

```
siif(1 == 2, yes, no) returns "no"
```

\$iif() returns F if the conditional returns zero, \$false, or \$null. For any other value \$iif() returns T.

If you do not specify the F parameter, \$iif returns a T value if the condition is true, and returns nothing if it is false.

```
$iif(1 == 2, yes)$ returns nothing
```

You can find out more about conditionals in the if-then-else section.

## \$ifmatch

Returns the first parameter of matching if-then-else comparison.

In the case of this comparison:

```
if (text isin sometext) { ... }
```

\$ifmatch returns "text"

# \$ignore(N/address)

Returns the Nth address in the ignore list.

# Properties: type, secs

```
$ignore(0) returns the total number of addresses in the ignore list
$ignore(1) returns the 1st address in the ignore list
$ignore(2).type returns the ignore flags for the 2nd address in the ignore list
$ignore(2).secs returns number of seconds until ignore is removed if /ignore -uN
was used
```

**Note:** If you specify an address, the first matching address in the ignore list is returned.

#### \$inpaste

Returns \$true if a user typed **Control+V** or **Shift+Insert** to paste text into an editbox, mainly useful when processing an <u>on INPUT</u> event.

## \$input(prompt,options,window,title,text)

Prompts the user for input and returns the result.

The input dialog is extended vertically to display the prompt message if it is very long. You can also make text in the prompt message appear on different lines by using the \$crlf identifier to separate lines.

Options can be a combination of the following:

- e show input editbox
- p show input password editbox
- o ok button
- y yes no buttons
- n yes no cancel buttons
- r retry cancel buttons
- v return \$ok, \$yes, \$no, \$cancel for buttons
- g right-align buttons
- b disables buttons for a second when dialog is displayed
- f return \$no/\$cancel for edit/combo boxes if no/cancel is pressed

By default, buttons return \$true or \$null, same as \$?. If there is an input editbox, the ok/yes buttons always return the contents of the editbox.

iqwhtc - show the info, question, warning, halt, start, and bin icons respectively. d - play system sound associated with icon.

s - indicates that window name has been specified

a - activate dialog

u - use current active window as parent window

x - opens the dialog on the desktop

kN - an N second timeout value. On timing out, \$timeout is returned if  $\mathbf{v}$  is specified, no value if  $\mathbf{e}$  is specified, and \$false otherwise.

m - indicates that multiple text parameters have been specified. They will be displayed in a combobox. The first text item is the default item (a reference to an item in the list), the rest are the items in the list.

window - name of the window to be used as parent window.

title - the titlebar text.

text - the default text placed in the input editbox.

The options, window, title, and text are optional parameters.

**Note:** This identifier cannot be used in a script event. One way around this is to use a /timer to initiate an input request after the script ends.

#### \$ip

Returns your IP address.

## \$isadmin

Returns \$true if mIRC is running in an elevated, administrator state, otherwise \$false.

#### \$isalias(name,[N])

Returns \$true if the specified name is an alias command that exists in your aliases or scripts.

Properties: fname, alias, ftype

\$isalias(join) returns \$true if you have an alias for /join \$isalias(join).fname returns the filename in which the alias exists \$isalias(join).alias returns the alias definition for /join \$isalias(join).ftype returns alias or remote

**Note:** The N parameter is optional and returns the Nth line in a multi-line alias when used with the .alias property.

#### \$isid

Returns \$true if an alias was called as an identifier, otherwise \$false.

#### \$If

Returns the **linefeed** character, the same as \$chr(10).

### \$lock(item/#/N)

Returns \$true or \$false for the lock settings on items in the Lock dialog.

Properties: startup, send, get, chat, query, fserve, channels, tray, tips

You can also use \$lock(N) where N returns the Nth channel in the limit channels listbox, or you can specify a channel name instead of N.

#### \$locked

Returns \$true if mIRC is currently locked.

### \$maxlens, \$maxlenm, \$maxlenl

Return the maximum lengths for small, medium, and large strings used in mIRC.

**Note:** Although it is possible in some situations, eg. when assigning values to variables, to store slightly longer strings, the values returned by the above identifiers should be treated as maximums.

### \$md5(text|&binvar|filename,[N])

Returns md5 hash value for the specified data, where N=0 for plain text (default), 1 for &binvar, 2 for filename.

#### \$mircpid

Returns mIRC's process id.

#### \$modespl

mIRC supports numeric 005 token MODES.

\$modespl returns the **maximum** number of parameters allowed per /mode, eg. if \$modespl is equal to 5, you can use /mode +ooooo to set five modes at a time.

### \$msgstamp

Returns UTC timestamp for a server message that has an IRCv3 @time prefix tag, such as when CAP server-time or znc.in/server-time[-iso] are enabled on a server.

#### \$msqtaqs

mIRC removes @ prefixed tags (IRCv3 message tags) from incoming server messages and stores them in the \$msgtags identifier.

### \$msgtags(tag|N)

Returns the individual tags listed in the msgtags identifier, where N=0 returns number of tags.

Properties: tag, key

## **\$network**

Returns the name of the IRC network you are currently connected to.

**Note:** It may not be possible to get this information if a network does not provide it.

\$os

Returns the version number of the operating system. The reply can be XP, 2003, 2003R2, Vista, 2008, 7, 2008R2, 8, 2012, 8.1, 2012R2, 10, 11, 2016, 2019, or 2022.

Properties: major, minor, build, platform, type, spmajor, spminor, suite

#### \$parms

Returns an untokenized \$1- for events and other command/identifier calls.

#### **\$passivedcc**

Returns \$true if passive dcc is enabled in the DCC Options dialog.

#### **\$port**

Returns the **port number** of the server to which you are currently connected.

### **\$portable**

Returns \$true or \$false depending on whether mIRC was run as portable.

### **\$prefix**

mIRC supports numeric 005 token PREFIX, and can handle a dynamic set of channel nickname prefixes.

\$prefix returns the list of channel nickname prefixes ie. op, halfop, voice, etc. that are supported on a server.

When **not connected** to a server, mIRC uses a default \$prefix value of PREFIX=(ohv)@%+.

#### \$result

Stores the number value returned to a calling routine by the **/return** command.

#### \$server

Returns the name of the server to which you are currently connected.

If you are not currently connected to a server, it returns \$null.

### \$server(N/address,[group])

Returns the address of the Nth server in your irc servers list.

**Properties:** desc, port, group, pass, method, methodpass, keytype, key, itype, nick, anick, user, email, encoding

\$server(0) returns the total number of servers in the servers list

\$server(2) returns the address of the 2nd server

\$server(2).desc returns the description of the 2nd server \$server(3).port returns the port(s) of the 3rd server

If you specify an irc server address and it is in your servers list, returns its associated info.

If you specify the group parameter, returns only servers in that group. If N=0, returns total servers in group.

**Note:** If N=-1 is used, it returns values for the active status window.

### \$serverip

Returns server IP address.

#### \$servertarget

Returns the address specified in the /server command whether you are connected to the server or not.

#### \$sha1(text|&binvar|filename,[N])

Returns sha1 hash value for the specified data, where N=0 for plain text (default), 1 for &binvar, 2 for filename.

**Note:** You can also use \$sha256(), \$sha384(), and \$sha512() to generate the corresponding hashes using the above format.

#### \$show

Returns \$false if a command is prefixed with a . to make it quiet, otherwise returns \$true.

#### \$sreq

Returns current /sreq settings in the DCC Options send section dialog.

#### \$ssl

Returns \$true if the current server connection is using SSL.

# \$sslhash(method, type)

Returns the client or server certificate fingerprint, where **method** can be md5, sha1, sha256, sha512, ecdsa, and **type** can be **p** for the client certificate and **s** for the server certificate.

Properties: babble, colons

#### \$sslcertvalid

Returns \$true if the SSL certificate is valid for the current SSL connection.

### **\$ssIready**

Returns \$true if mIRC is ready to make secure connections using SSL.

#### \$sslversion, \$ssldll, \$ssllibdll

Return information regarding the version and file locations of the SSL library being used.

#### \$starting

Returns 0, or 1 if mIRC is in the process of starting up.

#### \$status

Returns server connection status.

**Note:** This returns **closing** during the <u>on DISCONNECT</u> event if the status window being closed is the cause of the disconnection.

#### **\$titlebar**

Returns the text in the mIRC titlebar, set by the <u>/titlebar</u> command.

### \$totp(key, time, hash, digits, timestep)

Returns a TOTP (Time-based One-time Password) based on the specified parameters.

The key is required and can be in a hex format of 40/64/128/256 chars, base32 format of 16/26/32 chars, or plain text. It can also be in a Google Authenticator format ie. lowercase with spaces.

The time is a unix timestamp, such as that returned by \$ctime.

The hash can be md5, sha1, sha256, sha384, sha512.

The digits can range from 3 to 10.

The timestep can range from 1 second to 48 hours.

The time, hash, digits, and timestep are optional and default to \$ctime, sha1, 6, and 30.

### \$unsafe(text)

This identifier is designed to be used with, for example, external user input in commands that may evaluate text later on, such as /timer commands. It delays evaluation of text for one level of evaluation.

#### **\$url**

Returns the currently active URL in your web browser.

### \$url(N)

Returns the Nth address in your URL list.

#### Properties: desc, group

```
$url(0) returns the total number of items in the URL list
$url(2) returns the address of the 2nd item in the list
$url(2).desc returns the description of the 2nd item in the list
$url(3).group returns the group of the 3rd item in the list
```

### \$urlget(url,hgpuadfbrtikce,target,alias,headers,body)

Downloads content from specified http/https address. Returns id number. Calls alias with id number as parameter when transfer completes.

```
url = http/https://user:pass@address:port/file?parameters
```

```
options =
  hgpuad = head, get, post, put, patch, or delete
  fb = file or &binvar
  r = resume
  t = use .part file
  i = ignore SSL errors
  k = prevent redirects
  c = cancel
  e = save errors, such as 404 replies, to file or &binvar
target = file or &binvar
alias = called on completion
```

headers = &binvar body = &binvar

If the call fails, for any reason, it returns an id of zero.

**\$urlget(N/id)** can be used with properties: url, redirect, method, type, target, alias, id, state, size, resume, rcvd, time, reply

#### **\$usermode**

Returns your current usermode on the irc server.

#### **\$version**

Returns the version of mIRC that is being used.

## 10.6

# **Agents**

mIRC supports Microsoft Agent either through scripting or through the <u>Agents</u> section in the options dialog. An **agent** is an animated character that can speak text and perform actions.

You can find links to related websites and resources, as well as download information, on the mIRC website.

# **Agent commands**

The following commands allow you to manipulate agents, to make them speak, play animations, and more.

### /gload <-h> <name> <filename | N | default>

You must use /gload to load an agent before you can use it.

The **name** you give an agent is the name you will use to refer to it in all of the other commands and identifiers.

You can load an agent either by specifying its **filename**, if you know it, or by loading the **Nth** installed agent on your system, or by specifying **default**, which will load the default agent for your system.

If you specify the **-h** switch, mIRC will hide the agent whenever mIRC is minimized. You can also use the **-h** switch with the other agent commands to prevent them from popping the agent when mIRC is minimized and has the **-h** setting.

**Note:** You cannot load more than one of the **same** agent. You can however load as many **different** agents as you want.

### /gunload <name>

This unloads the specified agent. The **name** is the name you gave your agent when you loaded it with /gload, not the filename of the agent.

### /gshow <name> [x y]

This shows an agent in its most recent or default position, or at the specified x y position.

# /ghide <name>

This hides an agent.

### /gmove <name> <x> <y> [speed]

This moves an agent to the <x> and <y> position on your screen. If a speed is not specified, it uses a default speed. If you specify a speed of 0, it moves instantly to the new position.

#### /gsize <name> <w> <h>

This resizes an agent to the specified width and height.

### /gtalk -kwlu <name> <text | <wavefile | text>>

This makes an agent speak the specified text.

If you want the agent to **think** the text in a balloon without speaking it, you can use the **-k** switch.

If you want the agent to play a **wave** sound file, you can use the **-w** switch, and specify a wave **filename**. You should also specify **text** after the filename, the agent will show it in a balloon while playing the wave sound.

The -I switch applies the lexicon settings in the lexicon dialog to the text.

The **-u** switch applies the speech settings in the speech options dialog.

### /gplay <name> <anim | N> [timeout]

This makes an agent play one of its animations.

You can either specify the name **anim** of an animation, if you know it, or ask it to play the **Nth** animation.

Some animations are **looping** animations, which repeat continuously, and prevent an agent from doing anything else until you **/gstop** the agent. The **[timeout]** value allows you to specify a timeout for an animation after which it is **automatically** stopped, and the agent will then perform any **remaining** queued requests. If you do not specify a timeout value, the default is **5 seconds**. If no play or talk requests are pending, the looping animation continues beyond the timeout until there are.

### /gpoint <name> <x y>

This makes an agent point towards the specified  $\langle x \rangle \langle y \rangle$  screen position.

# /gstop -c <name> [talk play]

This stops an agent from doing what it is currently doing, and removes all queued requests for the agent.

If you wish to only stop the **current** action, you can use the **-c** switch.

If you wish to stop only **talk** or only **play** requests, you can specify talk or play.

**/gopts -bieqnh <name> <on off size pace hide nosize nopace nohide langid>** This sets various options relating to how the agent behaves.

The **-b** switch turns balloons **on** or **off**. You can also specify **size** to make the balloons fit the text being spoken, **pace** to display text word by word as it is being spoken, and **hide** to hide the balloons when no text is being spoken.

The -i switch turns idle effects on or off.

The **-e** switch turns sound effects **on** or **off**.

The **-n** switch allows you to set a language id, where **langid** is the hex id value.

The **-h** switch turns the auto-hide feature **on** or **off** (see /gload for more info).

### /gqreq <on | off>

By default mIRC queues all requests and plays them one after the other to ensure that even if you use multiple agents at the same time, all messages will be heard, and all agents will act in the order that you requested. You can turn queuing on/off on the fly.

### **Agent Identifiers**

The following identifiers allow you to access information about an agent that is currently loaded.

#### \$agentver

Returns the version of the Agent installed on your system, 0 if not installed.

#### \$agentstat

Returns 1 if Agent is ready, or 0 if busy or speaking.

#### \$agentname

Returns the name of the agent in an on AGENT event.

### \$agent(N).char

Returns the filename of the Nth available agent installed on your system.

If you specify 0, returns total number of installed agents.

#### \$agent(name)

Returns information about a currently loaded agent.

**Properties:** name, fname, visible, x, y, w, h, ow, oh, speed, pitch, idle, effects, active, langid, balloon, hide

the name you gave to this agent name the filename of the agent or default fname visible returns \$true or \$false left/top position, width/height. x,y,w,h original width/height ow, oh speaking speed speed speaking pitch pitch idle if idle behaviour is on or off

effects if sound effects are on or off active if this agent is active/topmost

langid language id of system

balloon current setting: on off size pace hide

hide returns auto-hide setting

### \$agent(name,N)

Returns information on animations and gueued lines for an agent.

Properties: anim, line

anim returns the names of the animations available for this agent.

If you specify N, returns the name of the Nth animation. If you specify 0, returns the total number of animations.

line returns the list of lines currently queued for talking for this character.

If you specify N, returns the Nth line.

If you specify 0, returns total number gueued lines.

### Tags in spoken text

You can use tags in <text> in /gtalk which may be recognized by the text-to-speech engine, these are a few:

\spd=n\ set speed of spoken text \pit=n\ set pitch of spoken text \vol=n\ set volume of spoken text

\chr="text"\ where text is normal, monotone, or whisper \ctx="text"\ where text is address, email, unknown

\emp\ emphasize next word

\pau=n\ pause speech nnn milliseconds

\rst\ reset settings to default

#### \$notags(text)

Removes the above tags from text. Only tags that are valid and correctly written as above are removed.

#### 10.7

# **Binary Files**

mIRC allows you to read and write **binary files**, and to modify binary variables, by using the following commands and identifiers.

### /bread [-ta] <filename> <S> <N> <&binvar>

This reads N bytes starting at the Sth byte position in the file and stores the result in the binary variable &binvar.

The **-t** switch reads data up to the next CR/LF.

The -a switch disables UTF-8 encoding of characters in the range 0-255, as long as the line contains no characters > 255.

**Note:** the Sth byte position starts at zero.

### /bwrite [-tac] <filename> <S> [N] <text|%var|&binvar>

This writes N bytes from the specified text, %var, or &binvar, to the file starting a the Sth byte position. Any existing information at this position in the file is overwritten. If S is -1, the bytes are appended to the end of the file. If N is -1, all of the specified data is written to the file.

The **-t** switch interprets the data value as plain text and does not evaluate &binvar variables.

The -a switch disables UTF-8 encoding of characters in the range 0-255, as long as the line contains no characters > 255.

The **-c** switch chops the file at the end of the copied bytes.

Note: the Sth byte position starts at zero.

**Note:** if specifying a %var, it should be passed as % \$+ var, to prevent double evaluation, as /bwrite reads directly from the variable in order to preserve spaces.

