

Software Forge *iNETRiS* 2.0 for Windows

IMPORTANT: IF THERE IS A README.TXT FILE, READ IT RIGHT AWAY!

This program is shareware. If you enjoy the game and wish to continue playing it, you must register it.

iNETRiS information is on the World Wide Web: <http://www.dur.ac.uk/~d405ua/> (from mid-October 95). Please come and see it!

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I'd love iNETRiS to be included on magazine coverdisks. If you're in charge of a coverdisk for a computer magazine and would like to include iNETRiS, please let me know by email to petermarshall@cix.compulink.co.uk. (I'll definitely say yes, unless really odd circumstances apply).

How to play

iNETRiS is based on the classic Russian computer game, Tetris. Playing Tetris is simple but still challenging and fun. If you already know how to play Tetris - and that's 99% of the population - you can skip this topic.

Tetris involves two-dimensional shapes which fall from the top of the play area. There are seven types of these shapes and each shape is made out of four squares, joined together in a certain way. As these shapes fall, you can move them from side to side and rotate them (in 90° increments) using the computer keyboard.

The object of the game is to keep playing for as long as possible so that you can amass score. You get points each time a piece lands, but if a piece cannot fall from the top (i.e. you've piled up pieces high so there is no space at the top) then the game ends. To prevent this from happening, you position the shapes that fall so that they fit into the already-landed shapes exactly without leaving gaps. Each time you fill up a whole row of the playfield with blocks and no gaps, this row disappears and rows above it drop down. And you get some score. If you manage to fill up two rows with just one shape (two rows at once), you get more score than you would for clearing one row with one shape and the other row with another shape. Three rows at once is even better, and getting four rows at once is called a Tetris. These give you lots of points.

To make the game more challenging, it speeds up as you fill more lines.

At this point, you'd better play the game to make sure you understand what I mean. The help sections below will tell you how to choose keys, and more about specific features of this implementation of Tetris.

If you still don't understand how it works, watch the attract mode (just leave the program on the title screen and wait) to see if this makes things clearer.

When you're reading the rest of the helpfile, you'll want to click on highlighted words within the main text for more information. Because you'll be jumping around all over the place, the "back" button will probably be very useful, too.

Keyboard controls
Using iNETRiS

Using iNETRiS

These are some of the features specific to iNETRiS.

You don't need to read all this before you play, but it'll let you know what features are available to assist you.

Drop modes

Next piece display

Playing modes

Pause mode

Pause mode

To pause the game, you can either minimize it, click on another program window, or click on one of the buttons along the bottom of the main screen. (You don't have to alter anything.)

You cannot pause the game in network mode - if you switch to another window, pieces will keep falling uncontrolled, so avoid this! For this reason, it's a good idea to ensure your options (keys, music, sound, graphics) are set up to your satisfaction *before* a network game, as it won't pause to let you change them. (at least, it may pause your display, but it won't stop lines being added...)

When the game is paused, it will hide the screen so you can't just pause and think about where you're going to put the piece. Pausing does not help you in any way, and it may hinder you because it'll take a short time to get used to where everything is when you come back to the game. Because of this, try to pause in a fairly nice position (when you've already lined up a piece, but before it lands, for instance).

When you're ready to play again, bring the window back if you minimized it, or switch back to it using the mouse or Alt+Tab if you clicked another program window, or Ok the dialog box if you clicked a iNETRiS button.

Drop modes

There are two different modes of operation for the drop key. This key drops the current piece to the bottom of the screen.

On most PC versions of the game, pressing the key **once** will drop the piece instantly until it hits ground or another piece.

Versions of the game on other systems tend to use the more sensible 'smooth' method, where **holding** the key makes the piece fall quickly until it hits bottom or the key is released (thus letting you change your mind about where the piece should go if you want).

The second method requires more processor time (and more programming!) which is why many PC programs don't support it. However, iNETRiS does. You can choose which mode is used by clicking on the drop icon on the main screen. If the arrow on the icon is long, instant dropping is enabled. If the arrow is short, smooth drop is enabled.

To gain the extra points for dropping, you need to keep holding down drop until the piece thuds into the bottom or another piece. You don't need to worry about the still-held key affecting the next piece; it won't unless you press it again, so if you've got no sound it's best to hold down until the next piece appears to make sure you get the bonus.

Next piece display

This is the box in the top right of the iNETRiS window. It shows you which piece will appear after the one you're controlling now has landed. This helps you plan your strategy as you can now think one move ahead.

If you click on the display, it will hide itself. This makes the game more difficult (though also introduces more luck) and gives you a 5% score bonus. Click on it again to bring the display back. You'll get the bonus for as long as the display is hidden.

The bonus does not affect your standing in a network mode game.

If the iNETRiS window is not maximized, you won't be able to see the next piece display. However, in this case, a colour-bar will be drawn across the top of the window, in the colour of the next piece, so you can still tell what's coming once you are used to the piece colours.

Note: do not rely on this display before games have started (e.g. in network mode waiting for other players) as it may not always work until a game is under way.

Hints and tips

Scoring

All the score you obtain is multiplied by the level you are on - i.e. getting a triple-line on level 9 will give you 3 times as much as on level 3.

You get 5% bonus score on top of this if you turn the Next piece display off by clicking on it.

If you drop pieces, you get a bonus score depending on how high the piece was when you started to drop it. If you change your mind partway through a smooth drop, you get no extra points for the distance you've dropped the piece so far - only a continuous period ending in the piece hitting the ground will give you the bonus.

Most of the scoring information can be had by just waiting for the program to run through its attract sequence.

