Address Finder

for the Apple Macintosh
version 1.02

User Manual

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Introduction

This manual describes Address Finder, a HyperCard stack for the Apple Macintosh. Address Finder is a client of the University of Illinois CSO Nameserver software.The CSO Nameserver software is typically used to hold an electronic version of a campus telephone directory. Address Finder makes it easy for networked Macintosh users to query CSO nameservers. With Address Finder, you can lookup and save phone numbers, e-mail addresses, and postal mail addresses from any CSO nameserver you can reach from your network.

After querying a CSO Nameserver and receiving the server's response, the Address Finder stack can be used to selectively save the results of successful queries. Entries which are saved in the Address Finder stack are indexed by name and may be referred to later without querying the server.

Distribution

Address Finder was written by the Microcomputer & Workstation Networks Center at the University of Minnesota. Although Address Finder is freely distributed, it is copyrighted software (Copyright © 1990 University of Minnesota).

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Help!

If you run into difficulties installing or using Address Finder, you should first contact your local network administrator. If you are still stuck, and are at the University of Minnesota you can contact the Microcomputer Helpline (626-4276) or stop by the Microcomputer Helpline located in room 125 Shepherd Labs on the east bank campus.

If you have questions, bug reports, suggestions, or general comments about Address Finder you can send E-mail to us at:

addfinder@boombox.micro.umn.edu

or if you prefer to use paper mail:

Address Finder Project
Microcomputer & Workstation Networks Center
University of Minnesota
room 125 Shepherd Labs
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Address Finder software components

To run Address Finder you need several pieces of software on your Macintosh:

- the Address Finder HyperCard Stack
- HyperCard version 2.0 (or later)
- Apple's MacTCP network driver software

Because Address Finder uses the TCP/IP protocols to communicate with the CSO Nameserver, it requires Apple's MacTCP driver software and a network connection for the Macintosh. Although MacTCP is not a part of the standard system software distributed by Apple, the University of Minnesota has a site license for this software which allows us to distribute it on the University of Minnesota campus. If you do not already have a copy of MacTCP, visit the Microcomputer Helpline to get a copy of the software and installation instructions. If you are at another institution, we recommend that you contact APDA (Apple Programmers and Developers Association) for a single user copy of MacTCP, or contact your Apple representative to arrange a site license. Our site license does not allow us to distribute MacTCP software to other institutions.

Note: If you plan to run your own CSO nameserver (rather than querying a server run by someone else), you will need the CSO server software. This software was written by Steven Dorner at the University of Illinois/Champagne-Urbana and is available via anonymous ftp from uxc.cso.uiuc.edu.

Hardware configuration

A typical network hardware configuration is shown in Figure 1.This figure shows a CSO Nameserver on an Ethernet network. There are Macs connected both to localtalk and ethernet portions of the network. Address Finder will work in any network configuration that MacTCP supports, so Macs on both the localtalk network and the ethernet network are able to query the CSO Nameserver.

