

[get the Pug](#)

[page 1: up to 0.78.e](#)

[page 2: up to 0.82.d](#)

[page 3: bug fixes](#)

## What's new in the Pug?


### page 1: up to 0.78.e ( to March 2003 )

This first page is a cumulative list of previous changes in **Templot Pug** versions 0.77.a , 0.78.a , 0.78.b , 0.78.c , 0.78.d , 0.78.e (all changes since release version **0.74.b** of October 2001 up to and including Pug version **0.78.e** of March 2003).

*On the [next page](#) is a cumulative list of subsequent changes in Templot Pug versions 0.79.a , 0.82.a , 0.82.b , 0.82.c , 0.82.d (all subsequent changes up to and including Pug version **0.82.d** of November 2006).*

To find which version of Templot you are using, see the [help > about Templot](#) menu item.

There are a great many changes listed on these pages. To reduce the need for scrolling, the information is contained in an expanding panel alongside each heading.

For each heading click the  icon or the blue dots **•••••** to display the information.

If you want to print this page, or use your browser's *Find* function, first click **SHOW ALL INFO** to display all the information.


Click **HIDE ALL INFO** to return the page to normal.

(If you have Javascript disabled in your browser the information panels will be permanently displayed.)

**SHOW ALL INFO**

**HIDE ALL INFO**

*revised  
menu  
structure*

 **hide** **•••••**

*revised menu structure*

<u>control</u>	<u>generator</u>	<b>template</b>	<u>real</u>	<u>geometry</u>	<u>action</u>	<u>do</u>	<u>tools</u>	<u>pad</u>	<u>print</u>	<u>help</u>
TURNOUT :										
quick set ...						Ctrl+Q				
mint from current						Ctrl+M				
convert to plain track						Ctrl+L				
insert turnout in plain track						Ctrl+I				
insert half-diamond in plain track						Ctrl+W				
convert turnout to half-diamond						Ctrl+K				
convert half-diamond to turnout						Ctrl+T				
swap end-for-end						Ctrl+N				
swap facing - trailing						Ctrl+N				
invert handing						Ctrl+X				
swap hand						Ctrl+H				
turnout road ▶										
switch options ...										
V-crossing options ...										
convert RAM to CLM										
plain track reset										
REA B-6 RH turnout reset										
REA B-6 LH turnout reset Ctrl+Z										

[click image  
to enlarge, click again to shrink]

The menu structure on the drawing pad has been revised to create a more logical division of features and make recent new features easier to find. Here is a summary of the changes:

The former **track** menu is now called the **template** menu. On this menu you will find functions for selecting different **categories** of template (for example **plain track** or a **turnout**), converting from one category to another, changing the hand, and setting the **size** of the template by selecting the switch size and V-crossing angle.

There is a new **real** menu. On this menu are all the functions needed to customize your template in accordance with prototype practice. For example this menu includes items for changing the timbering styles, setting rail lengths and sleeper spacings, etc. There are also options for omitting individual rails when creating complex formations by means of superimposed partial templates.

The **geometry** menu now contains all the functions concerned with the alignment of your template and fitting it into your track plan. On this menu are items for setting the curving radius, transition curves, slewing, shifting, rotating, and all the peg and notch functions for aligning templates one with another.

The former **adjust** menu is now called the **action** menu. Here you will find all the numerous functions for adjusting your template by **mouse action**, and other mouse actions for zooming the pad view, etc. The mouse actions are usually accessed by means of the keyboard function keys and shortcuts, but they are all listed here if you prefer to find them on a menu.

There is a new **do** menu. Here are menu items for making other changes to the current template, for example blanking and snapping to length. This menu also contains the temporary **parking bay** for the current template, and the **undo changes / re-do changes** rollback functions for the current template.

All the above menu revisions are concerned primarily with adjustments to the **current template**. The other menus remain largely unchanged, with a few additions.

## half-diamond templates



### half-diamond templates

There is a new category of template, called a **half-diamond**. Two half-diamond templates, when aligned toe-to-toe, create a **regular diamond-crossing**. There are corresponding new menu items:

**template > convert turnout to half-diamond** ( **CTRL-K** )

**template > convert half-diamond to turnout** ( **CTRL-T** )

**template > insert half-diamond in plain track** ( **CTRL-W** )

to change from one category to another.

The **V-crossing** part of a half-diamond template is identical to that of a turnout template. All the existing V-crossing options and peg positions are available, with the exception that the V-crossing for a half-diamond must be either a **regular** or a **parallel** type of crossing.

A half-diamond template has no switch, and its datum point ("toe") is at the track centre-line intersection. This corresponds to the **deflection point** (**CTRL-3**) in a turnout template. For a half-diamond template the **peg positions** **CTRL-0**, **CTRL-1**, **CTRL-2**, **CTRL-3** are all co-incident at this position, and any of these can be used for pegging (**CTRL-3** recommended). In practice you will have little need to do this, because a single half-diamond template is unusable by itself and you will normally use the new menu items:

**tools > make diamond-crossing** (**SHIFT-F1**)

**tools > make ladder crossover**

to create full diamond-crossings when using half-diamond templates in a track plan.

Instead of a switch, a half-diamond has two **K-crossings**, which can be either **fixed** (with check-rails), or **movable** (switch-diamonds), and there are options in the **real > K-crossing options >** menu items to change the settings. For more information about K-crossings, click the **real > K-crossing options > ? K-crossings - help** menu item.