Score is given for the following things:

Landing a piece	This score is given just because you're still here. It also compensates (maybe) for being unlucky and getting nasty pieces. ('Course, my definition of nasty pieces is probably different from yours)
Line-piece	1
Square piece	3
T-piece	1
S-piece	3
Z-piece	3
L-piece	2
Reverse L-piece	2
Clearing lines	This is where you'll really notch up the points.
Single line	20
Double line	120
Triple line	320
Tetris!!	880

The best scores will be stored in the Hi-Score chart.

Hi-Score Chart

When your score is one of the ten all-time best obtained on your computer, you'll be asked for your handle (name). Fill this in - it'll stay on your computer unless you delete the file or someone knocks it off the bottom of the chart. In this way, you'll know if you get a new personal best.

To view the chart, click on an unoccupied area of the iNETRiS window when on the main screen or the attract sequence.

Notes on the Hi-Score chart

- It won't store any scores you get in network mode.
 - Neither will any scores you get in challenge mode be saved.
 - Scores will always be saved on your own computer, in the directory containing Windows. It's not therefore possible to have one hi-score chart for the whole network, even if you play single-player, unless the copy of Windows you run is stored on the network server.
- Trying to edit the high-score chart in the .ini will probably lose you all your scores. Because of this feature, you can use the .ini file as "proof" that you got whatever score you did. (Those wishing to test, can temporarily copy the .ini file in place of theirs and load it, to see if iNETRiS deletes the scores or not). Of course, this feature is not completely hacker-proof.

Challenge Mode

This mode is selected by turning on the 'Challenge' checkbox on the main screen, and choosing a number of lines using the up and down arrows. When you play in Challenge Mode, you cannot get a hi-score. Instead, the aim is to 'complete' a level. You set yourself the target number of lines, and when this number is reached, the game ends (in victory!)

This mode is good if you only want a quick game, or in competition with friends ('I can do 30 lines on level 19!').

Note: this checkbox has the same function in network play.

Normal mode

In normal mode, the intention is to amass score. The highest scores are recorded on the hi-score chart. To ensure your game is in Normal mode, clear the 'Challenge' checkbox on the main screen.

Playing modes

There are two different modes of play for single-player: challenge mode and normal mode. Briefly, normal mode is where you aim for score. In challenge mode, you aim to get a certain number of lines on a particular level, and score is not important.

Hints and tips

Once you can manage it, it's a good idea to **set the starting level higher**. The game level does not increase until you have got 10 lines per level - i.e. at 10 lines the game moves to level 2, at 20 lines to level 3, and so on. The higher your starting level, the longer you get before the game speeds up more, and during this period you get more points than if you'd started on level 1.

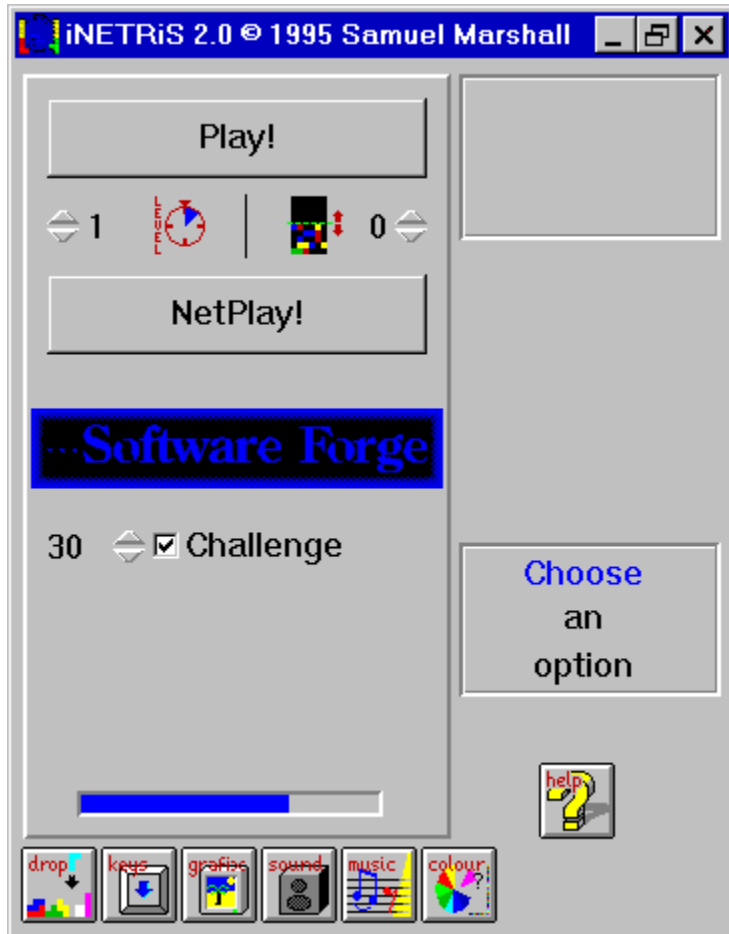
Go for Tetrises. This is very important. When you are past the absolute beginner stage, try to pile the pieces with a gap for a line piece. Tetrises will get you much more score than getting less lines at once. In network mode, they are more effective at messing up the other players.

Know when to stop. I don't mean, stop playing - you should never do that! - but stop waiting for a line you need for a Tetris. If blocks get too high up the screen, get some single and double lines to improve the situation a bit.

In network mode, play fast. If you can correctly position pieces quicker than your opponents, you will get Tetrises quicker than them, get lines quicker than them (essential if you have the 'win on number of lines' option set) and generally give them a hard time. I have personal experience of this - heh heh heh....

The *main* screen

Bitmaps in this help file come from a Windows 95 system. However, the program should work identically under Windows 3.1.



Please click on an item you would like information on. You can only choose items when the cursor turns into a hand as you move it over them.