### /bset [-tacz] <&binvar> <N> <asciivalue> [asciivalue ... asciivalue]

This sets the Nth byte in binary variable &binvar to the specified ascii value. If N is -1, the values are appended.

If you try to /bset a variable that does not exist, it is created and zero filled up to N bytes. If &binvar exists and you specify an N position beyond its current size, it is extended to N bytes.

If you specify **multiple** asciivalues, they are copied to successive positions after byte position N.

The **-t** switch indicates that /bset should treat the values as plain text and copy them directly into &binvar.

The -a switch disables UTF-8 encoding of characters in the range 0-255, as long as the line contains no characters > 255.

The -c switch chops &binvar at the end of the copied bytes.

The **-z** switch creates an empty &binvar or zeros an existing one.

### /bunset <&binvar> [&binvar ... &binvar]

This unsets the specified list of &binvars.

## /bcopy [-zc] <&binvar> <N> <&binvar> <S> <M>

This copies M bytes from position S in the second &binvar to the first &binvar at position N. This can also be used to copy overlapping parts of a &binvar to itself. If N = -1, bytes are appended to the destination &binvar.

If you specify the **-z** switch, the bytes in the second &binvar that were copied are zero-filled after the copy.

If you specify the **-c** switch, the first &binvar is chopped at the end of the copied bytes.

Note: If M is -1, all of the bytes from position S onwards are copied.

### /breplace <&binvar> <oldvalue> <newvalue> [oldvalue newvalue...]

This replaces all matching ascii values in &binvar with new values.

### /btrunc <filename> <bytes>

This truncates/extends a file to the specified length.

#### \$bvar(&binvar,N,M)

Returns M ascii values starting from the Nth byte

Properties: text, word, nword, long, nlong

```
$bvar(&v,0) returns the length of the binary variable
$bvar(&v,1) returns ascii value at position N
$bvar(&v,5,3) returns ascii values from 5 to 8
$bvar(&v,5,3).text returns plain text from 5 to 8 up to the first zero character
```

The word, nword, long, and nlong properties return values in host or network byte order.

# \$bfind(&binvar, N, M, [name])

Searches a &binvar for a matching value, starting from position N. M can be a character value, ie. 0 to 255, or text.

**Properties:** text, textcs, regex

```
$bfind(&test, 1, mirc) finds "mirc" starting from pos 1
$bfind(&test, 5, 32) finds char 32 (a space) from pos 5
$bfind(&test, 1, 87 65 86) finds WAV from pos 1
```

You can use .text/.textcs to force a case-insensitive/case-sensitive text search if the search text is a number.

You can use **.regex** to perform a regex search, where M is a regular expression. The optional [name] parameter is the <u>\$regml()</u> name.

### Notes on &binvar binary variables

Binary variables have no size limit, limited only by available memory, and are automatically destroyed when a script finishes processing.

### 10.8

# **COM Objects**

mIRC allows you to call **COM objects** via scripts. You **must** have experience with COM objects in order to use this feature.

### /comopen name progid

This opens a COM connection to object progid eg. Excel.Application, and assigns the connection a name.

You should check **\$comerr** after making this call to confirm that the COM connection was

successful.

#### /comclose name

This closes the specified COM connection.

#### /comlist

This lists all open COM connections.

#### /comreg -u filename

This registers/unregisters a COM DLL with windows.

```
example {
  comopen name progid

; if comopen failed, maybe the DLL that came with the script is not registered if ($comerr) {
  ;register the DLL comreg test.dll
  ;try to open it again comopen name progid
  ; still failed, halt the script if ($comerr) halt
  }
}
```

#### \$comerr

This should be checked after a call to any COM command or identifier. Returns 1 if there was an error, 0 otherwise.

# \$com(name,member,method,type1,value1,...,typeN,valueN)

This calls a member of an open COM connection with the specified method and parameters.

```
name - connection name.

member - member name.

method - Combination of the following values added together:

1 = DISPATCH_METHOD

2 = DISPATCH_PROPERTYGET

4 = DISPATCH_PROPERTYPUT

8 = DISPATCH_PROPERTYPUT

7 = The variable type, can be: i1, i2, i4, ui1, ui2, ui4, int, uint, r4, r8, cy, date, decimal, bool, bstr, variant, dispatch, unknown, error.
```

VB equivalents are: boolean, byte, currency, date, double, integer, long, single, string, variant.

To make a variable by reference, use \* in the type name, eg. i1\*

To assign a name to a variable for later reference after a call, append it to the type, eg. i1\* varname

When using a variant you must also specify the variable type after it, eg. variant bool.

value - the value assigned to the variable type.

Returns: 1 = ok, 0 = fail.

After you have opened a COM connection or made a call to \$com() you can use the following forms of \$com():

### \$comcall(name,alias,...)

\$comcall() uses the same format as \$com() apart from the alias. It is multi-threaded so it will not halt the script and will call the specified alias once the call returns.

**Note:** If \$comcall() fails when calling an object and \$com() does not, this means that the object is not compatible with the threading model of mIRC, so \$com() must be used. You can check the \$comerr value in the alias to determine if a \$comcall() failed or not.

### \$com(name/N)

Returns name if connection is open, or name of Nth connection. N = 0 returns number of open connections.

**Properties:** progid, dispatch, unknown, result, error, errortext, argerr

progid - object name.

result - the value returned by the COM object member after the call.

error - error value, if there was an error.

errortext - error description associated with error.

argerr - Nth argument that caused the error, if the error was due to an invalid variable type.

#### \$com(name/N,varname)

Returns value of the specified variable name.

# \$comval(name,N,member)

Returns member value for the Nth instantiation of the enumerated collection in name.

#### **Binary Variables**

The \$com() identifier allows passing parameters in from, and results out to, binary variables.

To pass parameters in from binary variables, prefix the variable type with & to indicate the parameter is a binary variable eg. \$com(name, member, method, &bstr, &binvar).

To retrieve a result into a binary variable, use \$com(name, &binvar).result.

To store array results into a binary variable, use \$comval(name, N, member, &binvar).result. If the array is a BSTR, it is stored using null bytes as separators.

**Note:** \$com() also allows you to pass/retrieve one dimensional single-byte arrays from/into binary variables.

### **Dispatch and Unknown**

The two variable types **dispatch** and **unknown** allow you to **pass** dispatch/unknown pointers as parameters in a \$com() call, or **retrieve** dispatch/unknown pointers from a \$com() call, by reference.

To **pass** a dispatch/unknown pointer as a parameter in \$com(), specify the variable type as dispatch/unknown, and specify the name of an existing \$com() connection as the value.

To **retrieve** a dispatch/unknown pointer through a call to \$com(), specify a dispatch\* item, with a variable name, as the last parameter in a \$com() call, without assigning it a value. When \$com() returns, mIRC will create a new \$com() item with that variable name and assign it the dispatch or unknown pointer. See example script #2 below.

In the case of retrieving an **unknown** pointer, mIRC will extend it to a **dispatch** pointer if it can, allowing you to call it directly via \$com().

You can use \$com().dispatch or \$com().unknown to see if a pointer exists for that \$com() item.

#### **Example Script #1**

The following script is a simple example that connects to excel and then retrieves and sets the visible property.

```
excel {
  comopen excel Excel.Application

if ($comerr) {
    echo comopen failed
    halt
  }

; check if excel window is visible

if ($com(excel,Visible,3) == 0) {
    echo $com failed
    goto finish
  }

echo Visible: $com(excel).result

; make excel window visible

if ($com(excel,Visible,5,i4,1) == 0) {
    echo $com failed
    goto finish
}
```

```
; check visibility again

if ($com(excel,Visible,3) == 0) {
   echo $com failed
   goto finish
}

echo Visible: $com(excel).result
:finish
   comclose excel
}
```

### **Example Script #2**

The following script retrieves information about your CPU. It displays debugging information so you can see whether a call succeeded or not, the value it returned, and whether a new COM object was created.

```
cpu {
 comopen Locator WbemScripting.SWbemLocator
 if ($comerr) { echo comopen failed | halt }
 echo com: $com(Locator, ConnectServer, 3, dispatch* Services)
 echo result: $com(Locator).result
 echo com(0): $com(0)
 if ($com(Services)) {
  echo com: $com(Services, Get, 3, string, Win32_Processor.DeviceID='CPU0',
dispatch* More)
  echo result: $com(Services).result
  echo com(0): $com(0)
  if ($com(More)) {
   echo com: $com(More, Name, 3)
   echo result: $com(More).result
   echo com: $com(More, Caption, 3)
   echo result: $com(More).result
   echo com: $com(More, Manufacturer, 3)
   echo result: $com(More).result
   comclose More
  comclose Services
 comclose Locator
```

### **Example Script #3**

The following script retrieves information about your hard drives. It does so by retrieving all drive instances in an enumerated collection and then accessing member values for

each instance using the **\$comval()** identifier. drives { comopen Locator WbemScripting.SWbemLocator if (\$comerr) { echo comopen failed | halt } echo Com: \$com(Locator, ConnectServer, 3, dispatch\* Services) echo Result: \$com(Locator).result comclose Locator if \$com(Services) { echo com: \$com(Services, InstancesOf,3,string,Win32\_LogicalDisk,dispatch\* Instances) echo result: \$com(Services).result comclose Services if \$com(Instances) { echo com: \$com(Instances,Count,3) var %n = \$com(Instances).resultecho result: %n var %m = 1while (%m <= %n) { echo 4 disk: %m echo 3 Com: \$comval(Instances, %m, Name) echo 3 Com: \$comval(Instances, %m, FileSystem) echo 3 Com: \$comval(Instances, %m, FreeSpace) echo 3 Com: \$comval(Instances, %m, Description) inc %m }

### 10.9

}

# **Custom Windows**

comclose instances

The **/window** command, along with a few **other** related commands listed below, allows you to **create** and **manipulate** custom windows. Its format is:

/window [-abBcCdDe[N]fg[N]hHij[N]k[N]I[N]mMn[N]oprRsSuvw[N]xz] [-tN,..,N] [+bdeflLnstx] <@name> [x y [w h]] [/command] [popup.txt] [font [size]] [iconfile [N]]

### **Switches and Parameters**

You can specify the following switches and parameters either when first creating a window or to manipulate an existing window.

The **first** set of switches:

```
a = activate window
b = update horizontal scrollbar width for listbox
B = prevent window from using an internal border
c = close window
C = center window when first created
d = open as desktop window
D = allows a window to be toggled between mdi and desktop
e[N] = use editbox, where 0 = single, 1 = multi, 2 = auto, 3 = default
f = indicates that w h are the required width and height of the text display area as
opposed to the window size
g[N] = sets/removes hilight for a window button, 0 = none, 1 = message color, 2 = none
hilight color
h = hide window
H = enables auto-hide for a side-listbox
i = dynamically associate with whatever happens to be the active connection
j[N] = sets buffer size to N lines
k[N] = hides the @ prefix in the window name, 0 = hide prefix, 1 = show prefix
I[N] = listbox, if N is specified then a side-listbox N characters wide is created
m = allow line marker to be used in window
M = chops text at tab stops.
n[N] = minimize window, 2 = minimize without auto-expanding item in treebar
o = if opened on desktop, place ontop
p = creates a picture window
r = restore window
R = reset window position to previously saved position
s = sort the main window, whether text or listbox
S = sort the side-listbox
u = remove ontop setting of a desktop window
v = close window when associated status window is closed
w[N] = where 0 = hide from switchbar/treebar, 1 = show in switchbar, 2 = show in
treebar, 3 = \text{show in both}
x = maximize window
z = place window button at end of switchbar
```

The **-t** switch used to set the **tab positions** in a listbox.

tN,...,N = specifies the tab positions in a listbox, if text contains tabs it will be spaced out according to these tab settings

Note: If -tN is 0, this enables the leading text to be hidden.

The **third** set of switches is used to change the **appearance** of a window.

```
= border
b
d
        = no border
        = 3d edge
е
        = dialog frame
f
Т
        = tool window
        = tool window but window will not appear in taskbar
        = minimize box
n
        = sizable
S
        = titlebar
```

#### x = maximize box

**Note:** Some switches may automatically turn others on/off.

iconfile/N sets the titlebar icon for a custom window

If you want the custom window to use a <u>menu definition</u> in a remote script, you can specify the custom window's name as the popup filename instead of an actual popup.txt filename.

**Note:** If you specify -1 for any of the x,y,w,h values, a default value is used, unless the window exists in which case the current value is used.

#### **Commands**

The following commands allow you to manipulate the **lines** in a custom window.

```
/aline [c] <@name> <text>add line to list
/cline [c] <@name> <N> changes the color of the Nth line to color C
/dline [c] <@name> <N[-N2]> delete Nth line through N2th line
/iline [c] <@name> <N> <text> insert line at Nth line
/rline [c] <@name> <N> <text> replace Nth line
/sline [c] <@name> <N> select Nth line
```

The c parameter specifies a color number for the line.

The -s switch selects the line that was just added and clears the current selections.

The -a switch selects a line without clearing the current selections.

The **-h** switch highlights the window's button if it is currently minimized.

The **-p** switch forces the line of text to be wrapped if it is too long to fit on one line.

The **-r** switch is used with /cline to reset a nickname color in a channel listbox to the default color.

The -i switch is used with /aline and /iline to indent a newly added line.

The -n switch is used with /aline and /iline to prevent a line from being added if it exists.

The **-m** switch is used with /cline when coloring nicknames in a channel nicklist, and makes mIRC also color the nick in channel messages.

The **-I** switch applies the command to the side listbox.

The **-iN** switch indents the line by 2 spaces by default or N spaces if N is specified.

If you are referencing a window which uses a side-listbox, you can specify the **-I** switch in the above commands to act on the side-listbox.

#### /renwin <@oldname> <@newname> [topic]

This allows you to change the name of an existing window to a different one, and an optional topic can be specified.

#### **Identifiers**

The following identifiers return custom window information.

### \$window(N/@name)

Returns properties for a window.

**Properties:** x, y, w, h, cx, cy, dx, dy, dw, dh, bw, bh, mdi, title, state, font, fontsize, fontbold, fontitalic, fontcs, logfile, stamp, icon, ontop, type, anysc, wid, cid, hwnd, sbtext, sbcolor, sbstate, tbtext, tbstate, idle, lb, fullscreen

x,y,w,h return the left, top positions, and the width and height of the window respectively.

cx,cy return the left, top positions of the window relative to the primary monitor.

dx,dy return the left, top positions of the window relative to the desktop.

dw,dh return the width and height of the text display area.

bw,bh return the width and height of the bitmap for a graphic window. mdi returns \$true if the window is mdi, otherwise returns \$false

title returns the text in the titlebar of the window state returns minimized/maximized/hidden/normal

font returns the name of the current font fontsize returns the size of the current font

fontdialogsize returns the size of the current font in font dialog size fontbold returns \$true if the font is bold, otherwise returns \$false

fontitalic returns \$true if the font is italic, otherwise returns \$false

fontcs returns the character set of the current font

logfile returns name of logfile if one is open for the window

stamp returns timestamp setting

icon returns on/off depending on whether icon is visible

ontop returns ontop status for a window

type returns window type

anysc returns \$true if the /window -i switch was specified

wid returns the window id

cid returns the associated connection id

hwnd returns the window handle

sbtext returns the switchbar button text sbcolor returns the switchbar highlight color

sbstate returns switchbar button state for a window

tbtext returns the treebar button text

tbstate returns treebar button state for a window

idle returns idle state

lb returns 0, 1 or 2 depending on whether window contains no listbox, listbox or

side listbox

fullscreen returns \$true/\$false

You can also use the format **\$window(@wildcard,N)** which returns the Nth window matching the wildcard window name.

**Note:** You can also get the .w and .h properties by specifying: -1 for the width and height of the screen, -2 for the main mIRC window, and -3 for the MDI window where all other windows inside mIRC are displayed.

# \$line(@name,N,T)

Returns the Nth line of text in the specified window. If N is zero, it returns the total number of lines in the window.

Properties: state, color

\$line(@name,1).state - returns selection state for a line in a listbox.

If you are referencing a window which uses a side-listbox, you can set T to zero to reference the display area, or set T to one to reference the side-listbox.

### \$fline(@name,text,N,T,S)

Returns position of the Nth line that matches the specified wildcard text. If N is zero, it returns the total number of matching lines. If T is 1, it references the listbox, 2 text is a regular expression, and 3 for both.

The S parameter allows you to specify the search start position and returns the match position in **\$flinen**.

## **Properties:** text

#### \$sline(@name,N)

Returns the Nth selected line in a listbox (only works in listboxes). If N is zero, it returns the total number of selected lines in the window.

### Properties: In

\$sline(@name,N).In - returns the line number of the Nth selected line

### **Examples**

/window @test

This would create a window named @test with all of the default settings.

/window -els @clones 10 10 clones.txt

This would create a window with a sorted listbox and an editbox, positioned near the top left of the mIRC window, and using the popup file clones.txt which would appear whenever you click the right mouse button in the listbox.