If necessary, half-diamond timbers can be automatically lengthened for use with a superimposed slip road template - click the **real > timbering > half-diamond timbering >** menu options. The V-crossing check rails can be shortened to clear a superimposed slip switch - click the **real > customize V-crossing > half-diamond check rails >** menu options. For use in adding such slip roads, there is a new range of special switches. Click the **template > switch options...** menu item to find them in the full list of switches. The slip switches are intended to be aligned onto the **MCP** and **TCP** [peg positions](#) in the half-diamond template.

## new switch ranges



### *new switch ranges*

There are some new ranges of standard switches available. Click the [template > switch options...](#) menu item to find them in the full list of switches:

Flat-bottom switches **FB-109**, (semi-curved)

Flat-bottom switches **BS-110A/113A** inclined, (curved)

Range of non-prototype space-saving **model switches**

Range of **switches for slips**

There is also a new scheme for **custom switches**, with 8 dedicated custom slots in the list.

For more information about these changes click the [template > switch options...](#) menu item and then click the [? help](#) button.

new **F10**  
**swell** mouse  
action  
(0.78.c)



### *new F10 swell mouse action (0.78.c)*

This new mouse action adjusts the curving radius while maintaining both ends of a template at fixed locations on the drawing pad. This is primarily intended as an aid to the alignment of templates over **picture shapes** containing scanned background sketches, maps and track plans. Previously it was necessary to swap back and forth between **F6 curving** and **F8 rotate** mouse actions to get a good match to a background guide line. Now it's much easier to do this:

- Put the fixing peg at one end of the template, if not there already.
- Use **F7 shift** to put that end exactly over the guide line. Zoom in and repeat if necessary.
- Use **F8 rotate** to put the other end of the template exactly over the guide line. Zoom in and repeat if necessary.
- Now you can use the new **F10 swell** mouse action to bulge the curve in or out to exactly match the guide line, while the ends remain fixed on the line.

Note that this function destroys any alignment with adjacent templates, so this is not a function to use on a template which is already a part of a track plan. A typical use would be to prepare a couple of short dummy templates some way apart on the guide line. You can then use the **make transition** function to create a smooth alignment between them which will be a good match to the guide line.

new **snap to**  
**MXP**  
**clearance**  
function  
(0.78.e)



### *new snap to MXP clearance function (0.78.e)*

This is useful when preparing templates to match fixed model set-track. Click the [do > snap to MXP clearance](#) menu item to set the overall turnout length to match the **CTRL-7 MXP** main-side **crossover mid-point**. Two such turnouts of the same hand when placed back-to-back in a running line will establish a running clearance between the two turnout roads at the current **turnout-side adjacent track spacing**.

In addition, for a **curved** type of crossing the turnout-road exit angle at both the **TXP (CTRL-5)** and **TVJP (CTRL-6)** peg positions is now included in the template info text. The former is also useful when adjusting templates to match model set-track. The latter will be found useful when creating return curves for curved crossings manually - set the plain track length as an equivalent **swing** using the [geometry > swings \(in degrees\)...](#) menu item. (For the crossing types other than curved, these exit angles are the same as the V-crossing angle.)

new **snap to**  
**switch heel**  
and  
**blank up to**  
**toe** functions



### *new **snap to switch heel and blank up to toe** functions*

These new functions are useful when superimposing switches for slips and tandem turnouts.

Click the **do > snap to switch heel** menu item to shorten a turnout template to the switch heel position. Note that many switches have a virtual heel position which is a little way short of the actual end of the switch rails. To shorten a turnout to the rail joints, click instead the **do > snap to catch points** menu item.

Click the **do > blank up to switch toe** menu item to blank off the template between the **CTRL-0 datum** and **CTRL-2 switch toe** peg positions.

*new **blank up to V-crossing** function (0.78.e)*



.....

### *new **blank up to V-crossing** function (0.78.e)*

Click the **do > blank up to V-crossing** menu item to blank off the template between the **CTRL-0 datum** and a position just short of the nearest V-crossing check rail. This function is useful when superimposing partial templates. (It is better to use a half-diamond template for this purpose - this avoids having any part of the turnout curve in the check rail or in one of the wing rail fronts.)

***blanking** by mouse action*



.....

### ***blanking** by mouse action*

The blanked off length can now be adjusted by means of the **CTRL-F3 blanking length** mouse action. This is more convenient than entering the length directly when preparing partial superimposed templates.

*adjustable **blunt nose and wing rail** dimensions*



.....

### *adjustable **blunt nose and wing rail** dimensions*

Click the **real > customize V-crossing >** menu options to find these new settings, which make it easier to set up custom templates for flat-bottom, narrow-gauge and non-UK prototype practice.

***roll rails and sleepers** function*



.....

### ***roll rails and sleepers** function*

For plain track templates it is now possible to **roll rails and sleepers**. This means that the rail joints are no longer locked to the **CTRL-1** joint end of a plain track template. A partial length of rail can be **rolled-in** at this end if desired. This makes it easier to arrange sleeper spacings and rail lengths to flow correctly across template boundaries. The rolling process is normally done using the **CTRL-F4 roll rails and sleepers** mouse action, or a specified length can be rolled-in by clicking the **real > roll rails and sleepers by...** menu item.

For more information about rolling rails and sleepers, change to a plain track template and then click the **real > roll rails and sleepers by...** menu item, and then click the **? help F2** flag.

***peg on rail joints** (plain track)*



.....