***Play* button**

This button will start the game, using all the options you've set up on the main screen. Once you've started the game, you cannot change the level or hi mode. However, you can still change all the features altered by the buttons along the bottom of the main screen. While you're changing features in this way (during the game) it will enter pause mode, unless you are playing a network game.

Hi selector

You can use the arrows on the main screen to alter the hi mode, which is displayed next to the arrows.

Hi mode is there to make the game more difficult. It specifies a certain number of lines which will already be partially filled at the bottom of the screen when you start the game. You'll then have these lines getting in the way until you clear them out by filling them (which isn't always easy). *Don't* try really big numbers like 15 unless you're on a very slow level and you're a good player!

This mode is a good way to make the game more even in network play if you're playing against someone with a different experience level. If they're more experienced than you, they can increase their hi mode to make the game challenging for both of you. Handicap mode deals with this automatically.

Note that unless the any level checkbox is enabled, only the value of the hi-selector set by the server has any effect in network play.

Level selector

Using the arrows on this selector, on the main screen, you can change the level at which you start play.

The higher the level, the faster pieces fall. This makes the game more difficult (surprise!). However, the game will not increase the level further until you have obtained a certain number of lines (the current level times 10, e.g. if you're on level 8, the game will increase to level 9 when you clear the 80th line).

You can use this to make things difficult for the more experienced player in a network or multi-player game, but we recommend you use the special handicap mode for this purpose. Unless the any level checkbox is enabled, only the value of the level selector set by the server has any effect in network play.

Attract sequence wait bar

When the blue empties out of this bar - on the main screen - the game will enter attract mode. To prevent this happening, you can click one of the arrows to change hi mode, level, or challenge mode, which will refill the bar.

Attract mode

If you leave the game on the main screen, it will go into attract mode. First, you will be briefly shown how to play. Then, the game will go through all its scoring information. Then, the hi-score chart will appear. There will then be a nag screen if you haven't yet registered, or a different screen if you have, and finally the credits will be displayed. After this, the game goes back to the main screen.

If you click the mouse (in the window) while on the main screen or the scoring information, the game will skip to the hi-score chart. If you click while on the hi-score chart, registered screen or credits, you will go back to the main screen.

Status box

The status box displays game information.

- **Attract mode/idle**
In this case, the status box informs you what will happen if you click the mouse on an empty screen area.
- **Normal play**
The game tells you what your position on the hi-score chart would be if you lost now.
- **Network mode**
The status box lets you know if someone loses - a message in the form 'xxx is out' will appear. If you get lines from someone else, that person's vindictive message will appear to enrage you. The box also shows you if you are waiting for other players before the game starts, and will tell you 'Let's go' when the game does start. Various other messages will also appear. Most of these are duplicated in the chat window, in case you miss them.

At the beginning of each network game, the box also informs players if the selected options are acceptable for use in competitive play - i.e. if each player has the same difficulty.

Keyboard controls

You can choose keyboard controls by clicking on the 'keys' icon. This'll bring up a dialog box with buttons:

<i>Button name:</i>	<i>Default key:</i>
Clockwise	<Space>
Anticlockwise	<Ctrl>
Left	<Left>
Right	<Right>
Drop	<Down>

Next to the buttons are panels showing the currently selected key. If I haven't programmed in the name of the key, '<?>' will be shown, but don't worry, the key will still almost certainly work in the game.

To set a key, click on its button. A popup window will appear. Then, press the key you want. For example, to set the left key to Ctrl, you'd click on the button marked 'Left'. Then, you'd press Ctrl.

As you can see, you can choose different keys so there is a key to turn each way. This can speed up your play, but it's more difficult for inexperienced players. (hey, I don't use it!) If you only want to use one rotate key, just set that one and set the other to something out of the way like a function key so you don't press it by accident.

Note: please make sure none of the keys are set to the same. If you do set keys the same, you get interesting effects, but low scores!

Sound effects

You can change the sound effects by clicking on the appropriate button on the iNETRiS window. This brings up a dialog box containing ten buttons, ten edit boxes, and ten little < arrows.

<i>Button</i>	<i>When sound is played</i>
Piece hits	To indicate this piece has landed
Line cleared	You cleared one line
2 lines	You cleared two lines
3 lines	You cleared three lines
Tetris	You cleared 4 lines
<u>Up level</u>	The game just increased in speed
<u>You lost</u>	Guess...
Lines added	Some ex-friend gave you lines (<u>network play</u>)
Victory	You won! (network play/ <u>challenge mode</u>)
Game start	When the game starts

To test a sound, click on the button. If the sound file can't be found, nothing will happen. Otherwise, the sound will play.

There are **two** ways to change which sounds are played when.

The easiest way is to **click on the little arrow button** (<) next to the appropriate sound. If you do this, a standard file dialog will appear so you can browse to find a suitable sound file.

You can also choose a sound file by **clicking in the edit box** with the filename in, and editing it to the name of another sound file. Include the path if necessary. Remember to check it works by clicking on the button.

A checkbox titled 'Sound on' indicates whether or not sound is turned on. If you don't have a Windows-compatible sound card installed, you cannot turn sound on.

You can cancel any changes by clicking Cancel. When you click OK, the changes are in effect. All settings are saved when you exit iNETRiS.

The sounds provided (if you downloaded the iNETRiS Sound FX file `netrisfx.zip`) will be set up as defaults, assuming your iNETRiS directory is `C:\INETRIS` and you followed the installation procedure in the readme file. The thud sounds are provided even if you didn't get the `netrisfx.zip` file.

The default sounds aren't that great, though, so you might as well use your own if you have some wave files that might be suitable. (Default thud sound is quite usable, though.)