**Note:** The popup text file must be plain text in a non-ini format using a non-ini extension.

### 10.10

### **DDE**

mIRC supports **DDE** communication, which allows external applications to control mIRC or to request information from it. Note that it is also possible to communicate with mIRC directly by using <u>SendMessage()</u>. The default DDE service name is **mIRC**, though this can be changed in the options dialog.

### **DDE Topics**

mIRC supports the following DDE Topics.

For each of the following DDE topics an example is given using the /dde command and \$dde() identifier (both are explained after this section) which should help you understand

how they work.

Topic: **COMMAND** 

Transaction Type: XTYP\_POKE

Item: None

Data (Arguments): One line of text containing the command to be performed.

Returns: Nothing

Example: /dde mirc command "" /server irc.dal.net

Description: This tells mIRC to execute whatever command you give it.

Topic: **EVALUATE** 

Transaction Type: XTYP\_REQUEST

Item: The line of text containing variables or identifiers that you want evaluated

Data (Arguments): None Returns: Evaluated line

Topic: **CONNECT** 

Transaction Type: XTYP\_POKE

Item: None

Data (Arguments): one line of text in the form: address, port, channel, number

Returns: Nothing

Example: /dde mirc connect "" irc.undernet.org,6667,#mIRC,1

Description: This will tell mIRC to connect to the server irc.undernet.org, port 6667 and after it has connected it will automatically join channel #mIRC. If the number at the end

is a 1 then the mIRC window will be activated, if it is a 0 it will not.

Topic: **CONNECTED** 

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: "connected" if you are connected to a server, "connecting" if you are in the process of connecting to a server, and "not connected" if you are not currently connected

to a server.

Example: //echo mIRC is currently \$dde(mirc, connected) to a server

Topic: **EXENAME** 

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: The full path and name of the mIRC EXE file

Example: //echo The mIRC exe path and name is \$dde(mirc, exename)

Description: This might be useful for applications that need to know the path and name

of the exe file.

Topic: **VERSION** 

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None Returns: mIRC version info.

Example: //echo The version number is \$dde(mirc, version)

Topic: INIFILE

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: The full path and name of the main INI file Example: //echo The main ini file is \$dde(mirc, inifile)

Description: This might be useful for applications that need to take a look at the INI file

for various bits of information.

Topic: **NICKNAME** 

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: The nickname currently being used.

Example: //echo My mIRCbot is using the nickname \$dde(mirc, nickname)

Topic: **SERVER** 

Transaction Type: XTYP REQUEST

Item: None

Data (Arguments): None

Returns: The server to which you were last or are currently connected. eg.

"irc.undernet.org"

Example: //echo The current server is \$dde(mirc, server)

Topic: **PORT** 

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: The port currently being used to connect to the irc server

Example: //echo My mIRCbot is using port \$dde(mirc, port)

Topic: CHANNELS

Transaction Type: XTYP\_REQUEST

Item: None

Data (Arguments): None

Returns: A single line of text listing the channels which you are currently on separated by

spaces. eg. "#mirc #mircremote #irchelp"

Example: This should only be called by an application, not from within an mIRC alias. Description: The line of text that this returns could be quite long, so an application

should be prepared to handle this.

Topic: **USERS** 

Transaction Type: XTYP\_REQUEST

Item: Channel name, in the form #channel

Data (Arguments): None

Returns: A single line of text listing the users on the specified channel separated by

spaces.

Example: This should definitely only be called by an application, not from within an mIRC ...

alias.

Description: You can only request the names of users on a channel which mIRC has joined. The line of text that this returns could be quite long, so an application should be prepared to handle this.

#### **DDE Commands and Identifiers**

The following commands and identifiers allow you to communicate with other

DDE-enabled applications.

All DDE transactions are **synchronous**, mIRC waits at most one second for a reply or acknowledgement to any DDE request that it makes.

### /ddeserver [[on [service name]] | off]

The default DDE service name is mIRC. The mIRC DDE Server defaults to on at startup unless it finds another mIRC or another application using its current DDE Service name.

You can use the /ddeserver command to manually turn the dde server on or off. If you have more than one mIRC acting as a DDE server then you should specify a different **service name** for each mIRC.

### /dde [-re] <service> <topic> <item> [data]

This sends an **XTYP\_POKE** by defaults unless you specify the **-r** switch in which case an **XTYP REQUEST** is sent, or if you specify the **-e** switch, an **XTYP EXECUTE** is sent.

If you are sending an XTYP\_POKE then all four arguments are mandatory.

If you are sending an **XTYP\_REQUEST** then the first three arguments are mandatory. This is why you can see a "" in the examples above, it acts as a filler and is not actually used for anything.

If you are sending an **XTYP\_EXECUTE** then only the first three arguments are required.

## \$dde(name, topic, item, delay)

Returns the value returned by the specified service name, topic, and item, by sending an XTYP\_REQUEST.

//echo My other mIRC is \$dde(mirc, connected) to \$dde(mirc, server)

The **item** and **delay** parameters are optional.

The **delay** value indicates that you want \$dde() to wait N seconds for a reply before giving up. The default is one second, which is usually enough.

**Note:** If the value returned by \$dde is too long for mIRC to handle, \$dde returns a value of \$error.

#### \$isdde(name)

Returns \$true if the specified dde name is in use, \$false otherwise.

#### \$ddename

Returns the current dde service name in use by the mIRC DDE Server.

### 10.11

# **Dialogs**

mIRC allows you to create custom **Dialogs** which can be used to request input from a user, or to perform many other useful tasks.

There are two types of dialog; a **modeless** dialog, created with the **/dialog** command, and a **modal** dialog, created with the **\$dialog()** identifier. Both are described below.

### The /dialog command

The /dialog command allows you to create a **modeless** dialog with the **-m** switch. This type of dialog does not halt or return a value to the calling script, and the dialog can be displayed indefinitely and used for many purposes.

/dialog -mdtsonkcvie <name> [table] [x y w h] [text]

- -m create a modeless dialog using 'table' /dialog -m name table
- -a used with -m, uses currently active window as the parent
- -x close a dialog without triggering any events
- -d open dialog on the desktop, used with -m
- -h make dialog work with active server connection
- -t set dialog title /dialog -t name text
- -s set dialog size/pos /dialog -s name x y w h
- r centers dialog
- -blp interprets size as dbu, map, or pixels
- -o set dialog ontop of all windows
- n unset ontop setting
- -k click ok button
- -c click cancel button
- -v makes the dialog the active window
- -ie minimize/restore the dialog if created on the desktop
- -g renames existing dialog using <name> <newname>

Where **name** is the name by which you will refer to the dialog, and **table** is the dialog table name used to create dialog (see below).

#### The \$dialog() identifier

Dialogs created with \$dialog() are modal, ie. they halt the script until the dialog is closed, they return a value, and they do not allow access to other windows while the dialog is open. These types of dialogs should only be displayed for immediate user input. The \$dialog() identifier works the same way as other identifiers:

```
%result = $dialog(name,table[,parent])
```

Where **name** is the name by which you will refer to the dialog, **table** is the dialog table

name used to create dialog (see below), and **parent** is the parent window of the dialog, this can be a **window name**, or -1 = Desktop window, -2 = Main mIRC window, -3 = Currently active window, -4 = Currently active dialog, if no dialog is open, defaults to -3 behaviour.

**Note:** This type of dialog cannot be called from a remote script event.

You can also use the **\$dialog(name/N)** identifier to list any open dialogs, where N returns the Nth open dialog. If N is zero, the total number of open dialogs is returned.

\$dialog() also supports these **properties**:

```
x,y,w,h returns the size and position of the dialog cw,ch returns width and height of client area of dialog title returns the title of the dialog modal returns $true if the dialog is modal, otherwise $false table returns the dialog table that the dialog is using ok returns the id of the Ok button if you specified one cancel returns the id of the Cancel button if you specified one result returns the id of the Result button if you specified one focus returns id of control that currently has focus returns id of tab that is currently displayed mapw,maph return mapped dbu pixel measurements active returns $true if dialog is the active window, otherwise $false hwnd returns dialog window handle
```

#### The dialog table

You can use the **dialog** prefix to create a dialog table called **name** in a script using this format:

```
dialog [-I] name {
            "text"
 title
 icon
           filename, index
 size
           xywh
 option
           type (dbu, map, pixels, notheme, disable)
            "text", id, x y w h, style (left, right, center, nowrap)
 text
            "text", id, x y w h, style (left, right, center, multi, pass, read, return, hsbar,
 edit
vsbar, autohs, autovs, limit N, rich)
            "text", id, x y w h, style (default, ok, cancel, flat, multi)
 button
 check
            "text", id, x y w h, style (left, push, 3state)
            "text", id, x y w h, style (left, push)
 radio
            "text", id, x y w h, style (left, right, center)
 box
            "text", id, x y w h, style (top left bottom right horizontal range N N)
 scroll
 list
           id, x y w h, style
                                     (sort, extsel, multsel, size, vsbar, hsbar, check, radio)
 combo
           id, x y w h, style
                                     (sort, edit, drop, size, vsbar, hsbar)
           id, x y w h, filename, index, style
                                                  (noborder top left bottom right small
 icon
large actual)
 link
            "text", id, x y w h
```

```
tab "text", id, x y w h
tab "text", id

menu "text", menuid [, menuid]
item "text", id [, menuid]
item break, id [, menuid]
}
```

The -I switch makes a dialog table local, so that it can only be accessed by other scripts in the same file.

Where "text" is the default text for a control, id is a number that uniquely identifies a control, x y w h are the position and size of the control, and style consists of a combination of the words in brackets.

#### **Other Styles**

In addition to the styles shown in **brackets** for each type of control, you can also specify these styles:

```
disable disables the control
hide hides the control
group start of a group
result identifies the control whose value will be used as the return value to the
calling script when the user presses the ok button
```

#### **Variables**

If you specify a %variable name in a dialog item definition, the %variable will be set with the contents of that item when the dialog is closed.

```
edit "", 2, 10 10 100 20, autohs %result
```

### **Tab control**

The first **tab** definition specifies the **size** of the tab control, and any following **tab** definitions add tabs to it. You can **associate** controls with a specific tab by using the **tab** style followed by the **id** value for a tab, as shown in the example below.

```
dialog test {
    title "mIRC"
    size -1 -1 110 100
    option dbu

tab "m", 1, 5 5 100 90
    tab "I", 2
    tab "R", 3
    tab "C", 4

button "m is for ...;)", 11, 30 50 50 24, ok tab 1
    button "I is for Internet", 12, 30 50 50 24, tab 2
    button "R is for Relay", 13, 30 50 50 24, tab 3
    button "C is for Chat", 14, 30 50 50 24, tab 4
}
```

You can use /did -fu to set the focus on a specific tab, and /did -vh to show/hide the

entire tab control.

#### **Menus**

You can add menus and submenus to custom dialogs using the **menu** and **item** prefixes:

```
dialog name {
  menu "text", <menuid> [, menuid]
  item "text", <id> [, menuid]
  item break, <id> [, menuid]
}
```

If you **do not** specify a **menuid** for an item, it will use the **last** menuid that was created/used in a previous menu/item.

For example, the following menu definition reproduces the **File menu** of the mIRC Editor dialog:

```
dialog test {
 title "mIRC"
 size -1 -1 110 100
 option dbu
 menu "&File", 60
 item "&New", 70
 menu "&Load", 80, 60
 item "&Script", 90
 item break, 100
 item "&Users", 110
 item "&Variables", 120
 item "&Unload", 130, 60
 item break, 140
 item "&Save", 150
 item "&Save As...", 160
 item "Save &All", 170
 item break, 180
 item "Save && &exit", 190, ok
 item "&Cancel", 200, cancel
```

You can use the **/did** command (described below) to enable/disable, check/uncheck, append, delete, insert, and overwrite a menu item.

To **add** an item to a menu you can use: /did -a name <menuid> <newid> <text>.

To **insert** an item you must use: /did -i name <id> <newid> <text> where <id> is the item before which you want to insert an item.

### **Dbu vs. Pixels**

The **dbu** option makes mIRC use dialog base units when creating the dialog, this ensures that the dialog will look the same for all users under any size display, etc. **Pixels** is the default however to maintain compatibility with previous scripts.

The identifiers **\$dbuw** and **\$dbuh** return the dbu per pixel width and height values for the current display. This may or may not be an integer value.

#### **Ok and Cancel buttons**

You can specify an **ok** and/or **cancel** button, and when a user clicks the ok or cancel buttons, the dialog is closed. You can prevent the dialog from closing if a user clicks the ok button by using /halt.

### **Default position and size**

If you specify -1 for any of the x y w h values in the size setting for the dialog, a default setting is used. To make mIRC center the dialog in a window, specify x y as -1 -1. The size setting can be over-ridden in the **init** event (see below) by using /dialog -s name x y w h.

### The On Dialog event

If a user changes the state of controls in the dialog, eg. clicks on a button, types text in an edit box, etc., this triggers the on dialog script event which allows you to monitor input from the user:

```
on 1:dialog:name:event:id: {
  echo $dname $devent $did
}
```

Where **name** identifies the dialog, **id** is the id number of the control triggering the event, and **event** can be:

```
init just before a dialog is displayed, controls can be initialized in this event. id is zero.
```

close when a dialog is closed.

edit text in editbox or combo box changed.

sclick single click in list/combo box, or check/uncheck of radio/check buttons, or click of a button.

dclick double click in list/combo box.

menu a menu item was selected.

scroll scroll control position has changed.

You can specify multiple **ids** by using commas and dashes, eg. 1-3,5,7,9,15-20.

You can also detect **mouse events** that are not associated with a specific control:

```
mouse moved
sclick left button down
uclick left button up
dclick double click
rclick right button click
drop drop click
```

You can use \$mouse to retrieve the current mouse position.

**Note:** Dialog events, such as the click event, are triggered by windows messages. Sometimes, clicking in a window can result in multiple window messages being sent, such as activation, focus, mouse movement, clicks, and so on. This means that if you are doing something in an event that affects the GUI, such as using /window, you may need to use a /timer to avoid unexpected behaviours.

### The /did command

The /did command allows you to **modify** the values of **controls** in a dialog, eg. changing the text in an edit control, or setting focus to a button, or deleting lines in a listbox.

/did -ftebvhnmcukradiogjsl name id [n] [text | filename]

- -f set focus on id
- -t set id as default button
- -e enable id
- -b disable id
- -v make id visible
- -h hide id
- -n enables editbox
- -m disables editbox
- c check checkbox/radiobutton list/combo line
- -u uncheck checkbox/radiobutton list/combo line
- -k works with -cu, keeps other selections in a listbox
- -s checks the checkbox of an item in a listcb control
- -l unchecks the checkbox of an item in a listcb control
- -r clear all text in id
- -a add line of text to end
- -d delete Nth line
- -i insert text at Nth line
- -o overwrite Nth line with text
- -g set a new icon/bmp to an icon control /did -g name id [n] filename
- -z resets the width of horizontal scrollbar in listbox
- -j resets the edited setting in an editbox

Where **name** identifies the dialog and **id** is the id number of the control you want to modify.

If you want to modify **several** controls at the same time, you can specify **multiple** id numbers separated by commas, eg. /did -b name 2,12-16,20 etc.

You can select a range of text in an editbox using /did -c name id [n] [start [end]]. This selects line N in editbox, and sets selection to specified range of characters.

You can mark a **3state** checkbox as indeterminate by specifying both **-cu** switches.

You can access the **edit control** in a combobox by using 0 as the N value.

To change the **range** of a scrollbar control, you can use /did -z name id [min max].

#### \$did(name,id)

You can get the settings and values of controls in a dialog by using the **\$did()** dialog id identifier with the following formats and properties as appropriate to the control to which you are referring.

```
$did(name,id)
$did(name,id,N)
```

If used in the on dialog event, **name** is optional.

The following \$did() **properties** are supported:

text returns line or Nth line

\$did(id) is same as \$did(id).text

len returns length of line or length of Nth line

lines returns number of lines

sel returns Line Number of Nth selected line

if N is 0, returns number of selected lines

seltext returns selected text in an editbox or first selected item in a listbox

selstart returns select start character in editbox line returns select end character in editbox line edited returns \$true if text in editbox was changed state returns 0 = off, 1 = on, and 2 = indeterminate returns id of next control in tab key order returns id of previous control in tab key order

visible returns \$true if the control is visible, otherwise \$false enabled returns \$true if the control is enabled, otherwise \$false isid returns \$true if id exists in the dialog, otherwise \$false csel returns line number of Nth checked box in a listcb control

if N is 0, returns number of checked lines

cstate returns 0 = off, 1 = on for item in a listcb control

You can access the edit control in a combobox by using 0 as the N value.

### \$didwm(name,id,wildtext,N)

Returns the number of the line that matches wildtext, with the search starting at line N. N is optional.

#### \$didreg(name,id,regex,N)

Returns the number of the line that matches the regular expression, with the search starting at line N. N is optional.

