



DynamIP for Win95/NT

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<http://www.stanford.edu/~cmu/DynamIP.htm>

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If you have difficulty reading this help file you probably need the font "Comic Sans MS" which is available free of charge from <http://www.microsoft.com/truetype/fontpack/win.htm>

What is DynamIP?

DynamIP is a free Internet Utility (32bit, multi-threaded) for Windows 95/NT with the following features:

- Dynamic IP address poster
- POP mail checker
- IPchat
- HTTPscan
- PC clock synchronizer
- Logging

DynamIP does all of the above things with minimal drag on your system. This means that you can have DynamIP running at all times, whether you're logged on to the Internet or not. If you're into keeping logs, DynamIP will even keep track of all its actions for you. DynamIP is a multi-threaded 32bit application and runs only on Windows 95/NT. Most importantly, however, DynamIP is Freeware (i.e. no time limits, no nag screens, no ads, just plain fun). If you have a spare stamp I would certainly be very happy about a postcard from you. Here's my address:

*Christoph Mueller
658 California Ave
Palo Alto, CA 94306*

Have a look at DynamIP's [Advanced Features!](#)

Requirements

- DynamIP works only with Windows 95 and Windows NT.
- You must install the latest version of Microsoft's ActiveX™ Internet Control Pack to make sure you've got all the necessary controls on your system. Please check DynamIP's home page for more information.
- The ZIP file does not include any controls (OCX files) or libraries (DLL files) to keep the distribution file small (and most people already have all the necessary controls/libraries anyway). If anything is missing on your machine, simply connect to DynamIP's home page and download what you still need.

Features

Dynamic IP address poster

DynamIP posts your dynamic IP address to web pages of your choice and uploads the modified files automatically to your web server using FTP. This is very useful for advanced Internet users who want to keep their web pages updated with their current IP address. Of course, you can also use it to update any other file of your choice (for example your *.plan* or *.project* file so that your finger server reports your current IP address...). Just in case you have multiple ISPs, DynamIP supports up to 5 different connections.

POP mail checker

DynamIP monitors up to 5 different e-mail accounts and informs you about incoming mail (works with POP mail accounts). If you have new mail in any of your mail boxes DynamIP will notify you (visually and with sound) and optionally even start your favorite e-mail client. Please read Important Warnings and Disclaimer before you use this feature for the first time!

IPchat

DynamIP scans user-defined ranges of IP addresses and then builds a chat list. You can broadcast messages to all chat members or send a message to a particular IP address (similar to IRC, but IPchat works without using any IRC servers). You can hail other chat members if you want to get their attention and then have a private chat with them. For more powerful communication needs DynamIP supports MS NetMeeting - DynamIP allows you to establish a direct NetMeeting connection to any other chat participant with a single command. If you're away from your computer you can put IPchat into SLEEP mode (other chat members see that you're in SLEEP mode). DynamIP (optionally) generates sound notification events if new chat members join or if somebody else hails you. See the IPchat Engine Specification for detailed information on how it works.

HTTPscan

DynamIP scans user-defined ranges of IP addresses and then builds a list of all the HTTP servers that were found. DynamIP can write this list of web servers to a HTML file of your choice. IF IPchat is active you can also load any chat participant's home page right from DynamIP. HTTPscan is very useful if you want to run a web server from a dynamic IP address without relying on a web page on a server with a static IP. HTTPscan makes it very easy for your friends to locate your dynamic web server.

PC clock synchronizer

DynamIP gets the exact date and time from an NTP server of your choice and then sets your PC clock accordingly. This is very handy if your PC clock is fast/slow.

Logging

DynamIP keeps track of all actions/events and produces a log file if you wish so. If nothing more, at least you know at what time things went wrong.

Have a look at DynamIP's [Advanced Features!](#)

Advanced Features

Please check the [DynamIP home page](#) for detailed explanations of all the advanced features:

- manual or fully automatic operation
- very flexible and fully configurable by user, easy setup (once you get the DLLs and OCXs going...)
- AutoONline at start-up/reconnect and AutoOFFline at shut-down
- AutoRefresh (gets new IP address after a disconnect/redial)
- DialOnDemand (uses settings in Windows 95/NT)
- AutoDisconnect (closes all DUN/RAS connections on exit)
- support for dynamic IP address of HTTP / FTP server
- puts itself into the Icon Tray to reduce task bar clutter
- Adaptive Icons tell you visually what's going on
- supports up to 5 connections (just in case you use multiple ISPs)
- AutoCheck at start-up and at user configurable intervals
- AutoSense (no mail checks unless you're really connected)
- supports up to 5 POP mail boxes
- IPchat (simple chat among DynamIP users, similar to IRC)
- HTTPscan (locates web servers at user defined IP addresses)
- Event Notification (with sound and/or a message box)
- Drag and Drop operation
- ToolTips
- synchronizes your PC's clock with any NTP server
- support for Logging

How does it work?

As soon as you start DynamIP it figures out whether you're connected to the Internet or not. If you're not connected and the DialOnDemand settings are active then DynamIP will start the dialer, otherwise DynamIP just sits there and waits for you to connect (the AutoSense feature makes sure it's not wasting CPU cycles while you're offline, but DynamIP wakes up as soon as you connect!).

Assuming you're connected, DynamIP determines your current IP address and depending on your setup the following threads get started:

1) Dynamic IP address poster

If the AutoONline option is on, DynamIP loads a template (e.g. your home page or your .plan file) that contains place holders. DynamIP replaces your IP Dummy (a placeholder that you can specify) with your current IP address and it updates the DateTime field. Dynamic IP addresses for HTTP and FTP servers are also updated if you check the appropriate boxes. Once this is done, DynamIP saves the updated template as a local file (note that the template file name and the local file name must be different!). Then DynamIP connects to your FTP server and uploads this updated local file. This process is repeated for each active connection. If the "Going Online" process is successful then DynamIP adds itself to the tray to reduce the clutter in the task bar (assuming you checked the Tray option). If something goes wrong with uploading the file, DynamIP keeps trying to upload this file (if RetryImmediate is active then this will happen immediately, otherwise after the next AutoRefresh).

