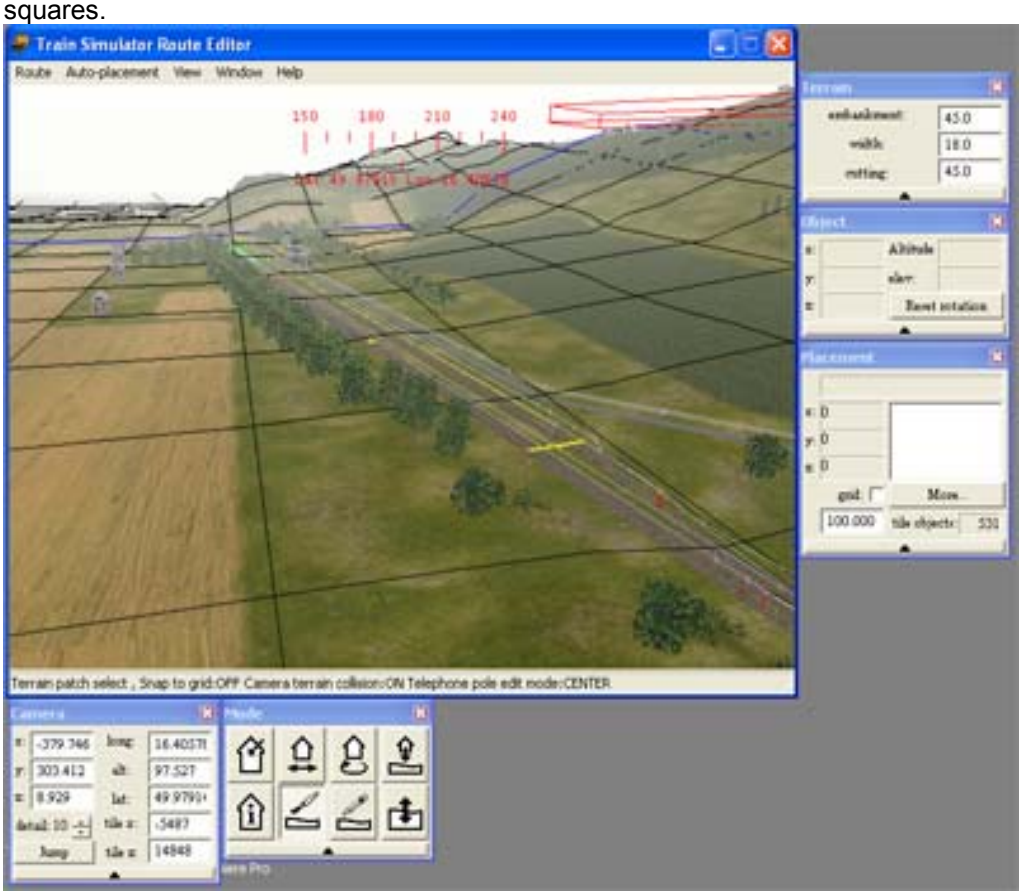
TERRTEX SET **tutorial**

Part A. GENERAL RULES FOR THE WORK WITH TERRAIN TEXTURES

A1. We open the route editor and activate the command for the work with terrain textures.



A2. There will appear black grid, which defines the squares, where you can put the terrain textures. At the background we can see the blue line defining the **"world tile"** consisting of 16 x 16 textured squares.

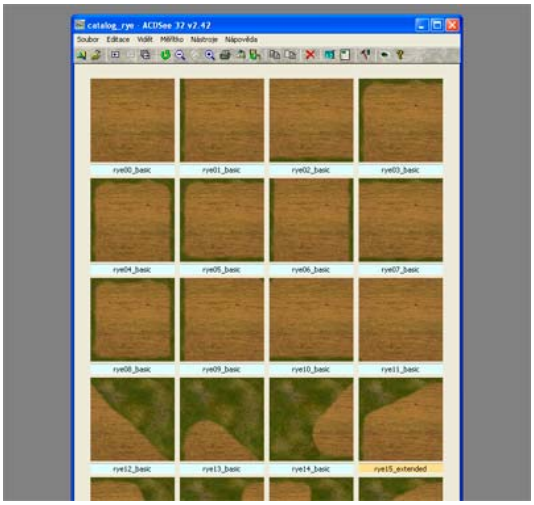


A3. We move to the place, where we want to continue or start to work. We use the arrows on the keypad in combination with shift key (speeding up the movement). If we press ctrl+ arrow up or down, we can change zooming into vertical movement. At the following picture, we can see the place where we start to texture. For the quick changes of the position or rotation we use the click on the right mouse button.