### ***peg on rail joints** (plain track)*

Click the **geometry > peg positions > peg on rail joints** menu item (or press **CTRL-END**) repeatedly, to step the **fixing peg** along the rail joints on plain track. This is useful before doing **tools > make split > make split at peg (CTRL-G)** to maintain the correct rail lengths and sleeper spacings across template boundaries. See also **roll rails and sleepers** above.

***staggered rail joints** (US)*



.....

*practice*) or  
**none** (CWR)

### ***staggered rail joints*** (US practice) or ***none*** (CWR)

There are new [real > plain track joint marks >](#) menu options. These make it possible to represent ***staggered*** rail joints (for US and some Irish practice), and ***CWR*** (long-welded rail). To achieve the correct prototype results it is necessary to set up an appropriate custom plain track setting. Click the [real > plain track spacings...](#) menu item, select one of the custom slots in the list, then click the [custom settings...](#) button.

If ***staggered*** rail joints are wanted, set a custom "rail length" which is ***half*** of the real rail length, and enter the sleeper (tie) spacings for each half-length.

If ***CWR*** (long-welded rail) is wanted, set a custom dummy "rail length" which is equal to the ***sleeper spacing***, and have a single sleeper spaced at half that distance from the dummy "joint".

**bonus  
timbers**



hide



### ***bonus timbers***

When shoving timbers, occasionally a need arises for an additional timber. A ***bonus*** timber can be added to the template by clicking the [add](#) button on the ***shove timbers*** window. You can add as many bonus timbers to a template as you wish. Each one will appear initially as a plain track sleeper at the [CTRL-1](#) rail joint position. It can then be shoved to the desired size and position in the usual way.

To remove added bonus timbers, click the [real > timbering > bonus timbers >](#) menu items. (Before removing it you should normally ***restore*** a bonus timber if it has been shoved. Otherwise the next bonus timber which is added will take up the former shoved position.)

**new crab  
function  
(0.78.c)**



hide



### ***new crab function*** (0.78.c)

Templot now generates ***rectangular*** timbers (see also [bug fixes](#)), and this has made it necessary to change the way the Shove Timber data is applied to them. A consequence of this is that the ability would have been lost to shove a timber into a position as a longitudinal baulk timber or way-beam directly under the centre-line of the rail. The new ***crab*** function ensures that this capability remains available.

The ***crab*** function causes a timber to move sideways after it has been twisted. (If it is ***square-on*** to the rails, there is no point in using ***crab*** - use the ***forward***, ***backward*** or ***along*** functions instead.)

Also in the Shove Timbers functions, the former ***across*** function has been renamed ***throw***. This function causes a timber to move endways, after it has been twisted (i.e. in a similar manner to ***crab***), so the term ***across*** was not always appropriate. This is a naming change only, there is no change in functionality. The Shove Timbers window has been rearranged accordingly.

**new omit all  
function  
(0.78.d)**



hide



### ***new omit all function*** (0.78.d)

There is a new ***omit all*** function in the Shove Timbers. This is intended as a preliminary to restoring a small number of individual timbers. It is useful when it is desired to omit the majority of timbers on a template, as sometimes arises when superimposing partial templates, and avoids the need to omit them laboriously one by one.

► If it is desired to have a template without any timbers, click instead the [real > timbering > no timbering](#) menu item, rather than using the Shove Timber functions to ***omit all***.

**adjustable  
timber length  
increments**



hide



### ***adjustable timber length increments***

The step size for timber length increments can now be changed (previously it was fixed at 6"), and the option of gradual length increases is also now available for all sleeper lengths (previously it was available only if the sleeper length was not 8'-6" or 9', e.g. for narrow-gauge, and for 00 and TT gauges). Click the [real > timbering > timber length increments >](#) menu options.

new items in the

**pop-up menu** for each background template



hide



new items in the **pop-up menu** for each background template

#### show in box

Shows the storage box and the selected background template, as stored in the box.

#### obtain to current >

These options permit the transfer of custom data directly from the selected **background template** to the current template. This is a faster alternative to the previous method of adopting such data into the custom lists and then selecting it from the lists as needed. This method also avoids disturbing the alignment or other features of the current template.

This function is also on the storage box **edit > obtain to current >** menu items, and in this case can also be applied to **unused** and **library** templates. Hide the box to see the **current template** on the drawing pad with the new settings.

#### modify and rebuild

This rebuilds the selected background template, but with its timbering settings and plain track spacings modified to match the current template. See the help notes on the storage box for more information about the **modify on rebuild** options.

#### create unused copy

Creates an **unused** copy in the storage box of the selected **background template**. Use this before doing **modify and rebuild** if you want the option of reverting to the previous settings.

revised keyboard shortcuts



hide



revised **keyboard shortcuts**

There are several changes to the keyboard shortcut keys, reflecting experience of the most frequently needed functions and the revised menu structure. Here is a summary of the changes:

**HOME** key = **hide current template** (toggle)

**SPACEBAR** = zoom pad to **fit current template** (also **SHIFT-F11**)

**FULL-STOP** key = **move spacing ring** mouse action (also **SHIFT+CTRL-F9**)

**F10** = **swell curving radius** mouse action

**SHIFT-F1** = **make diamond crossing**

**CTRL-F2** = **move pad origin** mouse action

**CTRL-F3** = **adjust blanking length** mouse action

**CTRL-F4** = **roll rails and sleepers** mouse action

**CTRL-F5** = **orbit** mouse action (previously called **swing**)

**CTRL-F9** = **roam along** mouse action (previously called **maintain length**)

**CTRL-B** = show **storage box**

**CTRL-C** = show **metric/scale calculator**

**CTRL-O** = **omit rails and joint marks** options (0.82.a)

**CTRL-E** = **make separate exit track** tool

**CTRL-F** = **make separate approach track** tool

**CTRL-G** = **make split at peg** tool

**CTRL-K** = **convert turnout to half-diamond**

**CTRL-T** = **convert half-diamond to turnout**

**CTRL-W** = **insert half-diamond in plain track**

**CTRL-END** = put **peg on rail joints** (repeating)

Click [shortcuts list](#) to see a full list of the keyboard shortcuts. (Also available in Templot by clicking the **help > show the shortcut keys list** menu item on the drawing pad window.)