2) POP mail checker

If the startup option is checked DynamIP will look at your active mail boxes right away. As long as you're online, all active mail boxes are checked periodically (you can specify the interval). Whenever you have new mail, DynamIP will notify you visually and/or with sound and optionally start your favorite e-mail client. Note however, that DynamIP itself does NOT download any messages. Please read Important Warnings and Disclaimer before you use this feature for the first time!

3) PC clock synchronizer

If the startup option is checked DynamIP connects to the NTP server you specified and gets the current date and time. DynamIP's synchronization algorithm is not very sophisticated, but the precision should be ok for most applications (after all, many PC clocks are off by several seconds each day...).

4) IPchat

DynamIP scans user-defined ranges of IP addresses (these are read from the file IPDB.txt which should be in the same directory as your INI file) and then builds a chat list. You can broadcast messages to all chat members or send a message to a particular IP address. You can hail other chat members if you want to get their attention. If you're away from your computer you can put IPchat into SLEEP mode (other chat members see that you're in SLEEP mode). DynamIP (optionally) generates sound notification events if new chat members join or if somebody else hails you. IPchat works on a LAN (NT Network) even without an active Internet connection. See the IPchat Engine Specification for detailed information on how it works.

5) HTTPscan

DynamIP scans user-defined ranges of IP addresses (these are read from the file IPDB.txt which should be in the same directory as your INI file) and then builds a list of web servers. DynamIP can write this list of web servers to a HTML file of your choice and optionally load it into your favorite web browser.

DynamIP's AutoRefresh feature detects changes in your IP address immediately and acts accordingly. For example, if your connection is dropped and you get a new IP address after reconnecting, DynamIP will restart the above threads to make sure your remote files are always up to date (this requires that the AutoOnline option is on!).

If the AutoOffline option is ON, DynamIP uploads the original local file (with an updated DateTime field) for each active connection when you shut down DynamIP. This works obviously only if you're still connected to the Internet. If AutoDisconnect is ON, DynamIP will also close all your DUN/RAS connections upon exiting.

AutoSense makes sure that the above threads don't consume any CPU time while you're offline (even if your connection is dropped).

Furthermore, DynamIP can keep a log of all actions/events (just in case you're a control freak). This log file is also quite helpful for trouble shooting purposes.

Commands

FILE Chat Setup Help

Menu	Command	Explanation
File	Refresh IP	Breaks the current link to your FTP/POP server and tries to establish a new link. If successful, DynamIP reports your current IP address. Otherwise, the message "not connected" is displayed. Note that establishing a link can take a while (the delay depends on how responsive your FTP/POP server is).
	ONline	Updates all active templates and uploads the local files ("Going ONLINE").
	OFFline	Updates all active templates and uploads the local files ("Going OFFline").
	Mail	Checks all active POP mail boxes.
	Time	Connects to the specified NTP server and gets the current time. The system clock is adjusted if the appropriate box is checked.
	IPchat	Initializes and activates the IPchat engine.
	HTTPscan	Scans all IP address ranges (as specified in IPDB.txt) and the IP addresses of all chat participants for web servers and updates a user-defined web page (the sample page DynamIPServer_.htm is provided).
	Abort	Stops all current activities.
	Read Configuration	Reads the INI file from the working directory and updates the current configuration.
	Save Configuration	Writes the current configuration to the INI file in the working directory.
	Exit	Stops all current activities (if possible) and then quits the program.
	Chat	
	Info	Fetches the information record of the selected chat participant. Note that the information is not verified, i.e. you get whatever the other chat participant is sending...
		<pre>handle : cmu[205.230.75.212] name : Christoph Mueller e-mail : cmu@stanford.edu location: Manhattan (New York) time : 22-Nov-96 07:33:20 comment : welcome to the testing zone... version : DynamIP v2.7</pre>

Hail	Pages the selected chat participant (depending on the receiver's settings a sound/notification event is generated). If this request is delivered successfully you will receive a confirmation.
Private Chat	In normal chat mode everything is always broadcast to all the members of your chat list. Once you're in private chat mode, your messages are only sent to the selected chat participant.
Send Message	You can send a message to a particular chat participant. Depending on the receiver's settings a sound/notification event is generated). If the message is delivered successfully you will receive a confirmation.
Share Chatlist	This sends the relevant pieces of information to the selected chat participant so that he/she can establish a connection with all your chat list members (note that - in contrast to IRC - IPchat does not rely on a universally visible server; IPchat is point to point and it is quite unlikely that any member of your chat list sees all the chat participants you're communicating with).
Call w/ NetMeeting	Establishes a direct connection between you and the selected chat participant using MS NetMeeting (this works obviously only if both you and the selected chat participant have installed a copy of MS NetMeeting; furthermore, the extension CNF <u>must</u> be associated with NetMeeting [you might have to reinstall NetMeeting if you lost or deleted this association]).
Load Home Page	If the selected chat participant is running a web server DynamIP starts your default web browser and loads the default page of that particular web server (note that the letter "W" must be visible behind the IP address of the selected chat participant for this to work; otherwise, DynamIP starts the HTTPscanner and determines the presence of a web server).
Remove	The selected chat participant is removed from your chat list and is not allowed to rejoin, at least until you flush your chat list. Note that this exclusion is only temporary and specific to the particular IP address. The IP address is not written to the IPDB file.