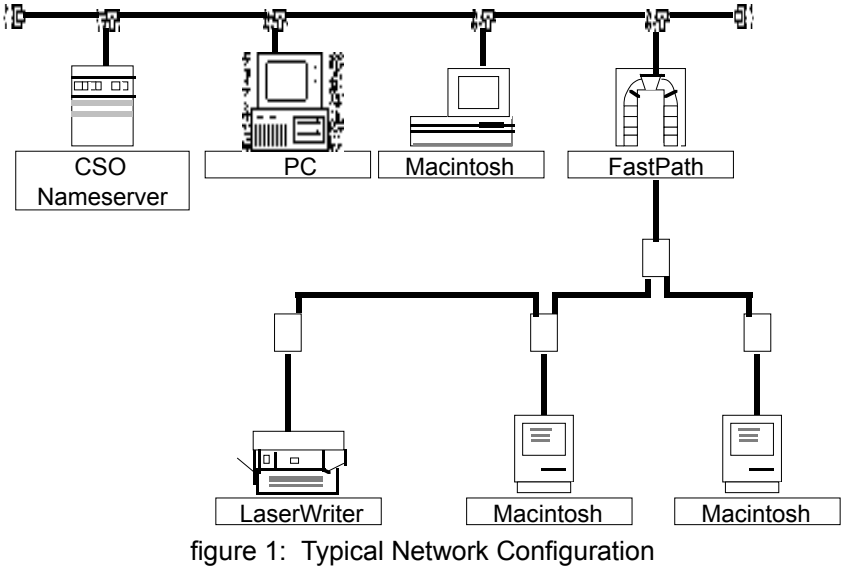

figure 1: Typical Network Configuration

Note that if your campus network connects to the Internet, you are able to query CSO Nameservers at other institutions if you know the network address of the server. This means that you can do

important things like query the CSO Nameserver at the University of Illinois Champagne-Urbana for bars and pizza joints if you are so inclined (or are planning a trip to Illinois).

Installing Address Finder

Since Address Finder is a HyperCard stack, you must have HyperCard installed on your Macintosh disk to use Address Finder. (See the HyperCard documentation for instructions on how to install HyperCard.) Address Finder also requires that MacTCP be installed on your Mac, so if you have not yet installed MacTCP, see the MacTCP installation guide for more information. We recommend that you have at least 1 Mbyte of RAM memory on your Mac to run Address Finder. Note that some Macintosh configurations may require more than 1 Mbyte of memory (particularly if you have a lot of INITs or are running in color).

Once you have HyperCard and MacTCP installed on your Macintosh, installing Address Finder is easy: simply copy the Address Finder stack into the folder where you keep your HyperCard stacks.

Using Address Finder

If you are not familiar with HyperCard, you should think of a HyperCard stack as a computerized stack of index cards; each can hold one chunk of information. Address Finder is built on top of HyperCard, so Address Finder is organized as a stack of cards.There are a couple of different *types* of cards in the Address Finder stack:

- The first card in the Address Finder stack is the card used to form and send queries to the CSO Nameserver. This card (the *Lookup* card) also displays the responses received from the server.

- The *Settings* card is used to tell Address Finder the network address of the CSO Nameserver and other configuration information.

- There is one blank card that is used as a template for the cards which are created to hold address information you tell Address Finder to save. We made it hard to accidentally delete the blank card, but if you try really hard you may succeed in bashing this card (and then regret having done so since this will break the Address Finder stack's add-a-card function).

- All other cards in the stack are used to hold information from successful queries of the server. When you receive a response from the server, you have the option of saving all or part of the response as cards in the Address Finder stack. Saved responses are placed onto separate cards (one card per person).

The Address Finder stack has two basic functions: to query CSO Nameservers and to display the cards holding addresses you have saved. Alas, before you can query a CSO Nameserver, you must first tell Address Finder where to find the server. So, before you can have fun looking up addresses you need to spend a few minutes configuring the stack. The next section covers how to configure Address Finder from the settings card.

Configuring Address Finder

When you launch the Address Finder stack, the first card you see is the *Lookup* card. If you click on the button marked *Settings* you will move to the settings card. From the *Settings* card (shown in figure 2) you can specify which CSO Nameserver to query, and some of the characteristics of the server.

