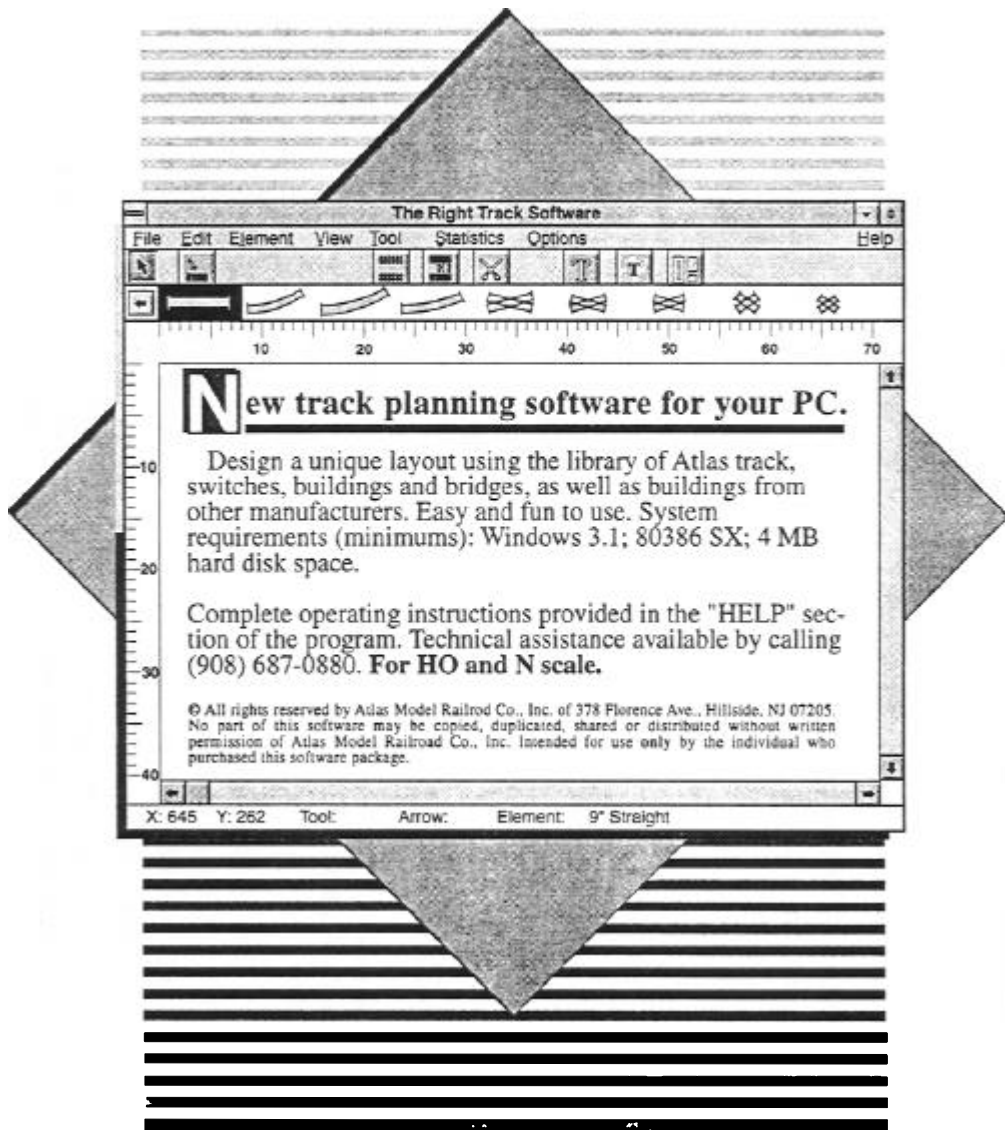


# Right-Track<sup>®</sup> SOFTWARE



Right Track Software is Copyright ©1993-2000 by Gunnar Blumert [Online-help by Dirk Frieborg]

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## Introduction

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## Performance and system requirements

## RIGHT TRACK SOFTWARE

**RIGHT TRACK SOFTWARE (RTS)** is a program for designing and planning model railroad layouts using Atlas HO (code 83 and code 100) and N scale track, switches, bridges, buildings and electrical components as well as structures from other manufacturers.

**RTS** lets you

- Perform the track layout in correct scale (including Super-Flex® track)
- Manage an area of **100 \* 100 ft (more than 10,000 ft²!)**
- Add accessories (wires, structures, electrical components, etc.) to your layout
- Link parts of different layouts (e.g., your favorite ladder to the rest of the plan)
- Compute and create helices
- Compute gradients to elevate track sections
- Generate parallel tracks, crossovers and ladders
- Compute lists of materials used for your layout
- Calculate the costs of all that fun!

**RTS** requires Windows 95 or Windows NT with Windows-95-User-Interface.

[Registering Your Copy of Right Track Software.](#)

### Initial program start

Simply said: **RTS** works like any other Windows Program. We assume that RTS is not the first Windows program you've used. If this is not the case and you are a beginner, we recommend the program *!Paint* for exercise. *Paint* is the painting program that came with your Windows 95 operating system.

After the initial program start, **RTS** shows an empty work space. Above it, there is the toolbar. The toolbar contains icons which each correspond to a function under the **Tools Menu**. So, you can click on an icon to access a tool, or use the **Tools Menu**.

To design a layout, you first have to load a track library (via Element Menu - Load library). Here is a list/description of each of the library files:

atlcomp.blb = Atlas Electrical Components  
atl\_n.blb = Atlas N scale Track  
atl\_c100.blb = Atlas HO Scale Code 100 Track  
atl\_c83.blb = Atlas HO Scale Code 83 Track  
atlO\_track.blb = Atlas O 21<sup>st</sup> Century Track System  
atlO-struct.blb = Atlas O Structures  
atlstruct.blb = Atlas HO Trackside Structures  
dpm\_ho.blb = Design Preservation Models HO Structures  
dpm\_n.blb = Design Preservation Models N Structures  
crnst\_n.blb = Walthers Cornerstone Series N Structures  
crnst\_ho.blb = Walthers Cornerstone Series HO Structures  
ll\_n.blb = Life-Like N Structures  
ll\_ho.blb = Life-Like HO Structures

At the end of your session, **RTS** remembers which library had been loaded last and will start with that library the next time you open the program.

### Your First Layout

In the selection bar or the selection window, pick the desired track section. You can keep the selection window opened on the screen, or it can be closed if there's insufficient space.

Now choose Tools Menu - Place object and click with the left mouse button at the position where the track piece shall be placed. When you have placed a piece of track, the active tool is automatically switched to Tools Menu - Place track and connec which allows you to continue connecting the

selected track piece to the one you just placed, without having to change tools or click on the selection bar again. Position your cursor (plus "+" sign) near the joint of the track already on your layout, and when you see an arrow, click to connect the track. If you don't see the arrow, that means for some reason, you can't connect a piece of track there.

The accuracy with which the mouse cursor has to be positioned in order for you to get the "OK to connect arrow", can be adjusted under [View Menu - Properties: Tolerances](#).

To place a different type of track, choose [Tools Menu - Place object](#) again, then click on desired piece from your selection bar or window.

If you add a switch or a curved track, the element may be facing the wrong direction. The function [Element Menu - Flip track](#) will allow you to flip the connection of the switch until the right leg of it is connected to the track piece already on your layout. Please note this tool works only for the track or switch placed last. To flip previously added elements, you have to choose [Tools Menu - Flip track joints](#).

## Selecting (Tagging) and Manipulating Elements

As usual in programs for Windows, you have to "tag" or "select" elements before manipulating them in any way. So before you can copy, move, delete etc. elements, choose [Tools Menu - Arrow](#). If you tag one piece of a track, all the other connected pieces are selected as well. From here-on-in, when we say "tag" something, we mean click on the arrow icon and click on the element(s) you want to select (and you'll subsequently see a gray outline around the items selected).

If you want to tag one single piece, you have to loosen it from the rest of the track. This can be done by using [Tools Menu - Disconnect track](#) and clicking on each connection, or you choose [Tools Menu - Loosen Track](#) and click the desired track once (it automatically disconnects both connections).

**TIP:** If you keep the <Shift> key depressed while you are moving elements with the mouse button pressed, then the elements will be moved only in a horizontal or vertical direction.

Once you tag something you can delete it, move it, copy it, etc.

**To tag your entire layout**, simply click on any piece of track and the whole layout (if it is all connected) should become highlighted. If you are having a problem tagging your layout, perhaps your benchwork is getting in the way. Simply click on your benchwork line, then on Element – Send to Back. This will enable you to tag the track you've placed on your layout space.

## CONNECTING TRACKS

There are a few ways to connect tracks using [Tools Menu - Connect Tracks](#):

1. You can move both pieces of track close together and click once on the connection.
2. If the track pieces/sections are far apart, you can click on the end of one (you'll see a black triangle appear) then on the end of the other, and they will meet and connect.  
**CONNECTION TIP:** If you have a large section of a layout completed, and you are trying to join a smaller section to it, using the connecting tool you must click on the [smaller](#) section first, then on the larger section, or else your whole layout will shift to meet the smaller section.  
**ANOTHER CONNECTION TIP:** If you click on a section of flex track with the <Shift> key pressed, the shape of the flex track will be altered, not the position.
3. The last function of this tool is to close circles that you have started creating (and of course any other gap between two straight tracks) with the most suitable pieces of track. To close a circle, click once on the one loose end, then keeping the <Ctrl> key pressed, click on the second connecting point. The computer will search for appropriate track sections and complete the circle for you. This search can take some time; therefore you may influence the process via [Special Menu - Close Circles](#), by selecting only certain radii of track to be used. And, of course: the library you currently have loaded should contain some curved track sections...

Please note that the allowed tolerances (distance, angle of tracks to be connected) are set via View Menu - Properties: Tolerances. RTS computes connections very accurately, so tolerances that you would not notice while building your layout show very clearly when you design the layout with this program.

