Zephyr Communication

Zephyr is a set of command-driven utilities for message transport and delivery that are executed from an Xterm window.

To get rid of a Zephyr, just click inside the Zephyr window. Do not select Close from the menu of a Zephyr window! This action will shut down the program, and you will not be able to send or receive messages.

The Zephyr service supports the quick exchange of messages in real time among users logged on the system. A Zephyr windowgram, called a Zephyr or Zephyrgram, is the simplest and quickest way to send a message to another user or a group of users. Its advantage over electronic mail is that it is faster and immediately noticeable to the receiver. Unlike e-mail, however, Zephyr does not save, store, or retrieve its messages. Zephyr is best used for the same kind of immediate and unrecorded communication that you use Instant Messenger for.

The Zephyr Windowgram Client (zwgc), which is automatically started for you at login, is the program that displays Zephyr notices. As soon as you log in, Zephyr makes you “locatable,” that is, others can find when and where you are logged on. You receive Zephyr messages through subscription. All users are subscribed to two kinds of messages: personal messages and operational messages. The former permits you to send and receive personal messages. The latter is used by system administrators to alert you to system changes, problems, and news.

To get rid of Zephyr messages that appear in the upper left corner of your screen, just click on them with any mouse button. Do not Close from the window menu or you will kill Zephyr and have to restart it (see margin).

Locating a User (zlocate)

To exchange Zephyr messages, you must be logged on to the system. To see if someone is on the system and where they are working, use the zlocate command followed by the person’s username, e.g.,

```
% zlocate jqpublic
```

If the person is logged in, the system will deliver you a message telling you the workstation(s) the user is on (it is possible to be logged in to more than one workstation). It also tells the time and date of login and the machine’s location, e.g.,

```
c00201-100lez.eos.ncsu.edu :0.0 Mon May 10 09:23:21 2002
```

If the user is not logged in or is not subscribing to messages, the system will respond with the message,

```
Hidden or not logged-in.
```
If you want to find out if several users are logged in, you can type more than one name after the `zlocate` command, e.g., `zlocate moe larry curly` (one space and no commas between usernames).

**Writing a Zephyr Message (zwrite)**

Zephyrwrite, or `zwrite`, is the program that allows you to compose and send a zephyrgram. In an Xterm window, type `zwrite` followed by the username(s) of the person(s) who will receive the message, e.g.,

```
% zwrite jqpublic
```

If the user is not logged in, then s/he cannot receive Zephyr messages. Thus, you would need to write to the person using e-mail, which holds mail messages and delivers them to users when they log in.

If the user is not logged in, you will get the following message:

`jqpublic: Not logged in or not subscribing to messages`

If the person is logged in, you will be instructed to:

Type your message now. End with control-D or a dot on a line by itself.

After this message, write the message you want to send. When you have completed the message, press `RETURN` to move down one line. Then, either type a period on a line by itself and press the `RETURN` key, or type `CONTROL d` (hold down the `CONTROL` key and type `d`). This action immediately sends the message to the recipient(s). When a message is sent, the sender receives the following notice in the Xterm:

```
jqpublic: Message sent
```

Zephyr is designed to help the user prepare and send short messages quickly. It is not designed with the flexibility and functionality of a word processor or mail program. For example, there is no word wrap in Zephyr; as a result, after you type a line of text, you must press the `RETURN` key to move to the next line. If you do not do this, the text will automatically wrap to the next line on your screen but not on the screen of the person(s) receiving the message. The line they see will be very long, probably with words cropped off.

Also, the cursor keys do not work in Zephyr. On some workstations, you may be able to backspace or delete, but it stops at the beginning of the line you are on. As a result, you cannot move up to other lines in the text or even backspace to get to them. You just need to type very carefully, or cut and paste from an editor.

The following figure is a sample Zephyrgram sent by the sender to herself. It shows how the sender writes and sends a message and, also, what the message looks like when it appears on the screen of the receiver.
The term *authentic* in the *zwgc* window means that the sender field was verified by Kerberos authentication. If authentication information was not verified by Zephyr, then the message is *unauthentic* (although this is not necessarily anything the user needs to be concerned about).