## undo clear/reload



hide



### undo clear/reload

It is now possible to undo a **clear** or **reload** of the storage box and background drawing, so restoring the previous box contents and drawing, if any. Click the **control > undo clear/reload** menu item. If the box is not empty when you start, you can toggle back and forth between the previous contents and the present contents by clicking **undo clear/reload** repeatedly. This function is also available on the **files > undo clear/reload** menu item on the storage box. This function makes no changes to your own **.box** data files.

## library templates



hide



### library templates

Unused stored templates in the storage box can now be specified as **library templates**, which means that they are intended as a reference resource of pre-designed custom templates which can be copied as needed for use in your track planning.

Library templates cannot be copied directly to the background drawing, they must first be copied to the current template on the drawing pad. This protects them from being inadvertently deleted. Library templates appear in the storage box with details shown in **green** and can all be sorted to the end of the list at any time by clicking the **box > sort library templates** menu item on the storage box menus. This makes it easier to find the one which you want.

The **edit > make library template** menu item on the storage box menus converts an unused template to a library template. This function is available only for **unused** templates. If the required template is currently a background template, it must first be wiped from the background. (An alternative method is to copy it to the current template, and then click the **control > store as library template** menu item on the drawing pad. This avoids the need to wipe a template which is in use.)

Any **.box** data file can be added to the storage box as all library templates by clicking the **add library...** button on the storage box. This makes it easier to keep a file of custom templates which are to be used for several track designs. By loading them as **library templates** rather than simply **unused**, they are easier to find in the box, and are less likely to be inadvertently modified or deleted. I suggest that you create a sub-folder called **LIBRARY** in your **BOX-FILES** folder to contain such library **.box** files. Such files are no different from normal **.box** template data files, and can be reloaded in the usual way when you need to work on the designs.

Library templates cannot be members of a **group** of templates, they are always copied individually as needed.

For more information about using different types of template, click the **? help** button on the storage box.

## ring infringement warning lamp

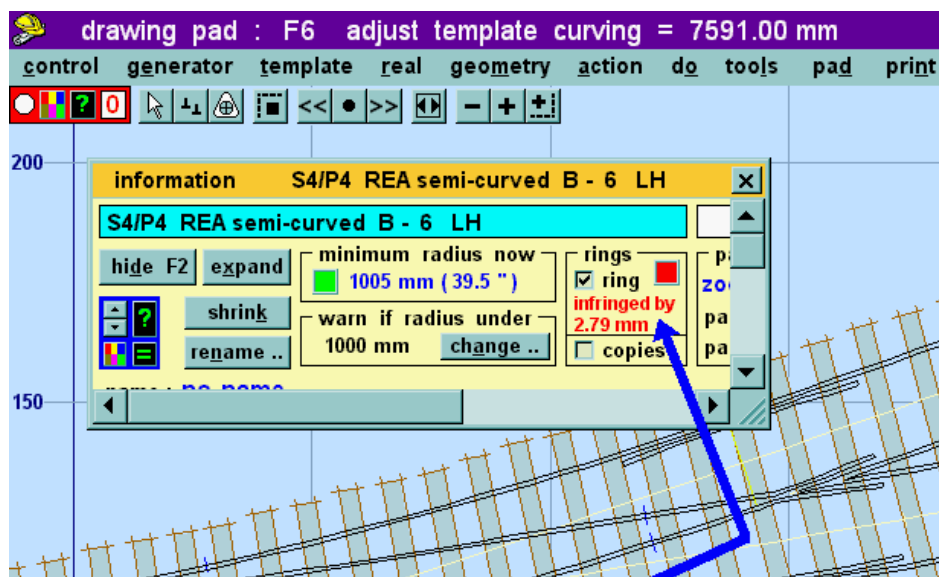


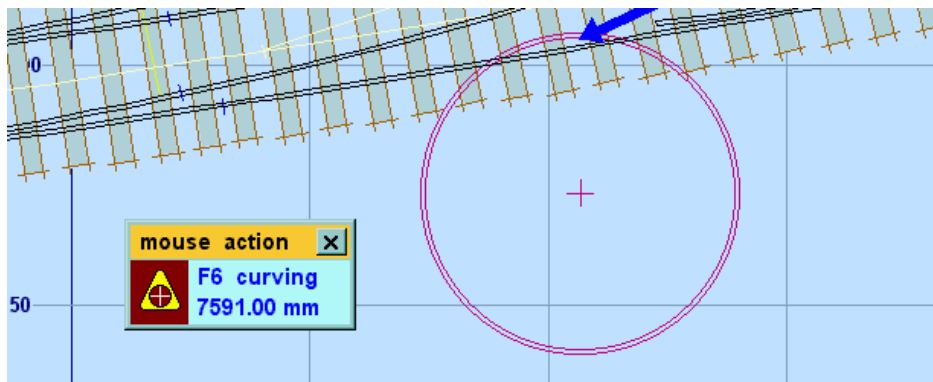
hide



### ring infringement warning lamp

There is a new warning lamp on the **information** panel:





[click image to

enlarge, click again to shrink]

If the **rings > ring** tickbox is ticked the ring warning lamp will flash if any part of the **current template** infringes (crosses into) the current size and position of the **spacing-ring** tool. This is useful when adjusting the current template to be clear of structures, obstructions, baseboard joints and edges, etc., and also when taking measurements by changing the size or position of the ring. If the **copies** tickbox is ticked any **ring copies** which have been created will also be checked for infringements.