### \$didtok(name,id,C)

Returns a tokenized list of the items in a list/combo/edit box.

You can use /didtok name id C text to add a tokenized list of items to a list/combo/edit box.

### 10.12

# **DLL Support**

The /dll and \$dll() features allow you to make calls to DLLs designed to work with mIRC. The main reason you would want to do this is that processing information in a DLL can be far faster than doing so in a script, so for intensive data processing a DLL would be more efficient.

Note that mIRC also supports calling COM objects, for calling non-standard DLLs.

**Warning:** do not use DLLs from sources you do not trust. See the <u>Accepting Files</u> section for information on the dangers of accepting and using files from the internet.

The above open a DLL, call the procname routine, and send it the specified data. The only difference is that \$dll() can return a value, like all other identifiers.

\$dllcall() is multi-threaded so it will not halt the script and will call the specified alias once the call returns.

#### **Technical notes**

This section contains **technical** information for **programmers** who want to create DLLs for use with mIRC.

The **routine** in the DLL being called must be of the form:

int \_\_stdcall procname(HWND mWnd, HWND aWnd, TCHAR \*data, TCHAR \*parms, BOOL show, BOOL nopause)

mWnd is the handle to the main mIRC window.

**aWnd** is the handle of the window in which the command is being issued, this might not be the currently active window if the command is being called by a remote script.

**data** is the information that you wish to send to the DLL. On return, the DLL can fill this variable with the command it wants mIRC to perform if any.

**parms** is filled by the DLL on return with parameters that it wants mIRC to use when performing the command that it returns in the data variable.

**show** is FALSE if the . prefix was specified to make the command quiet, or TRUE otherwise.

**nopause** is TRUE if mIRC is in a critical routine and the DLL must not do anything that pauses processing in mIRC, eg. the DLL should not pop up a dialog.

The DLL can return an **integer** to indicate what it wants mIRC to do:

0 means that mIRC should /halt processing

1 means that mIRC should continue processing

2 means that it has filled the data variable with a command which it wants mIRC to perform, and has filled parms with the parameters to use, if any, when performing the command.

3 means that the DLL has filled the data variable with the result that \$dll() as an identifier should return.

**Note:** You may need to create a .def file with the procedure names exported when compiling your DLL.

#### Keeping a DLL Loaded after a call

By default a DLL is unloaded immediately after you make the /dll or \$dll() call. You can keep a DLL loaded by including a **LoadDll()** routine in your DLL, which mIRC calls the first time you load the DLL:

```
void __stdcall LoadDll(LOADINFO*);

typedef struct {
   DWORD mVersion;
   HWND mHwnd;
   BOOL mKeep;
   BOOL mUnicode;
   DWORD mBeta;
   DWORD mBytes;
} LOADINFO;
```

**mVersion** contains the mIRC version number in the low and high words.

**mHwnd** contains the window handle to the main mIRC window.

**mKeep** is set to TRUE by default, indicating that mIRC will keep the DLL loaded after the call. You can set mKeep to FALSE to make mIRC unload the DLL after the call (which is how previous versions of mIRC worked).

mUnicode indicates that strings are Unicode as opposed to ANSI.

mBeta contains the mIRC beta version number, for public betas.

**mBytes** specifies the maximum number of bytes (not characters) allowed in the data and parms variables.

**Note:** For backward compatibility reasons, the default format is ANSI, however Unicode is generally recommended for new DLLs.

## **Unloading a DLL**

You can **unload** a loaded DLL by using the **-u** switch:

```
/dll -u <filename>
```

You can browse the list of loaded DLLs by using:

\$dll(N/filename) returns the Nth loaded DLL

mIRC will **automatically** unload a DLL if it is not used for ten minutes, or when mIRC exits.

You can also define an **UnloadDII()** routine in your DLL which mIRC will call when unloading a DLL to allow it to clean up.

int \_\_stdcall UnloadDll(int mTimeout);

The **mTimeout** value can be:

- 0 UnloadDII() is being called due to a DLL being unloaded with /dll -u.
- 1 UnloadDII() is being called due to a DLL not being used for ten minutes. The UnloadDII() routine can return 0 to keep the DLL loaded, or 1 to allow it to be unloaded.
  - 2 UnloadDII() is being called due to a DLL being unloaded when mIRC exits.

# 10.13

# **File Handling**

File handling support allows you to manipulate your own files directly using scripts. You should already be an **expert** at writing <u>Aliases</u>, <u>Popups</u>, and <u>Scripts</u> before attempting to use the commands below.

File handles are a **limited resource** so it is important that you understand how these commands work before trying to use them. Files should always be closed after they have been used to make them available to other applications.

# **File Handling Commands**

#### /fopen [-nox] <name> <filename>

Opens the specified file and assigns a name to it for later reference. The open fails if the file does not exist. The **-n** switch creates the file if it does not already exist, fails if the file does exist. The **-o** switch creates a new file, overwrites if it exists. The **-x** switch opens the file for exclusive access, preventing other applications from accessing the file.

Note: If this command fails, the script will continue to run. See \$ferr and \$feof below.

#### /fclose <name | wildcard>

Closes the file associated with this name. If you specify a wildcard, all matching names are closed.

### /flist [name | wildcard]

Lists all open files, or those matching the specified name.

# /fseek <name> <position>

Sets the read/write pointer to the specified position in the file. The following switches may also be used to move the file pointer:

- -l <name> <line number>
- -n <name>
- -p <name>
- -w <name> <wildcard>
- -r <name> <regex>

The **-n** switch moves the pointer to the start of the next line.

The **-p** switch moves the pointer to the start of the current line. If the pointer is already at the start of a line, it is moved to the start of the previous line.

### /fwrite [-bn] <name> <text | &binvar>

Writes text or the specified binary variable to the file. The **-b** switch indicates that a &binvar is being specified. The **-n** switch appends a \$crlf to the line being written.

### **File Handling Identifiers**

#### \$fopen(name | N)

Returns information about an open file.

Properties: fname, pos, eof, err

**Note:** the .eof and .err properties must be checked after each file access command or identifier, since file access errors will not halt a script.

#### **\$fread(name | N)**

Returns the next \$crlf delimited line.

#### **\$fread(name | N, M, &binvar)**

Returns the number of bytes read into the specified binary variable, where M is the number of bytes to read.

### \$fgetc(name | N)

Returns the next character.

#### \$feof and \$ferr

Return the results of the last file access attempt in any script, where \$feof indicates the end of file was reached, and \$ferr indicates there was a file error of some kind.

### 10.14

### File Server

The mIRC fileserver allows other users to access files on your hard disk and is therefore **dangerous** since if used **improperly** it will allow them to access private/confidential information.

#### The /fserve command

A fileserver is initiated by using the **/fserve** command which initiates a DCC Chat to the

specified user.

# /fserve <nickname> <maxgets> <homedir> [textfile]

**nickname** is the user's nickname.

**maxgets** is the maximum number of **simultaneous** dcc gets that a user can have during a fileserver session.

**homedir** is the home directory that contains the files and directories that you want to allow the user to access.

**textfile** is a text file that contains a welcome message that is displayed to the user when they first connect.

/fserve goat 5 server welcome.txt

The above command will initiate a filserver session to user **goat**, with a maximum of **five** simultaneous dcc gets, the homedir as **server**, and will send goat the welcome message in the welcome.txt file.

In each directory, you can place a **dirinfo.srv** file which describes that directory. Each time the user performs a CD to change into a directory, mIRC will look for this file and if it finds it, the text in it will be sent to the user.

#### **Fileserver commands**

The commands available to a user connected to your fileserver are:

**cd <directory>** - change to the specified directory.

**dir** [-b|k] [-#] [/w] - lists the name and size of each file in the current directory. The /w switch forces a wide listing. The [-b|k] selects bytes or k's. The [-#] specifies the number of files on each line in a horizontal listing.

**Is [-b|k] [-#]** - lists the name of each file in the current directory using a wide listing.

get <filename> - asks the fileserver to DCC Send the specified file.

**read [-numlines] <filename.txt>** - reads the specified text file. The user will be sent a default of 20 lines and then prompted whether to continue listing. The -numlines option changes the default number of lines to a value between 5 and 50.

**help** - lists the available commands.

exit or bye - terminates the connection.

#### Note:

- 1. If a directory has a large number of files try to split them up into subdirectories, this will improve performance.
- 2. If a user is idle for too long the fileserver will automatically close the connection. You can set the idle time out in the <u>DCC Options</u> dialog.
- 3. A user is limited to opening a **single** fileserver session at any one time. If mIRC initiates a fileserver session to a user and that user does not respond then the fileserver session will have to time-out and close before that user can ask for another session.

### 10.15

# **Hash Tables**

Hash tables allow you to efficiently store large amounts of information which can be quickly referenced and retrieved later on.

A hash table can be created, freed, referenced, or modified using the following commands and identifiers.

### /hmake -s <name> <N>

Creates a new hash table with N slots.

A hash table can store an **unlimited** number of items regardless of the N you choose, however the bigger N is, the faster it will work, depending on the number of items stored eg. if you expect that you will be storing **1000** items in the table, a table of N set to **100** is guite sufficient.

The **-s** switch makes the command display the result.

#### /hfree -sw <name>

Frees an existing hash table.

The -w switch indicates that name is a wildcard, all matching tables are freed.

#### /hadd -smNbczkuN <name> <item> [text | &binvar]

Adds an item to an existing hash table.

If the item you are adding already exists, the old item is replaced.

The **-mN** switch creates the hash table if it does not already exist, where N is the number of slots.

The **-uN** switch unsets the item after N seconds.

The **-k** switch keeps the current **-uN** setting for an item.

The **-b** indicates that you are adding a &binvar item to the hash table.

The -c switch treats the &binvar as text and chops it at the first null value.

The **-z** switch decreases hash item once per second until it reaches zero and then unsets it.

The **/hinc** and **/hdec** commands use the same parameters as **/hadd** and increase or decrease the number value of an item.

When used with /hinc or /hdec, the **-c** switch increases or decreases the value once per second.

/hdel -sw <name> <item>

Deletes an item from a hash table.

The **-w** switch indicates that **item** is a wildcard, all matching items are freed.

```
/hload -smNbBni <name> <filename> [section] /hsave -sbniau <name> <filename> [section] Load or save a table to/from a file.
```

These load/save **plain text** to a text file, with item and data on **separate** lines. \$cr and \$lf characters are **stripped** from text when saving as plain text.

The **-mN** switch creates the hash table when loading if it does not already exist, where N is the number of slots.

The **-b** switch loads or saves binary files. This uses an index that allows item values up to 65535 in length.

The **-B** switch loads or saves binary files. This uses an index that allows item values up to 4294967295 in length. This is not compatible with files created by the -b switch.

Note: \$cr and \$If are preserved when saving tables as binary files.

The -n switch loads or saves files as data only, with no items. When loading, each line of data is assigned an N item value, starting at N = 1.

/hsave also supports -a to append to an existing file instead of overwriting it.

By default /hsave excludes items that are in the /hadd -uN unset list, the **-u** switch forces it to include the unset items.

The -i switch treats the file as an ini file. You can specify an optional section name after the filename.

**Note:** Due to how hash tables work, items are stored in hash tables in a random order. You should not depend on items being stored, saved, or loaded in any particular order.

### \$hget(name/N)

Returns name of a hash table if it exists, or returns the name of the Nth hash table.

Properties: size

\$hget(moo).size returns the N size of table, as specified in /hmake

# \$hget(name/N, item)

Returns the data associated with an item in the specified hash table.

Properties: unset

The **unset** property returns the time remaining before an item is unset.

## \$hget(name/N, item, &binvar)

Assigns the contents of an item to a &binvar.

\$hget(name/N, N).item

This allows you to reference the table as an index from 0 to N, in order to look up the Nth item in the table.

If N is zero, returns the total number of items in the table.

You can also reference the Nth data value directly with \$hget().data.

**Note:** This method is provided as a convenience, it is not an efficient way to use the hash table.

### \$hfind(name/N, text, N, M, @window | command)

Searches table for the Nth item name which matches text. Returns item name.

### Properties: data

If you specify the .data property, searches for a matching data value.

**M** is optional, and can be:

- n normal text comparison (default if M is not specified)
- w text is wildcard text
- W hash table item/data is wildcard text
- r text is regular expression
- R hash table item/data is regular expression

If you specify a custom @window name (with a listbox), the custom @window listbox will be filled with the results.

If you specify a command, it will be performed on every item that is found. You can use \$1- to refer to the item, eg. //echo 1 result: \$hfind(name, \*, 0, w, echo \$1-)

If you use /halt in the command/alias, this halts the search.

**Note:** In the case of 'r' regular expression searching through a binary variable, long results will be truncated.

### 10.16

### The Internal Address List

mIRC maintains an **internal address list** of all users who are currently on the same **channels** as you.

The internal address list is used by the <u>/quser</u>, <u>/ruser</u>, <u>/ban</u>, <u>/ignore</u>, and <u>/dns</u> commands to quickly find a user's address without resorting to a **/userhost** server lookup.

A user's address is **added** to the list either when they join the channel, send a message to a channel, or make a mode change.

A user's address is **removed** from the list when they are no longer on any of the channels which you are currently on.

The reason why only addresses for users on the **same channels** as you are stored is because this guarantees the **integrity** of the list. ie. that a specific nickname is associated with a specific address.

### **IAL Commands**

### /ial [on | off]

Turns IAL on or off. Note that this setting is not persistent across sessions and resets to **on** every time mIRC is run.

### /ialfill #channel

Fills the IAL by sending /WHO #channel to the server and processing the WHO reply.

If the server supports WHOX, an extended /WHO #channel %acdfhlnrstu,T is sent to receive the account name, where T is a number that uniquely identifies the WHO request and is set to 995.

**Note:** If the IAL already contains all of the addresses for nicknames on a channel, it will not send a /WHO to the server. You can force the IAL to be refilled by using the **-f** switch, however note that, like all high bandwidth requests, this could cause the server to close your connection if you do it too often.

#### /ialclear [nick]

Clears the IAL, or if a nickname is specified, clears that nickname's IAL entry.

### /ialmark -nrw <nick> [name] [text]

Adds marks, in the form of text, to the IAL entry for a nickname.

The **-n** switch sets the name of the mark. If -n is not used, the default name 'default' is used.

The **-r** switch removes the mark.

The **-w** switch is used with -rn to treat name as a wildcard.

#### **IAL Identifiers**

#### \$ial

Returns \$true or \$false depending on whether the IAL is on or off.

### \$ial(nick/mask,N)

Returns the Nth address matching nick or mask in the Internal Address List.

Properties: nick, user, host, addr, mark, account, away, gecos, id

```
$ial(*!*@*.com,0) returns the total number of addresses in the IAL matching
*!*@*.com
$ial(*!*@*.com,3) returns the 3rd address in the IAL matching *!*@*.com
$ial(*!*@*.com,4).nick returns the nick of the 4th matching address ending in .com
$ial(*!*@*.com,4).user returns the userid of the 4th matching address ending in .com
```

To scan each address in the IAL you can use \$ial(\*,N).

The N parameter is optional, defaults to 1 if not specified.

### \$ialchan(nick/mask,#,N)

Returns the Nth address on the specified channel matching nick or mask in the Internal Address List.

This works the same way as the \$ial() identifier.

### \$ialmark(nick,N/name)

Returns the marks added by the /ialmark command.

Properties: name, mark

### 10.17

### **Multi-server**

mIRC allows you to <u>connect</u> to more than one IRC server at a time. This means that scripts need to be multi-server aware in order to behave correctly when a user is connected to more than one server. The following **commands** and **identifiers** allow a script to handle multiple server connections.

#### **Identifiers**

Each **new server window** that is created is assigned a **connection id**.

Each **window** that is created, such as a channel or query window, is associated with the **connection id** of the server where that window was opened.

### \$cid

Returns the server **connection id** for the current script.

Some window identifiers have their own **connection id** counterpart, such as **\$activecid** and **\$lactivecid**.

Most window related identifiers also have a .cid property.

### \$scid(N)[.id]

Returns the connection id, where N is a \$cid value.

If N = 0, returns total number of open server windows.

If N = -1, returns active connection.

If you specify a **property** which is an identifier, it returns the value of that identifier for that connection. This also works for **custom** identifiers.

**Note:** The property cannot use brackets.

### \$scon(N)[.id]

Returns the connection id, where N is the Nth connection.

If N = 0, returns total number of open server windows.

If N = -1, returns active connection.

If you specify a **property** which is an identifier, it returns the value of that identifier for that connection. This also works for **custom** identifiers.

**Note:** The property cannot use brackets.

#### Commands

Scripts can be made to perform commands on specific server connections by using **/scid** and **/scon**.

### /scid <-rsatM | N> [command]

Changes the active connection for a script to connection id N, where N is a \$cid value.

All commands **after** the /scid command will be performed on the new connection id.

The **-r** switch resets the connection id to the original id for that script.

If you specify the **command** parameter, the connection id is set only for **that** command.

The **/scon** command works in exactly the same way, except that N represents the **Nth** connection, not a connection id value.