As it would be beyond the scope of this chapter, we will deal with Flex -Track separately.

## Fixed elements

Moveable elements (this is default) can be manipulated in any way.

In contrast, **fixed elements** cannot be moved. You may elements fixed, so you can't accidentally move them. For example, you can fix your benchwork or even your layout so it doesn't move.

If you should wish to fix something in place, tag it, go to Element Menu - Properties: General and click the box marked **fixed**.

### Fixed elements cannot be

- moved – neither by Drag-and-Drop nor by menu command
- aligned
- rotated
- assigned gradients and heights to

If you wish to use Tools Menu - Connect Track starting with a fixed element, you have to hold down the **!<Ctrl>** key while clicking the second piece of track. Connected elements are fixed then as well.

You can toggle the display of fixations via View Menu -Properties: Desktop and choose a color for them.

## The Clipboard

You can work with the clipboard as usual. Though **RTS** is not an OLE server, it copies data as bitmap and metafile to the clipboard so you may import the contents of the clipboard to almost any Windows program. In the same easy way you can have data from other applications added to your layout. If the clipboard contains text, **RTS** will automatically insert a text field on your screen. Graphics will be inserted in a box.

To copy elements from one layout into another, you have two options:

1. Load the first layout, then copy the needed part into the clipboard (by tagging it, then choosing Edit Menu – Copy), then load the second layout and choose Edit Menu - Insert.
2. Simply start two copies of RTS (by double-clicking on the RTS program icon, again)

## Setting The View (What You See On The Screen)

Windows cannot always correctly display a wide radius when you ask the program to show you something full size. Depending on resolution and driver you will see simply nothing or a “general protection fault error” may result.

Depending on the scale you're working in and the actual Zoom (a ratio of the true size of the layout; ie. 1:1 would appear on your screen as life-size) you'll have to find out the best adjustment at View Menu - Properties: System.

**TIP:** If **RTS** should cause a “General Protection Failure”, please check the option **Paint Arcs By: Application**.

(Please note that this may cause a slow down in the output and the object will turn out to be rather angular, but nevertheless something will be displayed.)!

## Stock, Lists of Materials and Prices

**RTS** contains a small database which lets you manage your stock. Besides the well-known list of materials containing all elements you've used in your layout, there is a list of required materials. Here you can find out what you still have to buy.

After having loaded the appropriate library, you can edit your stock to let **RTS** know the amount of parts you already have – and the prices. You can check and edit them here.

After that, your statistics are up-to-date and will display the current data.

Additionally you can fix the price of every element in your layout (Element Menu - Properties). However, this price will be overwritten by the function Statistics Menu - Activate prices.

Generally, you should be careful when editing prices via Element Menu - Properties. Suppose you have changed the price for one element only; your list of materials could display something like this:

5 straight track sections at \$0.80 = \$3.80

At first glance, that is false. But if you have changed the price for one track to \$.060, then it's correct.

## Descriptions

Every element is connected to its item number and its description by default. This information may be hidden or moved to another position with Tools-Move description. The description is always tied to the element. If you move the element, the description is also moved.

Finally you may enter your own free text with Tools-Text. Insert the text by tagging the text field and then choose Element-Properties: Text Field.

If you want to insert text while placing the text field, simply keep the <Ctrl>-key depressed.

Tag and move free text with the normal arrow.

## Super-Flex® track

There are two ways to lay a piece of flex track:

1. The first option allows you to place a section of flex-track, as long as you have two other existing pieces to connect it to (in other words, you need "anchor" pieces). Choose Tools Menu - Insert flex track, click once on each end of the anchor pieces. Once the flex track is placed you may remove the anchor pieces if you'd like. Depending on your settings, the track may form a nice, neat curve, or it may be all twisted at the onset. Now you have to form the flex track to create the shape or curve you'd like. To manipulate the shape, choose the Tools Menu - Shape flex track. Position the plus sign on one of the balls, and drag the ball along the horizontal black line. You will see that this just takes a little fiddling with in order to get the shape you're looking for.

**Note:** when you shape the flex track, the computer automatically "cuts" it to fit the shape you've created. Therefore, it will calculate how much flex-track you used when you print out your list of items used at the end.

2. The second option is telling the program what radius or size you want the flex track to be, and allow it to create a section for you. Special – Shape Flex Track will allow you to enter the appropriate information. When you are finished, click "OK," then on your benchwork (the track will appear where you had your cursor). In Version 4.0, you can even place a section of straight flex track!

You can edit information about the flex-track you are using in the dialog box under Element Menu - Properties: Flex track.

**Distance Basepoints** - these are the black circles you drag in order to shape the flex track. The distance basepoint value is the distance of the movable basepoint from the divider of the section of flex-track, in tenths of an inch. The smaller this value, the straighter your flex track will be when you initially place it.

**Max Iterations** - this value also determines the smoothness of the curve your flex-track forms when it is initially placed. The value entered literally determines how many points of the track are calculated.

The greater the value, the smoother (or straighter) the track. The default is probably a pretty good number for most users. If you do decide to change it, be aware that it will affect the amount of memory needed (higher values require more memory).

**Length** – Atlas flex-track comes in approximately 3' sections (36" for HO, 30" for N scale actually), so you should enter the appropriate values here. This helps the program automatically calculate how many sections of Atlas flex-track you used design your layout, as listed in the "List of Materials" under the **Statistics** menu.

**Price** – Here you should define how much a section of flex-track costs. If you enter the length in sections, then you can enter the price per section.

## Gradients and Level Grounds

You may wish to elevate a section of track in your layout to create an incline (or decline). Please keep in mind this function is only valid for track pieces that have exactly two joints, i.e., only for straight and curved track and even flex track, but not for switches and crossings.

There are two ways to create a gradient.

- 1. ADDING A GRADIENT BY SETTING A TRACK HEIGHT.** If you want one section of track to cross over another, then you need to add a gradient to the top section. If you know the clearance you need for your locomotives at the crossover of the two sections, it would be easier for you to set the track height of that piece or section of track, rather than define a gradient as a percentage. To do so, follow these steps: **1.)** Disconnect the section of track you wish to elevate (using Tools – Disconnect). **2.)** Move the section away from the rest of your layout using the Tools - Arrow to drag it down. **3.)** Click on the Tools – Height and position your cursor as shown, until arrow symbol appears to show you're in the right spot, then click. **4.)** Enter the desired height of the rightmost piece of track, and make sure all the options in the box are checked. The program will automatically calculate the necessary gradient, and the height of each middle piece will appear on your screen, in inches (assuming you have the option to see heights toggled on in your View – Properties – Text dialog box).

As you add additional pieces to the end of your elevated section, you will notice that they will automatically be set at the height of the last piece of track as shown below. If you previously had pieces connected to the section you just elevated, to re-connect them you must manually set the height (using Tools – Height as explained above), to match. You are unable to connect track at different heights.

- 2. IF YOU KNOW THE PERCENT GRADIENT YOU WANT TO ADD 1.)** Remove the section of track you wish to add a gradient to from the rest of your layout (following step 1. above). **2.)** Click on the leftmost piece in the section that is now separated from your layout. The section will become tagged (highlighted). Under Element – Properties – Gradient, enter the gradient as a percent. A value of 100 thus corresponds to an angle of 45 degrees. The gradient is always effected from the first end to the second. The first one is that which will appear at the cursor position when using Tools-Place object. To have a slope, simply enter a negative value. The height will be automatically be calculated in a counter-clockwise manner.

(Don't forget to have the option Calculate gradient checked - otherwise only the tagged element will be moved – and connected track as well, so there is no gradient but a vertical movement.)

## .Wires and Lines

With Tools-Wire/Line you can draw lines or connect wires. Wires have soldering points at their ends, lines don't. By setting the diameter of the soldering points to 0 via Element-Properties: Lines you are telling the program that you want to draw a line, not work with wire.

Working with the Wire/Line tool is a bit peculiar, at first. Once you get the hang of it, it makes sense and is very functional. You will notice that after you grab the Wire/Line Tool, your cursor changes to a "+" sign. Position the plus sign where you want the wire to originate from, and click once. Your wire has now been "anchored", and you will see a "solder point" (a little circle). If you wanted the wire to end there, simply click on the right mouse button, which acts as your scissor. To keep going with the same "piece" of wire, move your cursor to the next place you want to anchor it to. When you move your cursor towards that point, you'll notice the line follows. This helps you position your next anchor

point. Remember to attach the wire to the second spot simply click the left mouse button once. When working with wire, each time you click the right mouse button to “cut” it, a dialog box will come up showing the current line color.

Keep in mind that the wire color is used to keep track of how much wire you use, and is reflected in the list of materials.

Wires are listed in statistics, lines are not.

## Working with Layers

Think of layers like pieces of tracing paper. For example, say you were trying to figure out which type of landscaping would look best with your house. You would draw your house on the first piece of tracing paper, place another piece on top of it, then draw in your landscaping to get an idea of how it would look. Next you can try a whole different landscaping package by removing the piece with the first landscape drawing, and starting again. Effectively, you now have three layers: the house, and two different landscape drawings.

If each piece of tracing paper is a “layer,” then the layer you’re currently working on would be considered the “default” layer. In this program, the default layer is given a number of “0”. So when you start designing your layout, all elements will be on layer “0”. To work on a different layer, you must go under View-Properties: Layer.

**RTS** offers 256 different layers, independent from gradients or level grounds. Each layer can be tied with a name and a color and separately activated for display and printing. All layer adjustments are done via View-Properties: Layer.

## The File menu

File-New

File-Open

File-Save

File-Save as

File-Autosave

File-Add

File-Print

File-Print mirror image

File-Page setup

File-Quit

### File-New

Opens a new, empty working area. If you’re currently processing a layout, you will be asked if changes should be saved before it will bring up a new, blank area.

### File-Open

Loads an existing layout for further editing. The file must be in **RTS** format (.ral).