The amount by which the current template is clear of the spacing-ring (shown in **blue**), or infringing the spacing-ring (shown in **red**), is shown below the warning lamp.

Normally the outer-edges of the rails are checked against the inner diameter of the ring, and in this case the warning lamp flashes red when the ring is infringed (arrowed in the diagram above), and shows a steady green when all the rails on the current template are clear of the ring. Only the rails are checked, the timbers are ignored.

In the case of a **centre-line only** template, the track centre-line is checked against the inner diameter of the ring, and in this case the warning lamp flashes white when the ring is infringed and shows a steady pale blue when the track centre-line is clear. If desired this mode can be selected for all templates by clicking the **pad > information panel options > ring infringements > warn if centre-lines infringe** menu item.

The figures showing apply only to the spacing-ring itself, not to any ring copies. It is possible for the warning lamp to be flashing (because of an infringed ring copy) while the figures show clear (because the spacing-ring itself is clear). For more information about using the spacing-ring tool, click the **tools > spacing-ring** menu item, and then click the **? help** button.

### spacing-ring size

adjustable by mouse action



#### spacing-ring size adjustable by mouse action

The diameter of the **spacing-ring tool** can now be adjusted by mouse action. Click the **action > mouse actions:pad > adjust spacing-ring size** menu item. This is convenient when using the ring as a measuring device, and in conjunction with the ring infringement warning lamp (see above). For more information about using the spacing-ring tool, click the **tools > spacing-ring** menu item, and then click the **? help** button.

### normalize transition



#### normalize transition

In making adjustments to achieve the desired alignment of a transition curve, it sometimes happens that the transition zone markers move out beyond the actual extent of the template at one or both ends. If this is the case, it avoids confusion to re-calculate the transition zone and radii to match the ends of the template. This can be done by clicking the **geometry > transition curve > normalize transition** menu item. The alignment of the template is not affected.

Note, however, that subsequent adjustments to the overall length (**F3/F4** mouse actions) may produce a different result from that which would have been obtained if the transition had not been normalized.

If the transition zone is entirely beyond the template extents, normalizing the transition will convert the **transition** template to a **constant-radius** template, and the transition-related functions will no longer be available for it.

When the **make split** tools are used on a transition curve template, there is an option to normalize the resulting split templates automatically. Click the **tools > make tools: options > normalize split transitions** menu option.

## peg on transition origin



hide



### peg on transition origin

A new peg position is now available at the **transition origin**. Click the **geometry > peg positions > peg on transition origin** menu item. This is useful only when it is desired to split an **S-curve** transition at its inflection-point, using the **tools > make split > make split at peg** menu item. A common reason to do this is that there are double-track spacing problems which can be overcome by slewing each part of the transition curve separately. See also **normalize transition** above when splitting transition curve templates.

The **transition origin** corresponds to the position where the track is straight, not to the start of the transition zone (although these positions may coincide):

For an **S-curve** transition the origin is at the **inflection-point**, where the curving changes direction. (This position is within the transition zone, but not necessarily at its mid-point lengthwise.)

For an **easement from straight** the origin is at the **start** of the transition zone.

For an **easement to straight** the origin is at the **end** of the transition zone.

Both of these peg positions have an existing menu item, so using **peg on transition origin** for an easement is not necessary.

For a **C-curve** transition, the transition origin will be outside the transition zone and may not be within the template extents. In this case putting the peg on the transition origin will serve little purpose, and may be confusing.