Graphics

The graphics dialog box allows you to change the background pictures used. You can set the background for each level separately, to the supplied backgrounds or ones you've created.

Background graphics work on 16-colour, 256-colour, and 24-bit colour display drivers. They probably won't work properly on 32k or 64k colour displays. Sorry, but if you use one of these, you'll be best sticking to a background colour. Also, if you have a 16-colour display, you'll get best results by loading the graphics into a image editing program like Paint Shop Pro, converting to 16-colour, and then back to 256 colours again before saving. (Windows handles the conversion otherwise, and doesn't do too well).

To change the graphic you are editing, use the arrow or type a number into the edit box. The filename display will update to show the current graphic for the level you chose.

There are **two** way to change the graphics used.

The easiest way is to **click on the little arrow button** (<) next to filename edit box. If you do this, a standard file dialog will appear so you can browse to find a suitable graphics file.

You can also choose a graphics file by **clicking in the edit box** with the filename in, and editing it to the name of another graphics file. Include the path if necessary.

If you get the name wrong, the background on that level will use the colour set as background colour. To intentionally set a level to use background colour only, you can delete the filename from the edit box and leave it blank.

Click OK to accept the changes, or Cancel to reset to the previous settings. All your settings will be saved when you exit the program.

Using your own custom graphics

It's possible to use your own custom graphics for backgrounds. iNETRiS has tight restrictions on what is and isn't allowed, though, so read this carefully.

Graphics must be in .BMP format. They must be saved as 256-colour files, even if they only contain 16 colours. They must be 210 pixels wide by 378 pixels high. In addition, they must be flipped vertically (i.e. they will be displayed the other way up in iNETRiS than in your image edit program). This last is for greater loading speed.

If you break any of these rules, the program may exit with a fatal error, or crash, or you may get undesirable screen results. Don't say I didn't warn you.

Having said that, it's pretty easy to follow these rules providing you have a suitable

image edit program (I use PhotoShop).

The included graphics are from two sources: fractal programs FractInt (a great free program) and NRFract (my own program).

Music

There are three different music settings

<i>Setting</i>	<i>Played when</i>
Title music	On <u>title screen</u> or <u>attract mode</u>
Game music	During the game
Hi-scores	When you get a new hi-score (not just when the <u>chart</u> is displayed)

To change a music file, either click in the appropriate edit box and enter a filename with a path (e.g. d:\us\midi\5thsymp.mid) or click on the little arrow button (<) next to the edit box and use the standard dialog that appears to browse for the file.

You can test a music file by clicking on its button. To turn music on or off, click on the 'Music on' checkbox. Music files will only play if you have a Windows-compatible soundcard that supports MIDI music, of course.

Slight problems with music occur on some systems. Because of this, you may notice some odd behaviour. If so, the following section gives more information.

Problems with music

Background colour

When you choose this icon, you will be able to use scroll bar sliders to specify your background colour pattern in the absence of graphics files for the current level.

This is recommended if you have a slow computer or a 16-colour graphics card. The default colour is black, but you can choose any colour you want. Generally, it's easier to play against a dark background.

Even if you have 256-colour graphics, the colour pattern will still be a 16-colour dither, so in this case you will probably prefer to use graphics files.

Network play

If the 'Net play' button on the main screen is disabled (greyed out), then Windows Sockets is not installed. Click here for more information.

Network play enables you to link up several computers, or two or more players on the same computer, so as to play against your friends (or enemies, the game's not picky).

Basically, in network play, if you get two lines at once, one unfilled line appears at the bottom of an opponent's screen, pushing the rest of their blocks upwards. If you get three lines, two lines appear. But if you get a Tetris, the full four lines appear.

There is also an auto-handicap mode, whereby if you do well in a game, you will start off with some unfilled lines at the bottom next time (like Hi Mode on one-player games).

Network play works using a method called Windows Sockets, which is the same method used by commercial network software like Netscape Navigator. Technical details.

When you click 'Net play' from the main screen, the network play dialog box will appear. You fill in your details here and then click OK.

Even if you're playing a "private" networked game, please consider using the Redirector option instead of just clicking OK here, if a redirect server is working and you are connected to the Internet.

If you have chosen to be the server, the network options screen will appear. Otherwise, you will be given a message that you must wait for the other players.

You cannot get hi-scores in network mode. To make up for this, a scoring system based on which place you get (first, second, whatever) is used. These scores will let you know who's done best out of a prolonged bout of playing. The scores are reset if the person running the server program decides to quit or stop playing.

If you are "out" of the game before it's finished (because your pieces got up to the top of the screen), you'll get a network overview display, so you can watch the other players.

Throughout network mode, you'll be able to make comments to people on remote computers, using the chat window provided.

When a game finishes, the results dialog box will appear, giving you the chance to play another game (or not).

When two or more players are using the same computer things work in a similar but slightly different manner.

Auto-handicap mode

In network mode (or when several players are on the same computer), the checkbox 'Handicap mode' is available on the network options screen.

If turned on, this mode makes things more difficult for the better player(s) in the game - automatically. The player who comes first in a game has their hi level raised by the number set using the handicap mode arrows. The player who comes last has their level reduced by this number (you can't have a negative hi level, but numbers below zero mean you have a certain number of wins before you get the handicap yourself). Players in-between get varying levels.

You don't have to do anything once this mode is activated. All the levels will be reset at the same time as score is reset - i.e. when the server quits.

To achieve the best possible balance, use a high value such as 5 or 6 for handicap mode initially. When you start alternating games (i.e. each time you win, the resulting handicap makes sure you lose next time), decrease the value to 1 or 2 as it should now be about even.