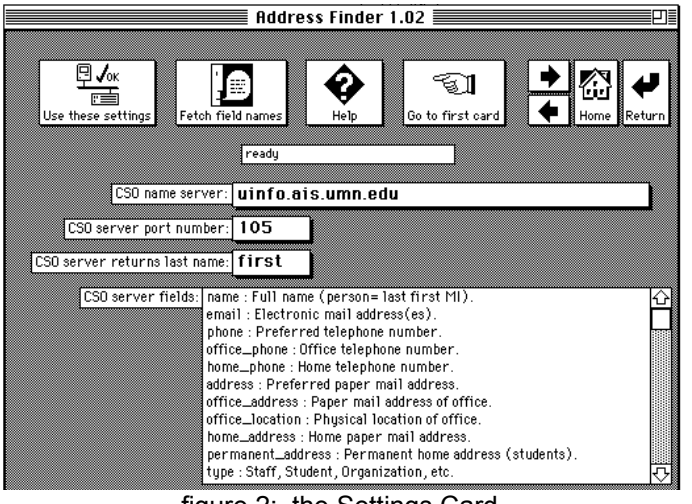

figure 2: the Settings Card

To specify the CSO server you wish to query, type the server's network address into the field marked *CSO name server*. In figure 2, the CSO server's network address is uinfo.ais.umn.edu.

Usually the CSO Nameserver process is located at port 105 on the server machine. Type in the appropriate port in the field marked *CSO server port number*. If you aren't sure which port the CSO server process is located at on the server, contact the people that maintain the server for assistance.

The third setting (marked *CSO server returns last name*) is a popup menu. This menu is used to tell the Address Finder stack whether the server returns names with the last name first or last. An example should make this clear. Suppose there is an individual named Mary Dickel. Some CSO servers returns the last name followed by the first name (ex. Dickel Mary) while other servers return the last name after the first name (ex. Mary Dickel). Since the Address Finder stack indexes using the last name, it needs to know which order the server uses to return names. Use the popup menu to tell the Address Finder stack the order in which names are returned from the server you are going to use.

With Address Finder allows you can can form queries using any of the pieces of information (fields) stored in the CSO server's database. To make forming queries simple, Address Finder will present you with a list of fields to select from when you are forming a query. To make sure that the list of fields is correct for the CSO Nameserver you have specified, you should click on the button marked *Fetch Fields*. Address Finder will ask the CSO Nameserver to return a list of fields and display the list on the settings card in the section marked *CSO server fields*. If you like, you can edit this list to remove fields that you don't plan to use in your queries.

Once you have made the appropriate changes to the settings card, you should click on the *Use these settings* button to confirm the settings. When you click on this button (shown in figure 3), the stack will verify that the machine entered as CSO Name Server actually exists and can be reached over the network. If you do not click on the *Use these settings* button to confirm your changes before leaving the settings card, the Address Finder stack will revert to it's previous settings.

figure 3: Use these settings button

Once you are done with the settings card, click on the *Go to first Card* button to return to the Lookup card (where you can now have great fun forming queries for the CSO Nameserver).

Querying the server

Once you have configured Address Finder with the settings card, you can use the *Lookup* card to query the server. To use Address Finder to look up someone in the database you must know either their name or E-mail address. In Figure 4, we are asking the server to Lookup all individuals named "johnson" with *any* postal mail address. If you click on the button marked *Lookup* the stack will contact the CSO server over the network and ask it to return all entries for all individuals with names that match the string "johnson".

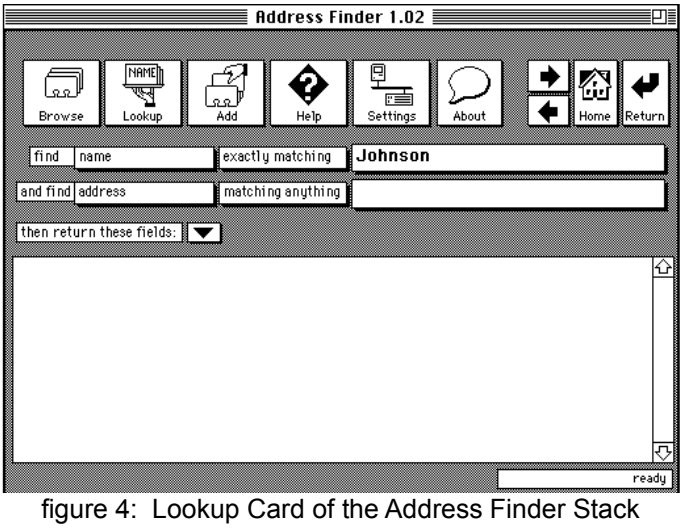

figure 4: Lookup Card of the Address Finder Stack

The CSO nameserver is flexible about the ways that names (or other fields) can be matched. When you make a query with the Address Finder stack, you are really making a sentence to describe what you want the server to do. In figure 4, the query we have passed to the server is "*find names containing 'Johnson'; find addresses matching anything*".