	Flush Chatlist	Resets the chat engine and reinitializes your chat list. This might be a useful command if your chat engine gets tangled up (e.g. your own handle/IP has dropped out of your chat list).
	Rescan IP	Resets the chat engine and rescans all your current chat participants and the IP address ranges as specified in your IPDB file.
	Distribute Chatlist	Shares your chat list with all your chat participants (see also Share Chatlist).
	HTTPscan	Scans all your current chat participants and determines who is running a web server. "W" is added behind those IP addresses with web servers.
	Load Server Page	Starts your favorite web browser and displays the Server Page (the output of a previous HTTPscan).
	Sleep	Toggles SLEEP mode (all your chat participants are informed accordingly). In SLEEP mode, DynamIP does not accept NetMeeting requests.
	IPchat OFF	Shuts down the IPchat engine.
Setup	Options	Specify general options of DynamIP.
	Connections	Specify options of the Dynamic IP address poster.
	Mail	Specify options of the POP mail checker.
	Time	Specify options of the PC clock synchronizer.
	IPchat	Specify options of the IPchat engine (IP addresses are specified in HTTPscan).
	HTTPscan	Specify options of the HTTPscanner.
Help	Contents F1	Loads the DynamIP help file.
	WWW DynamIP home page	Starts your default browser and connects to the DynamIP home page.
	WWW DynamIP trouble shooting	Starts your default browser and connects to the DynamIP trouble shooting page.
	About	the obvious thing...

Setup

Again, do not even try to install DynamIP unless you're running Windows 95 or Windows NT! If you get stuck along the way or things don't work the way you expect them to work then you will find a lot of useful trouble shooting information on [DynamIP's home page](#). Please make use of this resource!

Here's how to get DynamIP set up correctly:

- 1) You must install the latest version of Microsoft's ActiveX™ Internet Control Pack. Please check [DynamIP's home page](#) for more information. If you are upgrading from an earlier version of DynamIP then you can skip this first step.
- 2) Make a new directory (e.g. C:\Program Files\DynamIP) and copy the ZIP file there. Unzip it and you'll get 9 files:
 - **DynamIP.exe** (that's the thingy)
 - **DynamIP.hlp** (that's the help file)
 - **DynamIP_.htm** (a sample template / web page)
 - **DynamIPServer_.htm** (a sample template / web page)
 - **hailsound.wav** (a sample notification sound file)
 - **joinsound.wav** (a sample notification sound file)
 - **yougotmail.wav** (a sample notification sound file)
 - **IPDB.txt** (a sample file for IPchat)
 - **readme.txt** (only the bare essentials).
- 3) Start DynamIP.exe (it doesn't matter whether you're online or offline). The first time you execute DynamIP.exe it will automatically create default entries if the file [DynamIP.INI](#) is missing.

Note:

It seems that some people don't have all the necessary libraries installed. If you get a message telling you that some OCX file can't get loaded or registered then you should read the section [Requirements](#) again and/or have a look at the [DynamIP home page](#) for more information. Please do NOT send me e-mail before you've checked the [DynamIP home page](#) and worked through the section **Installation Trouble Shooting**. All the files needed to get DynamIP going are available from those pages!

- 4) Set up the [Dynamic IP address poster](#) (if you do not need this feature then you can skip this section and move on to the next point).

Right-click on any of the connection icons and then fill in values into the fields [Remote Host](#), [Login](#), [Password](#), [Template](#), [Local File](#), [Remote File](#), [IP](#), [DateTime](#),

HTTP Server, FTP Server, and FTPUserID (note that the values for IP, DateTime, HTTP Server and FTP Server should be different for DynamIP to work properly!). RetryImmediate forces an immediate retry if anything goes wrong during an upload and #Retries specifies the number of attempts DynamIP makes before giving up. Repeat this for each connection you want to define.

Check the Auto ONLINE and/or Auto OFFline boxes if you want DynamIP to automatically update your IP address at startup/shutdown. The Timeout values can be increased (not bigger than 65 seconds) or decreased (use your own judgment) depending on how fast you can upload files to your FTP server.

If you check the Tray box DynamIP will move itself to the Icon Tray in the "Online" state (if you're running **Windows NT** then this works only if you have at least version 4.0).

Edit the sample web page DynamIP_.htm if you feel like personalizing it. Simply use any old text editor (hey, even Notepad works). If you use a more sophisticated HTML editor (e.g. FrontPage) make sure that the editor does not insert any extra characters (e.g. line breaks) in the middle of your dummy strings.

- 5) Set up the POP mail checker (if you do not need this feature then you can skip this section and move on to the next point).

Please read Important Warnings and Disclaimer before you use this feature for the first time! Right-click on any mail box to pull up the e-mail tab. You must enter at least the name (or IP address) of your POP Server as well as your Login and Password before the e-mail checker will work. Also, don't forget to activate the account. If you want a notification sound upon arrival of new mail then you can enter the file name (with its complete path) into the field Notify Sound and then check the box to activate the sound (click on the button Notify Sound to make sure you got the right file...). DynamIP can also start your favorite e-mail client whenever you receive new mail. Click the appropriate box and refer to POPEmailClient for tips on how to start your favorite e-mail client. Click on OK saves the info, Cancel obviously does not...

In the main control you can now specify the interval between mail box checks (in minutes). DynamIP will check your mail box(es) right at startup if the Startup box is checked.

- 6) Set up the PC clock synchronizer (if you do not need this feature then you can skip this section and move on to the next point).

You can set up the time synchronizer from the Setup | Time menu. If the Active box is unchecked DynamIP will NOT change your PC clock under any circumstances. Enter the name (or IP address) of any NTP Server into the appropriate field and check the boxes depending on whether you want DynamIP to synchronize the PC clock at startup and/or whenever an ONline event occurs. Most people probably want to check "Use Registry Time Zone Information", unless you're using Windows NT3.51 (it simply does not work properly with NT3.51). You should only uncheck this option if you want to enter the UTC offset manually. The UTC offset is simply the time difference between UTC and your location (in minutes). For example, if your time zone is PDT (summer in Palo Alto!) then the correct entry is "420" (without the quotes).