## ruler tool



hide



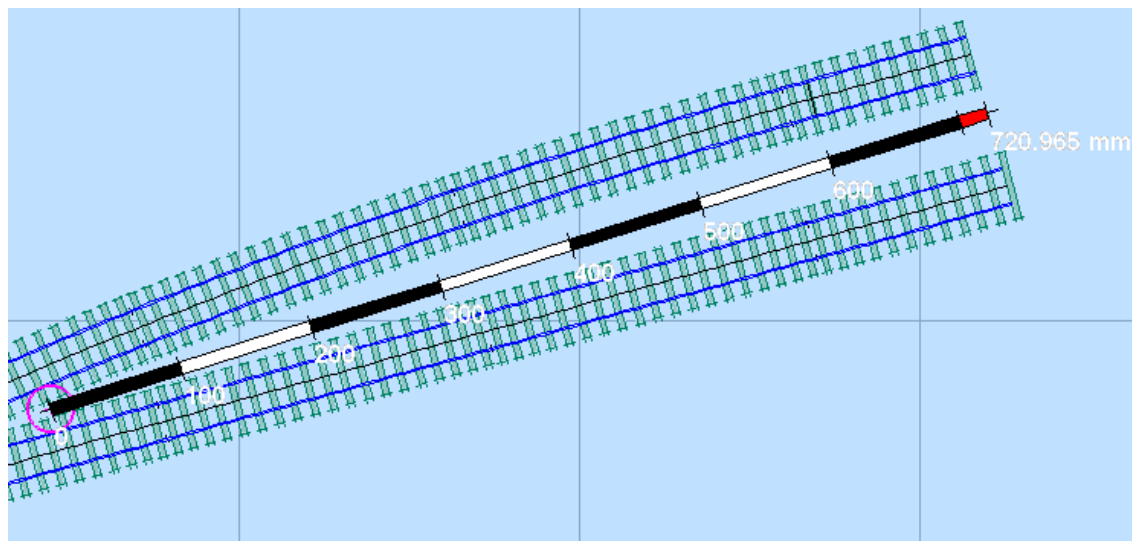
### ruler tool

There is a new **ruler** tool which can be used to take measurements from your drawing. This is an alternative to using the spacing-ring tool for this purpose. To see the ruler click the **tools > ruler > show ruler** menu item and possibly also the **tools > ruler > zoom pad to fit** menu item.

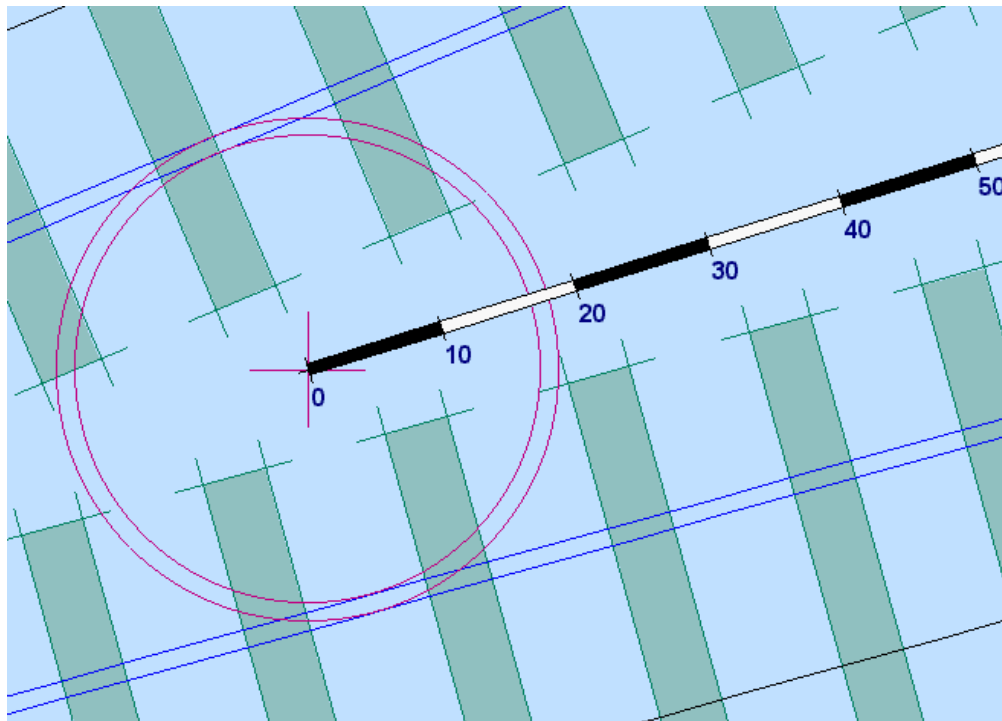
The ruler can be set to any length or position by moving each end independently. Each end can be separately zoomed-in on for precision positioning, and adjusting one end does not affect the position of the other end.

The ends of the ruler can be positioned by holding down the **ALT** key and clicking the mouse. A **left**-button click sets the 1st (zero) end of the ruler at the mouse pointer position, a **right**-button click sets the 2nd (dimensioned) end of the ruler. For greater precision the mouse pointer can be changed to cross-hairs by clicking the **pad > mouse options > cross-hairs pointer** menu item. The ends of the ruler can also be moved by mouse action, click the **action > mouse actions: pad > move ruler tool end** menu items.

The **ALT** click functions will work while a mouse action is in force (including moving the ends by mouse action), but are available only while the ruler is actually showing. Be aware that **ALT-LEFT** click also zeroes the "**moved by**" read-out figures on the Jotter. If you want to do this without moving the ruler, temporarily hide the ruler (**tools > ruler > hide ruler** menu item).



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[click image

to enlarge, click again to shrink]

Other ruler functions available are [tools > ruler > 1st end on spacing-ring](#), [1st end on notch](#), and [swap ends](#), which extend the usefulness of the ruler. For example in the diagrams above, the ruler is being used to measure the clear length of a siding, the 6ft way clearing point having been first established by use of the *spacing-ring* tool. Then [1st end on spacing-ring](#) was used to commence measuring from that position.

Or to measure the distance from the toe of the turnout (blade tips) to the clearing point, you could do [CTRL-2 peg on toe](#) (for the current template), then [put notch under peg](#), then [1st end of ruler on notch](#), then [swap ruler ends](#), then [1st end of ruler on spacing-ring](#).

The ruler uses the same colours as the *scalebar*. To change them, click the [pad > drawing pad colours > scalebar and ruler colours >](#) menu options. The ruler *division markings* use the same font and text colour as the *grid labels*. To change it, click the [pad > pad grid options > font for grid labels...](#) menu item. To change the spacing of the divisions, click the [tools > ruler > divisions...](#) menu item.

Click the [tools > ruler > set ends at...](#) menu item and then click the [? help F2](#) flag for more information about using the ruler.