The **-a** and **-tM** switches can only be used if you specify a command.

The **-a** switch performs the command on all connection ids.

The **-tM** switch limits the command to being performed only on servers with a certain connection status, where M is an or'd value of 1 = server connected, 2 = not connected, 4 = connecting, 8 = not connecting. The command is only performed if M matches the connect status of the connection id.

The -s makes any called commands or identifiers show their results.

**Note:** If you use a command that contains \$identifiers, and you want the identifiers to be evaluated in the target connection, you must pass them as \$!identifier to prevent them from being evaluated first in the current connection.

### 10.18

### **Picture Windows**

The **picture window** is a special type of <u>custom window</u> that can display a combination of text, graphics, and pictures, and can trigger script events relating to mouse clicks and movements.

Once you have opened a picture window using the <a href="window">/window</a> command, you can use the following commands and identifiers to draw and monitor activity in this window.

### **Drawing commands**

#### /drawsize @ <w h>

Sets the minimum bitmap size for a picture window to the specified width and height, up to a maximum of 8192 x 8192 pixels.

Normally, the maximum point that can be drawn to is based on the size of the visible window.

If you make the window bigger, the bitmap is enlarged.

If you make the window smaller, the bitmap is shrunk but only to the largest point that has already been drawn on it.

The largest point can be reset with the /clear command.

The /drawsize command allows you to set a minimum bitmap size.

**Note:** Bitmaps use a large amount of memory and can cause Windows to run out of memory if not used carefully. You should always use the smallest bitmap that you need.

### /drawdot -ihnr @ <color> <size> <x y> [<x y>...]

Draws a dot using the specified color and size at the x,y co-ordinates. Multiple co-ordinates can be provided.

The -i switch draws in inverse mode.

The **-h** switch highlights the windows icon if it is minimized.

The **-n** switch prevents the display from being updated immediately. This allows you to make changes to the window in the background and then display the results only when you have finished. You can update the display by using any of the /draw commands with only the window name specified.

The **-r** switch indicates that the color is in RGB format. You can use \$rgb(N,N,N) to create an RGB value.

The whole window can be cleared by using the /clear command, eg. /clear @name. You can also specify the **-n** switch in /clear to delay the effect as described above.

#### /drawline -ihnr @ <color> <size> <x y> <x y> [<x y>...]

Draws a line from the first < x y> co-ordinate to the second, if more co-ordinates are specified, the line is continued. The switches are the same as those in /drawdot.

### /drawrect -ihnrfecd @ <color> <size> <x y w h> [<x y w h>...]

Draws a rectangle at the specified co-ordinates of the specified width and height. If more co-ordinates are specified these are also drawn as separate rectangles.

The **-f** switch fills the rectangle with the current color.

The **-e** switch draws an Ellipse instead of a rectangle. You can draw a filled ellipse if you also specify the **-f** switch.

The **-c** switch draws a focus rectangle.

The -d switch draws a rounded rectangle, using the format /drawrect  $-d \times y \times h$  [w h], where w and h are the width and height of the ellipse used to draw the corners.

The remaining switches are the same as those in /drawdot.

### /drawfill -ihnrs @ <color> <color> <x y> [filename] [<x y>...]

Fills an area with the specified color starting at the specified co-ordinates.

The **-s** switches indicates that the second color parameter is the color that should be filled (surface fill). If no **-s** is specified, the second color is the border color at which filling should stop (border fill).

The optional **[filename]** specifies a bitmap .BMP file that is 8 by 8 pixels in size and is used as a fill pattern.

The remaining switches are the same as those in /drawdot.

# /drawtext -dhnrpbocv @ <color> [color] [fontname fontsize] <x y [w h]> <text>

Draws text at the specified co-ordinates.

The **-p** switch processes and interprets color/bold/etc. codes in the text.

The **-d** switch disables tab character support.

The **-b** switch indicates that you have specified the second color parameter as the background color for the text.

The **-o** switch means the specified font should be in bold.

The **-c** switch means that you have specified the [w h] values as the rectangle in which text should be printed. Text will be clipped if it extends beyond this rectangle.

The -v switch means that you have specified a &binvar binary variable instead of text.

The remaining switches are the same as those in /drawdot.

**Note:** If you use a negative number for the font size, it will match the size of fonts in the font dialog.

### /drawsave -abNqNvNdu @ [x y w h] <filename|&binvar>

This saves the background picture of the specified picture @window to a .bmp filename.

The -a switch specifies the [x y w h] area of the bitmap to be saved.

The **-bN** switch allows you to specify the bit depth of the saved file, which can be 1, 4, 8, 16, 24, or 32.

The **-qN** switch allows you to specify the quality of the jpeg file that is being saved, where N is between 1 and 100.

The **-vN** switch allows you to save the bitmap to a &binvar, where N is optional and can

be p = png, g = gif, j = jpg.

The **-du** switches dither and quantize the bitmap, for use with the -b switch.

#### /drawscroll - hn @ < x > < y > < x y w h > [ < x > < y > < x y w h > ...]

Scrolls the region inside the specified rectangle. The first <x> and <y> parameters represent the distance to scroll and can be positive or negative.

The remaining switches are the same as those in /drawdot.

### /drawcopy -ihmnt @ [color] <x y w h> @ <x y [w h]>

Copies part of a picture to a different position in the same window or to another window. If the second [w h] parameters are specified, the picture is stretched/squeezed to fit.

The **-t** switch indicates that you have specified the [color] RGB value as a transparent color in the source bitmap.

The -m switch changes the stretch mode quality when the picture is resized.

The remaining switches are the same as those in /drawdot.

# /drawpic -ifhmnotsclgNv @ [color] <x y [w h]> [x y w h] [N] [M] <filename|&binvar>

Loads and draws a picture at the specified co-ordinates. The picture can be a graphics file, or an ico/exe/dll file.

If the first [w h] are specified, it is stretched or squeezed to fit. The second [x y w h] rectangle specifies which portion of the loaded bitmap should be displayed ie. a bitmap could contain multiple pictures.

The **-t** switch indicates that you have specified the [color] RGB value as a transparent color in the specified bitmap.

The -s switch indicates that you have specified the first [w h] parameters (as explained above) to squeeze/stretch the bitmap.

The **-c** switch indicates that the bitmap should be **cached**. This greatly speeds up subsequent references to this bitmap. If you specify **-c** and the bitmap is already in the cache, it is loaded and used from the cache, otherwise it is reloaded from the file. You can clear the entire cache with /drawpic -c.

The -I switch tiles the picture.

The -m switch changes the stretch mode quality when the picture is resized.

The **-o** switch indicates that you have specified the [N] value before the filename represents the index of the icon in the file. This also works with GIF files to specify the Nth frame.

The **-f** switch works with **-o** to specify the Nth icon and the Mth frame in that icon, for an icon that contain multiple icons.

The **-gN** switch attempts to load the large icon in an icon file, if none exists, it loads the

small icon. If N is specified, N = 0 loads the small icon, N = 1 loads the large icon, and N = 2 loads the actual icon.

The **-v** switch loads a picture from a &binvar instead of a filename.

If you try to load and cache a bitmap and there are already 30 bitmaps in the cache, the bitmap with the lowest reference count is freed and replaced by the new bitmap.

If you try to load a bitmap and there is not enough memory, mIRC repeatedly frees the least referenced bitmap and tries to load again.

The remaining switches are the same as those in /drawdot.

### /drawrot -hmnpbfc @ [color] <angle> [x y w h]

Rotates an area of a bitmap by the specified angle.

The -b switch indicates that you have specified the background color value.

The -f switch fits the newly rotated bitmap into the original width/height.

The **-c** switch centers the rotated image if -f is not specified.

The **-m** switch changes the stretch mode quality when the picture is resized.

The **-p** switch clips the rotated rectangle.

The remaining switches are the same as those in /drawdot.

#### /drawreplace -nr @ <color1> <color2> [x y w h]

Replaces color1 with color2 in the specified picture window.

The remaining switches are the same as those in /drawdot.

#### **Events**

**Mouse events** can be defined in a scripts <u>menu</u> definition, where they must be placed first above all other menu items:

```
menu @test {
   mouse:/echo mouse moved at $mouse.x $mouse.y in $active $1
   sclick:/echo single click at $mouse.x $mouse.y
   dclick:/echo double click at $mouse.x $mouse.y
   uclick:/echo mouse released at $mouse.x $mouse.y
   rclick:/echo single right-click at $mouse.x $mouse.y
   in $active $1
   lbclick:/echo mouse selected $active $1
   leave:/echo mouse left $leftwin $leftwinwid $leftwincid
   drop:/echo drag and drop at $mouse.x $mouse.y
}
```

The **mouse** event is triggered when you move a mouse inside a picture window. You can use the **\$mouse** identifier (see below) for the x and y position of the mouse.

The sclick event is triggered when you click once inside a picture window. It will also

trigger if you double-click.

The **dclick** event is triggered when you double-click inside a picture window.

The **uclick** event is triggered when a mouse button is released inside a picture window.

The **Ibclick** event is triggered when an item is selected in a listbox, either with the mouse or the cursor keys.

The **leave** event is triggered when the mouse is moved outside the borders of a custom window.

The **drop** event is triggered if you click and drag the mouse in a window and then let go of the button.

#### **Identifiers**

### \$click(@,N)

This stores a history of x,y clicks for a window.

### **Properties:** x, y

You can use /clear -c @name to clear the history of clicks for a window. If you use \$click() with no properties it returns x y.

### \$getdot(@,x,y)

Returns the RGB color value of the dot at the specified position.

#### \$height(text,font,size,bipt)

Returns height of text in pixels for the specified font.

Where **bipt** set the options for bold, italic, process control codes, and process tabs. Each of these can be followed by an N value of zero or one to indicate whether they are disabled or enabled respectively.

**Note:** If you use a negative number for the font size, it will match the size of fonts in the font dialog.

#### \$inellipse(x,y,x,y,w,h)

Returns \$true if the point x y is inside the specified ellipse, and \$false if it is not.

### \$inrect(x,y,x,y,w,h)

Returns \$true if the point x y is inside the specified rectangle, and \$false if it is not.

#### \$inroundrect(x,y,x,y,w,h,w,h)

Returns \$true if the point x y is inside the specified rounded rectangle, and \$false if it is not.

### \$inpoly(x,y,a1,a2,b1,b2,...)

Returns \$true if the point x y is inside the polygon defined by the specified points, and \$false if it is not.

#### \$mouse

Returns the x, y position of the current mouse event, and whether the left mouse button, shift key, and/or control key are pressed.

**Properties:** win, x, y, mx, my, cx, cy, dx, dy, key, lb

The \$mouse identifier can be used in the mouse/click events.

With \$mouse.key, you can use the & bitwise operator to check if the left button, shift key, and/or control key are pressed. It can also be used to check if the right-shift/control/menu keys are pressed or the capital/scroll/numlock keys are set.

if (\$mouse.key & 1) echo left button is pressed.

if (\$mouse.key & 2) echo control key is pressed.

if (\$mouse.key & 4) echo shift key is pressed.

if (\$mouse.key & 8) echo alt key is pressed.

if (\$mouse.key & 16) echo right mouse button is pressed.

The following properties can also be used:

The .win property returns the name of the active window.

The .x/.y, .mx/.my, .cx/.cy, and .dx/.dy properties return the x and y position of the mouse relative to the active window, the main mIRC window, the primary monitor, and the desktop respectively.

The .lb property returns \$true if a mouse event occurred over a listbox, or \$false if it did not.

#### **\$onpoly(n1,n2,x,y,x,y,...)**

Returns \$true if two polygons overlap. n1 is the number of points in the first polygon, n2 in the second polygon.

### \$pic(filename,N,M)

Returns properties for bmp, jpg, png, or icon files.

Properties: size, width, height, icons, frames, delay

**Note:** The N and M values are optional and need to be specified with the icons, frames, and delay properties when retrieving values for GIF and icon files that can contain multiple frames and icons.

### \$rgb(N,N,N|N|name)

Returns an RGB color value for use in /draw commands.

If you use only **one** parameter and it is a number, it assumes it is an RGB color value and returns N,N,N.

If it is not a number, it assumes it is one of these system color names: face, shadow, hilight, 3dlight, frame, and text, and returns an RGB color value.

### \$width(text,font,size,bipt)

Returns width of text in pixels for the specified font.

Where **bipt** set the options for bold, italic, process control codes, and process tabs. Each of these can be followed by an N value of zero or one to indicate whether they are disabled or enabled respectively.

**Note:** If you use a negative number for the font size, it will match the size of fonts in the font dialog.

### **\$window**

Returns the name of the window in the **leave** menu event which was just left.

### 10.19

# **Playing Files**

The **play** feature is a powerful tool that allows you to play **text** files to users or channels on IRC.

The **play central** dialog lists all of the currently **queued** play requests, and allows you to maintain the queue. Files are played in the order in which they are queued.

The **play central** dialog can be displayed with the **/playctrl** command.

### The /play command

A play request can be **added** to the queue by using either the **play** dialog or the **/play** command. The **play dialog** can be displayed by using the **/play** command with no parameters. It supports **most** of the features of the /play command itself, described below.

# /play [-aescpbnx q# m# f# rl# t#] [alias] [channel/nick/stop] <filename> [delay]

In its **simplest** form, you can play a text file to the current window with:

/play poem.txt

This plays the file poem.txt to the current window, which must be a query or channel window, with a default delay of 1000 milliseconds, ie. 1 second. Empty lines are treated as a delay.

If you have <u>flood protection</u> turned on, /play sends all lines through the flood protection feature to prevent you from **flooding** yourself off the server.

The -a switch makes /play use specified alias instead of /msg or /notice.

The **-e** switch allows you to echo out the text to a window as it would be sent to the server.

The **-s** switch allows you to play commands to the status window while offline. If you do not specify the -s switch then you must be connected to a server to use the /play command.

The -c switch forces mIRC to interpret lines as actual commands instead of plain text.

The **-p** switch indicates that this is a priority play request and should be placed at the head of the queue for immediate playing. The current play request will be paused and will resume once this play request is finished.

The **-b** switch plays text in the clipboard to a window. The text is temporarily saved to a file playqN.txt, which is deleted once playing is completed.

The **-n** switch makes the play command use /notice instead of /msg.

The **-q#** switch specifies the maximum number of requests that can be queued. If the queue length is already greater than or equal to the specified number then the play request is ignored.

/play -q5 info.txt 1000

The **-m#** switch limits the number of requests that can be queued by a specific user/channel. If the user/channel already has or exceeds the specified number of requests queued then the play request is ignored.

/play -m1 info.txt 1000

The above line limits each user to a maximum of one request at a time and ignores all of their other requests.

**Note:** The **-q#** and **-m#** switches only apply to a /play initiated via a remote definition, not by you.

To combine the above switches you would use:

/play -cpq5m1 info.txt 1000

The -r switch forces a single line to be chosen randomly from a file and played.

/play -r action.txt 1500

The -I# switch forces the specified line-number to be read from a file and played.

/play -l25 witty.txt 1500

The **-f#** switch plays the whole file starting from the specified line.

/play -f9 moo.txt

For switches **-rlf** the first line in the file can be a single number specifying the number of lines in the file, this speeds up the process of reading the file.

The **-x** switch makes the play command treat the first line in the file as plain text, even if it is a number.

The -t switch forces mIRC to look up the specified topic in the file and play all lines

under that topic. For example:

/play -thelp1 help.txt

In the help.txt file you would have:

[help1]

line1

line2

line3

[help2]

. . .

mIRC will play everything after [help1] and stop when it reaches the next topic header or the end of the file.

You can use the **\$pnick** identifier in commands which identifies the nick/channel to which you are currently playing.

To **stop** the playing of a file and clear the play queue you can use /play stop.

### The \$play identifier

The \$play(N) or \$play(Nick,N) identifer returns information on items in the play queue.

Properties: type, fname, topic, pos, lines, delay, status

If you specify a **nick**, you can find out how many play requests a user has in the queue.

### 10.20

# **Playing Sounds**

mIRC supports the playing of various types of sounds with the following commands and identifiers.

/splay -cwmpq [filename | stop | pause | resume | seek | skip] [pos]

Plays the specified sound, which can be a .wav, .mid, or .mp3 file.

Where switch w = wave, m = midi, p = mp3, and q = queue for playing.

If you do not specify a folder, the sound folders in the <u>Sound Requests</u> dialog are searched.

You can use **stop** to stop a currently playing sound, eg. /splay stop, or /splay -w stop, to stop just wave files.

You can use **pause**, **resume**, and **seek** with all sounds.

If you specify the **pos** value when playing an mp3, eg. /splay llama.mp3 1000, mIRC will play the mp3 starting at that position.

You can also **seek** to a position in an mp3 while it is being played with eg. /splay seek 1000

To **skip** the currently playing sound, you can use /splay -wmp skip

The -q switch allows you to gueue sounds for playing after the current sound ends.

The -c switch allows you to clear the play queue except for the currently playing sound.