Lists of public NTP servers are available at

- <http://tycho.usno.navy.mil/clocks1.html>
- <http://tycho.usno.navy.mil/clocks2.html>

Please be considerate and use only those NTP servers that are "open access". DynamIP uses "tick.usno.navy.mil" as the default server, but that does obviously only make sense for users in the US. Users in Europe might try "swisstime.ethz.ch".

- 7) Set up the IPchat feature (if you do not want to use this feature then you can skip this section and move on to the next point).

Entering values into the fields Handle, Name, e-mail, Location, and Comment is optional (but I'm sure other DynamIP users appreciate it if you provide some useful information there). If you want sound notification when new chat members join and/or somebody hails you, you should check the appropriate boxes and select a notification sound file. If you're on a LAN (NT Network) and want to use IPchat without connecting to the Internet you can check the LAN-IP box and enter your static IP address into the appropriate field (note that computer names usually work fine, but depending on your DNS setup it might take DynamIP a while to regain control if a computer is not online; I recommend using your IP address). You can restrict access to your chat group to those IP addresses that are in your scanning range - simply check the box "by invitation only". DynamIP removes chat members automatically from your chat list if their chat engine hasn't responded within the timeout period. To specify which IP addresses you want to scan you should click on the tab HTTPscan (IPchat and HTTPscan use the same file IPDB.txt to specify the IP address ranges). An IP address range is entered as **+a.b.c.from to** [e.g. 180.56.18.100 150] and IP addresses to be excluded from your chat list are entered as **-a.b.c.d** [e.g.

-180.56.18.135]. Note that you don't have to include your local machine as it is always included (i.e. you don't have to specify an IP address range that includes your IP address and excluding your IP address does not have any effect whatsoever). You should also note that IP addresses to be included must be specified as a range (as explained above), whereas IP addresses to be excluded must be declared individually (i.e. NOT as a range). If you only want to include a particular IP address - for example 180.56.18.128 - then you would enter the trivial range +180.56.18.128 128.

- 8) Set up the HTTPscan feature (if you do not want to use this feature then you can skip this section and move on to the next point).

Enter values into the fields Template, Local File, Server Dummy, and Server Timeout. Template is the file that is read and updated (the ServerDummy is replaced with a table of web servers found by HTTPscan) and the written to Local File (only if the appropriate box is checked). Scanning gets faster as you decrease the Server Timeout, but if this timeout is too short you might miss some servers that take too long to respond. If you check Load Local File in Browser DynamIP will start your default browser and display the web server list once the search is complete. The IP address ranges to be scanned are specified the same way as for IPchat (it's the same file IPDB.txt anyway). You can name the servers and specify a default page to load. For example, if you want to specify the DynamIP home page on my personal web server, assuming I'm somewhere in the range 205.230.75.180..230, then you would add the following entry to the file IPDB.txt:

+205.230.75.180 230 [cmuServer] <DynamIP.htm>

Don't forget to check the Active box if you want to use this feature!

- 9) Set up the Logging feature (if you do not need this feature then you can skip this section and move on the next point).

DynamIP does not log anything as a default. However, if you choose the menu Setup | Options you can change the logging options according to your preferences. The file DynamIP.LOG is created in the startup directory (same directory where the file DynamIP.INI resides).

That's it. You're ready to go.

(If you care about the INI file then you might want to check out the section DynamIP.INI.)

IPchat Engine Specification

I provide this information in case somebody feels like building an alternative/better client (e.g. for the Mac). The IPchat protocol is fairly simple and all you need to build your own chat engine is a way of sending and receiving UDP datagrams via port #1499 and the following information:

IPchat packets consist of the following blocks:

<header><senderIP><code><message>

where

<header>

the string "DynamIP" (without the quotes)

<senderIP>

the IP address of the sender in brackets (the IP address is in dotted string format xxx.xxx.xxx.xxx); for example, if the sender's IP address is 180.10.55.77 then the senderIP would be "[180.10.55.77]" (without the quotes).

<code>

1 character (see table below for details)

<message>

any string (must be terminated with 0C)

The following table lists all the possible codes, their meaning, the kind of message that follows them, and how the receiver is supposed to behave once the whole packet is received (note that all strings must be terminated with 0C):

A	meaning	Acknowledge HAIL
	message	no message
	receiver	optional feedback into chat output window
B	meaning	BYE
	message	no message
	receiver	remove sender from chat list
c	meaning	information about sender: field "Comment"
	message	any string
	receiver	show user information
d	meaning	information about sender: field "Time"
	message	string with date and time
	receiver	show user information
e	meaning	information about sender: field "e-mail"
	message	string containing e-mail address
	receiver	show user information

H	meaning message receiver	HAIL no message notify receiver (e.g. pop up window)
h	meaning message receiver	information about sender: field "Handle" string containing Handle of sender show user information
I	meaning message receiver	request information about receiver no message send all information fields to sender
l	meaning message receiver	information about sender: field "Location" string containing Location information show user information
M	meaning message receiver	MESSAGE any string notify receiver, show message and send back "Acknowledge MESSAGE"
m	meaning message receiver	Acknowledge MESSAGE no message optional feedback into chat output window
n	meaning message receiver	information about sender: field "Name" string containing Name information show user information
P	meaning message receiver	POLL 1 character SleepCode (" S " or " s ") add user to chat list send back "Acknowledge POLL"
p	meaning message receiver	Acknowledge POLL 1 character SleepCode (" S " or " s ") update user in chat list
S	meaning message receiver	SleepCode ON no message update user in chat list (SLEEP ON)
s	meaning message receiver	SleepCode OFF no message update user in chat list (SLEEP OFF)
T	meaning message receiver	TEXT any string show text in chat output
v	meaning	information about sender: field "Version"

	message	string containing version information
	receiver	show user information
X	meaning	NETMEETING connection
	message	string containing SpeedDial (DynamIP.cnf)
	receiver	start NetMeeting, call DynamIP.cnf and send "Acknowledge NETMEETING" or "Error NETMEETING"
x	meaning	Acknowledge NETMEETING
	message	1 character SleepCode (" S " or " s ")
	receiver	start NetMeeting and call DynamIP.cnf
y	meaning	Error NETMEETING
	message	1 character SleepCode (" S " or " s ")
	receiver	optional feedback into chat output window