To specify a query there are four things to do:

- type in the string you want to match
- specify which fields you want to search for the string you typed

• specify how strict the match criteria is
• specify which fields you want returned

Since you can form two-part queries with Address Finder you get to specify a string, field, and match criteria for both of the parts of the query. You specify the fields you want to search and the match criteria from popup menus. In figure 5 you can see the *fields* popup menu.

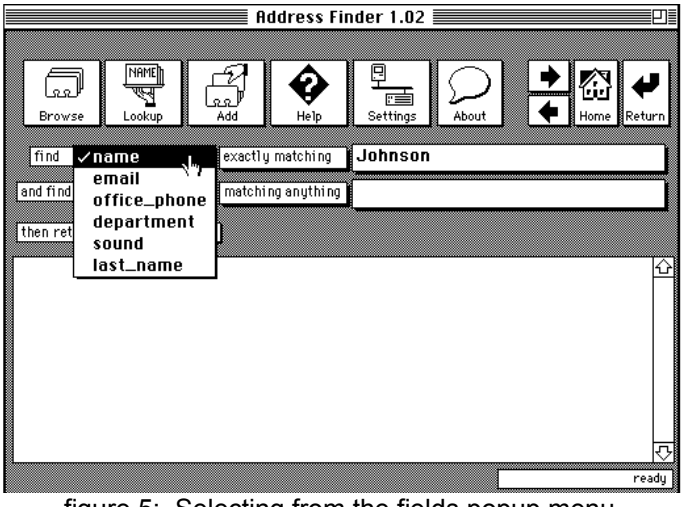

figure 5: Selecting from the fields popup menu

Figure 6 shows the popup menu containing the four criteria for matching: *matches anything*, *containing*, *starting with*, and *exactly matching.*

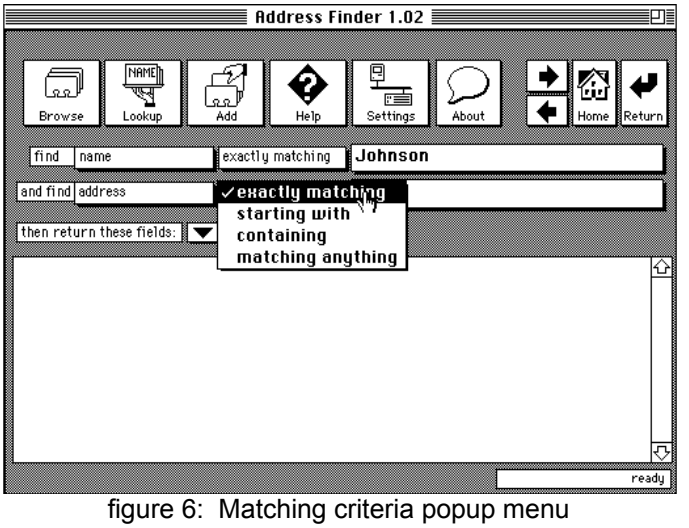

figure 6: Matching criteria popup menu

Figure 7 shows the popup menu containing the fields that can be requested as the information to be returned as the result of a query. If default is checked then all the fields below the dashed line in the menu that are checked would be returned. It is possible to add or subtract fields listed below the dashed line so that a query returns only the information you want.