When a sound finishes playing, it triggers a sound event.

### /vol -wmpvuN [volume]

Sets the volume on your system for waves, midis, and mp3s (same as waves)

If you use the **-v** switch, this sets the master volume on your system.

The **volume** value can range from 0 to 65535.

The **-uN** switch sets the mute setting, where N = 1 is on, N = 2 is off.

### \$vol(wave | midi | song | master)

Gets the current volume for the specified sound setting

Properties: mute

\$vol(wave).mute returns the mute setting for wave sounds

#### \$inwave, \$inmidi, \$insong

Return \$true if the specified sound type is playing, \$false otherwise.

Properties: fname, pos, length, pause

\$insong.fname returns the filename of the currently playing song

### \$sound(type)

Returns the directory specified in the <u>Sound Requests</u> section of the Options dialog, where **type** can be wave, midi, mp3, wma, or ogg.

#### **\$sound(filename)**

Returns either the directory for that file type, as above, or information about the file. The following properties will return values based on the file type.

**Properties:** album, title, artist, year, comment, genre, track, length, version, bitrate, vbr, sample, mode, copyright, private, crc, .id3, .tag, .tags.

If you want to retrieve the id3v2 values, you can use the .tag and .tags properties:

```
showtags { if ($1-==$null) { echo 2 -e * /showtags: please specify filename, eg. /showtags file.mp3 | halt } echo 1 id3: $sound($1-).id3 echo 1 tags: $sound($1-).tags
```

```
var %n = \$sound(\$1-,0).tag
 while (\%n > 0) {
  echo 1 tag: $sound($1-,%n).tag
  dec %n
 }
}
```

### 10.21

# **Regular Expressions**

Regular expressions can be used to perform complicated pattern matching operations. You should already know how to use Regular expressions before using the identifiers below.

It is beyond the scope of this help file to explain how Regular Expressions work. There are many websites on the internet that introduce regular expressions and provide examples.

### \$regex([name], text, pattern)

Returns N, the number of strings in text that matched the regular expression pattern.

You can assign a **name** to a \$regex() call which you can use later in \$regml() to retrieve the list of matches.

If you do not specify a **name**, all identifiers use a 'default' name which is overwritten with each call to \$regex().

\$regml() remembers the results for the last fifty \$regex() calls. Each time you do a match with \$regex(), and you specify a name, that name's previous results are overwritten with the new results.

### \$regml([name], N, [&binvar])

This returns the Nth match returned by a call to \$regex(), \$regsub(), or \$regsubex().

Properties: pos, bytepos, group, match

If N = 0, returns total number of match strings.

The **pos** property returns a strings position in the original match text.

The **bytepos** property returns the UTF-8 byte string position in the original match text.

The **group** property returns the capture group number

The **match** property returns the match number in the case of a /g global match that returns multiple matches.

If &binvar is specified, the result is saved to the &binvar and the length of the saved text is returned.

### \$regmlex([name], M, N, [&binvar])

If the /g modifier is used with a pattern, multiple results can be returned for that pattern. This identifier allows you to retrieve these results, where M is the Mth result and N is the

() capture group number in that result. If N is not specified, it defaults to 1.

This identifier supports the same properties as \$regml().

#### \$regsub([name], text, pattern, subtext, %var|&binvar)

Performs a regular expression match, like \$regex(), and then performs a substitution using subtext.

Returns N, the number of substitutions made, and assigns the result to %var or &binvar.

### \$regsubex([name], text, pattern, subtext, %var|&binvar)

Performs a regular expression match, like \$regex(), and then performs a substitution using subtext.

Subtext is evaluated during substitution and can be an identifier.

Subtext can contain special markers where  $\n =$ match number,  $\t =$ match text,  $\a =$ all match items, and  $\A$  which is a non-spaced version of  $\a$ .

Subtext can contain capture group references using \N where N is the number of the capture group and \0 returns the total number of captures.

Returns text result.

**Note:** To output results to a **%var|&binvar**, the **[name]** parameter must be specified, and the identifier will return N, the same as \$regsub().

#### \$regerrstr

Returns the error string provided by the regular expression library for a failed evaluation.

#### Supported Modifiers

mIRC supports the following standard modifiers:

g - continue after first match

i - case insensitive match

m - multiple lines match

s - dot matches newlines

x - ignore white spaces

mIRC also supports the following modifiers:

A - anchored - match start of string

E/D - \$ dollar matches only at end

U - ungreedy - reverses \* and \*?

u - enables UTF-8 and UCP

X - strict escape parsing

And the following mIRC-specific modifiers:

S - strip bold, underline, reverse, and color control codes

F - make back-references refer to () capture groups, which is how standard regex works.

Note: If the F modifier is not used, \N references in patterns and N indexes in identifiers

refer to the order in which matches are found, and \$regml() will not include empty matches.

### 10.22

# **SendMessage**

mIRC supports **SendMessage** communication, which allows external applications to control mIRC or to request information from it. Note that it is also possible to communicate with mIRC by using <u>DDE</u>.

#### **Performing Commands**

The following call to SendMessage() makes mIRC **perform the commands** that you specify:

SendMessage(mHwnd, WM MCOMMAND, cMethod, cIndex)

mHwnd - the handle of the main mIRC window, or the handle of a Channel, Query, etc. window.

WM\_MCOMMAND - which should be defined as WM\_USER + 200

cMethod - how mIRC should process the message, where:

- 1 = as if typed in editbox (default)
- 2 = as if typed in editbox, send as plain text
- 4 = use flood protection if turned on, can be or'd with 1 or 2
- 8 = use unicode text

cIndex - use a named mapped file, where IParam = N, the mapped filename is mIRCN. If IParam is zero, the filename is mIRC.

Returns - 1 if success, 0 if fail

### **Evaluating Identifiers and Variables**

The following call to SendMessage() makes mIRC **evaluate the contents** of any line that you specify:

SendMessage(mHwnd, WM MEVALUATE, cMethod, cIndex)

mHwnd - the handle of the main mIRC window, or the handle of a Channel, Query, etc. window.

WM\_MEVALUATE - should be defined as WM\_USER + 201

cMethod - how mIRC should process the message, where:

8 = use unicode text

cIndex - use a named mapped file, where IParam = N, the mapped filename is mIRCN. If IParam is zero, the filename is mIRC.

Returns - 1 if success, 0 if fail

#### **Mapped Files**

The application that sends these messages **must** create a **mapped file** named **mIRC** with **CreateFileMapping()**.

The IParam (cIndex) parameter indicates the mapped file name that you have used, where IParam = N, the mapped filename is mIRCN. If IParam is zero, the filename is mIRC.

When mIRC receives the above messages, it will open this file and use the data that this mapped file contains to perform the command or evaluation. In the case of an **evaluation**, mIRC will output the **results** to the mapped file.

The mapped file must be at least 4096 bytes in length.

To prevent simultaneous access to the mapped file, your code must check whether the mapped file exists or not before using it. If it exists, you should assume that it is in use by another program, and should try again later.

#### **Remote Event Context**

If during a remote event, such as on TEXT, your script calls a DLL which then uses SendMessage() to execute a command or evaluate an identifier, you can tell SendMessage() to execute in the context of that remote event.

During a remote event, a **\$eventid** identifier is set to a unique value to identify the event. This can be passed to a DLL which can then pass it back to mIRC using:

SendMessage(mHwnd, WM MCOMMAND, MAKEWPARAM(cMethod, cEventId), cIndex)

This will cause the command/evaluation to execute in the context of the remote event identified by cEventId. If cEventId is 0, this indicates a non-remote event.

### **Extended Version Information**

If cMethod is set to -1, you can set cIndex to -1 to receive the mIRC version number and to -2 to receive the cMethod options that are supported.

#### **Extended Error Information**

If cMethod is or'd with the value 16, SendMessage() will return more specific error values.

The return values are: 0 = success, 1 = failure.

The 1 = failure error can be or'd with 2 = bad mapfile name, 4 = bad mapfile size, 8 = bad eventid, 16 = bad server, 32 = bad script, 64 = disabled (if disabled in the Other dialog).

If the error is just 1, this indicates that the command/identifier returned an error.

The 16 and 32 errors indicate that the server/script associated with the eventid no longer exists.

### 10.23

# **Signals**

Signals are a simple way of triggering signal events in multiple scripts at the same time.

### /signal [-n] <name> [parameters]

The signal command allows you to trigger signal events in all scripts that listen for signals.

By default the signal is triggered after all current scripts have finished executing. You can however use **-n** to make the script trigger immediately.

#### on \*:SIGNAL:name:command

The on signal event triggers if a script has used the /signal command to send a signal to all scripts.

The signal **name** can contain wildcards.

The **\$signal** identifier returns the signal name that caused the signal event to trigger.

The **\$1-** identifier returns the parameters that were specified in the /signal command.

**Note:** The script that called /signal is triggered first, and then all other scripts are triggered.

### 10.24

### **Sockets**

Socket support allows you to create your own raw socket connections in order to send and receive information. You should already be an **expert** at writing <u>Aliases</u>, <u>Popups</u>, and <u>Scripts</u> before attempting to use sockets.

Sockets are a **limited resource** so it is important that you understand how these commands work before trying to use them. Sockets should always be closed after they have been used to make them available to other applications.

#### **Socket Identifiers**

#### \$sock(name,N)

This returns information about a socket connection that you created using the socket commands.

**Properties:** name, ip, addr, port, status, sent, rcvd, sq, rq, ls, lr, mark, type, saddr, sport, to, wserr, wsmsg, bindip, bindport, ssl, pause, starttls

- **.name** is the name you give to a connection to identify it
- **.addr** original named address if one was used.
- .sent and .rcvd return the number of bytes sent and rcvd over that connection so far

- .sq and .rq return the number of bytes queued in the send and receive buffers respectively
- .ls and .lr return the number of seconds since the connection last sent and last received info
- **.mark** is a user storage area (see /sockmark)
- .type returns the socket type, TCP or UDP
- .saddr and .sport return the source address and port of the last received UDP packet
- .to returns the number of seconds the socket has been open
- **.wserr** returns the last winsock error number that occurred on a socket
- .wsmsg returns the last winsock error message match the error number
- .ssl returns \$true for an SSL connection
- .pause returns \$true if a socket has been paused
- .starttls returns \$true for a STARTTLS connection
- .upnp returns \$true for a UPnP socket.

**Note:** You can use a wildcard name to quickly reference matching entries. The N parameter is optional, if it is not specified it is assumed to be 1.

#### \$sockname

\$sockname is the name given to a connection to identify it. This identifier can be used in events to know which connection an event is related to.

#### \$sockerr

\$sockerr is set to a value after each socket command/event and **must** be checked after each socket command and before processing an event to see if an error occurred.

#### \$sockbr

\$sockbr is set to the number of bytes read by a /sockread command. It is used to test whether any information was in fact read from the buffer (see below for more info).

### **Socket Commands and Events**

The following information lists associated commands and script events together for easy reference.

### **Listening for and Accepting incoming connections**

#### /socklisten [-dpu] [bindip] <name> [port]

The /socklisten command listens on the specified port for connections to that port. If a port is not specified, the port is selected randomly from the range specified in the DCC Options dcc ports section.

- The **-d** switch means that you specified an ip address as the bind address.
- The **-p** switch enables UPnP support for the listening socket, if that is available.
- The **-n** switch disables the Nagle algorithm for the connection.
- The **-u** switch enables dual stack sockets.

#### on 1:socklisten:name:commands

The socklisten event is triggered when someone tries to connect to a port that you are listening on. If you want to accept the connection you **must** do it in this event using the

/sockaccept command, otherwise the connection is closed.

### /sockaccept <name>

The /sockaccept command accepts the current connection to your listening port and assigns it a name to identify it.

The **-n** switch disables the Nagle algorithm for the connection.

#### /sockrename < name > < newname >

The /sockrename command assigns a new name to an existing connection.

### **Opening and Closing connections**

### /sockopen [-deswap64nt] [bindip] <name> <address> <port>

The /sockopen command initiates a connection to the specified address and port. You can specify either an ip address or a named address (which will be resolved to an ip address).

The **-d** switch means that you specified an ip address as the bind address.

The **-e** switch creates an SSL connection and can be combined with these switches: **-s** skip invalid certificates, **-w** display warning dialog, **-a** accept invalid certificates, **-p** prevent certificate caching.

The **-46** switches are optional and specify the IPv4/IPv6 context when resolving named addresses.

The **-n** switch disables the Nagle algorithm for the connection.

The **-t** switch enables STARTTLS negotiation on a non-SSL connection.

#### on 1:sockopen:name:commands

The sockopen event is triggered when a /sockopen command is successful and a connection has been made.

#### /sockclose <name>

The /sockclose command closes the connection with the specified name. If you specify a wildcard name, all connections that match the wildcard are closed.

#### on 1:sockclose:name:commands

The sockclose event is triggered when a connection is closed by the remote connection (not you).

### **Sending information**

#### /sockwrite [-tnba] <name> [numbytes] <text|%var|&binvar>

The /sockwrite command queues info to be sent on the specified connection. mIRC will then try to send that info as quickly as it can. Once it has finished sending the info, it triggers the on sockwrite event so you can send more info if you need to.

If you specify the **-t** switch, it forces mIRC to send anything beginning with a & as normal text instead of interpreting it as a binary variable. The **-n** switch appends a \$crlf to the line being sent if it is not a &binvar and if it does not already have a \$crlf.

The **-b** switch indicates that you are specifying the numbytes value which is the number of bytes you want sent.

The **-a** switch prevents characters in the range 0-255 from being UTF-8 encoded, as long as the line only contains characters in the range 0-255.

**Note:** You can use a wildcard name to send the same information at once to all connections that match the wildcard.

On error: if a /sockwrite fails, it sets \$sock().wserr to the error value, and triggers the on sockwrite event with \$sockerr set.

#### on 1:sockwrite:name:commands

The sockwrite event is triggered when mIRC has finished sending all of the data that you previously queued for sending or when the socket is ready for more writing.

**Note:** If you try to /sockwrite while there is still info queued in the send buffer, your new info will just be added to the end of the queue up to a maximum of 16384 bytes. Any attempt to queue more than that will result in an error message, so you should check how much info is currently queued by using \$sock().sq (send queue) before trying to queue info on a socket.

### **Reading information**

#### on 1:sockread:name:commands

The sockread event is triggered when there is info waiting to be read on the specified connection. You can read this info using the /sockread command.

**Note:** If this event triggers but no /sockread is performed to attempt to read the buffer, it is assumed that no script exists that is handling this buffer, so it is cleared and the info it contained is lost.

### /sockread [-fn] [numbytes] <%var|&binvar>

The /sockread command reads bytes from the receive buffer into the specified variable.

If you specify a %var variable, a line of text ending with a Carriage Return/LineFeed is read into %var. The \$crlf are stripped off (this may result in %var being \$null if the line only consisted of \$crlf).

If you specify a &binvar then [numbytes] of info is read into the binary variable. If no [numbytes] is specified it defaults to 4096 bytes.

If you specify the **-f** switch with a %var variable, this forces mIRC to fill the %var variable with whatever text is in the receive buffer, even if it does not end in a \$crlf. If you attempt to use this with binary data, it will only read up to the first NULL byte.

The **-n** switch allows you to read a \$crlf terminated line into a &binvar. If the incoming line does not contain a \$crlf, no bytes will be read into &binvar, unless you specify the -f switch, which forces the read (same as when reading into %vars).

**Note:** A single /sockread may not be enough to read the entire buffer. You should keep reading until \$sockbr (bytes read) is set to zero. This is far faster than letting mIRC re-trigger the event. If your script does not read the whole buffer, the on sockread event

is re-triggered if:

- a) you were reading into a &binvar.
- b) you were reading into a %var and there is still a \$crlf terminated line in the buffer waiting to be read.

### **Example:**

This example shows you how you should process a sockread event. The socket has already been opened and has received information, so the sockread event is triggered. The socket name is **testing**. There is an explanation of each step below the sample script.

```
on 1:sockread:testing:{
  if ($sockerr > 0) return
  :nextread
  sockread %temp
  if ($sockbr == 0) return
  if (%temp == $null) %temp = -
  echo 4 %temp
  goto nextread
}
```

If **\$sockerr** is greater than zero then there is a socket error. mIRC will automatically close the socket, so all you have to do is **return** from the event.

**sockread %temp** reads a \$crlf terminated line of text and stores it in %temp. If the buffer did not contain a \$crlf terminated line, %temp is not filled with anything, and \$sockbr returns zero, so you should just return from the event without further processing.

If **%temp is \$null** then that means the line consisted only of a \$crlf which mIRC has automatically stripped out of the line, so only an empty line remains. In this case, I am setting %temp to a dash to represent an empty line but you can do whatever you wish here.

I then **echo** the final line that was read to the status window.

Finally, I use **goto** to jump back and to continue reading remaining lines in the socket's receive buffer.

#### Pausing a socket

### /sockpause [-r] <name>

The /sockpause command pauses/restarts a socket when reading incoming data.