DynamIP.INI

This is a bit of a mess, but unless you're into understanding everything you probably won't have to deal with the INI file at all. It might still be helpful to have some explanations, however. The original file looks as follows (the "x" just before the equal sign is the number of the connection or the mailbox [valid numbers are 1 through 5]):

```
[DynamIP]
NOTIFYsound=True;
NOTIFYwindow=False;
LOGReset=True;
LOGConnection=False;
LOGMail=False;
LOGTime=False;
LOGChat=False;
LOGhttp=False;
AutoDisconnect=False;
StartupState=0;
DialOnDemand=False;
NTPactive=False;
NTPServer=tick.usno.navy.mil;
AutoSyncStartup=True;
AutoSyncOnline=True;
UTCoffset=0;
useRegistryTimeZoneInfo=True;
AutoONline=False;
AutoOFFline=False;
AutoTray=False;
LogonTimeout=60;
LogoffTimeout=45;
MailCheckStartup=False;
MailCheckInterval=5;
ScanStartup=False;
ScanInterval=5;
Activex=True
RemoteHostx=YourFTPServer;
Loginx=YourLogin;
Passwordx;
```

Templatex=DynamIP_.htm;
LocalFilex=DynamIP.htm;
RemoteFilex=DynamIP.htm;
IPDummyx=NOT.ON.LINE.NOW;
DateTimeDummyx=\$DateTime;
HTTPDummyx=HTTP Server NOT available;
FTPDummyx=FTP Server NOT available;
FTPUserIDx=anonymous;
AutoHTTPx=False;
AutoFTPx=False;
RetryImmediatex=False;
RetryCountx=1;
...
POPActivex=True;
POPServerx=YourPOPserver;
POPLoginx=YourLogin;
POPPasswordx=;
POPNotifypx=False;
POPNotifySoundx=yougotmail.wav;
POPStartEmailClientx=False;
POPEmailClientx=;
...
ScanActive=False;
ScanHandle=ScanHandle;
ScanName=ScanName;
ScanMail=ScanMail;
ScanLocation=ScanLocation;
ScanComment=ScanComment;
ScanJoinSound=scanjoin.wav;
ScanJoinNotify=True;
ScanHailSound=scanhail.wav;
ScanHailNotify=True;
ScanLANIPON=False;
ScanLANIP=127.0.0.1;
ScanShortOutput=True;
ScanByInvitationOnly=False;
ScanTimeout=5;
ServerTemplate=DynamIPServer_.htm;

ServerLocalFile=DynamIPServer.htm;

ServerSaveLocalFile=True;

ServerDummy=\$ServerList;

ServerTimeout=5;

ServerStartBrowser=False;

Note:

As the parser simply takes the value between the equal sign "=" and the semicolon ";" it is important that you don't add any extra blanks (but don't forget the semicolon either!)

Trouble Shooting

I suspect that DynamIP has a few bugs (hopefully only minor ones, but read Important Warnings and Disclaimer before you use DynamIP for the first time). If it bothers you then you should be able to delete DynamIP within a few milliseconds. Simply remove the whole directory and you're done (I do NOT change the registry at any time). It's free, so don't expect too much!

If you find bugs please drop me a line at cmu@stanford.edu. Try to explain the problem to me in a way that I can reproduce it (if at all possible).

You might also want to check out the DynamIP discussion group at

<http://www.spring.com/yapp-bin/public/read/apps/304/>

and see whether your problem has already been discussed. Of course, you're more than welcome to help out other DynamIP users by posting your own answers to the same forum.

What follows is a collection of tips that might be useful for trouble shooting during installation:

- ***Something went wrong with the file "nmocod.dll"***. The file was probably already on your machine (and probably registered and in use while the installation program tried to register it). If you have this file in your ...Windows\System directory then you can ignore this error message during installation (I think so at least).
- ***When I start DynamIP it complains about some file missing or not being registered***. Write down the name of the file and then try to determine whether you have it on your machine or not. If you can't find it (it would most likely be in your ...Windows\System directory) then you can get it from the table in the section Requirements from the DynamIP home page). Once the file is on your machine you must also register the library. This is done by running the program regsvr32.exe with the library name as an argument (e.g. to register the library popct.ocx you would type **regsvr32 popct.ocx** at the command prompt or into the Start | Run field; if you're more the "drag and drop" type then you can drag the file popct.ocx and drop it right over the program regsvr32.exe in Explorer). If you don't have the program regsvr32.exe (which should be located in the ... \Windows\System directory) then you can get it from the DynamIP home page.
- ***Cannot register .ocx file***. Verify that you have all the files from the table in the section Requirements (including the file in question) in the appropriate locations on your computer. Reboot your computer. Make sure that no other

programs are running and then try to register the library again. If it still doesn't work then you should try to reinstall Microsoft's ActiveX™ Internet Control Pack. If this doesn't help then you might want to check the troubleshooting information on the [DynamIP home page](#).

I recommend installing the complete Internet Control Pack (instead of just downloading the needed files and then registering them). There are many more trouble shooting tips available on the [DynamIP home page](#). Please check out those pages before you send me e-mail. Thanks in advance.