### File-Save

Saves the actual file. If it is the first time to save this layout, you will be prompted for a name. All **RTS** files are automatically given an .ral extension. The default folder for saving layout files is c:RTS

### File-Save as



Saves the actual layout with a different name, to a different location – or in a different format. **RTS** supports writing the following formats additionally to its own .ral-format:

- Bitmap (.bmp)a
- Paintbrush (.pcx)
- Windows-Metafile (.wmf)
- Enhanced Metafile (.emf)
- AutoCAD DXF (.dxf)

You can choose these file types by just selecting them from the “drop-down list” at the bottom of the dialog box.

Before clicking “OK”, please check the filename displayed above the list of file-types. If the extension is still “.ral”, the bitmap or whatever you chose will be stored in a file with the extension .ral - that is probably not what you wanted. Please remove the extension from the filename, including the dot, and RTS will apply the appropriate extension, or apply the extension you want.

## **File-Autosave**

RTS is set up to save your file, automatically, every 5 minutes. You may adjust the interval at any time.

## **File-Add**

The contents of another **RTS** file will be pasted into your current layout. The contents is considered to be a group of tagged elements, so you can move them around with the arrow.

## **File-Print**

The file will be printed exactly the way you can see it on your screen. To change the print-size of your layout, you must change the view under View – Zoom (or in Zoom box in left corner of your screen).

You can print everything, tagged elements (*Selection*) or single pages.

In contrast to earlier versions, you can choose and setup your printer here.

## **File-Print mirror image**

Same as File-Print, but the printing will be mirrored.

## **File-Page setup**

Here you can choose which printer shall be used and do the printer setup as well. Of course, the printer must be already installed in your system configuration. Available options depend on your printer driver.

Adjustments for edges and overlap can be made. Overlapping means that you have several pages which you can assemble to a larger plan. This makes sense for large layouts in a reasonable scale.

## **File-Quit**

Shuts down **RTS**. Before, you will be asked whether to save changes to your layout.

## **The Edit menu**

**Edit-Undo**

**Edit-Redo**

**Edit-Cut**

**Edit-Copy**

Edit-Paste  
Edit-Paste special  
Edit-Delete

Edit-Insert object  
Edit-Add graphics

Edit-Search  
Edit-Replace

Edit-Tag [...]

Edit-Invert selection  
**Edit-Undo**

Undoes your last command. Via View-Options, you can adjust how many steps are saved in the Undo buffer.

**Edit-Redo**

Undoes your last Edit-Undo command.

**Edit-Cut**

**Moves** tagged elements to the clipboard; the selection is deleted from the layout.

**Edit-Copy**

**Copies** tagged elements to the clipboard; the selection will be kept in your layout.

**Edit-Paste**

Copies the contents of the clipboard into the layout. In addition to its own elements and layouts, **RTS** accepts graphics and text, which also can be generated with another application.

**Edit-Paste special**

This embeds an object from the clipboard into the layout, i.e. .bmp graphics of *Paint* or a description typed within *Wordpad*. You can edit the file using the original application source (WordPad or Paint), by double-clicking on the object.

**Edit-Delete**

Deletes tagged elements or selected area. A shortcut to this command is the **<Del>** or **<Ctrl><Del>** key. You can choose which key(s) will employ the delete action via View-Properties: System. (For users who often hit **<Del>** by accident, the second choice is the better one.)

**Edit-Insert object**

A new object is created and embedded in your layout. You choose the appropriate source application (i.e. *Paint*, *CorelDraw!* etc.) which then will be started. In difference to Edit-Paste special!, you don't already have an existing object – you first have to create it in your source application. A window is opened in your **RTS** layout, and menu items switch over to those of the source application.

When you're done, choose **File-Exit and back to...** The object is now part of your layout.

**Edit-Insert graphics**

A dialog box is opened, and you can search your hard drive or related disks for graphic files which can be pasted into your layout.

**RTS accepts following formats:**

- Windows-Bitmap (.bmp)
- Paintbrush (.pcx)
- Windows-Metafile (.wmf)

- Enhanced Metafile (.emf)

If you should encounter problems (especially using pcx format) and **RTS** refuses to open a file, please convert it to .bmp. This can be done by loading it into *Paint* (the accessories program of Windows 95) and saving it as \*.bmp.

[For advanced users: Some applications like PaintShop Pro write a pcx format including three color planes. The Windows interface used by **RTS** when opening such files, in contrast expects a one-color-plane format.]

## Edit-Search

From a list of all elements used in the current layout, you can choose to have the program search for one or more at the same time. You can manipulate the found elements or replace them all via [Edit-Replace](#).

## Edit-Replace

Replaces any element(s) from the layout with one out of the currently loaded library.

**Note:** If you replace straight track sections with curved track sections, the old connections won't be recovered.

## Edit-Tag...

Use this function to simply tag every track, every building, every line, every wire [...] or everything!

## Edit-Invert selection

Selected elements become unselected and vice versa.

For example, to tag everything other than track, you first [tag](#) all track sections and then invert the selection.

## The View menu

[View-Zoom in](#)

[View-Zoom out](#)

[View-Vertical ruler](#)

[View-Horizontal ruler](#)

[View-Moveable tool bar](#)

[View-Selection bar](#)

[View-Library List](#)

[View-Status bar](#)

[View-Page preview](#)

[View-Roadbed only](#)

[View-Properties](#)

[View-Options](#)

[View-Zoom in](#)

Zooms into your layout so that your layout appears larger. You would use this function to determine what is [printed](#) as well. (What you see on the screen and the size it appears is how your layout will print.)

Related topic: [\(Zoom\)](#)

[View-Zoom out](#)

Zooms out from your layout so your layout appears smaller. You would use this function to determine what is [printed](#) as well. (What you see on the screen and the size it appears is how your layout will print.)

Related topic: [\(Zoom\)](#)

[View-Vertical ruler](#)

Toggles on and off the appearance of the vertical ruler.

Related topic: [View-Horizontal ruler](#).

### [View-Horizontal ruler](#)

Toggles on and off the appearance of the horizontal ruler.

Related topic: [View-Vertical ruler](#).

### [View-Moveable tool bar](#)

Toggles on and off the appearance of moveable tool bar. If set to "on", you have a separate window containing **RTS's** tools which can be placed (and moved) to anywhere on your desktop.

### [View-Selection bar](#)

Toggles the appearance of a bar above the working area to pick elements from. **NOTE:** To activate this bar, you have to load a library first.

### [View-Library List](#)

Toggles the appearance of a window from which you can pick elements. This window can be moved on your desktop (by clicking and dragging the window itself).

### [View-Status bar](#)

Toggles the appearance of the status bar at the bottom edge of **RTS's** window. Here, the coordinates of your cursor, the active tool, and the currently selected element are displayed.

### [View-Page preview](#)

Here you get a preview of how elements are spread on multiple pages when printing. The rectangles represent pages. If there are four rectangles (as indicated by dotted line), then your layout will print on four pages.

**NOTE:** If this menu item is active, the current [zoom level](#) has no effect on your printing – it only moves the edges of the page.

This option is recommended for having a better survey only. You should then switch it off again. Of course you can continue working as usual, but there will be no updating of edges when inserting or deleting elements.

### [View-Roadbed only](#)

Only the roadbed of your track will be displayed. This is useful if you want to print templates for your benchwork. To display roadbed "under" your track, go into [Element-Properties](#).

## [View-Properties](#)

Here you have control over the basic properties and ways to view your **RTS** workspace and elements you place on it.

[Desktop Tab](#)

[System Tab](#)

[Texts Tab](#)

[Grids Tab](#)

[Layer Tab](#)

[Sounds Tab](#)

[Tolerances Tab](#)

[Page numbers Tab](#)

[Roadbed Tab](#)

[View-Properties: Desktop](#)

Here you can choose if your track should be displayed as a line, an outline or as a solid area. Adjustments for the size of your working area are made here as well.

If your layout contains fixed elements, you can declare fixations as visible or invisible. If they are visible, you can tie a color to them.

You can generally enable or disable the display of ties. For single pieces of track you can toggle this feature via Element-Properties: Track.

**Hint:** As usual, displaying complex graphical elements requires huge amounts of processor capacity. If you are using a high-performance system: Congratulations – keep on working.

If progress seems too slow with ties enabled, switch it off while working. When you're done, activate this option and enjoy!

## View-Properties: System

On this tab you can choose to have things measured in inches or centimeters. Further, you can decide whether arcs shall be painted by Windows or by application (please refer to Views for more detailed information). Here you may also choose whether to have your tagged elements appear as **filled** or **outlined**.

If you are using your keyboard, you can set a key for deleting elements: either the **<Del>** key by itself or the **<Ctrl><Del>** keys at the same time can be selected for this function. If you are concerned with accidentally deleting items, we suggest you choose the latter.

## View-Properties: Texts

Here you can check the options to display item numbers, item descriptions and height. A font for each of these pieces of information may be selected (this enables you to make the letters as large or as small as you want them to appear).

## View-Properties: Grid lines

The grid lines are the lines that create the boxes you see on your screen. The default is set at 12" (1' boxes); this makes it easy for you to see the space you're working in. To make it even easier, you may click on the button **!Measure**, and then choose a font. After you click **Apply**, you will notice that numbers will appear going across the top and down the side of your workspace. These numbers show you exactly which box is at what foot mark, making it even easier for you to see what you're doing and how much space you have (plus, it eliminates the need for you to do division in your head, an activity we all dread).

If you'd prefer you may change the size of your grid box in this area (perhaps you'd rather see things in 6" increments, as oppose to 12" increments). If you'd rather not see any grid lines at all, you can choose to hide them. Or, you can send the grid lines to the back so that elements that you place appear over the grid lines, as oppose to having your grid lines hide parts of elements.