*Thanks to Donald Peters and others for suggesting a visual ruler device.*

### grid in prototype feet



#### grid in prototype feet

The grid units can now be set in *prototype feet* at your current model scale. Click the [pad > pad grid options > grid spacings...](#) menu item. This is useful when working with scanned prototype track plans. This option is also available in version **0.74.b** (but not 0.74.a or earlier).

*Thanks to Gordon Ashton for this suggestion.*

### jotter read-out units can match the grid



#### jotter read-out units can match the grid

The units used for the X-Y read-outs on the *Jotter* window can now be set to match the grid units. **Right-click** on the Jotter window and then click the [read-out units >](#) menu options. (To see the Jotter, click the [tools > jotter • X-Y readout](#) menu item or press [CTRL-J](#).)

### transparent bitmaps



***transparent bitmaps***

Background picture shapes can now display the bitmap image transparently. This is very useful in aligning overlapping scanned map sections. Select the picture shape in the **background shapes** list and then tick the **modify shape > picture content: > transparent** option box.

***notch arms******notch arms***

The **pegging notch** now has arms similar to those on the **fixing peg**, as a means of showing the current notch angle. This is useful when aligning **background picture shapes** (see below).

***picture shape images can be twisted around the notch******picture shape images can be twisted around the notch***

Background picture shapes can now be twisted around the current position of the pegging notch, and the current notch angle can be used as the fixed marker. This makes it easier to scan an existing printed template or piece of actual model track, and align the bitmap image into the track plan.

For more information about twisting and aligning picture shapes, select a picture shape in the **background shapes** list, click the **modify shape > picture content: > twist...** button, and then choose **important information** in the dialog.

***graphics parameter limits can be changed for Windows NT/2000/XP******graphics parameter limits can be changed for Windows NT/2000/XP***

If you are using Windows NT/2000/XP the graphics limits settings can be changed (revised for 0.78.b).

This can be helpful when working with large background shapes and scanned bitmap images in picture shapes. For more information, click the **program > expert > graphics limits > ? graphics limits - help** menu option on the Control Room. These settings are not available for Windows 95/98/ME (this is a Windows restriction, not Templot).

▶ Take care with extreme zooming-in on picture shape images (see the help notes for the **program > max explode (zoom-in)...** menu item). At very large magnifications of bitmap images it is possible to crash the hardware acceleration on some models of graphics card.

***printed trim margins now adjustable******printed trim margins now adjustable***

The width of the **trim margins** on printed templates and the finished **trimmed page size** can now be adjusted. This makes it possible to mix and match pages from different printers, print-runs or paper sizes; leave a file binding margin for record templates; and avoid printing ink through sprocket holes on continuous paper.

It is also now possible to choose a **tiled** option instead of **staggered** for adjacent rows of pages, and to show the total available printable area as a guide outline around page **a1** when making adjustments.

There is more to these changes than meets the eye - for more information click the **print > trim margins > ? trim margins - help** menu item.

***print group only******print group only***

It is now possible to print only a selected **group** of background templates instead of the entire pad, by clicking the **print > print group only** menu item. This is convenient when you want to print only a few pages from a large plan - it is quicker to select a group of templates first than to click through the entire pad of pages on the **print pages** window. This function is not available if there is no group of templates

selected. All the options for **print entire pad** apply similarly to **print group only**.

### marker and mapping colours

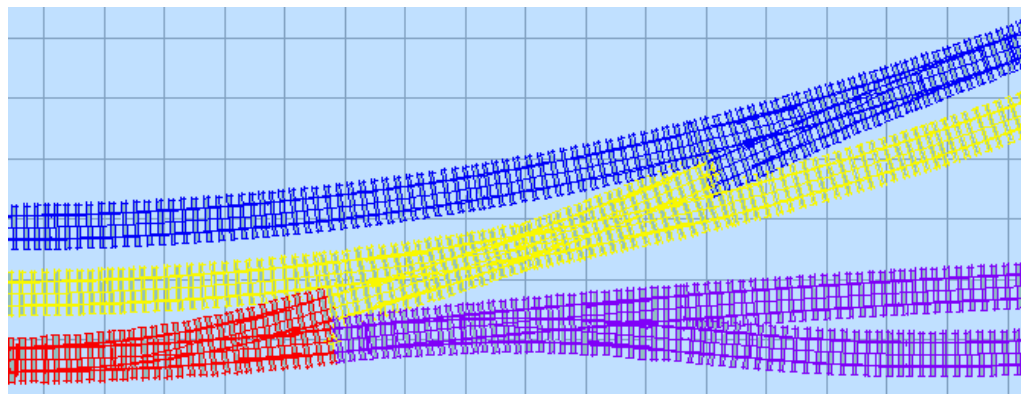


hide



#### marker and mapping colours

Individual background templates, or groups of templates, can now appear in a distinctive **marker colour** (on the screen) and/or **mapping colour** (when printed). This is useful to distinguish between different areas in the track plan or between **remembered groups** of templates, and also when creating control panels or signal box diagrams. You can choose whether the colour should apply to the rails, or timbers, or both.



[click

image to enlarge, click again to shrink]

To set these colours for a single **background template**, click on it and then select the **template colours >** menu items on its pop-up menu. For a **group** of background templates, click the **control > group select > template colours for group >** menu items.

By default these colour settings are switched off. For more information about using them click the **pad > pad background templates colours > ? marker and mapping colours - help** menu item.