History

v2.7 (24-NOV-96)	new features: HTTPscan improvements: IPchat supports MS NetMeeting
v2.6 (30-OCT-96)	new features: IPchat, Event Notification improvements: default beep (if no sound card)
v2.5 (12-OCT-96)	improvements: DialOnDemand, StartupState, Template and LocalFile treatment bug fix: Clock Synchronizer
v2.4 (14-SEP-96)	improvements: ToolTips in Taskbar, POP disconnect bug fixes (NT): Tray, Time Zone Info from Registry
v2.3 (07-SEP-96)	new features: AutoDisconnect, ToolTips, Time Zone information from Registry
v2.2 (30-AUG-96)	several bug fixes and (internal) improvements
v2.1 (25-AUG-96)	new feature: PC clock synchronizer (NTP) several bug fixes and improvements, help file
v2.0 (22-AUG-96)	new feature: log file, file dialogs bug fixes: memory leak, mail checker crashes
v1.9 (19-AUG-96)	new features: e-mail checker (up to 5 POP accounts) with sound notification, AutoCheck, AutoSense
v1.7 - v1.8	internal versions / not released to public
v1.6 (16-AUG-96)	bug fix in AutoRefresh
v1.5 (08-AUG-96)	new features: up to 5 handles, drag and drop, new looks!
v1.1 - v1.4	internal versions / not released to public
v1.0 (01-AUG-96)	fixed AutoRefresh, new menu items
v0.9 (28-JUL-96)	new features: AutoRefresh, support for HTTP and FTP server address; bug fix: RefreshIP
v0.6, v0.7, v0.8	internal versions / not released to public
v0.5 (26-JUL-96)	added menu (finally!), added tray capability (to reduce task bar clutter), fixed another timing problem in disconnect ;-), icon that hints at the state (on, busy, off)
v0.4 (24-JUL-96)	fixed timing problem in disconnect

v0.3 (06-JUL-96)	connect more stable, disconnect faster, auto-minimize if going on/off-line successful
v0.2 (28-JUN-96)	added timeout feature
v0.1 (27-JUN-96)	quickly wrote this thing 'cause I needed it

Important Warnings and Disclaimer

2 users have reported that DynamIP removes mail from their POP server!

This is NOT a feature of DynamIP! I'm trying to track down the problem, but so far I don't even know why this happens. I suspect that the POP control from the Internet Control Pack (beta 2!) is having some "communication problems" with a certain type of POP server which causes corruption of the mail file on the server. If this is the case then it's very unlikely that I can do much about it short of waiting for the final release of the Internet Control Pack. For the time being I suggest the following procedure to make sure you don't lose any mail:

1. Once you have DynamIP installed and configured properly, you should retrieve all your mail from your POP server using your e-mail client (Eudora, MS Mail, or whatever you use to get your mail).
2. Send a test message to yourself.
3. Run DynamIP's POP mail checker (repeat this until your test message gets reported by DynamIP).
4. Exit DynamIP.
5. Try to retrieve your test message using your e-mail client

If you can retrieve your test message in step 5 above then there's no danger of conflict between DynamIP and your POP server. If, however, you cannot retrieve your test message, then it's quite likely that something's not working the way it's supposed to and you should NOT use the POP mail checker.

Again, this misbehavior is NOT a feature. DynamIP does NOT issue a delete command at any time (DynamIP connects to your POP server, gets authenticated, gets the number of messages, and then disconnects; DynamIP does not download headers or messages).

Password encryption in DynamIP.INI is weak

Although all passwords are encrypted before they get written to Dynamip.INI you should be aware of the fact that the encryption algorithm is rather simple and won't hold up serious hackers for too long... Do NOT rely on this encryption if other people have access to your computer.

YOU USE DynamIP AT YOUR OWN RISK.

I wrote this little utility so that my friends can keep track of my whereabouts (IP-wise, I mean). This is not what I'd consider stellar software, but it serves my purpose. If it works for you, please go ahead and use it as you please. Should it not perform on your system as intended, then I'm afraid there's not much I can do about it (I have a lot of other obligations and writing software is pretty far down on my list of priorities). And you should definitely not even dream of coming up with any stupid liability issues.

YOU ARE RESPONSIBLE FOR YOUR OWN ACTIONS!

YOU install it

YOU run it

... and if something goes wrong it's simply **YOUR** fault.

<http://www.stanford.edu/~cmu/DynamIP.htm>

Dynamic IP address poster

DynamIP posts your dynamic IP address to web pages of your choice and uploads the modified files automatically to your web server using FTP. This is very useful for advanced Internet users who want to keep their web pages updated with their current IP address. Of course, you can also use it to update any other file of your choice (for example your *.plan* or *.project* file so that your finger server reports your current IP address...). Just in case you have multiple ISPs, DynamIP supports up to 5 different connections.

POP mail checker

DynamIP monitors up to 5 different e-mail accounts and informs you about incoming mail (works with POP mail accounts). If you have new mail in any of your mail boxes DynamIP will notify you (visually and with sound) and optionally even start your favorite e-mail client. Please read [Important Warnings and Disclaimer](#) before you use this feature for the first time!

IPchat

DynamIP scans user-defined ranges of IP addresses and then builds a chat list. You can broadcast messages to all chat members or send a message to a particular IP address (similar to IRC, but IPchat works without using any IRC servers). You can hail other chat members if you want to get their attention and then have a private chat with them. For more powerful communication needs DynamIP supports MS NetMeeting - DynamIP allows you to establish a direct NetMeeting connection to any other chat participant with a single command. If you're away from your computer you can put IPchat into SLEEP mode (other chat members see that you're in SLEEP mode). DynamIP (optionally) generates sound notification events if new chat members join or if somebody else hails you.

HTTPScan

DynamIP scans user-defined ranges of IP addresses and then builds a list of all the HTTP servers that were found. DynamIP can write this list of web servers to a HTML file of your choice. IF IPchat is active you can also load any chat participant's home page right from DynamIP.

PC clock synchronizer

DynamIP gets the exact date and time from an NTP server of your choice and then sets your PC clock accordingly. This is very handy if your PC clock is fast/slow.