**NOTE:** The grid is only visible on the screen; it will not be printed.

## View-Properties: Layer

If you are using layers, you can choose which of them (single or combined) shall be displayed. By default, they are named '000', '001', '002' and so on. You can change this by clicking a layer entry twice and then entering a suitable name. **Attention:** when you click to change the name, you are not double-clicking to open another dialog box but rather are clicking a separate, second time so your cursor becomes active near the layer number (the way you'd change a file or folder name in Windows '95). Once your cursor is active you can backspace to delete the existing number, then simply type in any name you want.

To define which elements are on which layer, or move elements from one layer to another, you must tag the elements then go under ELEMENT, "Properties" and put a number in the layer box.

## View-Properties: Sounds

**RTS's** program events (start, file-open etc.) can be assigned a sound to which then is played back. Sound files have to be in Windows' \*.wav format. None are included with **RTS**, but some may be included in your operating system. For more information on .wav files, see the manual that came with your operating system, or look under your Windows "Help" file.

## View-Properties: Tolerances

Here you can adjust the required precision to place the cursor when using tools. Additionally, adjustments are made how close track ends must be in order for them to be able to be connected.

## View-Properties: Page numbers

Here you decide where **RTS** should put page numbers when printing. If you don't want to have your pages numbered, check the option 'hide' the numbers (and then they won't print).

## View-Properties: Roadbed

Here you choose whether or not roadbed shall be displayed under all the track that currently exists on your layout. Color and width of the roadbed lines is adjustable too. **NOTE:** If you've chosen to have track ties show on your screen, then it may be difficult to see the roadbed at some Zoom views. We recommend changing the color to something other than black or red to make the roadbed more visible.

## View-Options

On this card you can adjust width and height of the selection bar. The number of steps for Undo is set here, too.

## The Element menu

Element-Load library

Element-Library Info

Element-Rotate element

Element-Flip track

Element-Alignment

Element-Move

Element-Bring to front/Put to back

Element-Properties

Element-Color

## Element-Load library

Loads a new library (selection) of elements for you to design your layout with (ie., track, structures, electrical components, etc.).

### Here's a list of available libraries (as of October, 1998):

Atlas Components = Atlas Electrical Components  
Atlas HO Code 100 Track  
Atlas HO Code 83 Track  
Atlas HO True-Track  
Atlas N Track  
Atlas N Structures  
Atlas O 21<sup>st</sup> Century Track  
Atlas O Structures  
Atlas HO Structures  
DPM HO Structures  
DPM N Structures  
Walthers Cornerstone N Structures  
Walthers Cornerstone HO Structures  
Life-Like N Structures  
Life-Like HO Structures  
RDA HO Structures  
RDA N Structures

We may add libraries as time goes on. If necessary, the libraries will be updated. You can find them at <http://www.atlasrr.com/software/rts/libraries.html>

## Element-Library Info

Shows information about the currently loaded library like the author, date of last change etc.



### Element-Rotate element

You can rotate tagged element(s) by dragging the button along the scroll bar (you will see the position of your element as you drag), or by clicking on one of the defined degrees that appears in the box.



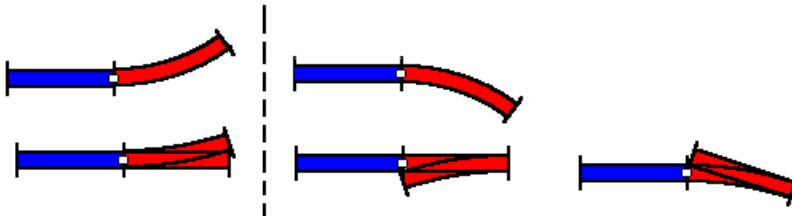
### Element-Flip track

This feature will only be active if you have selected a curved section or switch that is connected on one side only.

You can choose to flip curved track so that it is curved in the opposite direction, or a switch so that it is connected on the opposite leg. For switches, you can flip to two different positions, since there are three sides of a switch that can ultimately be connected to another track. Each time you click on the Flip Track tool you will see the switch move to a different position.

In contrast, the Tools-Flip Track Joint will flip the last track you just connected.

Following are two examples for this function:



## Element-Alignment

Aligns tagged elements horizontally and vertically. These commands are available in the alignment bar as well.

Connected elements are treated as one as they can't change their positions relative to each other.

Fixed elements are taken into consideration when calculating the alignment position of tagged elements, but they won't be moved for they are fixed!

### Element-Move

A window is opened which will prompt you for relative coordinates (X - horizontal and Y - vertical) to move the tagged element(s) to.

### Element-Bring to front/Put to back

If objects overlap each other, you may need to put one or more "to back" so you may take action upon the element(s) in the front.

## Element-Properties

In this menu is where you define settings for track and other elements that are currently tagged. If you set any of the functions to "default," then the settings you've chosen will remain in effect for all items you place on your layout in the future. To change the settings of ALL track/elements currently on your layout (and those you will place in the future), do so under VIEW – Properties.

If you have tagged a group of elements, properties can be **applied to the selection**. Which of the

options should be adopted is defined by the filter.

Tab General

Tab Track

Tab Flex track

Tab Lines

Tab Text fields

Tab OLE-Container

Tab Metafile

Tab Bitmaps

Tab Filter

## Element-Properties: General

Here you see the description and item number of the tagged element(s). You can choose whether or not the item numbers & descriptions appear, and in which fashion. The layer to put the tagged element(s) on and the prices are defined on this card as well.

Additionally, you can decide whether the element(s) shall be fixed.

## Element-Properties: Track

Here you can switch the display of roadbed and ties on or off. If you choose to have them displayed, you can assign a color to them. The width of roadbed and the appearance of track (filled/color) can be set. You even can apply a gradient to the tagged track.

**NOTE:** If you choose to have ties and roadbed displayed, you must also also have the same settings toggled on in View-Properties: Desktop and View-Properties: Roadbed!.

The length of the dividers (the lines that appear between two pieces of connected track), the diameter and color of the connection circles are adjustable as well. We suggest you play around with these settings until you achieve the desired result.

## Element-Properties: Flex track

On this card, you can (and should) enter the item number and description as well as price and length of the flex track you are using in your layout. Atlas HO scale flex track comes in 36" sections; N scale comes in 29" sections, and Atlas O Custom Flex comes in 40" sections (and with cement or wood ties). The statistics will then calculate the required number of pieces and the price. **NOTE:** Waste of track caused by cutting is not taken into consideration, so we recommend buying a bit more than is suggested.

### The other adjustments:

**Max. Iterations:** This value determines the smoothness of the curve your flex-track forms when it is initially placed. The value entered literally determines how many points of the track are calculated. The greater the value, the smoother (or straighter) the track. The default is probably a good number for most users. If you do decide to change it, be aware that it will affect the amount of memory needed (higher values require more memory). should be calculated. A value of 4 should be most suitable.

**Distance Basepoints:** These are the black circles you drag in order to shape the flex track. The distance basepoint value is the distance of the movable basepoint from the divider of the section of flex-track, in tenths of an inch. The smaller this value, the straighter your flex track will be when you initially place it.

**Store line & Store outline:** Calculating every point of a curve takes time and slows down operation unbearably when redrawing the screen. If you notice things are going slowly, you may choose to only store the outline.

You will be better off choosing only one of these options, not both, for time and memory purposes.

If you check the option **set defaults**, the properties will be valid for following objects added to your layout.



## Element-Properties: Lines

Here you can assign width and color to lines and wires in your layout. The difference between a line and a wire is simply the presence of a soldering point. If the diameter is set to 0, a wire becomes a line. Remember, a line is what is used to draw your benchwork on your screen.

## Element-Properties: Text fields

In this box you can enter text and change the appearance and font. To rotate a text field, click the **Font** button, then **Rotate**.

Macros are also available:

You can paste date (long or short), number and name of day, number and name of month, number of year and time – even separately hour, minute and second. Further, you can choose to display the total cost of your track, assuming you have previously assigned prices. You can have the name and path of your layout file pasted, too, which makes it easier to find it later on. For more information on Macros, please see your Windows manual.

## Element-Properties: OLE-Container

Here you get information on the actual and original size of an object linked by OLE (**O**bject **L**inking and **E**mbedding), given in the measuring unit you've defined via View-Properties: System. You can restore the **Original size** by clicking just this button.

The check box **Zoom with view** defines if the size of this object should be scaled when zooming in/out (enabled) or if the size is fixed (disabled), i.e. when using a picture as background.

The **Properties** button provides further information on the OLE object, depending on the source application.

## Element-Properties: Metafile

Here you get information on the actual and original size of a Metafile, given in the measuring unit you've defined via View-Properties: System. You can restore the **Original size** by clicking just this button.

The **Save to file/Load from file** buttons provide further options for data exchange.

## Element-Properties: Bitmaps

Here you get information on the actual and original size of a Bitmap, given in pixels. The buttons **Original size (Screen)** and **Original size (Printer)** set the original size of the bitmap either according to screen resolution or to printer resolution.

The **Save to file/Load from file** buttons provide further options for data exchange.

The check box **Zoom with view** defines if the size of this object should be scaled when zooming in/out (enabled) or if the size is fixed (disabled), i.e. when using a picture as background.

## Element-Properties: Filter

This is one of the most powerful sections of **RTS**:

If you have selected a number of elements, you can have properties adopted by checking the option **Apply properties to selection**. Here you define which properties you wish to be applied.

This filtering and adopting is incredibly useful, i.e. when you notice your track has been put to the wrong layer but the height must not be changed; or perhaps the track should have the color of your track in tunnels; or if width of roadbed doesn't match your wishes – and much more!

[Circles means the appearance of the connection marks – diameter and color.]

Possibilities are nearly unlimited – just try it!

## Element-Color

Depending on height or layer, you can assign different colors to your track.

If you choose **According to height**, you must define a range within the color is valid. **According to layer** means, this color is assigned to the complete layer.

This affects existing elements only. For elements added subsequently, the defaults are valid.