### Marking a socket

#### /sockmark <name> [text]

The /sockmark command fills the .mark attribute of a socket with the specified info for later reference via the \$sock().mark property. If you do not specify any text, the mark is cleared.

**Note:** You can use a wildcard name to set the same information at once for all connections that match the wildcard.

### Listing open sockets

### /socklist [-tul] [name]

The /socklist command lists all open sockets, or if you specify the -tul switches, it lists tcp, udp, and listening sockets respectively. You can also specify a socket name or wildcard.

#### **UDP Sockets**

UDP is a connection-less protocol, ie. you can send information via UDP to other UDP addresses without needing to connect to them first.

UDP does **not** guarantee that any information you send will actually reach its destination, ie. it is not a reliable protocol. Also, be aware that UDP packets may not arrive in the same order as that in which they were sent. This means that you **must** perform your **own** checking to confirm that any data you sent actually reached its destination properly.

# /sockudp [-bntkdu] [bindip] <name> [port] <ipaddress> <port> [numbytes] [text|%var|&binvar]

If you specify the **-t** switch, it forces mIRC to send anything beginning with a & as normal text instead of interpreting it as a binary variable. The **-n** switch appends a \$crlf to the line being sent if it is not a &binvar and if it does not already have a \$crlf.

The **-b** switch indicates that you are specifying the numbytes value which is the number of bytes you want sent.

The **-k** switch forces the socket to stay open, this allows it to listen for data that is sent to its port via UDP. If **-k** is not specified, the socket is opened, the information is sent to the specified ipaddress and port, and the socket is then closed.

The **-d** switch means that you specified an ip address as the bind address.

The **-u** switch enables dual stack sockets.

If you specify a socket **name** that does not exist, it is created. If it does exist, the existing socket is used to send the info.

You can also specify the local **port** number that you wish to use, if it is not specified, mIRC chooses one randomly.

**ipaddress** and **port** specify the destination address to which you want to send information. You can only use an IP address here.

On error: if a /sockudp fails, it sets \$sock().wserr to the error value, and triggers the on sockwrite event with \$sockerr set.

### on 1:udpread:name:commands

The udpread event is triggered when there is info waiting to be read on a UDP socket. You can read this info using the /sockread command.

Note: If this event triggers but no /sockread is performed to attempt to read the buffer,

it is assumed that no script exists that is handling this buffer, so it is cleared and the info it contained is lost.

#### Other commands and identifiers

The following network-related commands and identifiers are also available.

### /bindip [on|off] <ipaddress>

This command allows you to change the bind settings in the <u>Ports</u> dialog. An adapter name can be specified instead of the IP address.

### \$bindip(N|ipaddress)

Returns the list of active network adapters. The N=0, returns the total number of active network adapters.

Properties: name, ip, loopback

If an IP address is specified, returns the best network adapter for connecting to that IP address.

### \$portfree(N,[ipaddress])

Returns true if the specified port number is not in use, where N = port number, otherwise returns <math>false.

If an IP address is specified, only the interface with that IP address is checked for used ports, otherwise all active interfaces are checked. An adapter name can also be used instead of an IP address.

#### \$iptype(text)

Returns "ipv4" or "ipv6" if text is is a valid IP address format.

Properties: compress, expand

With IPv6 addresses, the properties .compress and .expand can be used.

### 10.25

### **Toolbar**

The **/toolbar** command can be used to **modify** the mIRC toolbar. The command format is:

#### **Switches and Parameters**

```
-a = add button
```

-i = insert button at position [N]

-d = delete button at position [N] or <name>

-m = move button <name/N> to position [N]

-s = separator

```
-x = wide button
-kN = use when adding button to make it a check button
      check/uncheck with N = 1 or N = 0
-nN = icon index in picfile
-zN = icon size, 1 = small, 2 = large, 3 = actual
-eb = enable/disable button [N] or <name>
-wh = show/hide button [N] or <name>
-yN = set transparency (0 to 255) for button [N] or <name>
-u = update display immediately
-r = reset buttons
-c = clear all buttons
-f[sld] = load/save/delete settings in toolbar.ini file
        toolbar.ini is automatically loaded on startup
-v = enable loading of PNG file that uses alpha channel transparency
To update properties for an existing button:
-t = tooltip
-p = picfile
-1 = alias
-o = popup
name = unique name assigned to button/separator, it cannot be a number.
tooltip = text displayed when the mouse hovers over button.
picfile|@ = picture filename or picture @window, min 16x16, max 256x256 pixels.
x y w h = position in bitmap and size of bitmap to use (not for use with icons).
/alias = command performed when button pressed, where $!1 = button name.
popupfile|@ = popup filename or @menu name.
```

The tooltip, picfile, alias and popup can be enclosed in quotes if necessary. To clear an item, can use "" empty quotes.

**Note:** Modifying some of the default mIRC buttons, such as Connect, Notify, etc. may not always work since they are managed by mIRC. They can however be deleted.

#### **Examples**

/toolbar -a Cow "Moo moo!" cow.bmp "/echo I am cow, hear my moo" @cow

The above command creates a button called "Cow" with the tooltip "Moo moo!" using the button picture cow.bmp. If the button is clicked, it will run the command "/echo I am

cow, hear my moo", and if right-clicked, it will popup the menu @cow.

/toolbar -m 1 Cow

The above command will move the button named "Cow" to position 1 in the toolbar.

/toolbar -p Cow goat.bmp

The above command will change the picture on the button named "Cow" to "goat.bmp"

/toolbar -is 2 cowsep

The above command will insert a separator named "cowsep" (every button and separator you add to the toolbar must have a name) at position 2.

#### **Identifiers**

### \$toolbar(name/N)

Returns properties for a toolbar button. If N = 0, returns number of buttons.

Properties: name,type,tip,alias,popup,width,height,wide,enabled,visible,checked,alpha

### 10.26

### **Voice Commands**

If you have **Speech Recognition** software installed, mIRC can be made to listen to **voice commands** through scripting.

### /vcmd -lc <on | off | sleep>

This turns voice command listening **on** or **off**, or you can temporarily turn off listening by specifying **sleep**.

The **-c** switch clears the commands list.

The -I switch lists the commands in your commands list.

**Note:** Your SR software may have very large speech files or dictionaries which could make it slow to load/unload and/or process your speech.

### /vcadd <command1,command2,...>

This adds voice commands to the commands list.

Commands should consist of at least **two words** and should be sufficiently **distinct** from other commands to make it easier for your SR software to match the words you speak to commands in your commands list.

**Note:** Adding or removing commands can be done on the fly, however if your SR software is slow at updating the commands list, it could cause short pauses in mIRC.

### /vcrem <command1,command2,...>

This removes commands from the commands list.

### **\$vcmdver**

Returns the version of your installed SR software, or \$null if not installed.

#### **\$vcmdstat**

Returns 0 if not available, 1 if currently off, 2 if ignoring commands, 3 if listening for a command.

### \$vcmd(N)

Returns the Nth item in your commands list.

#### The on VCMD event

If the SR software matches a word you have spoken to a word in your commands list, it triggers the on VCMD event:

```
on 1:VCMD:<matchtext>:<*/#/?/@>:/echo 3 Recognized: $1-
```

### **Example Script**

```
alias vctest {
  if ($vcmdver == $null) halt
  vcmd -c on
  vcadd connect Dalnet, connect Efnet, connect Undernet, connect IRCnet
  vcadd Part Channel, Disconnect, List Commands, Moo Cow
}

on 1:vcmd:connect*:*:server $2
  on 1:vcmd:part channel:*:if ($active ischan) part $active
  on 1:vcmd:disconnect:*:quit
  on 1:vcmd:list commands:*:vcmd -l
  on 1:vcmd:moo cow:*:splay moo.wav
  on 1:vcmd:*:*:echo You said: $1-
```

### 11

## **Other features**

Command Line
Key Combinations
Text Copy and Paste
Hotlinks

Address Book Channel Central Online Timer

<u>Help Menu</u> <u>System Menu</u> <u>Window Menu</u>

### 11.1

### **Command Line**

Command line switches allow you to change the behaviour of mIRC when it is first run. The switches can be used by creating a **Windows Shortcut** to the mIRC executable and appending the switches to the target filename, eg.:

"C:\Program Files\mIRC\mirc.exe" -sUndernet

mIRC supports the following command line switches:

### -s<server:port>

Makes mIRC connect to the specified server and port on startup.

### -j<#chan1,...,#chanN>

Makes mIRC join the specified channels on connect.

#### -p<password>

Specifies the password required to join the channel.

### -n<nick1,nick2>

Sets your main and alternate nicknames.

#### -i<filename.ini>

Makes mIRC use the specified file in place of mirc.ini.

### -r<path>

Sets the data path where mIRC saves mirc.ini as well as other files and data. If -r is specified without a path, the path is set to that of the mIRC executable.

#### -noreq

Makes mIRC avoid use of the registry. This includes not adding irc:// and ircs:// link support.

#### -noconnect

Prevents mIRC from connecting to a server on startup if that option is enabled in the mIRC options dialog.

### -portable

This is a combination of the -r and -noreg switches.

### 11.2

# **Key Combinations**

### **Channels List keys**

Shift+DoubleClick

You can use this in the channels list window to join a channel minimized.

### **Cursor and Page keys**

### **Cursor Up/Down**

Browses the command line history buffer for a single-line editbox.

### Control+Cursor Up/Down

Browses the command line history buffer for a multi-line editbox.

#### Page Up/Down

Browses the scrollback buffer of a window a page at a time.

### Control+Page Up/Down

Browses the scrollback buffer of a window a line at a time.

### Control+Home/End

If you are editing text in an editbox, this moves the cursor in the text to the start or end of the editbox. If there is no text in the editbox, this moves the scrollback buffer of a window to the top or bottom.

### **Editbox keys**

#### Alt+Enter

In a multi-line editbox this moves the cursor to the next line allowing you to enter several separate lines.

#### Control+Enter

If you want to send information beginning with the / command prefix and you want it to be sent as normal text instead of **interpreted** as a command, just hold down the **Control** key when you press enter.

#### Control+BURKO

Inserts control codes for bold, underline, reverse and color in text.

#### Shift+Tab

Switches between the editbox and the nickname listbox in a channel window. See the Keys section where this behaviour can be changed.

#### Help keys

#### F1

Shows the help file and is context sensitive, so you can press it in a dialog and it will bring up the help file section describing that dialog. Remember that if this key is redefined as an alias it will no longer work as a help key.

### Shift+F1

Displays the Keyword search dialog for the help file. If this is redefined as an alias it will no longer work as a help key.

### Search keys

#### Control+F

In status/channel/query/etc. windows, this opens up a text search dialog allowing to you search the text buffer of that window for matching text.

#### Control+L

Scrolls back text in a window to the Line Marker.

#### Switchbar keys

#### Alt+LeftClick

You can use this on a Status Window **switchbar button** to show/hide all buttons associated with the status window. New windows will always have their buttons displayed even if the hide option is on. You can use **Alt+F1** to show/hide buttons.

#### Shift+LeftClick

This closes the window associated with the switchbar button.

#### Control+LeftClick

This minimizes the window associated with the switchbar button.

### Tab key

#### **Tab**

If an editbox is empty and you press the Tab key, mIRC inserts a "/msg nickname" into the editbox of the window you are currently on, where **nickname** is the last person that sent you a message.

You can use **Control+D** to remove a nickname from the Tab Key nickname list of users who have recently messaged you.

**Note:** The editbox needs to be empty in order for the Tab key to work as described above since the Tab key also performs the functions below...

If you are in a channel window editbox and it contains some text, the Tab key performs nickname completion on the word the cursor is on, this allows you type in only the first character or two of a nickname on that channel and then press Tab and mIRC will expand it to the full nickname.

If you press the Tab key while the cursor is positioned over a %variable or \$identifier, it is evaluated.

The Tab completion also works for a nickname in a query window, the nicknames in your notify list when in the status window, and for channel names in your favorites folder when in any window.

You can also use wildcard \*? characters in nickname tab completion.

### Text mark/copy keys

### Control+Copy

If you want to copy text with control codes, you can hold down the **Control** key while you do the copy.

#### Shift+Copy

If you want to copy text with line-breaks as it appears in a window, you can hold down the **Shift** key while you do the copy.

### **Toolbar keys**

#### Control+Connect

You can hold down the Control key while clicking the Connect toolbar button to make mIRC use the next server in the list.

### Shift+Connect

You can hold down the Shift key while clicking the Connect toolbar button to make mIRC connect to the current server using the same port instead of a randomly selected port.

### Treebar keys

#### Control+T

This toggles focus between the Treebar and the currently active window.

### Window keys

#### Alt+1...9

If you press Alt and a number, mIRC will display the Nth window listed in your Window menu. If you press Alt+0 (zero) and you are in an mIRC desktop window, it will jump to the main mIRC window.

### Alt+Q

Shows or hides the second editbox in a channel window.

#### Alt+X

Toggles the maximized state of the active window.

#### $\Delta lt + 7$

This closes the active window, if enabled in the **Keys** dialog.

#### **Control+Minimize**

This minimizes mIRC and asks you for a Lock password..

#### Control+N

Cycles through channel windows.

### Control+Q

Cycles through query windows.

#### Control+Tab

Cycles through all windows, as set in the Keys dialog.

### **ESCape**

Quickly minimizes the active window, it must be turned on in the Other dialog.

#### Shift+Minimize

This minimizes mIRC in a way opposite to that selected in the Tray dialog.

#### Shift+RightClick

You can roll/unroll a window by holding the shift-key and clicking your right mouse button on the window titlebar.

### 11.3

# **Text Copy and Paste**

### To copy text

You mark the text as usual with the mouse by pressing the left mouse-button and dragging it. The moment you release the left mouse-button, the text will be copied into the clipboard.

You can only copy the currently displayed text. To copy text from another page, you must scroll up/down to it and then copy it. If you want to store most of the text you see on a channel, you might want to use the logfile/buffer options in the <a href="System Menu">System Menu</a>.

#### To paste text

You can then use the usual Shift-Insert or Control+V key combination to paste the text anywhere you wish.

**Note:** See <u>Key Combinations</u> for keys you can use while copying text.

### 11.4

### **Hotlinks**

When you move your **mouse** in a window **over** text that is a website or email **address**, or a **nickname** of a certain type, the mouse pointer changes to a **finger** indicating that you can click, double-click, or right-click on that text to perform certain functions.

If you **double-click** on a website address, mIRC will open up your web browser to visit that website.

You can also hold down the **shift-key** and **double-click** on email addresses to open your email program. The **shift-key** is required because of the huge number of addresses on IRC which look like emails but are not.

If you are in a **channel** window and you move the mouse over text that is a **nickname** on that channel, you can **double-click** on it for the usual double-click behaviour, or **right-click** on it to open the nickname list popup menu. If you **single-click** on the nickname, the cursor in the listbox is scrolled to that nickname.

You can also **double-click** on text that is a **channel name** in any window to join that channel.

If you move the mouse over text that is a nickname in your **Notify** list, you can also click your **right** mouse button to pop up the notify popup menu.

Note: This behaviour depends on the Hotlink setting in the Other dialog.

### 11.5

### **Address Book**

The Address Book can be used to store various types of information about users. It can be accessed via the Tools menu, the toolbar or by pressing **Alt+B**.

#### **Address**

The **Address** section allows you to store basic information about users on IRC.

#### **Nickname**

Nickname on IRC. Information in the Address Book is stored according to nickname.

#### **Real Name**

Real name.

#### **Email**

Email address. If you click on the **Email** button, mIRC will start up your email software.

#### Website

Website address. If you click on the **View** button, mIRC will start up your web browser.

#### **IP Address**

IP Address. If you click the Chat button, mIRC will initiate a DCC Chat directly to this user's DCC Server instead of using the IRC Server.

**Note:** A user may not always have the same IP Address.

The address book dialog can also be opened by using the command:

### /abook -wnclh [nickname]

where the -wnclh switches open the whois, notify, control, colors, and highlight tabs.

#### **Notes**

Notes. You can enter various notes about a user.

### **Picture**

If a user sends you their picture, you can associate it with their nickname in the address book.

#### Info

The **Info** section displays the result of the /uwho command which looks up information for a user on IRC. The format of the /uwho command is:

### /uwho [nick] [nick]

This performs a **/whois** on the specified nickname to look up their server information and then displays it in the info section of the address book. Because of the way IRC Servers work, you may need to specify the nickname a second time in order to look up

information such as idle time or the away message, however this information usually takes longer to retrieve.

**Note:** The address shown in the **Info** dialog may not be an email address, it is mainly an indication of the user's internet provider.

### **Notify**

The Notify list is a buddy list, it notifies you when a nickname is on IRC.

#### **Control**

The Control list performs functions related to channel and user control.

#### Nick

The Nick Colors list allows you to assign colors to nicknames.

### **Highlight**

The <u>Highlight</u> list allows you to assign colors to messages.

### 11.5.1

# **Notify List**

The **notify list** is like a buddy list, it notifies you when someone in your list **comes on** or **leaves** the IRC network that you are on.