Logging

DynamIP keeps track of all actions/events and produces a log file if you wish so. If nothing more, at least you know at what time things went wrong.

[DynamIP]

NOTIFYsound

If set to True DynamIP will play the sound files you specified (or a default beep) for particular events (if you did not define any sound files then DynamIP will not play sounds even if NOTIFYsound is true!). If NOTIFYsound is set to False then DynamIP will not play sounds (i.e. this setting overrides the other sound settings!).

NOTIFYwindow

If set to True DynamIP will pop up a notification window whenever a notification event occurs. The window stays open until you click ok.

LOGReset

If set to True the log file is reset at startup (note: if LOGConnection, LOGMail, and LOGTime are all False then the log file is NOT reset at startup!). If set to False all new log events are appended to the existing log file.

LOGConnection

If True all connection events are logged, otherwise they are not logged.

LOGMail

If True all mail box events are logged, otherwise they are not logged.

LOGTime

If True all time events are logged, otherwise they are not logged.

LOGChat

If True all chat events are logged, otherwise they are not logged.

LOGhttp

If True all http scanning events are logged, otherwise they are not logged.

AutoDisconnect

If set to True DynamIP will automatically close all your DUN/RAS connections on exit.

StartupState

Defines the window state of DynamIP at startup:

0 = normal

1 = minimized

2 = maximized

9 = tray

DialOnDemand

If set to True DynamIP will use the DialOnDemand settings of Windows 95/NT (i.e. the dialer will be started in the absence of an active connection if the Windows 95/NT settings are valid). If set to False DynamIP will not start the dialer.

NTPactive

Time feature (including PC clock synchronization) is only available if set to True.

NTPServer

Name (or IP address) of NTP server. DynamIP uses "tick.usno.navy.mil" as the default server, but that does obviously only make sense for users in the US.

AutoSyncStartup

If set to True a Time check is done at startup, otherwise not.

AutoSyncOnline

IF set to True a Time check is done whenever the ONline event occurs.

UTCoffset

Time offset (in minutes) between your time zone and UTC

useRegistryTimeZoneInfo

If set to True DynamIP determines your current time according to your Registry settings. If set to False then you should specify UTCOffset. Please note that this feature does NOT work properly if you use DynamIP with Windows NT3.51.

Uncheck this option and specify the correct UTCOffset to use the ClockSynchronizer with Windows NT3.51.

AutoONline

If set to False you have to go online manually. If set to True DynamIP will initiate a "going online" process whenever a connection is (re)established. This is quite useful together with a dialer that reconnects you if you get (involuntarily) disconnected. Note that any connections that timed out during "going online" will be retried periodically.

AutoOFFline

If set to False you have to go offline manually. If set to True DynamIP will do this for you automatically during shutdown.

AutoTray

If set to False DynamIP disregards all Tray commands (including the Tray button!) and behaves like a normal application (i.e. shows up in the task bar). If set to True DynamIP puts itself into the Icon Tray after going Online successfully. Clicking on the Tray button puts DynamIP into the Tray directly. Users of Windows NT 3.51 cannot use this feature because DynamIP would get "lost" like this [you basically would have to kill the process because you couldn't maximize DynamIP anymore].

LogonTimeout

Timeout period (in seconds) before going ONline fails. Note that this timer cannot exceed 65 seconds.

LogoffTimeout

Timeout period (in seconds) before going OFFline fails. Note that this timer cannot exceed 65 seconds.

MailCheckStartup

If set to True DynamIP will automatically check your mail boxes right at startup.

If set to False the first check will happen after the specified checking interval has elapsed (unless that one is set to 0 in which case there won't be any mail checks at all).

MailCheckInterval

This is the time between mailbox checks in minutes. Note that a value of 0 is equivalent to not checking at all.

ScanStartup

If set to True DynamIP will automatically open the IP chat windows and start scanning your IP address ranges right at startup. If set to False the first scan will happen after the specified scanning interval has elapsed (unless that one is set to 0 in which case there won't be any IP scans at all).

ScanInterval

This is the time between IP scans in minutes. Note that a value of 0 is equivalent to not scanning at all.

Activex

True if the connection is active, otherwise false. Must be True if you want to initiate "Going online" or "Going offline" processes.

RemoteHostx

Name (or IP address) of your FTP server (e.g. ftp.alpha.edu). Do NOT put any paths into this field! (the remote path can be specified together with the name of the remote file)

Loginx

Your login id (for the FTP server)

Passwordx

Do NOT enter your password in plain text here!. You should enter your Password into the appropriate connection field when DynamIP is running. DynamIP will then encrypt your password before it's stored in the INI file.

WARNING: although all passwords are encrypted before they get stored to this INI file you should be aware of the fact that the encryption algorithm is rather simple and won't hold up serious hackers for too long...

Templatex

Path and file name of the template (the file containing place holders for IP address, Date and Time, etc.); this file is a read-only file and DynamIP will never change this file. The updated file will be stored as LocalFilex. Make sure that the template file name is different from the local file name; DynamIP does NOT work properly if these two file names are identical!

LocalFilex

Path and file name of the updated file (local copy). Make sure that the template file name is different from the local file name; DynamIP does NOT work properly if these two file names are identical!

RemoteFilex

Path and file name of the remote file (the Local File will be uploaded to this location). If your html file goes into your root directory then you don't need to specify the path (e.g. DynamIP.htm will work fine). However, you can specify the path if your html file must go into a particular directory (e.g. WWW/DynamIP.htm if the file goes into your directory WWW). Do NOT put the IP address or the host name into this field!

IPDummyx

Place holder for your IP address; this can be any string you like
(NOT.ON.LINE.NOW works just fine and is probably quite useful).

Note:

The strings for IPDummy, DateTimeDummy, HTTPDummy, and FTPDummy must be different if you don't want to end up with a total mess being posted...