Technical details

How to make it work

iNETRiS uses standard Windows Sockets calls. To prepare your computer for iNETRiS play across the Internet, run any preparation software (Trumpet Winsock, for instance) that you'd normally run to log onto the Internet before loading a program like Mosaic or Netscape.

Playing against other people on the same computer also requires Winsock to be active, although you don't need to be actually logged on to the network. I'm not sure if you need to take any action to achieve this under Win 3.1. No action is necessary under Win95. (Although you may need to install the 'dial-up networking' option - even if you don't have a modem).

If you can't get things to work on your network or single machine, first check the Web page at <http://www.dur.ac.uk/~d405ua/> for any tips. (I know, if it's not got a modem, you can't check the web page, but maybe you could use a friend's computer.) Then if that doesn't help, email me with details of the problem (at Samuel.Marshall@durham.ac.uk, which is my university address, so if it's during a holiday, response could be several months coming, or if necessary at the other address).

Network resources required

While running as a server, iNETRiS requires the same number of connections as players, and one or two extra sockets. (Possibly, these resources may be limited under some implementations).

While running as a client (not a server) iNETRiS requires only one connection and one socket.

iNETRiS uses port number 8370. Why? Well, try to work it out... (8371 is also used, but only by the redirection server, and there's no special significance to *that* number except that it's one more than the other number...) If for some reason you know you can't run a server on port 8370, have a go at me via email and I'll fix it up properly for you.

If you want to run the server on your machine, your network connection to the other players should be reasonably fast. We recommend 14400 bps for up to 4 players, and 28800 bps for more. (although it should *work* whatever the connect speed).

To optimise the timing, the server should be centrally placed (with respect to the network, not geography!). The game should be able to cope with quite large net-lags, but the larger the delay, the more likely irritation will be caused. (For instance, two or more players could actually "win" by getting the required number of lines, in challenge mode, before the server had registered the fact.)

Network play dialog

Bitmaps in this help file come from a Windows 95 system. However, the program should work identically under Windows 3.1.



Play networked game

Name Short Name

Lines Quote

Tetris Quote

IP address

☒ Server

Please click on any item you'd like help with from this dialog box. You can only get help on an item when the cursor turns into a hand over it.

Full name

In this edit box, you can enter your full name or handle. (In case I end up playing with people I don't know, I've chucked my old 'Sam The God' handle - it was just a little bit arrogant - and my new name is 'CuteElf', should you ever play against me...) This will appear in the results dialog box and on the network options screen.

Short *name*

You should enter a short name for yourself in this box. I use 'CuteElf' again. (That's the advantage of a short handle...) This is used when necessary during play, if your name appears in someone's status box. (For instance, if I lost the message 'CuteElf is out' would appear in everyone else's status box.)

Lines quote

Each of these three edit boxes represents one line of the message that will appear in an opponent's status box when they get some lines that you've kindly donated. Enter what you like (remember, superior-sounding comments like 'Better luck next time' often infuriate people).

Bear in mind that these text lines must fit into the status box. If you type too much, it'll overflow and look stupid, so keep them short. (yeah, yeah, I know I should check. Sorry.)

***Tetris* quote**

Each of these three edit boxes represents one line of the message that will appear in an opponent's status box when they get four lines from your Tetris. Enter what you like (but try to be nice to any inexperienced players...).

Bear in mind that these text lines must fit into the status box. If you type too much, it'll overflow and look stupid, so keep them short.

Network *address*

If you're the server, you don't need to fill in this field in the network play dialog box.

If you're connecting to a server somewhere else, you must type in the address of the server here. The address must be in numerical format (like 100.100.100.100). The person running the server can get this address from their title bar on the network options screen.

For more details about this, see
Technical details

Network *options* screen

Bitmaps in this help file come from a Windows 95 system. However, the program should work identically under Windows 3.1.



Please click on any item you'd like help with from this screen. You can only get help on an item when the cursor turns into a hand over it.

Note that to quit this screen, you can use the Play button if no other players have joined.

If you choose options that are fully competitive - i.e. no player gets any kind of advantage - then a message at the start of the game will indicate this. To meet these requirements, handicap mode and the any level option must be turned off. This feature is intended for tournament games or similar contests.

Play (on network screen)

This button starts the network game.

Before you click it, make sure that you've chosen all the options correctly and that all players have joined (are listed in the player list). This is the final button - there is no way to cancel.

Having said that, the play button also works *to* cancel. If no other players have joined - your name is the only one on the player list - this button will not start the game. Instead, a dialog box will appear giving you the option to cancel and return to the main screen, or retry (wait for other players to join).

Any level option

If this option is not checked, then all players play at the same difficulty (speed) level. The level set is the one you (the server) have chosen on your main screen. This option is so other players cannot cheat and set their game to an easy level!

You may wish to check (set) this option, so that novice players can choose easier levels, or expert players can choose more difficult levels.

Fair mode option

Fair mode ensures that all players are given the same pieces. This removes the element of luck from a network game, as it becomes a test of skill depending only on where you place the pieces, not which pieces you get. Whoever places pieces the best should win.

If you prefer to allow luck to play a greater part, you can turn this option off.

For example, if one player gets first an S-piece, then a square, and then a line, all other players will also have had this sequence if fair mode is on. If it is not, they will probably not get the same (and almost certainly not over a long period).

This option does not increase network traffic, by the way, so feel free to use it without worrying about slowdown.

Gap in *same* place

Explanation/overview

All gaps in one 'batch' of lines - those that appear at the same time - will be lined up level to each other. However, different batches will have their gaps in different places. This makes it relatively easy to get the lines back, but not as easy as in manic mode...