► These colour settings are saved as part of the template specification in your **.box** data files. If you send or upload such a file for other Templot users, add a note that their drawing pad **paper colour** may need changing in order to see the templates properly.

*Thanks to Brian Lewis for suggesting greater use of colour.*

### zoom to fit group



hide



#### zoom to fit group

The **control > pad view fit group** menu item (and also the **tools > group tools > pad view fit group** menu item) cause the pad view to zoom to just fit the currently selected **group** of background templates.

### right-click options in help window



hide



#### right-click options in help window

You can now right-click on the help notes to see a menu of options for copying, saving and printing the notes.

### CTRL-F5 mouse action renamed orbit (was swing)



hide



#### CTRL-F5 mouse action renamed orbit (was swing)

The former **swing** mouse action, which rotates a template about its radial centre (curving line centre), has been renamed **orbit**. This is to avoid confusion with the other meaning of the term **swing** (i.e. the total angular deflection between the two ends of a template). This is a change in terminology only, there is no change in function.

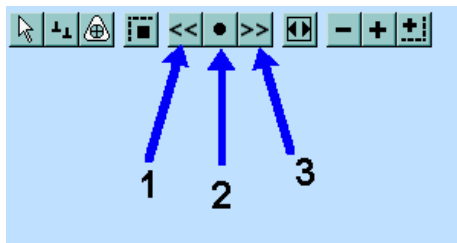
**CTRL-F9**

mouse action  
renamed  
**roam along**  
(was *maintain length*)

**CTRL-F9** mouse action renamed **roam along** (was *maintain length*)

The former *maintain length* mouse action, which slides a turnout between fixed template ends, has been renamed **roam along**, which better describes the resulting effect. This is a change in terminology only, there is no change in function.

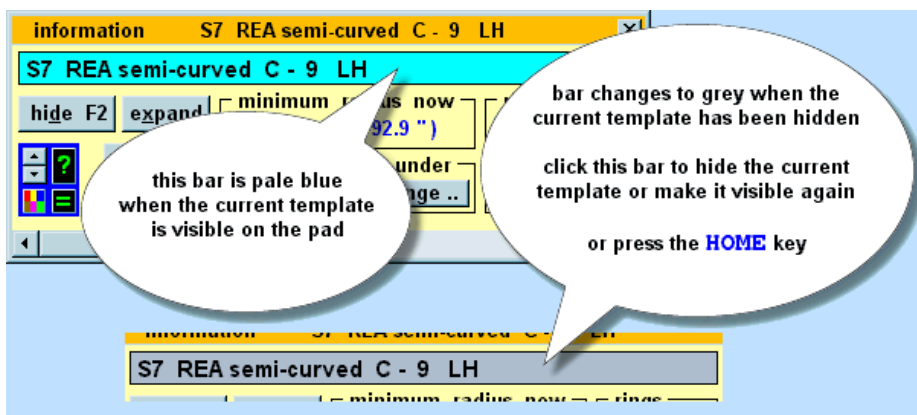
**undo changes** and  
**re-do changes**  
available on  
repeating  
tool-buttons

**undo changes** and **re-do changes** available on repeating tool-buttons

[click image to enlarge, click again to shrink]

The **undo changes** (**CTRL-U**) and **re-do changes** (**CTRL-D**) functions are now also available on tool-buttons (arrowed 1 and 3 in this diagram). These buttons repeat if held down, so that you can quickly cycle through recent changes to the current template. The middle button (arrowed 2) then zooms the pad to fit.

**hide current template** now  
available on  
the  
information  
panel (0.78.d)

**hide current template** now available on the information panel (0.78.d)

enlarge, click again to shrink]

[click image to

In the **information** panel, the top-left bar (showing normally in pale blue) displays the current **gauge/scale** and **size** details for the **current template**. Clicking this bar will **hide** the current template, in a similar way to pressing the **HOME** key. While the current template is hidden, this bar shows in pale grey. Clicking it again will show the current template again on the drawing pad.

**background list** *abolished*

**background list** *abolished*

The former **background list** window has been abolished, and its functions merged into the storage box. The screen display options which were included on this window are now in a more logical place, **pad > pad background templates detail...** menu item. The **CTRL-B** shortcut which was used to show this window is now used for the storage box.

**redraw lock**  
*abolished*



***redraw lock*** *abolished*

The former ***redraw lock*** option has been abolished. This was intended for use when making multiple prints of a current template containing randomized timbering. This was unnecessary, because a similar result is more easily achieved by repeat printing of a background template. Withdrawing this little-used option has permitted an improvement in screen re-draw speed, and eliminated a large chunk of program code.

***all rails  
above any  
timbers******all rails above any timbers***

When superimposed background templates are shown on the screen, they are now interleaved so that all the rails are shown above the timbers. (This was already the case when templates are printed.) This makes it easier to align rails manually, and avoids the need to make frequent changes to the order of templates in the storage box list. Occasionally this interleaving may be confusing - be aware that ***background templates*** always remain as ***discrete*** items in the storage box.

▶ The ***current template***, including its timbers, is always shown in the foreground above any background templates. To hide it temporarily, press the **HOME** key.

SHOW ALL INFO

HIDE ALL INFO

Click [page 2](#) for a list of subsequent changes in Templot Pug versions 0.79.a , 0.82.a , 0.82.b , 0.82.c , 0.82.d (all subsequent changes up to and including Pug version **0.82.d** of November 2006). Click [bug fixes](#) for a list of corrected program bugs.

Click [get the Pug](#) for download information.

Martin.

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