**Changing the Format of a Zephyrgram**

Zephyr also lets the sender specify different font types and sizes. The table on the opposite page shows a list of commands that format the text of a zephyrgram. The command on the left produces the effect on the right. The figure that follows is a sample screen showing what the sender typed to get the formatting that appears in the receiver’s *zwgc* window.

The spacing of the formatting command is important. To get a boldface line of text, you must first type `@b` followed by the text you want boldfaced inside parentheses. There must not be a space added to the command. For example, you should type `@b(This is bold.)` if you want the text *This is bold.* to appear on the receiver’s screen.

If you want more than a single formatting instruction to apply—for instance, if you want bold italics—you add those additional format instructions to the command with a left parenthesis separating them, e.g., `@b(@i(This is bold italics.)` produces *This is bold italics*. Three format instructions for centered bold italics would look like `@b(@i(@c(This is centered bold italics.) Remember to use lowercase letters with an `@` sign preceding each and a left parenthesis following.
Format Command | Effects of the Command
--- | ---
Format commands are followed by text in parentheses, except when specifying font or color.

@b or @bold(text)  | Bold
@i or @italic(text)  | Italic
@roman(text)  | Nullifies the @italic and/or the @bold command
@l or @left(text)  | Left-aligns text
@c or @center(text)  | Centers text
@r or @right(text)  | Right-aligns text
@small(text)  | Puts text in small type size
@medium(text)  | Puts text in medium type size
@large(text)  | Puts text in large type size
@huge(text)  | Puts text in type larger and bolder than large
@beep(text)  | Beeps on arrival at the receiver’s workstation
@font(fontname)text  | Changes to a specified font type, e.g., *Courier, Times, Helvetica*
@color(colorname)text  | Sets the color (type `showrgb` | more for list of colors)
Copying and Pasting

To copy from a Zephyr window:

1. Hold down the **SHIFT** key.
2. Drag over the text with MB1.
3. Click MB2 in another window.

You can copy from a Zephyr window and paste into another window, but not in the usual way (that is, selecting the text with MB1 and pasting with MB2, as described in *Helpful Shortcuts*). As soon as you click MB1 in a Zephyr window, it disappears. Instead, hold down the **SHIFT** key and drag over the text with MB1 to select it (the text changes to white on a black field). Once selected, release the **SHIFT** key and copy the text into another window in the usual way: point at the place in the window where you want the text to be and click MB2.

To copy something into a Zephyr message, select what you want to copy (MB1) and paste it into the message by pointing and clicking MB2 in the Xterm window after the following line:

```
Type your message now. End with control–D or a dot on a line by itself.
```

Once the text is pasted in and you have added anything else you want to say, press **RETURN**. Then, either type a period on a line by itself and press **RETURN** again, or hold down the **CONTROL** key and type **d**.

Subscribing to Other Messages (zctl)

In addition to the personal and operational messages you receive automatically, you may also want to subscribe to other **classes** of Zephyr messages. These classes are general categories of Zephyr messages that you can receive only if you are subscribed to them. Under these general message categories is a second group of messages called **instances**, which you also specify in your subscription to a message class. The third piece of information that subscription requires is the **recipient**, the subscriber who receives the information. The default recipient is your username.

For example, the personal messages to which you are automatically subscribed come from the class called **message** and the instance called **personal**. The system messages you receive from the operations staff belong to the class **operations** and the instance **message**. In both cases, the recipient is your username.

The act of subscribing to information sources on a network is a common one, both locally on the Eos/Unity system and more widely on the Internet. Although a great deal of information gets to you whether you ask for it or not, an even greater amount remains that you must ask for specifically. Subscribing to network information sources works very much like a subscription to a magazine or newspaper (although most of the services you can subscribe to on the net are free!).

In general, to subscribe to a service requires the simple act of writing a single line of instructions in a particular syntax (a line of code) and

---

**class**: general subject of a Zephyr message

**instance**: type or subdivision of the message class

**recipient**: username of the person receiving the message

**zctl flush_locs**: To get rid of old login information about yourself on the system, e.g., if you appear to be logged in when and where you should not be:
sending it out via a mail or messaging service to a computer. The computer reads the code and automatically sets you up to receive the information automatically. In other words, you do not write a person and ask to subscribe to a resource. Subscribing is all automated.