## The Tools menu

### Tools-Arrow

### Tools-Move description

### Tools-Place object

### Tools-Place track and connect

### Tools-Text field

### Tools-Wire/Line

### Tools-Insert flex track

### Tools-Shape flex track

### Tools-Join track

### Tools-Disconnect track

### Tools-Loosen track

### Tools-Flip track joints

### Tools-Insulation

### Tools-Height

### Tools-Pick element from layout



### Tools-Arrow

**THIS IS THE MOST IMPORTANT TOOL IN THE PROGRAM!** You will use it constantly. It is used to tag elements which shall be manipulated afterwards. If you tag one element, all connected track sections are also selected. If you need to tag a specific piece of track in the middle of your layout, for example, then you have to disconnect it on both sides. Do this by using Tools-Disconnect track or Tools-Loosen track.

Overlapping objects can be tagged successively by simply clicking – each click selects the next element.

**BIG TIP:** To tag a number of objects at the same time, hold down the **<Shift>** key while clicking each object. For a special area, you can use rectangular selection:

**ANOTHER BIG TIP:** While using the ARROW tool, move the cursor to one corner of the desired area that you want to select, press and hold down the left mouse button while dragging the mouse to the opposite corner. Release the button. You'll see all the elements in the rectangle you just created will be highlighted. It's as easy as that!

To move objects, click and drag them to the new position. In contrast to earlier versions, you can move objects immediately after the first click if you just keep the button depressed.



### Tools-Place object

This tool adds the currently selected element to your layout. If you press **<Ctrl>** while clicking, a dialog

box will pop up that will allow you to enter absolute coordinates for the element you are placing.

### **Tools-Place track and connect**

This tool lets you add a new element to your layout, while connecting it at the same time. You will notice that as you put the + sign (which is your cursor) near a joint of track, two arrows appear. That means you are in position to connect the element. Click once to place and connect at the same time. You don't have to reselect the same type of track, it will allow you to keep connecting the first track you selected.

Via View-Properties: Tolerances you can adjust the precision in which you need to position your cursor in order to get elements connected.

### **Tools-Move description**

You can move the item numbers and/or descriptions that you see on your screen using this tool. Please be aware that the position of the description is tied to the object – if you now move the object itself, the description will be moved as well.

Text fields cannot be moved using this tool; for that you must use the ARROW tool.

### **Tools-Pick object from layout**

Clicking an object within the layout using this tool will essentially copy that object so you may place it somewhere else (don't worry, it will not move the original object). So the second time you click, you will place the copied object down.

### **Tools-Connect track**

If you have two pieces of track close to each other, you may be able to simply click once, and a connection will occur (a small circle will appear). If there are two pieces or sections that are far apart and you wish to join them (like two separate track sections), using the tool then click once on the first joint, then once on the second joint.

**BIG, BIG HINT WHEN CONNECTING TWO SECTIONS OF TRACK WHEN YOU WANT ONE TO STAY IN PLACE!!!!** You will notice that the joint you click FIRST will come to meet the joint you clicked SECOND. So, if you have your layout almost done, and in the right place on your benchwork, make sure you click on the small section first so that it will come and meet your layout. If you do it the other way around, your entire layout will shift in order to meet the connection of the small section.

Flex track is treated the same way. If you keep **<Shift>** depressed while clicking a section of flex track, no elements will be moved, but the flex track will change its shape accordingly.

You may also use this tool to fill gaps automatically with fitting pieces. If, for example, you have a half circle that you'd like the program to finish for you, click on the tool, then on the two loose ends of the circle. Your circle should be completed (as long as you have made the appropriate selections in the Special-Close circles box.

If you want to fill gaps between two independent track sections, just hold down **<Ctrl>** when clicking the second end, and the space will be filled for you!

### **Tools-Disconnect track**

Different than Tools-Loosen track, only one connection is removed (on the joint that you click on).

### **Tools-Loosen track**

Different than Tools-Disconnect track, all connections of the selected track are removed at once so that it is free to be tagged, moved and manipulated.

### **Tools-Text field**

Adds a text field to your layout. The size depends on the amount of text and the chosen font.

If you hold down **<Ctrl>** when adding a text field, you will be prompted immediately for input. Otherwise, you can enter your text using the dialog [Element-Properties: Text fields!](#) . There – and only there – you can also rotate your text. It is **not** possible to do that using [Tools-Rotate element!](#)

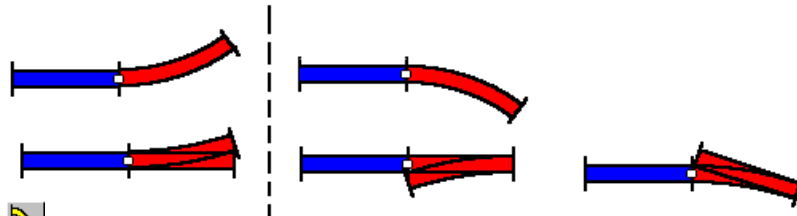
Any other manipulation is done the same way as for track, using the [ARROW tool](#).



### Tools-Flip track joints

Can be used for elements connected at one end only. This will flip the element so the opposite end is connected (if you're flipping a curve, for example, the curve will then face the opposite direction). If you want to flip the latest track or switch you placed, use [Element-Flip track](#)

Example:



### Tools-Insert flex track

To insert a section of [flex track](#) between two already existing tracks, click successively on the ends of the two pieces you want to be connected by flex track. Please note that you need these anchor pieces initially to place the track, but they can be removed later. It's possible to have a straight flex track between two other track pieces, assuming they are in a straight line. To line up two track pieces, you may use the [Align tool](#), or this little trick: click on the second track piece while pressing **<Shift><Ctrl>**. It will then be positioned correctly, and the flex track will be inserted.

Related topic: [Special-Shape Flex track](#).

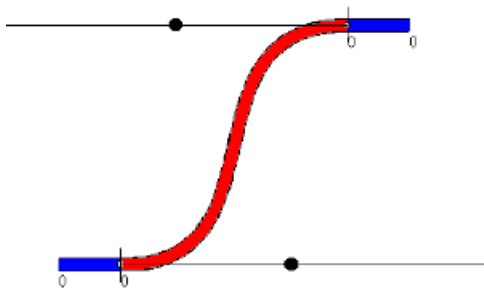


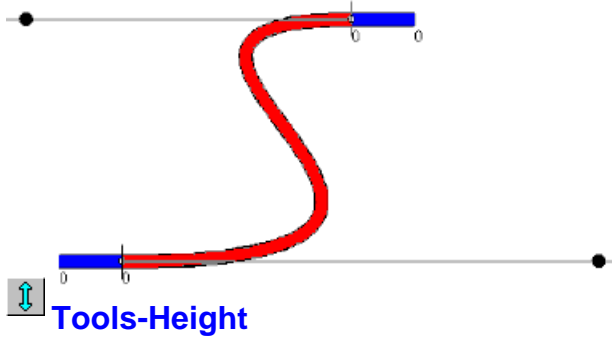
### Tools-Shape Flex track

[Flex track](#) can be shaped by dragging the black balls (base points) along the straight lines. Or, you can just click on a spot along the black line, and the ball will move there. Keep playing around until you arrive at the desired shape. It'll take some practice, but you'll get the hang of it!

The base points will not be displayed until you click on one piece of flex track with this tool. This avoids confusion when many sections of flex track near each other.

Here is an example of how it works:



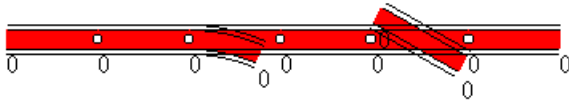


This tool allows you to define the height of a piece or section of track. If you click the end of a piece of track with this tool, a dialog box will pop up where you can enter a height. This height will be valid for all pieces of track connected to it, if the check box **Apply this setting to connected tracks** is activated.

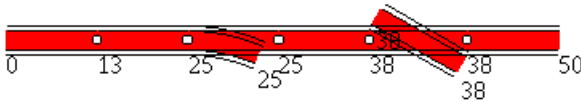
This feature also allows you to manually define a gradient. For example, if you make the height of a leftmost piece of track “0” and the rightmost track “5”, you can click the “Calculate gradient box” and a gradient will be calculated for all pieces in between. For this to work, **THE SECTION OF TRACK YOU ARE ADDING THE GRADIENT TO MUST BE SEPARATED FROM YOUR LAYOUT.**

Please note, it’s possible to add a gradient to Flex track, but not switches and crossings. Crossings and switches can be assigned a height, as long as they are horizontal.

An example for a track with switches and crossings:



Now, heights were assigned (please realize all ends of switches and crossings are on the same level!)



## Tools-Wire/Line

Use this tool to create wiring schematics and lines (which are used to create your benchwork).

The difference between wires and lines is that wires have soldering points at their ends. If you set the diameter of soldering points to 0 (via Element-Properties: Lines), lines are generated.

Unlike lines, wires are listed in your statistics, separated by colors. On initial choice of a color, you will be prompted to enter a name. Internally, colors are represented by numbers only – it’s quite impossible to pre-define names for 16.8 billions of colors...

This name is used to calculate the length required. It surely won’t fit exactly, but it’s a good estimate of how much of each color you should buy. By the way, if different colors are given the same name, statistics will treat them as identical.

**Drawing using a line:** Click the desired starting point and release mouse button. At any point where the line should change direction, click once more. To finish a line, right-click. To get vertical or horizontal lines or wires, keep the **<Shift>** key depressed when drawing.

Shape of lines can be changed later on by tagging it with Tools-Arrow and then dragging ends or corners to a new position.

Some users find this area tricky. It’ll take a little getting used to, but once you get the hang of it, you’ll

find it very convenient!

Wire (will be listed under statistics)

Line (will not be listed under statistics)



## Tools-Insulation

Makes a track joint appear insulated.

Instead of the usual circle, a cross (both rails insulated) or an arrow (only one rail insulated) will show up. The symbol will change every time you click. To turn a cross into a circle, three clicks are needed.