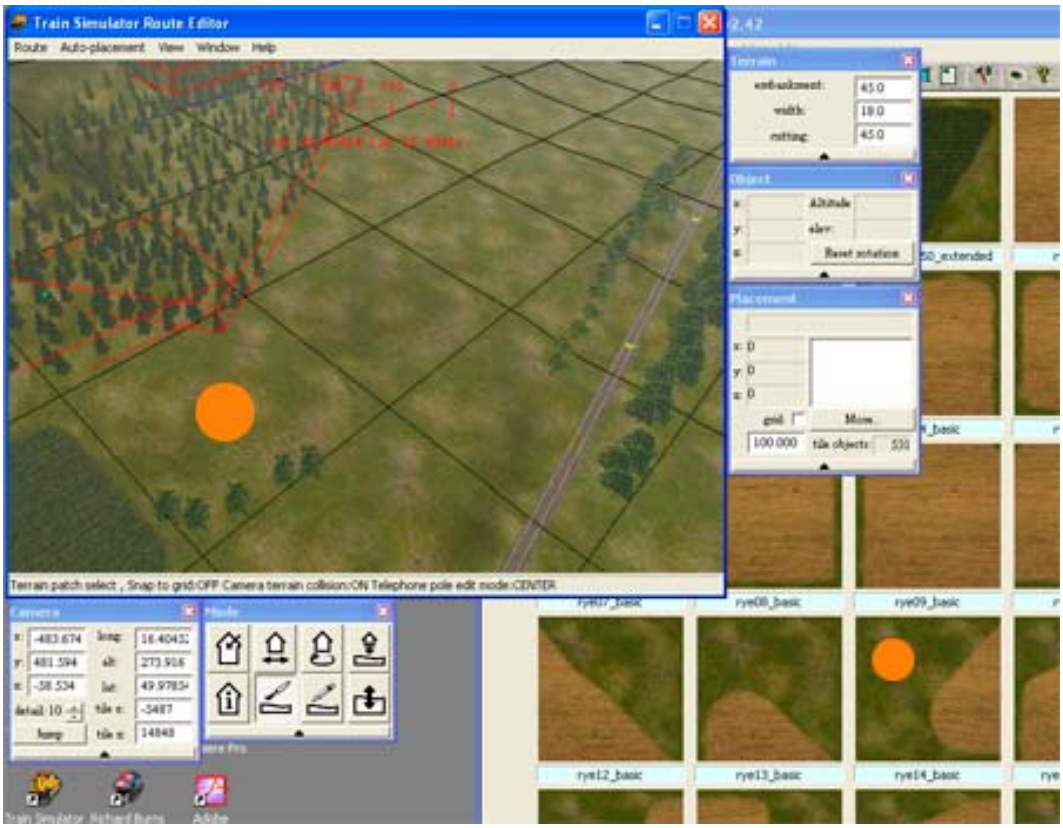
The area where we place the textures is marked with orange points.

Now we have to choose some textures. We use the **textures catalogues** (attached to the textures sets) and choose the set, which we want to use in this position. We choose the texture set "**rye**". If we do not have the textures from this set copied in the directory "terrtex" of this route, we have to do it (including the winter – "snow" textures). What textures shall we copy, when there are so many of them in each set? Each textures set consists of 15 basic textures, so called **"basic set"** and 36 additional textures so called **"extended set"**. The textures in the **"basic set"** are chosen to cover basic need of the textures for completing the shapes of fields and forest areas. Unless we put high demands on the perfect result, we can cower with them 95 % of the country area. If we find a place, where we want more precisely react with the texture on the model of the country or we are generally more demanding, we will try to find another suitable texture in the **"extended set"**.
To the directory terrtex we copy **all** the textures from the chosen **"basic set"** but from the **"extended set"** we only copy during the work those textures that we **need**. This course is very important from several reasons, that I will describe in following part. When choosing the textures or during the work we will always follow the already mentioned textures catalogue – we have two possibilities: **"set catalogue"** (it shows the textures in real form) or better **"catalogue common"** (universal – shows the structure of the squares without any specific texture). For viewing of the catalogue, we can use any viewer of bitmaps pictures (recommend ACDSee 3.1. or lower, because it is simple and well-defined). It is suitable to have it open at the background and when needed orientate in it, otherwise some muddle can occure. The other possibility is to print the catalogue (available in pdf format) and have it by the hand for faster orientation. On the picture, you can see cutout of the **"set catalogue"**, that shows the chosen texture set **"rye"**.