The notify list works differently depending on the IRC network you are using. On some networks the notify list is updated once every minute or so, while on other networks it is updated immediately.

### **Adding a User**

To add a user you can open the Address Book, select the Notify tab, press the Add button, and enter the following information.

#### **Nickname**

The nickname of a user that you want notify to look for.

#### Note

An optional note or reminder that will appear next to the users nickname.

#### **Play sounds**

The sounds that you want played when the user joins or leaves IRC.

### Perform / whois

This option makes mIRC perform a **/whois** on the user when they join IRC to look up their address. You should only use this option if you really need to, if you use it with too many nicknames then the IRC server might disconnect you for flooding.

#### **Notify display options**

#### Pop up notify window on connect

This will pop up the notify list window when you connect to an irc server.

### Show notifies only in notify window

This will make mIRC display notifies only in the notify window.

#### Show notifies in active window

The default is to show notifies in the status window, however checking this option will also show notifications in the current active window.

### Display address and time

On IRC networks that support this feature, mIRC will display the nicknames address and time online.

#### The /notify command

You can also add/remove nicknames from the notify list by using the /notify command.

### /notify [-shrln] <on|off|nickname> [network|address] [note]

You can turn notify on and off by typing **/notify on or off** respectively.

The **-sh** switches can be used to **show or hide** the notify list window respectively

The **-r** switch removes the specified nickname from your notify list.

The -I switch displays your notify list.

The **-n** switch indicates that the network or server address has been specified.

The **note** is optional and allows you to specify a little note for each nickname.

If you prefix a nickname with a + sign then mIRC will do a /whois on the nickname as part of the notify. However, if you do this on too many nicknames then the IRC server might disconnect you for flooding, so it is best to use it only if you really need to.

You can manually force mIRC to update the notify list by typing **/notify** with no parameters.

**Note:** Some IRC networks might let you use a full address instead of just a nickname, the only way to see if it works is to try it out.

### 11.5.2

### Control

The **Control** dialog performs functions related to channel and user control.

#### Auto-Op

If a user joins a channel where you have Ops and that user's address is listed in the auto-op list, they will be given Op status. You can add an address to the list in the following format:

#### nick!userid@host,#channel1,#channel2

On IRC, user addresses are specified in the format:

#### nick!userid@host

So if my nickname is **nick** and my address is **user@mirc.com** then to put me in your list, you would use:

#### nick!user@mirc.com

If I change nicknames a lot, then you would use:

#### \*!user@mirc.com

If I change my nickname and userid a lot, then:

#### \*!\*@mirc.com

#### The /aop command

#### /aop [-lrw] <on|off|nick|address> [#channel1,#channel2,...] [type] [network]

The **-r** switch indicates that the address is to be removed.

The -I switch displays the list of auto-op addresses that match the specified switches.

The **-w** switch makes the auto-op apply to any network.

If you do **not** specify a **type** then only the users nickname is used. If you specify a type then the users address is looked up via the server.

The **\$aop** identifier returns \$true if auto-op is enabled, and \$false if it is not.

The **\$aop(address|N)** identifier returns any matching address in the list, or the Nth address. The **.type** property returns the list of channels. The **.network** property returns the associated network, if any.

#### **Auto-Voice**

The **auto-voice** list works in exactly the same way as the auto-op list. The **/avoice** command, which uses the same format as **/aop**, can be used to add or remove users to your auto-voice list.

The **\$avoice** identifier returns \$true if auto-voice is enabled, and \$false if it is not.

The **\$avoice(address|N)** identifier returns any matching address in the list, or the Nth address. The **.type** property returns the list of channels.

#### Random delay auto-op/voice

This option introduces a random 1 to 7 seconds delay in the auto-op/voice routine. This is to prevent channel windows from filling up with mode notifications whenever a nickname is in the auto-op/voice list of several users. If at the end of the random delay the user has already been opped/voiced then mIRC does not perform an op/voice.

#### Ianore

This feature allows you to ignore various types of messages from users. You can either choose to ignore a user completely, or to ignore only specific messages from a user.

#### nick!userid@host,private,invite,ctcp

#### The /ignore command

#### /ignore [-Irpcntikdshywxu#] <on|off|nick|address> [type] [network]

Where p = private, c = channel, n = notice, t = ctcp, i = invite, k = control codes, d = DCCs, s = speech, h = highlight, y = tips.

The **-u#** switch specifies a delay in seconds after which the ignore is automatically removed.

The **-r** switch indicates that the address is to be removed.

The **-x** switch indicates that this address should be excluded from ignores.

The -I switch displays the list of ignore addresses that match the specified switches.

The **-w** switch makes the ignore apply to any network.

If you do **not** specify a type then only the users nickname is used. If you specify a type then the users address is looked up via the server.

You can clear the ignore list by specifying -r with no address.

**Note:** If you have a /query window open with someone, private messages from them will not be ignored even if their address matches an ignore address.

The **\$ignore** identifier returns \$true if ignore is enabled, and \$false if it is not.

The **\$ignore(address|N)** identifier returns any matching address in the list, or the Nth address. The **.type** property returns the ignore method. The **.network** property returns the associated network, if any. The **.secs** property returns the time left before the ignore is removed.

#### **Protect**

If you are on a channel and you have channel Op status, any users that match the nicknames in the protect list will be automatically protected. mIRC does this by kicking or de-opping anyone who tries to kick or de-op your protected users. You can add an address to the list using the following format:

#### nickname, #channel1, #channel2

**Note:** This option is usually limited to using **nicknames** because of the way IRC servers work, however you can specify an address, and if the user is in your <u>Internal Address List</u>, they will be protected by address.

#### The /protect command

# /protect [-rw] <on|off|nick|address> [#channel1,#channel2,...] [type] [network]

The **-r** switch indicates that the address is to be removed.

The **-I** switch displays the list of protect addresses.

The **-w** switch makes the protect apply to any network.

If you do **not** specify a type then only the users nickname is used. If you specify a type then the users address is looked up via the server.

The **\$protect** identifier returns \$true if protect is enabled, and \$false if it is not.

The **\$protect(address|N)** identifier returns any matching address in the list, or the Nth address. The **.type** property returns the list of channels. The **.network** property returns the associated network, if any.

#### 11.5.3

#### **Nick Colors**

The **Nick colors** section allows you to assign **colors** to **nicknames**, which are then highlighted with their assigned colors in the channel nicknames list, and in any messages that those nicks send to channel or query windows.

#### **Adding a Nick**

When adding a nick, you must select a **Nick color** from the color listbox, and **one** other item in the **Apply** section.

For example, you could select the color **red** and enter a nickname in the **Nick or Address** editbox. This would highlight that specific nickname in the color red in the channel nickname listbox, and in messages that this user sends to channel or query windows.

The settings in the **Apply** section are **cumulative**. This means that if you enter a nickname, and enter a channel mode, only users matching this nickname **and** having this channel mode will be highlighted.

The nick color list uses the first match it finds for any event, so you must **prioritize** the order of the items in the list yourself.

If you enable the **Auto-color** option, this will assign random colors to users based on their nickname.

Note: You can specify %vars or \$identifiers as the nick.

#### **Commands and Identifiers**

The nick color list can be modified and referenced by using the /cnick command and the \$cnick() identifier.

/cnick -rfaniovpyINmNsN [on|off|nick[!user@host]] [color] [modes] [levels] This allows you to modify the items in the nick color list.

The **r** switch removes the specified nick or address from the list.

You can use **/cnick -r nick/N** to remove first item that matches nick in the nick color list or the Nth item in the nick color list.

To match **any nick**, use the \* character as the nick.

The **f** switch forces the addition of a new entry instead of updating an existing one.

The a switch sets the Any Mode option.

The **n** switch sets the No Mode option.

The **iovpy** switches set the ignore, op, voice, protect, and notify list options respectively.

The **IN** switch sets the idle time.

The **mN** switch sets the highlight method, 0, 1, or 2.

The **sN** switch sorts the item into the Nth position in the list.

The  $\operatorname{\mathbf{color}}$  item is the color you want to assign to the nick. Use \* to enable auto-color.

The **modes** item is the list of modes required for that item to match, eg. @%+

The **levels** item makes mIRC search your <u>User List</u> for a matching level and address.

**Note:** /cline over-rides the nick color list. You can use /cline -r to reset a nick to default color to make the nick color list apply to a nick.

#### \$cnick(N/nick, M)

Returns Nth nick in nick color list, or if nick is specified returns Nth position of item in list that matches nick. If nick does not match any items, returns zero.

**Properties:** color, modes, levels, method, anymode, nomode, ignore, op, voice, protect, notify, idle, auto

To get a nick's color, you can use \$cnick(nick).color. If nick does not match any items in the list, returns 'Normal Text' color, or if M = 1, returns 'Listbox text" color. M is optional.

#### 11.5.4

### Highlight

The highlight feature allows you to assign **colors** and **sounds** to incoming **messages** that contain certain **words** that you want to watch for.

By using this feature, you can do things like make messages from certain people, ie. your friends, a different color, or make mIRC play a sound if someone says a specific word.

Your highlight list displays your current list of highlight rules, which you can change by clicking the Add, Edit, or Delete buttons.

#### **Enable Highlighting**

This turns highlighting on or off.

#### Highlight lines that contain these words

This is the list of words that you want mIRC to check for in messages from users. The words must be separated by commas. Your words are matched against whole words, or words enclosed in non-alphabetic characters. You can also use **wildcards** \*? to make a word match non-whole words, eg.: \*help\*

**Note:** You can also use Variables or Identifiers as a highlight word.

#### From these channels/nicks

This is the list of channels and/or nicknames to which this highlight should be applied.

#### Match on

Allows you to choose whether the match is applied to the message, the nickname, or both.

#### Color

This is the color that you want lines matching your highlight criteria to appear in.

#### **Play sound**

This is the sound that you want played for lines that match your highlight criteria.

#### Flash message

If this is turned on, mIRC will flash the mIRC icon if a match is made and your mIRC is not the active window, or if it is minimized.

**Note:** You can also include variables or identifiers in the flash message that are evaluated at every flash.

#### Tip message

If this is turned on, mIRC will display a tip that notifies you when a match is made.

#### Message

This is the message that you want displayed during a flash/tip event.

#### 11.6

#### **Channel Central**

The **channel central** dialog allows you to set various **channel modes** if you are an **Op** on a channel. If you are not an **Op** you will **not** be able to change the channel modes and they will appear **disabled**.

You can find out more about channel modes in the Basic IRC Commands section.

#### **Topic History**

Lists the current topic, and the history of topic changes during your stay on a channel.

#### **Bans List**

This allows you to view, edit, or remove various types of mode settings, such as bans, exceptions, and invites. Most IRC networks support **ban** lists, however few support **exception** and **invite** lists currently.

#### Only Ops set topic

This allows only Ops on a channel to change the channel topic.

#### No external messages

This prevents users who are not on the channel from sending messages to the channel.

#### **Invite only**

This setting prevents users from joining the channel unless someone on the channel has specifically **invited** them using the /invite command, eg. /invite nickname #channel

#### **Moderated**

This prevents users from **speaking** on a channel unless they have been given a **voice** on the channel by an Op. This feature allows you to **moderate** the channel for events such as interviews, etc.

#### Key

This option allows you to set a **password** for the channel if you are an Op. Any user who wishes to join your channel will need to specify the password when joining, eg. /join #channel password

#### **Limit to N users**

This limits the number of people who can be on the channel at any one time to N people.

#### **Private**

This prevents a channel from being listed in the **channels list**.

#### Secret

This prevents a channel from being listed in the **channels list** and from being seen in a /who or /whois unless the person issuing the /whois is on that channel.

**Note:** The Events dialog for a channel can now be accessed via the <u>System</u> menu.

#### 11.7

#### **Online Timer**

The **Online timer** is displayed in the titlebar of the status window next to your connection information.

You can choose to have the timer display your **total** cumulative connect time for all server connections, or the **current** connect time for an individual server connection.

You can also **reset** the connect time for each display method individually. The online timer displays the date on which the timer was last reset.

#### 11.8

### **Help Menu**

The contents and search menu items in this menu allow you to reference the help file, and there are direct links to the mIRC website for the latest news and the message board.

The mIRC help menu also lists files ending in .hlp and .txt in the main mIRC folder for easy access, and makes aliases for each of the files listed in the help menu, the aliases being the name of the file excluding the extension.

For example, if you put a help file by the name of **winsock.hlp** in your mIRC directory, mIRC would add the **winsock.hlp** item to your help menu, and would make an alias

/winsock. You can then type /winsock sometext and mIRC would do a context-sensitive search in that help file for the text you specified.

The **check for updates** feature checks with the mIRC website to see if there is a newer version of mIRC available.

The **register** item allows you to enter your registration into your copy of mIRC.

#### 11.9

#### System menu

If you click the **system menu** button in the top left hand corner of a window ie. the button you usually double-click to close a window, it will popup the usual system menu but with a few added functions (these vary depending on the type of window).

#### **Background**

This allows you to select a background picture for a window. You can choose to have the picture displayed in various ways, eg. tiled, centered, etc.

**Note:** Displaying a background picture slows down the display of text in a window significantly.

#### **Beeping**

If beeping is turned on, mIRC will beep any time a message is sent to the window if it **is not** active. This setting is remembered across sessions for each window.

#### **Buffer**

You can **clear** the text in the current window buffer or you can **save** the text to a file.

#### Desktop

This allows you to position a window outside of the main mIRC window and onto the desktop.

#### **Editbox**

This option is available in channel windows and allows you to create a **second editbox**, for general use. You can press **Alt+Q** to show/hide the editbox. Also see a related option in the Other dialog.

#### **Events**

This appears in Channel windows, it allows you to set display settings for events for a **specific** channel. The default display settings for **all** channels can be set via the <u>IRC</u> dialog.

#### Flashing

If flashing is turned on, the mIRC window/icon is flashed if there is a new message in the window while mIRC is not the active application. The flash sound specified in the <a href="Event Beeps">Event Beeps</a> section is also played.

#### **Font**

This allows you to change the default font for a window. The font settings for each window will be remembered across sessions.

#### Logging

If logging is turned on, any text displayed in a window will be logged to a file. This setting stays on across sessions until you switch it off. The filename is automatically taken from the name of the window.

#### **Nicklist**

This option is available in channel windows and allows you to change the position of the nicknames listbox.

#### **Position**

You can tell mIRC to **remember** or **forget** the position/size of a window. If you select remember, the next time that window opens up it will do so in the saved position. If you choose **reset**, the window will be moved back to its previously saved position.

**Note:** If a window's saved position lies outside the size of the main window then it will open in a default position and size. To force a window to open up in default positions assigned by windows, select **forget**.

#### Save As...

This option is only available in custom <u>picture windows</u>, it allows you to save the current picture to a .bmp file.

#### Spacing...

This allows you to set the line-spacing for messages in a window.

#### On Top

This appears only when a window is opened in Desktop mode and forces the window to stay above all other windows.

#### **Timestamp**

This turns timestamping of events on/off for a window.

#### **Track URLs**

This appears in Channel/Query windows, if turned on, mIRC auto-opens websites as they are mentioned in a message.

#### 11.10

#### **Window Menu**

The Tile, Cascade, and Arrange Icons menu items work the same way as in other applications.

The **group** dialog allows you to change the way windows are grouped when tiled or cascaded.

The **order** dialog allows you to change the display order of buttons in the switchbar.

The **auto-tile** and **auto-cascade** options reposition/resize windows every time a new window is created or destroyed so as to make all of the windows more accessible.

The **auto-arrange** option re-arranges minimized icons (when the switchbar is turned off) whenever an icon window is closed.

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### **How to Register**

mIRC can be downloaded freely and evaluated for up to 30 days. If after evaluating mIRC you find that you like it and want to continue using it, you will need to register mIRC.

Your single-user registration will license you to continue using mIRC, will support work on new features and updates, and will provide you with technical support via email.

mIRC can be registered through the mIRC website at <a href="http://www.mirc.com">http://www.mirc.com</a>

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#### **About mIRC**

mIRC is the work of a small, privately owned software house, located in the heart of London in the United Kingdom. We have been developing and caring for mIRC for over a decade, with the support of users and volunteers from around the world.

If you enjoy using mIRC, or have a question about it, we would love to hear from you. You can find out how to contact us <a href="here">here</a>.

A heartfelt thanks to the many people who have supported mIRC over the years and who have helped to make mIRC what it is today.

#### Thanks to ...

**Tjerk Vonck** for creating the first #mIRC channel, the original mIRC website, the mIRC and IRC FAQs, and so much more.

The **Beta-testers** for their hard work in catching bugs and suggesting features.

The **Helpers** on #mIRC, #irchelp, and other channels for helping out new users day after day.

The **Scripters** for creating useful scripts and add-ons for others to enjoy.

#### And to ...

**Andrzej Kowalik**, for contributing his work on the toolbar icons.

**Jarkko Oikarinen**, creator of IRC, and the many people after him who have continued the development of IRC.

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