Examples:



## The Statistics menu

Any statistical list can be printed or copied to the clipboard so you can work with it in other applications like Word, Excel, etc.

**Statistics-List of materials**

**Statistics-List of required materials**

**Statistics-List of stock**

**Statistics-Edit stock**

**Statistics-Activate prices**

**Statistics-List of materials**

Shows a list of all elements used in your layout. Based on the prices you entered, the total costs will be calculated. Don't forget to enter a price for flex track since there is no default for it.

**PLEASE NOTE**...the prices included in this version of the software are current retail prices as per the various manufacturers represented in the libraries. These prices are subject to change at any time, without notice, and are not guaranteed. Atlas will provide updated Atlas libraries if and when prices change from this version.

**Statistics-List of required materials**

If you've entered all items you currently have into the Stock list, this list displays only the elements which you still need to buy to complete your layout.

**Statistics-Stock**

Shows a list of elements you already have. You may add/remove elements as needed in Statistics-Edit stock.

**Statistics-Edit stock**

This box shows you a list of what's in the currently loaded library. You may enter the quantity of elements (track, buildings etc.) available, and change or add prices. Now, **RTS** can determine what you still need to buy – and the cost of all that fun.

**Statistics-Activate prices**

If you have entered prices via Statistics-Edit stock, you most likely want them to be valid for your layout. If this is true, then you would select this option to update prices you may have changed. If you prefer, you may edit prices using Element-Properties for each single piece.

**The Special menu**

**Special-Load benchwork**

**Special-Shape flex track**

**Special-Transition curve**

Special-Helix  
Special-Parallel tracks  
Special-Length of tagged tracks  
Special-Crossover/Ladder  
Special-Close circles  
**Special-Load benchwork**

Loads a benchwork created in a previous version of **RTS**.

In Version 4, we've done away with the coordinate system for creating your benchwork. It confused a lot of people, and we feel the line tool is just as useful for this purpose. Unlike previous versions, your benchwork is no longer saved as a separate file. You will create a new benchwork for each new layout, using the line tool. Remember, you can always open a layout you already have lines of benchwork for and copy and paste them into a new file so you're not recreating the wheel each time.

## **Special-Shape Flex Track**

A straight or curved flex track will be generated – according to your settings (length, radius and diverging angle). After having confirmed, the track can be added to your layout by clicking the desired position.

Related topics:      Tools-Insert flex track  
                             Tools-Shape flex track

## **Special-Transition curve**

A transition curve flex track will be generated – according to your settings. After having confirmed, the track can be added to your layout by clicking the desired position on your layout (the transition curve will be placed wherever you click).

Further information on transition curves can be found in the chapter **Transition curves in theory and practice**. The original text was kindly placed in my disposal by Thomas Rödl.

## **Special-Helix**

A helix consists of ascending, concentric circles – just like a coil. Helices are useful to surmount a great difference in height while keeping gradient and required area quite low.

This function generates helices according to your adjustments. You can define the radius (fixed values for normal curves, or you can use flex track), the angle between inlet and outlet, total difference in altitude, difference per turn and left or right turn.

Calculated values can be printed to (have) cut appropriate boards.

## **Special-Parallel tracks**

This function generates a new piece of track exactly parallel to the tagged piece of track. Note, in this version you can now choose whether to have the new track placed above or below the existing one!

## **Special-Crossover/Ladder**

Diese Funktion hat zwei Einsatzgebiete:

This menu item has two functions:

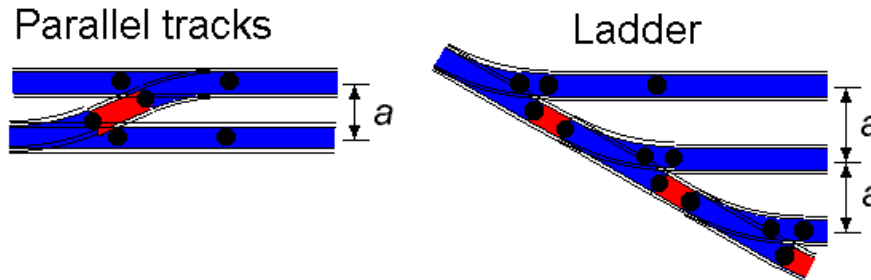
- 1.) You can have two parallel tracks connected using switches.
- 2.) Ladders can be generated with up to 100 equidistant parallel tracks. Any ladder will be terminated by an appropriate curve, so that the outlet is parallel to the other tracks as well.

You can define the distance between the tracks – of course not less than allowed by the geometry of switches. Obviously, tracks cannot be put closer together than directly connected! The distance *a* is measured between the center lines of tracks.

The length of the inserted track (according to calculation) can be found directly in the dialog: **Length of adjustment track**. Lateron, you can have displayed its length by tagging it and then choosing Element-Properties: Flex track. Look for the line **Current length**.

**Example:**

The red colored tracks were calculated and inserted by **RTS**.



### Special-Length of tagged tracks

The total length of all tagged tracks will be calculated. For crossings and switches, the length of both curves and straights will be taken into consideration.

### Special-Close circles

The Tool-Connect tracks is able to close circles or ellipses with fitting pieces of track. Simply click successivley on the two joints you want to be connected by fitter pieces. If you have not set any limits up, then this process could take a very long time. We suggest you define some elements in this dialog first, before using this feature.

If you decrease the list of radii to be considered, this function will work much faster. If in an arc all curves should be of the same radius, it will also be much faster. **RTS** will remember these settings for each library.

Half-finished ovals can be closed automatically as well. **RTS** first searches for fitting curves and then inserts straight tracks. Sometimes, the results of this process could be a little bit “funny” - so you can switch this option off.

Finally, you can make things easier for **RTS** by defining whether to use large or small radius first, and in which direction the arc shall be pointing.

### Zoom



Click the up/down arrows with your mouse to adjust scale of the display (what appears on screen). The size you see your layout on the screen is also the size in which it will print.

Menu commands:

View-Zoom in (Hotkey +)

View-Zoom out (Hotkey -).

### The Tool Bar

Here you can see all the icons or tools available to you. Simply click on an icon for and the corresponding tool will be activated.

For further information, please click the desired icon in the following image.

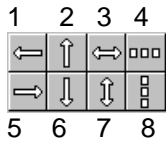




## The Alignment Bar

Here you can see the appropriate alignment tools available to you. You can use it to call alignment functions for tagged elements by clicking them with your mouse.

For further information, please click the desired icon in the following image.



- 1: Objects are left-aligned in the surrounding rectangle
- 2: Objects are top-aligned in the surrounding rectangle.
- 3: Objects are aligned horizontally centered in the surrounding rectangle.
- 4: Objects are aligned horizontally equidistant in the surrounding rectangle.
- 5: Objects are right-aligned in the surrounding rectangle.
- 6: Objects are bottom-aligned in the surrounding rectangle.
- 7: Objects are aligned vertically centered in the surrounding rectangle.
- 8: Objects are aligned vertically equidistant in the surrounding rectangle.

## Answers to Frequently Asked Questions (FAQ)

### **SOME CURVES ARE NOT VISIBLE**

When using big radii and a zoom of 1:1 down to 1:5, some screen or printer drivers may have trouble displaying the curves. Set *Curves painted by application* at [VIEW "Properties-System"](#) to avoid this.

### **THE TRACK SECTIONS DON'T FIT LIKE I THINK THEY SHOULD**

Although it's possible that there is an error in the library, in most cases it will turn out that the tracks really don't fit, for several reasons:

- You chose a wrong radius by mistake.
- The program has little to no tolerance when it comes to connecting sections that do not line up exactly.

### **I AM CREATING ONE OF THE LAYOUTS FROM AN ATLAS INSTRUCTION BOOK, AND IT DOESN'T COME TOGETHER AT THE END. WHAT AM I DOING WRONG?**

You aren't doing anything wrong. The reason this happens is that when you build a layout on a table, you can "fudge" the track pieces a little until they fit appropriately. The software dimensions are so exact that there is no room for any type of fudging. The result is the Atlas layout plans created in Right Track Software will not connect at the end. We recommend using a small filler piece of track to fill the necessary gap. When you go to build it, you can still follow the plans and list of materials in the Atlas instruction book, because each layout has been tested, and will work.

### **SHOULDN'T A SNAP-SWITCH WITH A 1/3<sup>RD</sup> 18" RADIUS PIECE EQUAL A FULL 18" RADIUS SECTION?**

The answer is "no". You must also add a 1/2" straight section opposite the switch on your layout (180 away).

### **I PREVIOUSLY PLACED SOME TRACK DOWN, NOW IT DOES NOT APPEAR ON THE SCREEN.**

Check to make sure that the layer you put the track on is currently in the "Display" column of the [VIEW, "Properties-Layers"](#) dialog box.

### **NOTHING APPEARS ON MY SCREEN WHEN I PLACE PIECES OF TRACK DOWN**

Check to make sure that the default layer is not in the “don’t display” column of the **VIEW, “Properties-Layers”** dialog box (because it is possible to add track to a hidden layer).

### **WHEN I PRINT, MY GRID SHOWS. HOW CAN I GET IT TO NOT PRINT THE GRID?**

Under the **VIEW, “Properties-Grid Lines,”** check the “hide” option. The grid will not appear on your screen, nor will it appear when you print your layout plan. (Remember, what you see is what prints!)

### **WHEN LOOKING UNDER THE “MATERIALS LIST,” WHAT DOES THE NUMBER FOR THE QUANTITY OF FLEX-TRACK REPRESENT?**

It depends on how you have flex-track set up in the **ELEMENT, “Properties-Flex-Track”** dialog box (which acts as your flex-track default settings). Since HO Super-Flex track is sold in 3’ (36”) sections, we recommend you enter 36” for the length, and whatever price you currently pay at your local hobby dealer for one section. If you enter these values, the number to the very left of the flex-track description will represent the number of 3’ sections used on your layout. Please note that the computer rounds up, so if you used 10’, 6”, it will tell you you’ve used 4 pieces of flex track (totaling 12’). (***FYI...***N Super-Flex [Item# 2500] is sold in 29” sections; Atlas O Custom-Flex in both wood [Item# 6056] and cement ties [Item# 6054] is available in 40” sections.)