Gap placed *randomly*

Explanation/overview

Even in one 'batch' of lines, the gaps in them will be placed differently when using this mode. This makes it very difficult to return lines you've been given.

Several *gaps*

Explanation/overview

In each line given you, there will be several gaps instead of just one (at random) which makes returning lines almost impossible.

Manic gaps!

Explanation/overview

All gaps in any lines given to you will be lined up level to each other. This makes it almost ridiculously easy to give them straight back, so things get rather manic sometimes.

Gaps go where?

This set of options on the network options screen allows you to choose how the gaps are placed when lines are given to you in network mode. The lines appear at the bottom of the screen with gaps in (obviously, if they had no gaps in, they'd just disappear again). The placing of gaps is decided by one of these four options. Go back to the network options screen and click on an option for further information.

This setting is the same for all players in a game.

Lines to who?

When you get two, three, or four lines at once in network mode, one, two, or four lines will be added to the bottom of someone else's screen. You can't directly choose who, but you can choose how the *game* decides who. These three options determine this. For more information, please go back to the [network options screen](#) and click on an option.

This setting is the same for all players in a game. With only two players, this setting makes no difference, as all the options will have the same effect.

Lines to random player

Explanation/overview

In this mode, lines are given to a random player (but obviously not the person who cleared them in the first place).

Lines given in turn

Explanation/overview

In this mode, lines are given to each player in turn - i.e. if you are player 2 out of 4 players, the first time you get 2 or more lines at once they will go to player 3. The second time, to player 4. The third time, to player 1, and the fourth time, to player 3 again.

(Players are numbered in the order they appear in the network options screen, but this number is not important).

Chaos mode!

Explanation/overview

In this mode, lines are given to every other player at once. This makes things somewhat crazy, and with more than three experienced players or four novices, games tend to be very short. (But quite fun).

Player list

The player list on the network options screen shows all the players who will be in the game if you click Play now, including yourself. Before you do click Play, ensure that everyone who should be in the game is listed.

If there are more players than will fit on the list, you should be able to scroll it to see the remainder. Please bear in mind that the game will not accept more than eight players.

If someone joins who you'd like to get rid of, you can use the kick button, although this isn't very friendly.

Results *dialog box*

The results dialog box lets you know who is doing best in a series of games. It appears after each game, on the computers of all players.

Scores are ordered according to place in last game.

All the scores are reset if the server quits or crashes.

The "score" can be used if you like. Alternatively, you can just count the number of games each player has won from the display.

Score is calculated out of a hundred for each game. A player's current score is the average of their score in each game they've played in. Score for one game is calculated depending on the number of players, out of a hundred. For instance, in a four-player game, the first-position player gets 100 points, second gets 67, third gets 33, and fourth gets 0.

This (network game) score has **no relation** to the normal game score. It's calculated based on how long you lasted, not on how many pieces you dropped, what level you were on, how many tetrises you got etc.

Several players on the *same* computer

Note: this help topic is written as if you were intending to *just* play against the other people using the same computer. There's nothing to stop you having several people on one computer competing with others elsewhere on the Net, though.

Basically, to have more than one player on one computer, you need to do the following:

- **You must have a WINSOCK.DLL**

Even if you are playing on one machine, you still need a WINSOCK.DLL. If you are running Windows 95, or are connected to a network, you should be OK. (You might need to enable dial-up networking in Win95 for it to work. Don't worry, you don't need a modem.)

If you are still using Win 3.11 or similar, you may not have this file. You need to set your machine up so that it is in a position to run software such as Netscape using dial-up networking. You may need to run the Winsock program (software such as Trumpet Winsock) before iNETRiS will work, but you shouldn't need to dial up the modem. (I hope.)

- **Make extra copies of iNETRiS.exe**

Each player needs to be running a separate copy of the program. You can't run the program multiple times from the same executable file.

- **Load all the copies and position them on the screen**

Make sure all the playfields are visible. You might want to change the window size so that they fit in better, especially if you are running at a low screen resolution. The program will remember where each copy was located when you quit, and put it back there next time you load.

- **Set up the game**

Basically, the game is set up as for standard network play. Click the network play button on each copy of the program. On one copy (we recommend the first one that was loaded) select the Server checkbox. Finish filling in the network play dialog for this copy of the program. You should be presented with the network options display. In the title bar, a number should be displayed after an @ sign. Fill in this number in the network address edit boxes of the other players' screens.

If you got some error messages before this point, you may need to load some network software before playing in multi-player mode. Hopefully, further advice will become available on the iNETRiS web page accessed via <http://www.dur.ac.uk/~d405ua/>. Please let me know your experiences by email to **Samuel.Marshall@durham.ac.uk**, so that I can put hints and tips up on the web page.

At this point, you should be able to play the game without trouble. There are some extra features on a single machine that aren't needed in standard network play, which are as follows:

- **Some settings are stored differently for the different players**

The settings for keyboard controls, network names, and network line and Tetris messages are saved separately.

The settings for the first player (the first program to be loaded) are the usual (one player) settings. Settings for other players are used only in multi-player mode.

The 'thud' sound (when a piece hits) is also saved separately. This is so that, if your sound card supports stereo, you can make one player's thud sounds come from the left speaker and one from the right. (and one from the middle, if you have three players). You can use the sound effects dialog box to achieve this - the provided sounds are called `thud_l.wav` and `thud_r.wav`. `thud.wav` is a centrally-placed thud sound.

- **Graphics palettes must match**

You must ensure that background graphics are turned off on all players except one at most. The other players must use solid-colour backgrounds. The exception is if you are in a 24-bit display mode. If two players **do** end up with 256-colour backgrounds that are from different files, one player's screen will appear in the wrong colour.