The process of subscribing in Zephyr works in the same fashion. The format for subscribing to a Zephyr message class and instance is the command `zctl` (for Zephyr Control) followed by `sub` (to subscribe for the current session only) or `add` (for a regular subscription). These two words are then followed by specific `class`, `instance`, and `recipient` arguments. One space separates each word in the command syntax.

**The Help Instance**

Most Zephyr messages that you will be interested in subscribing to are in the general class called `message`, with the `instance` describing the particular type of message you want to receive. One particular instance you may want to subscribe to is the `help instance`. If you are subscribed to “instance help,” you can broadcast a question or help request to the whole Eos/Unity network. Users who are also subscribed to this instance will get your message, and chances are, someone will write you back an answer. The operators in the labs are generally subscribed to this instance and will pick up most of the questions that users ask.

If you want to receive all help messages exchanged on the system, use the wildcard character `\*` as the recipient instead of your username. This gives you access to all messages that the help instance sends out, which is directed to a large audience of users, not just individuals. To become a regular subscriber to the help instance, type at the prompt, `zctl add message help \*`. To write to help, use the command `zwrite -i help`.

When you subscribe, a `.zephyr.subs` file is automatically created in your home directory to log your subscriptions. To drop your subscription to an instance, you would use `unsubscribe` if you have subscribed with the `sub` command, and `delete` if you have subscribed with `add` (see margin).

**Locating Groups of Users (znol)**

Like `zlocate`, the `znol` command helps you locate people on the network. Whereas the `zlocate` command lets you add multiple usernames as arguments (e.g., `zlocate moe larry curly`), `znol` reads a `.anyone` file that you create and place in your home directory. In this file is a list of the usernames of people you want to locate often. When you run `znol`, the program reads the file of usernames and lets you know when and where each person is logged in. A `.anyone` file lists usernames one to a line, e.g.,

```
znol
moe
larry
curly
```

To subscribe temporarily to a Zephyr message class and instance (for the current session only):

```
zctl sub class instance recipient
```

To unsubscribe:

```
zctl unsub class instance recipient
```

To subscribe regularly to a Zephyr message class and instance:

```
zctl add class instance recipient
```

To unsubscribe:

```
zctl delete class instance recipient
```

Note: If you are the recipient of the message, you do not have to type anything for “recipient” since it defaults to your username.

To subscribe to the help instance on Eos:

```
zctl add message help \*
```

To write to help:

```
zwrite -i help
```

To locate users whose usernames are listed one to a line in your `.anyone` file:

```
znol
```
Blocking Messages (zaway, zctl hide)

If you want to discourage users from sending you messages while you are working, you can use either the zaway or the zctl hide commands to let them know that you are not available for Zephyr exchanges. These commands will not keep messages from coming in; however, they will send a notice to the sender that you are not responding to messages.

- The command zaway returns a Zephyrgram to anyone sending you a message, saying,
  
  I’m sorry, but I am currently away from the terminal and am not able to receive your message.
  
  Or, zaway will substitute for this message any message you have written and placed in a .away file in your home directory. To kill the zaway process (and get the prompt back), type CONTROL c in the Xterm window where you typed zaway. (Note: If you type zaway and then zwrite yourself, you will not get either the zaway or zwrite message.)

- The command zctl hide hides you from anyone using the zlocate command to find you, returning to the sender the message:
  
  Hidden or not logged in.
  
  To “unhide,” type zctl unhide.

To block out all Zephyr messages, except those sent out from the system administrators, and to hide from the zlocate command, use the command zctl set exposure none. To become “locatable” and receive messages again, type zctl set exposure realm-visible.

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<td>user cannot be located</td>
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</tr>
</tbody>
</table>

To send a message that you are away:

zaway

Press CONTROL c to remove the zaway message.

To hide from the zlocate command:

zctl hide

Type zctl unhide to be locatable again.

To hide from zlocate and block all messages from zwrite:

zctl set exposure none

To unhide and receive messages again:

zctl set exposure realm-visible

If unhide and realm-visible commands do not work, restart Zephyr:

/usr/athena/bin/zwgc &