### **WHEN I TRY TO PRINT MY LAYOUT AT A SCALE OF 1:1, IT WON’T PRINT.**

Try going under **VIEW “Properties-System”** and check the box marked “Arcs painted by – Application.” If this doesn’t work and you are not having any other printing problems in RTS, then it is fault of your printer driver. Please consult your printer manual for further details.

### **THE GRADIENT FUNCTION SEEMS TO BE WORKING ERATICALLY. AM I DOING SOMETHING WRONG?**

Perhaps, since it is a tricky part of the program. Remember, you cannot add a gradient to an existing section of flex track, or to a section of track that has a turnout connected on all three sides.

Please be aware that due to the fact that the program rounds numbers up to the nearest tenth of an inch, you may think that the numbers you are getting are not right or that the computer is not calculating correctly. For example, if you take three pieces of 9” straight HO Snap-Track where the left piece is at 0” height, and you set the height of the right piece to .8” and tell the computer to calculate the gradient, when it’s finished, you’re left piece will now be at .1, not 0. This is due to rounding and cannot be changed within the confines of the program. It doesn’t happen in every case, but with only 27” of track, it becomes difficult to calculate a gradient to the exact tenth of an inch. It is safe to say that it will not throw things off when you are building your layout.

### **CAN I PURCHASE/AQUIRE ADDITIONAL ATLAS LAYOUT PLANS AS RTS FILES?**

At the writing of this manual, the answer is no. Please check our world wide web site at URL <http://atlasrr.com> for the latest information on available RTS files in the “Right Track Software Layout Exchange Area” of our site.

### **WELCOME TO THE RIGHT TRACK SOFTWARE, VERSION 5.0 (FREWARE)!**

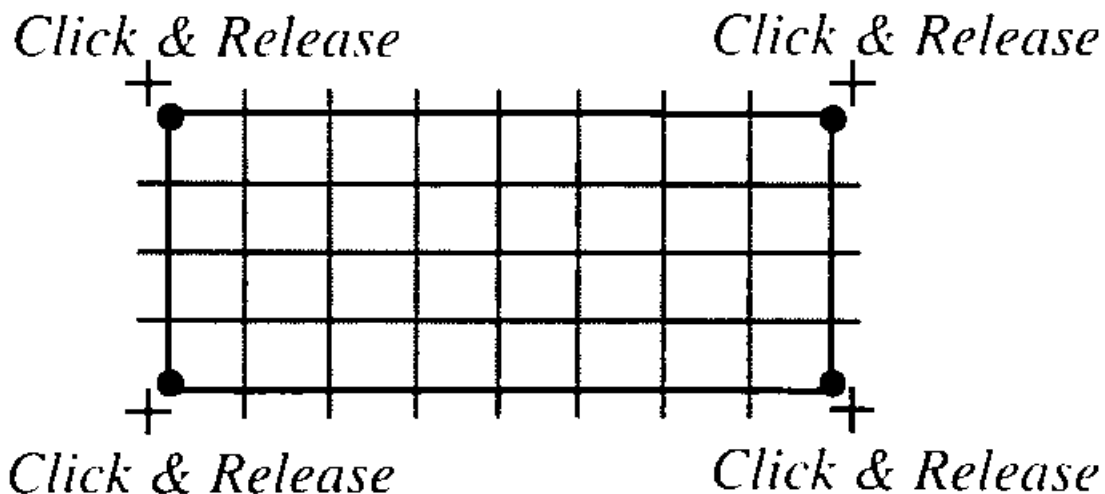
The Right Track Software program has allowed thousands of model railroaders to design their dream layout. We hope you will have the same success.

Since this is Freeware, we are unable to provide free support for the program. Instead, we’ve provided lots of information which makes it easy for you to get familiar with and continue using the program. If, after reviewing the Tutorial below and the FAQ page you are still stuck, please see the “Tech Support” area under the HELP menu for further details on how you can buy support time.

### **TUTORIAL: STEP-BY-STEP TO A FIGURE-8 HO LAYOUT**

This is a great place to learn about the program and try out the various features. Please follow the simple instructions below to create an HO figure-8. After you're finished, you can apply what you learned to create a layout in any scale. Good luck!

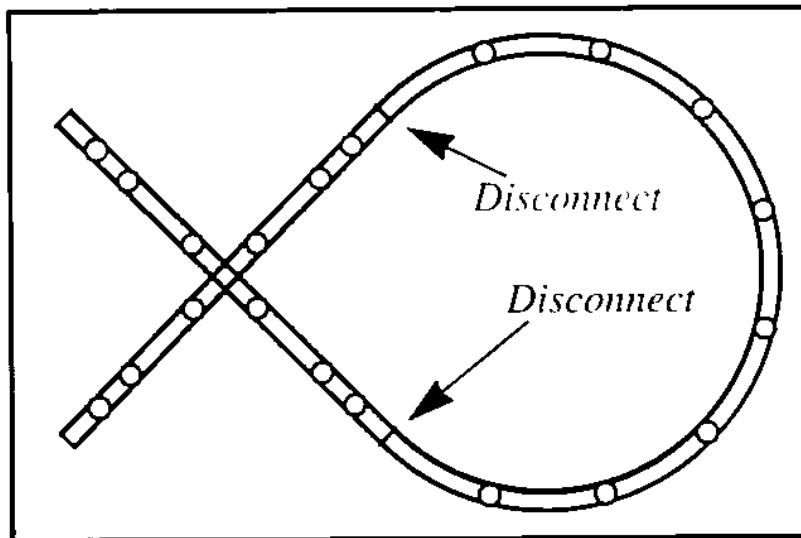
1. In the upper left corner where it says **ZOOM**, change the value to 25 by either positioning your cursor to be active in the window, or using the up/down arrows. This will allow you to view the entire layout on the screen.
2. Choose **VIEW, Properties-Grid Lines** and change the "Grid Distance" value to 12. In the same box, click on the "Color" button. Change the color to something light, like pink. If you want, make the width of the line a little thicker, by clicking the appropriate up arrow. Click "Apply," then OK. Each pink square on your screen will now represent 1 square foot.
3. Choose **ELEMENT, Properties-Lines** and change the width to "4", and make the color black. This will make it so that when you are drawing in your lines for your layout table, they'll show up nice and thick, and dark. Also make sure you "solder points" are at "0". This will tell the program that you want to work with the line tool, rather than the wire tool (since they are the same tools, with different functions). Click "OK."
4. Click the **WIRE/LINE Tool**
5. Position the "+" sign on the lower left corner of the first grid square as shown. Now click and release. Count 8 grid squares to the right, and click and release again. You will see your first line appear. Count down 4 squares, and click and release. Go up 4 squares then click and release **BUT DON'T MOVE YOUR MOUSE!** Before you move the cursor, click on the right mouse button. If a "color" dialog box comes up, just click the "Cancel" button. Now your benchwork should appear on your screen.



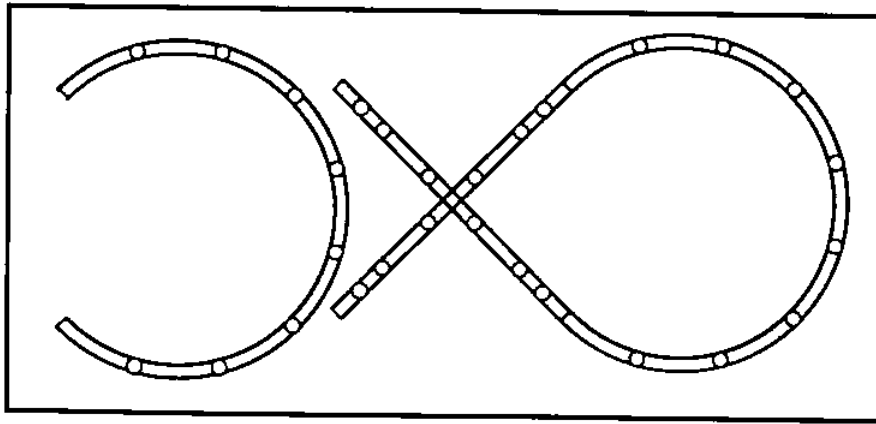
**TIP:** If you want to move your benchwork, you can tag it with your **ARROW TOOL**, then drag it. If you want to make one of the sides longer or shorter, using your **ARROW TOOL**, position the cursor near the corner of the box and drag. Play around with this until you get it to the desired size and shape.

6. Choose **ELEMENT, "Load Library."** and double-click on the "HO" folder (unless, of course, you're already in that folder), then on "Atlas HO Code 100" library.
7. Choose **ELEMENT, Properties-Lines** again. Now we have to change the width back to normal, so enter 1 in the value box. This will make all the track lines from now on be thinner than your benchwork lines. If you want your track to appear in color, you can change the color here too.
8. Find the 90 degree crossing in the icon scrollbar that appears at the top of your screen, or choose **VIEW, Library List**, and click on the right description in the list. It will become highlighted, so that when you choose "OK" it will be the active piece.