- **Music will be controlled from one players**

Music will be disabled on all players except the first to be loaded. If you want to change music, do so on the copy that's actually playing it! Sound effects still work on all copies.

- **To disable the chat window**

If you always play with several other people all on the same computer, there isn't really much point in the chat window. Add the line `chatwindow=0` underneath a `[UserSettings]` header in the `netris.ini` file. (If the heading does not exist, add it in at the end). You can put the chat window back by deleting this line.

How to *register*

iNETRiS is not free software. If you enjoy playing it, you must register.

When you register, you get:

- A **registration code** to personalise your copy of iNETRiS and remove the nag screens
- Information on where to find the **latest version** of iNETRiS if there's a new one
- Information on other **Software Forge products** forthcoming
- An uplifting sense of moral **goodness!**

Seriously, *please* register. It's only a fiver or ten dollars, and I've spent hundreds of hours on this program. Your registration will encourage me to write more and better programs. And why not include your comments and (gulp) bug reports with your registration?

Please include the following information with your registration:

email address if you've got one - this will get you a faster response and save me the cost of a stamp!

post address if you haven't, or if your email address is unreliable.

source of .ZIP where you got iNETRiS. For instance, "a local bulletin board", the Internet address of an FTP site, "a shareware library", or the name and publisher of a CD-ROM. This information helps me ensure that future programs reach the people who want them. Optional, but I'd like to know.

that iNETRiS is the program you want to register... (Yes, someone forgot to mention that once, when registering one of my other programs. Easy mistake to make, actually.)

If you're in the UK

Send £5 cash (preferably)

or a £5 cheque payable to Samuel Marshall drawn on UK funds

If you're in the US, Europe or the rest of the world

Send \$10 cash

or £5 UK sterling cash (preferably).

I know some people don't like to send cash; but don't worry about it. So far, nothing has been lost in the post - and it's only a small amount, anyway. Also, it's pretty convenient if you're in the US or UK.

I cannot accept credit cards, or cheques drawn on non-UK funds

My address is

**Samuel Marshall
Software Forge
31 Budebury Road
Staines
Middx
TW18 2AZ
United Kingdom**

This address must be used for registrations, but for other purposes [click here for alternative contact methods](#). Note: please include the 'Software Forge', it's there so my family know you're not sending private mail.

To keep the price down to £5 / \$10, I don't send out a disk when you register. This would cost me in money but mainly in time. Instead, you're given a special registration code that removes the nag screens. If you haven't registered, please don't bother trying to crack the code. Just register the program.

Credits

Programming, game graphics, documentation:

Samuel Marshall

Assistance and advice

Joseph Marshall

Peter Marshall

Playtesting (Netris 1.0 and 1.1)

Joseph Marshall

Matthew Barker

Russell Croxford

Graham Arden

Ian Thorne

Additional playtesters (iNETRiS 2.0)

Amethysta

Network test site

Spelthorne College

Thanks very much to everyone.

Finally, a very special thanks to all the registered users (believe it or not, there are some). You people make shareware possible!

About the *author*

To get up-to-date information about my software and me, if you have Internet World Wide Web access you can access my Software Forge home page at <http://www.dur.ac.uk/~d405ua/>. This page is stored on Durham's computer and I recommend you try it outside UK working hours, or you may well be refused access.

Other released software includes **Sysex Manager**, which is written for musicians who use MIDI equipment attached to their computer. It enables users to save the settings (song memory, voices, drum patterns etc) of their equipment onto a computer file. A simple, intuitive, cheap, and reliable program. Requires Windows 3.1 and a MIDI interface. Filename: **sysxman1.zip**

I have also released a series of programs implementing mathematical algorithms - route-finding (with the London tube system given as an example), critical path analysis, and one that tells you, for instance, how to fit a set of files onto the minimum possible number of floppy disks. This also requires Windows 3.1, and the filename is **decision.zip**. Mainly intended for teaching purposes.

There's also a 4Kb DOS program that zooms real-time (under user control) into the Mandelbrot fractal set. I wrote this for Christmas; the file is **4ge-xmas.zip** and minimum system requirements are 486-33, but faster processors are recommended. This program has also been released (in a reliably working version, no less! ;) as, um, **4ge-frac.zip** or something similar, in the code section of Hornet (<ftp.cdrom.com:/pub/demos>) and its mirror sites, including full source (for all those people who said "zooming into the mandelbrot set in real time at a reasonable number of frames-per-second is completely impossible! You couldn't do it even on a supercomputer!" *despite* the large number of programs available that do exactly that... now you folks can find out exactly how it's done).

Current plans for other programs include various partly-written games for DOS, and a sound editor for the Korg M1 music workstation (which will run under Windows). I don't want to be more specific because only a small percentage of my projects ever get finished. Just look out for me and the Software Forge (or 4ge depending on which logo I prefer at the time) name.

You can contact me at this address:

Samuel Marshall
31 Budebury Road
Staines
Middx
TW18 2AZ
United Kingdom

or by email care of Peter Marshall - write to

petermarshall@cix.compulink.co.uk

and start your message with the line 'Sam,' or, 'To Samuel Marshall', or something similar.

During university terms I can be contacted at

Samuel.Marshall@durham.ac.uk

Use these addresses for suggestions, bug reports - I'm particularly interested in *repeatable* bug reports - and comments.

Shareware is software that's given away free on a trial basis. If you like the software, you register it. This usually enables extra features or removes screens which nag you to register. iNETRiS uses the nag screen approach.

Registering is the act of paying for the shareware program. If you like this software, you must register it (by sending me some money!) See the [appropriate help section](#) for more details. Registering removes the 'nag screens' from the program.