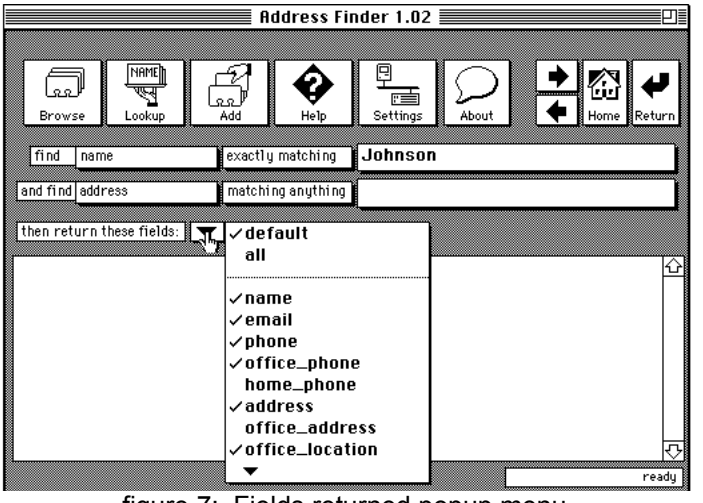

figure 7: Fields returned popup menu

After you have created a query by choosing the fields you want to search, the string to match on, how strict the match criteria is, and what information you want returned, you can query the server by clicking on the button marked *Lookup*. When you tell the Address Finder stack to Lookup an entry the stack translates your query into a form the the CSO Nameserver can understand and sends the query over the network to the server. The server will respond and the response is displayed in scrolling field in the middle of the *Lookup* card. While the Address Finder stack is sending the query over the network and receiving the response, the status box in the lower right corner of the card displays a message to tell you what is happening. The status messages should be self-explanatory: *sending query*, *receiving response*, *ready*.

There will be times when you query a server and do not get the response you expected. If you use a very general match criteria (for example: *match names containing "a"*) you may find that the CSO Nameserver fails to return anything useful. This usually happens because the people that run CSO Nameservers configure them to only return a limited number of names at a time. A very general match criteria could be met by 60% of the names in the server's database; this could be the better part of a phone book if the server contains a campus directory. If you use a very general query, the server may respond with a message which says there are too many names that match the search criteria to return any names. If this happens to you, try using a less general match criteria.

Another difficulty you may encounter is that the CSO Nameserver responds to your query with the message: CPU timeout. This message means that it took the server so long to process your query that it gave up. Again, if this happens to you, try using a less general match criteria.

CSO Nameservers are configured to use some fields as auxiliary fields while other fields are normally used to search on. If you happened to select two fields that are auxiliary fields, the CSO server will reject your query. In general, you should use one of the fields listed in the popup menu next to the first search string that you type in. *Name* or *e-mail* are two of the fields usually listed in this menu.

Impatient people with flaky network connections or servers may run into one other problem. If your network connection or the CSO Nameserver goes off into the weeds (disappears) it will take about two minutes before the Address Finder stack will give up on the connection. The Address Finder stack optimistically expects that transient problems will disappear so it keeps trying apparently dead connections for a couple minutes. So... if things seem to be stuck, wait a bit and Address Finder will come back to life. We set Address Finder up to keep trying network connections for a couple minutes so that short duration outages aren't a problem. Alas, nobody can write software that will work once the network (or server) has died.

We have discussed possible problems at length, but in most cases, the CSO Nameserver will promptly return one (or more) names in response to your query. In figure 8 you can see the result of a successful query displayed on the *Lookup* card. If you like, you can select all or a portion of the response, then copy and paste this information into the scrapbook or any other program on the Macintosh that accepts text. This technique (copy and paste) is especially convenient if you are using Address Finder in conjunction with POPmail E-mail stack. You can use Address Finder to find an E-mail address, then copy and paste the address into the POPmail stack.