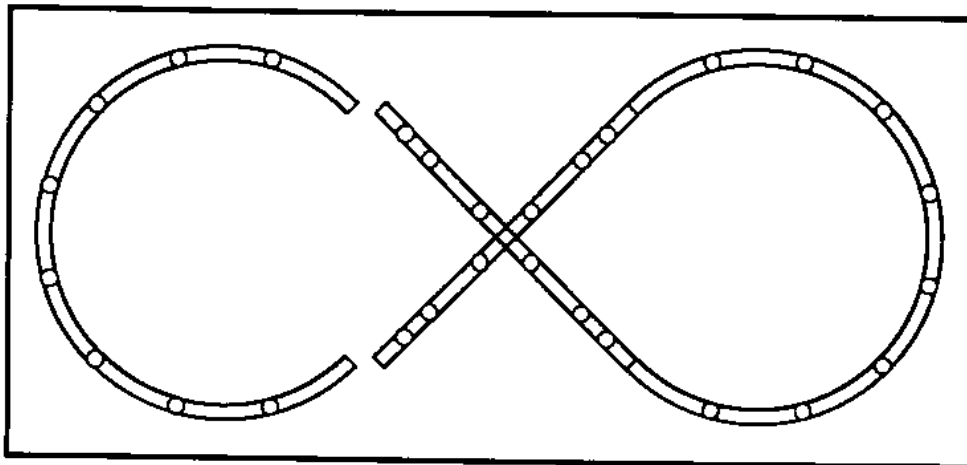
9. Click on the **PLACE ELEMENT TOOL**.
10. Go near the center of your "layout table," and click. The crossing should appear. If the crossing didn't get placed as close to the center as possible, you may tag the crossing with your **ARROW** tool, and drag it to the center. **IF YOU CANNOT TAG THE CROSSING**, you must go tag the benchwork itself, then choose **ELEMENT, "Put to Back."** Now click somewhere on your layout space before trying to tag the crossing.
11. Choose a 6" straight piece. Click on the **PLACE AND CONNECT tool**, bring the cursor down to one of the legs of the crossing, position the "+" on the end, and when you see this symbol then click to connect. While the **PLACE AND CONNECT** is still active, connect the same 6" piece to the remaining three legs of the crossing.
12. Choose a 3" straight piece. Using the same method as in Step 11, connect two, 3" sections to each of the 6" pieces on the four legs of the crossing.
13. Choose a 15" radius section. Connect it to the upper-right leg of the crossing. You'll notice the piece will be facing the wrong way. Click on the **FLIP LAST TRACK JOINT TOOL** and it will automatically flip to face the right direction. Click on the **PLACE AND CONNECT TOOL** (if it isn't already active) and connect 8 more 15" radius pieces to the curved piece you just placed. When you are finished, you will have created the first side of the figure-8.
14. Using the **DISCONNECT TOOL**, click on the joint between the 3" section and the first 15" radius piece you connected. There is a joint on the opposite side that we never connected, so now you can use your **ARROW TOOL** to tag the disconnected section.



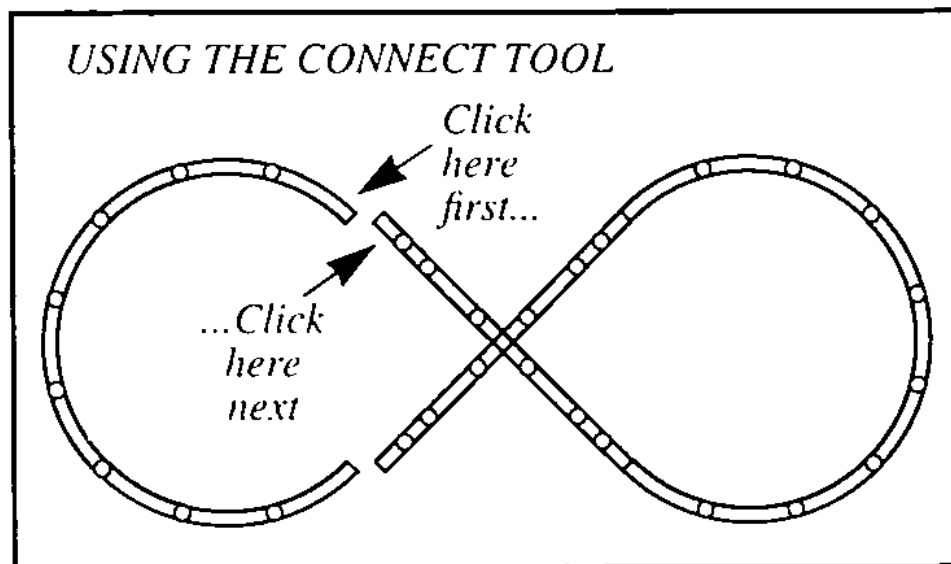
15. Choose **EDIT, "Copy."** then **EDIT, "Paste."** Come down to your layout space and you'll notice your cursor looks like a can of paste. Click on the left side somewhere and a copy of the 15" radius sections will appear.



16. Since you need the section to be facing the other direction, tag it (if it's not already tagged) then click the **ROTATE TOOL**. A dialog box will pop up. Click on the 180 degree button, and then choose "OK."

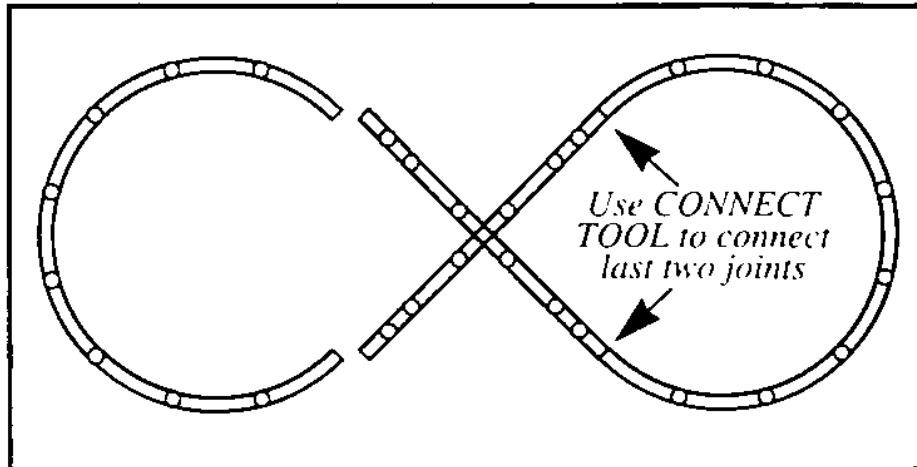


17. Now we need to connect the section to the legs of the crossing. Using the **CONNECT TOOL**, click on the top end of the section. Now click on the upper-left leg of the crossing. **YOU WILL GET A STRANGE-LOOKING RESULT.** To fix this, go under **OPTIONS**, and click on "Re-draw." Now the section should be connected to your crossing.

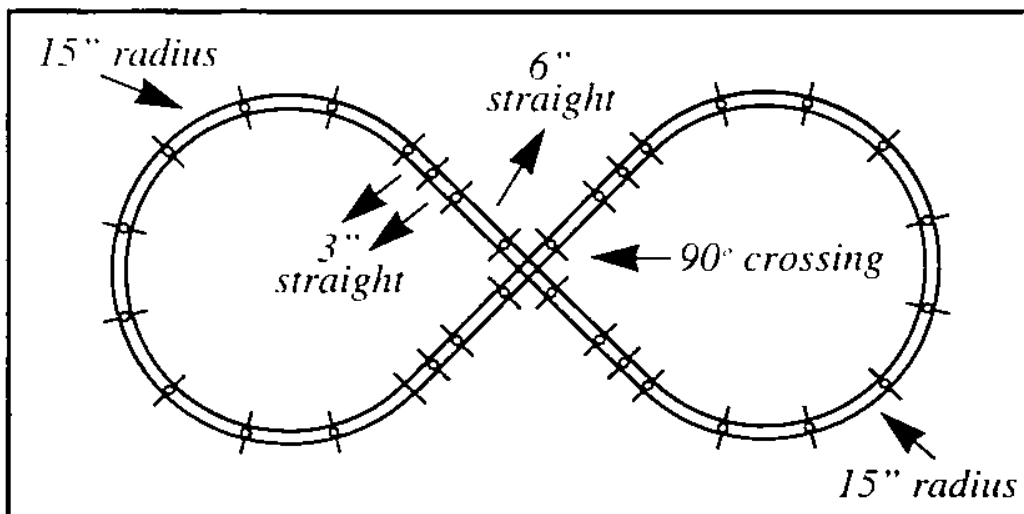


18. Now you have three joints that are not connected. Where you do not see connection circles

between two pieces of track, click (make sure the **CONNECT TOOL** is still active). Connection circles should now appear.



19. **CONGRATULATIONS!** Now you have created your first layout using the Right Track Software!



## Troubleshooting

First, reading the section **Frequently Asked Questions** is strongly recommended. You may find a solution there.

As this program is FreeWare, I am unable to provide free technical support. The on-screen help files and the FAQ document should provide you with all the information you need to use this program effectively. If you are not sure in which section the information you're looking for might be found, open the "Search" page of the dialog box that appears when you click "Help - Help topics". If you are unable to find an answer and need further assistance, you can post a message on Atlas' discussion forum (**Error! Reference source not found.**), and perhaps another modeler could help you out.

In case you think you found a bug, please report it to me (the programmer):

D-25712 Burg

Germany

**Phone:** +49-4825-2892 (mo. - fri. 14.30 - 16.30 ME[S]T)

**Fax:** +49-4825-1217

**Email:** info@winrail.de

<http://www.winrail.de>

Since this is Freeware, Atlas is unable to provide free technical support. Please try finding the answers to your questions in one of three ways:

1. By doing the Tutorial.
2. Going into the HELP menu and browsing through the topics.
3. Looking at our compiled list of Frequently Asked Questions, also under the HELP section (under the Contents tab).
4. By posting a message on our discussion board thereby soliciting other users' assistance.
5. By checking our web site ([www.atlasrr.com](http://www.atlasrr.com)) for any updates or new information we may have put online since you obtained this program.

If you are completely stuck, you may purchase a *User Support Contract*. This will allow you to call or email for technical assistance, for as long as you have the software. The cost is \$19.95 and is payable by credit card. To take advantage of the *User Support Contract*, call 1-800-872-2521 x7151.