DateTimeDummyx

Place holder for the current date/time; this can be any string you like (\$DateTime works just fine)

Note:

The strings for IPDummy, DateTimeDummy, HTTPDummy, and FTPDummy must be different if you don't want to end up with a total mess being posted...

HTTPDummyx

Place holder for your HTTP Server. This is NOT the IP address (or URL) of your HTTP server, but a placeholder which DynamIP will replace with a piece of HTML code that will be a link to the HTTP server at your current IP address.

Note:

The strings for IPDummy, DateTimeDummy, HTTPDummy, and FTPDummy must be different if you don't want to end up with a total mess being posted...

FTPDummyx

Place holder for your FTP Server. This is NOT the IP address (or URL) of your FTP server, but a placeholder which DynamIP will replace with a piece of HTML code that will be a link to the FTP server at your current IP address.

Note:

The strings for IPDummy, DateTimeDummy, HTTPDummy, and FTPDummy must be different if you don't want to end up with a total mess being posted...

FTPUserIDx

User ID that is inserted into the template if you check FTP Server in Connection Setup. Default value is **anonymous**, but you can change this if you want your users to login with a particular ID.

AutoHTTPx

If set to False the field HTTP is left alone. If set to True DynamIP will replace the place holder specified in HTTPDummy with a link to your HTTP server (using your dynamic IP address).

AutoFTPx

If set to False the field FTP is left alone. If set to True DynamIP will replace the place holder specified in FTPDummy with a link to your FTP server (using your dynamic IP address).

RetryImmediate

If set to True DynamIP will immediately retry the failing operation. If set to False then DynamIP will wait for a while before retrying (this waiting period depends on the "idle-disconnect" period of your ISP).

RetryCount

Specifies the number of attempts DynamIP makes to upload the file if it doesn't work out the first time.

POPActivex

If True the appropriate mail box is active and will be monitored by the POP checker.

POPServerx

Name (or IP address) of your POP server

POPLoginx

Your login id (for POP server)

POPPasswordx

Do NOT enter your password in plain text here!. You should enter your Password into the appropriate connection field when DynamIP is running. DynamIP will then encrypt your password before it's stored in the INI file.

WARNING: although all passwords are encrypted before they get written to this INI file you should be aware of the fact that the encryption algorithm is rather simple and won't hold up serious hackers for too long...

POPNotifyx

The notify sound is only played if set to True.

POPNotifySoundx

Path and name of the sound file (.wav) to be played.

POPStartEmailClientx

If set to True the POP mail checker will automatically start your e-mail client whenever new mail arrives in this particular mail box.

POPEmailClientx

Path and name of your e-mail client. Some clients are very easy to start, others might be tricky... Here are some tips:

In general: It should be sufficient to start the executable (EXE file), sometimes you might have to execute a shortcut (LNK file).

Eudora: Executable works fine, e.g. **C:\Eudora\Eudora.exe**

MS Internet Mail: Start a shortcut, e.g. **C:\Windows\Desktop\Microsoft Mail.Ink**

Netscape Mail: Haven't figured out yet how to start Netscape Mail only (that is without getting the browser as well).

ScanActive

If set to True the chat engine can be activated. Otherwise the button IPchat is disabled.

ScanHandle

Enter your nick name, user id, or whatever you want other DynamIP users to see in their chat list.

ScanName

Enter your full name.

ScanMail

Enter your e-mail address.

ScanLocation

Enter your location.

ScanComment

Enter any comment you like.

ScanJoinSound

Enter the path and file name of the WAV file to be played when a new member joins the chat list.

ScanJoinNotify

If set to True DynamIP will generate a notification event when a new member joins the chat list.

ScanHailSound

Enter the path and file name of the WAV file to be played when somebody else hails you.

ScanHailNotify

If set to True DynamIP will generate a notification event when somebody hails you.

ScanLANIPON

If set to True DynamIP will use the static IP address entered into the field ScanLANIP for IP chat. This makes only sense in a LAN environment (NT Network).

ScanLANIP

Enter your static IP address here if you're on a LAN. Note that computer names usually work fine too, but depending on your DNS setup it might take DynamIP a while to regain control if a computer is not online; I recommend using IP addresses instead of names.

ScanShortOutput

If set to True DynamIP will only report the sender's handle in the chat output window, otherwise DynamIP will also report the current time and the IP address of the sender.

ScanByInvitationOnly

If set to True then only IP addresses from the range(s) specified by you are allowed to join the chat list.

ScanTimeout

Any given chat member that hasn't responded within the last few minutes (as specified by the value in this field) will automatically get removed from the chat list. If you enter a value of 0 (zero) then chat members are never automatically removed.

ServerScanActive

If set to True HTTPscan is enabled, otherwise it is disabled.

ServerTemplate

This is the file that is read after a successful HTTPscan, updated (only if it contains the string specified in ServerDummy) and then saved to ServerLocalFile (only if ServerSaveLocalFile is set to True).

ServerLocalFile

This is the file where the updated ServerTemplate is written to after a successful HTTPscan (only if ServerSaveLocalFile is set to True).

ServerSaveLocalFile

If set to True the file ServerLocalFile is updated after a successful HTTPscan, otherwise it is not changed.

ServerDummy

Specification of the string contained in ServerTemplate that is replaced with the list of HTTP servers found by HTTPscan.

ServerTimeout

Time in seconds HTTPscan is waiting for a reply from a HTTP server when scanning a particular IP address. Bigger values slow down the search, but they increase the chances of finding HTTP servers (especially if they are slow). Values too small make it more difficult to find HTTP servers because they might not respond within the timeout period. A value of 5 should be ok for most practical purposes, but you might want to increase this if you have a slow link...

ServerStartBrowser

DynamIP automatically loads the updated web page ServerLocalFile into your favorite browser if set to True, otherwise not.