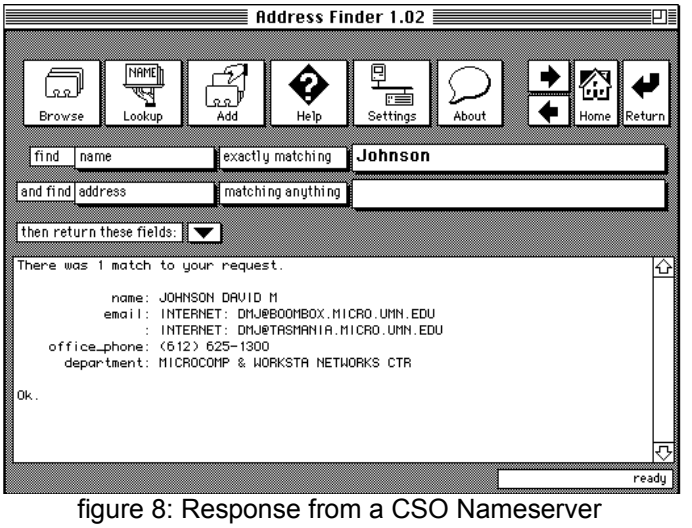

figure 8: Response from a CSO Nameserver

Another way to use the response from a CSO Nameserver is to save one or more of the responses in the Address Finder stack so that you do not have to query the server every time you need to find an address. The next section covers saving and retrieving responses in the Address Finder stack.

Saving addresses

After you have a response from a CSO Nameserver, you may want to store the names and addresses in the Address Finder stack. You can do this by clicking on the *Lookup* card's *Add* button. When you click on the *Add* button, the Address Finder stack takes each name (and associated information) and stores it on a separate card in the stack.

Perhaps you received several names in response to your query of the server, but you don't want to save all of the names in your Address Finder stack. Since the *Add* button will only save the names that are in the CSO Nameserver's response, you can delete the names you do not wish to store in

your stack before you tell Address Finder to save the response. To delete part of the server's response, use the mouse to select the part you wish to delete then hit the backspace key. This is exactly the same as deleting part of a word processing document. After you have deleted the parts of the response you do not want to save, click on the *Add* button to save the remaining response.

If you want to add an entry to the Address Finder stack without looking it up from a CSO nameserver, you can also do this with the *Add* button. If you click on the *Add* button when there are no names in the response section of the *Lookup* card, you are presented with a dialog where you can enter the name of the person you wish to add to your stack. After you enter the full name to be added a new entry is created.

Cards added to the Address Finder stack to hold individual addresses can be edited, so you can change the E-mail address, phone number, office, and postal address by clicking on the appropriate field (see figure 9).

We hope most of the buttons on address cards are self-explanatory. The *Delete* button is used to delete the card, the arrow buttons, home button and return button are used to navigate though the stack. The *Go to first card* button is used to jump to the first card in the Address Finder stack (the *Lookup* card).