Problems with music

There are a few minor problems with the music routines. These are mainly due to a work-around I've done to avoid what I think is a bug in the GUS Windows drivers. This bug means that you can't load a new MIDI file at the same time as a sound is playing.

To get around this, I've made the MIDI routines wait until sound effects are not being played before trying to start the music. This means the music will not start until the 'game start' effect has finished.


If you have a GUS, or another patch caching soundcard (patch caching is the way cards like the GUS, with 256k to 1Mb RAM, use better instrument sounds than ROM-based cards with 1Mb ROM. The sounds - about 6Mb - are stored on disk and loaded when needed) there will be a delay of a few seconds at this point while patches are loaded.


If this irritates you, you can turn off the 'game start' effect by using the [sound effects](#) dialog box, clicking in the edit box next to the 'game start' button, and deleting the filename or specifying one which doesn't exist.

In case you're interested, I assume the bug is caused by a DMA conflict between WAV playback and the patch transfer. Gravis do not intend to fix it [possibly it does not occur when you code things properly ;-)] .

If you would like the music to start sooner, you can modify the time delay. Add the line `musicwait=n` underneath a `[UserSettings]` header in the `netris.ini` file. (If the heading does not exist, add it in at the end). `n` is the time you'd like the program to wait before starting the music, in milliseconds. (so `musicwait=1000` would give a one-second delay.)

Different window sizes

iNETRiS can be made to occupy less screen space - useful if you want two or even three or more players on one machine - by de-maximizing it; click the Restore  button (two opposite triangles under Win 3.1).

Once it's in this smaller state, re-maximize it using the Maximize  button (an upwards-pointing triangle under Win 3.1).

When in the smaller state, you won't be able to see your score, lines got (or left to get, depending on which mode the game is in), or any messages that would appear in the status box.

The *chat* window

When you begin a network game, a chat window will appear. This window can be moved and sized as you like. (although it is possible to make it too small to display its text, in which case the window will indicate this). It will "remember" its position next time you load the game, of course.

To type into this window, during the game or while waiting for a game to start, just type. You don't have to select the window. Note that keys you've defined to control the game won't work in the chat window while a game is in progress.

Pressing Return will send what you've typed to all the other players. (It gets marked with your name).

If a dialog box is currently displayed, such as the results dialog box, you'll have to select the chat window before you can type into it.

Network *overview* display

If you get knocked out of a network game, because your pieces reach the top of the display, and there are still two or more players continuing - i.e. the game has not ended - then to alleviate boredom, as well as being able to use the chat window you also get to watch the screens of all the continuing players. The screens are displayed in your playfield window. Each one is labelled with a player's short name underneath it. The displays are updated when a piece lands. (so you don't actually see pieces falling, they just appear).

This display also indicates players who are out of the game and players who have become disconnected from the server.

If you connect to a server partway through a game, you will also be able to watch this display, joining in the next time a game starts.

Server checkbox

The server checkbox in the network play dialog box is used to specify if you want to be the server. One player in any multi-player game must set their copy of iNETRiS to be the server. The server gets to select network play options, and all the other players must know the network address of the server.

This network address will be displayed on the network options screen (in the title bar), so you can check your address just before starting a game, then leave the program running waiting for players to join while you send them out an email telling them the number.

Please note that if you use a dial-up Internet connection, many providers use a system which means you will be assigned a *different* network address each time you log on. To save inconvenience, it might be easier to designate as the server some player who has an address that doesn't change.

If you use the network redirector facility, you will be automatically set up as server if no-one is currently registered at the redirect site.

Kick button

If players join who you (the person with the net options screen) object to for some reason, you can kick them out of the game by selecting their name from the player list and then clicking the Kick button.

This isn't a particularly friendly thing to do, so make sure you have good reason.

You can also use this facility if someone wants to change their name (maybe two people had the same name). Just kick them out, then they can join again with a new name.

Network *redirect* facility

The network redirection facility, selected by pressing the Redirect button from the network play dialog box, allows you to play against iNETRiS users who don't know you or your Internet address.

How it works

Player A connects to the **redirect server**. Because no-one is currently connected to the redirect server, it allocates Player A as the current **iNETRiS server**, setting up A's copy of iNETRiS appropriately.

Players B,C, etc connect to the redirect server. Because Player A is connected to the redirect server already, their copies of iNETRiS are automatically set up to connect to Player A's iNETRiS, and they can join that game.

(some point later) Player A replies No to the "Play again?" query in the results dialog box. This results in A becoming disconnected from the redirect server. The next player who connects to the redirect server will be assigned as iNETRiS server again.

How to use it

To use the dialog box, just enter the numerical address of the redirect server into the edit box, and click OK or press Return.

Of course, you need to get this address. In fact, there might not even *be* one if I haven't found some generous system manager who'll run the server on their UNIX or NT system! To check the current state of play, go to <http://www.dur.ac.uk/~d405ua/> where you'll find more information in the iNETRiS section.

What if I wait for ages and no-one turns up?

Well, this might happen. Hopefully, iNETRiS will gain such a massive global following that there won't be any problem... but I don't think so. To help somewhat, if there's no-one there when you first connect, make sure to try again **on the hour**. You know, so if it's 14:13 at the moment, try again at 15:00. Wait for 5 minutes or more to see if anyone joins. (Or you could always leave iNETRiS running while you do something else.) If you're using the network specifically to play iNETRiS, make sure to log on on the hour, too.

How to be really friendly

Because iNETRiS isn't exactly going to be the next Doom, there might be a shortage of players, even if you follow the advice of logging in on the hour to the server. But, this problem can be alleviated a little bit if you help out. When you're having a private game

with your friends, run it through the redirection server anyway. That way, anyone else who comes along wanting to play, can join in.