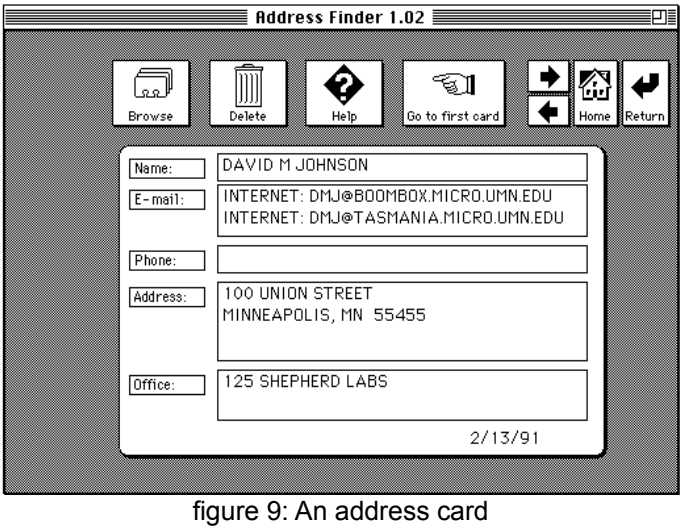

figure 9: An address card

Browsing through saved addresses

The *Browse* button is found on both the address cards and on the *Lookup* card. This button is used to jump to an address card which you specify by selecting the name of the person who's entry you want to view. When you click on the *Browse* button a popup menu of index tabs like those in a paper address book appears. Clicking on the 'A B' option displays the names of individuals whose last name starts with either 'A' or 'B'. By selecting the name a the person from the *Browse* button's popup menu, you can jump directly to the address card for the person you selected. See figure 10.)

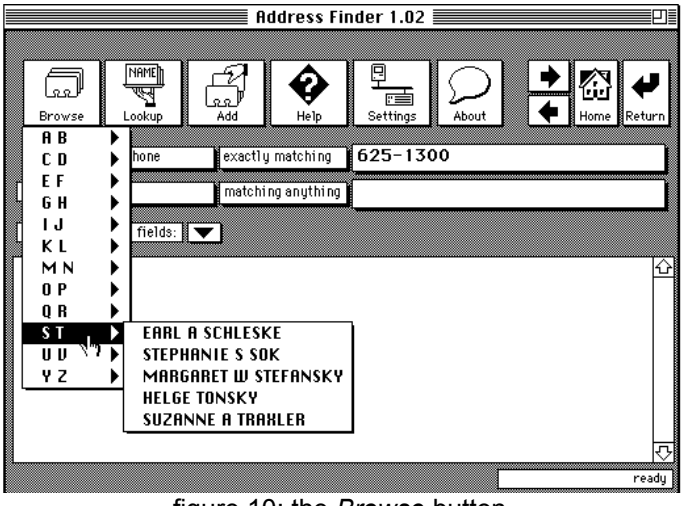

figure 10: the *Browse* button

If you don't have any cards in you stack for people whose last names begins with 'A' or 'B' then the *Browse* popup menu will not display an 'A B' option. Since the *Browse* button is lazy, it only displays options for cards which are in the stack. If you have not saved any address cards, the *Browse* button will not have any options to display. In this case, you will see a message which says, "Sorry, there are no entries in your address book".

Address Finder's online help

There is a *Help* button on the *Lookup*, *Settings*, and *Address* cards. Clicking on the *Help* button puts you into help mode for the card on which you clicked the *Help* button. While in help mode, you can use the mouse to point at objects on the card. Whenever you point at an object, Address Finder displays a message that explains what the object is (see figure 11). Note that the pointer turns into a small box with a question mark in the center while you are in help mode. To exit help-mode, click on the *Help* button on the card.

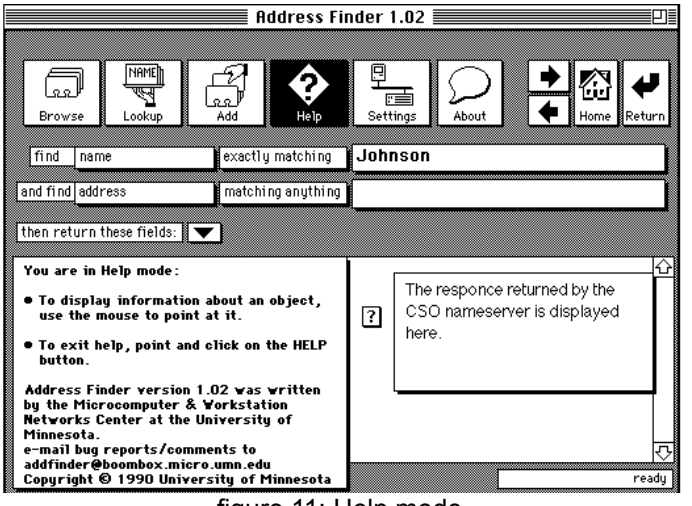

figure 11: Help mode