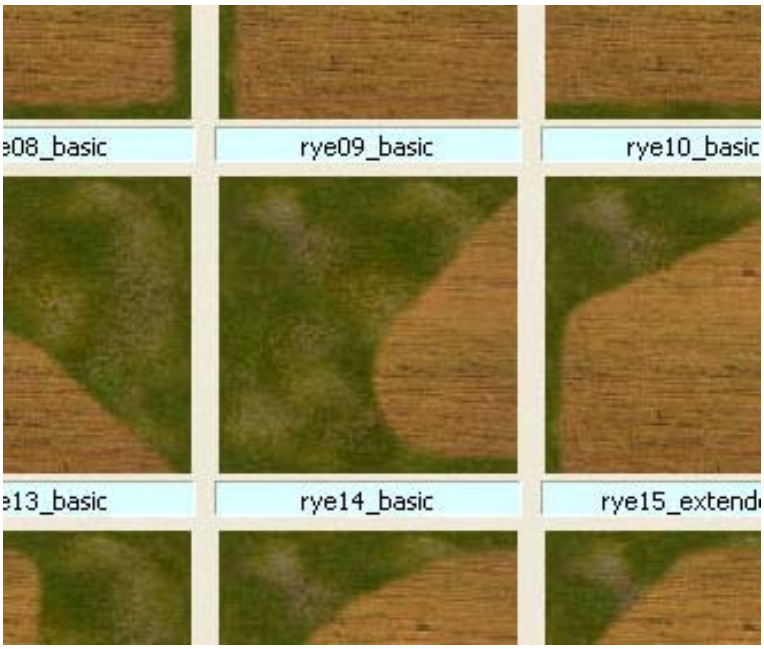


In some cases is the use of **"set catalogue"** (real form of the textures) not suitable – colour and structure of some surfaces are very similar to surrounding coppices and in the down restored form of the catalogue it gets lost – the catalogue is better for general orientation in the whole amount of textures. For the work with it, it is better to use the universal **"common catalogue"** of square structures without any particular texture and use the textures **"helpers"**, that will be mentioned later.

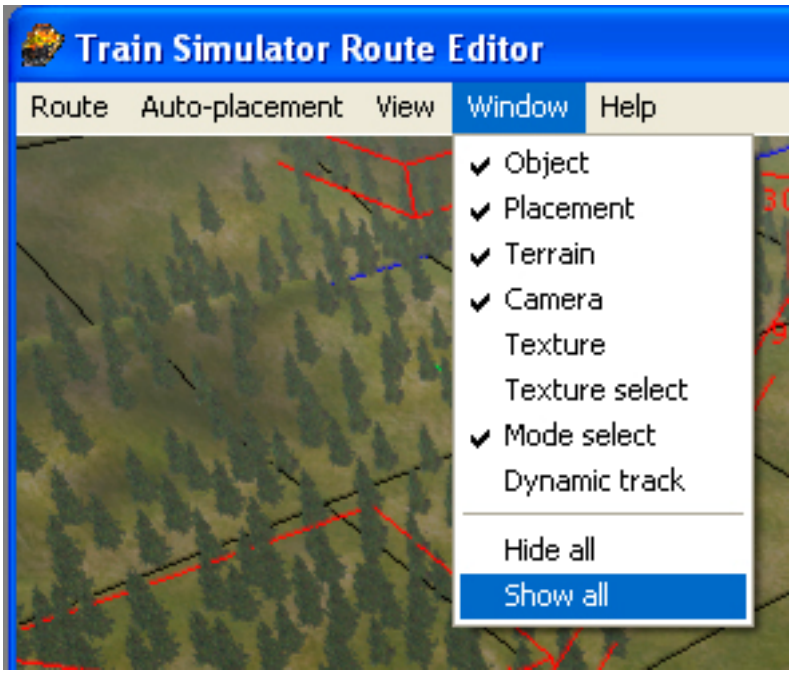
A4. We select from chosen catalogue (**"set catalogue"**) suitable texture for the selected square, it is marked with orange point, the square as well (catalogue is open together with the route editor):



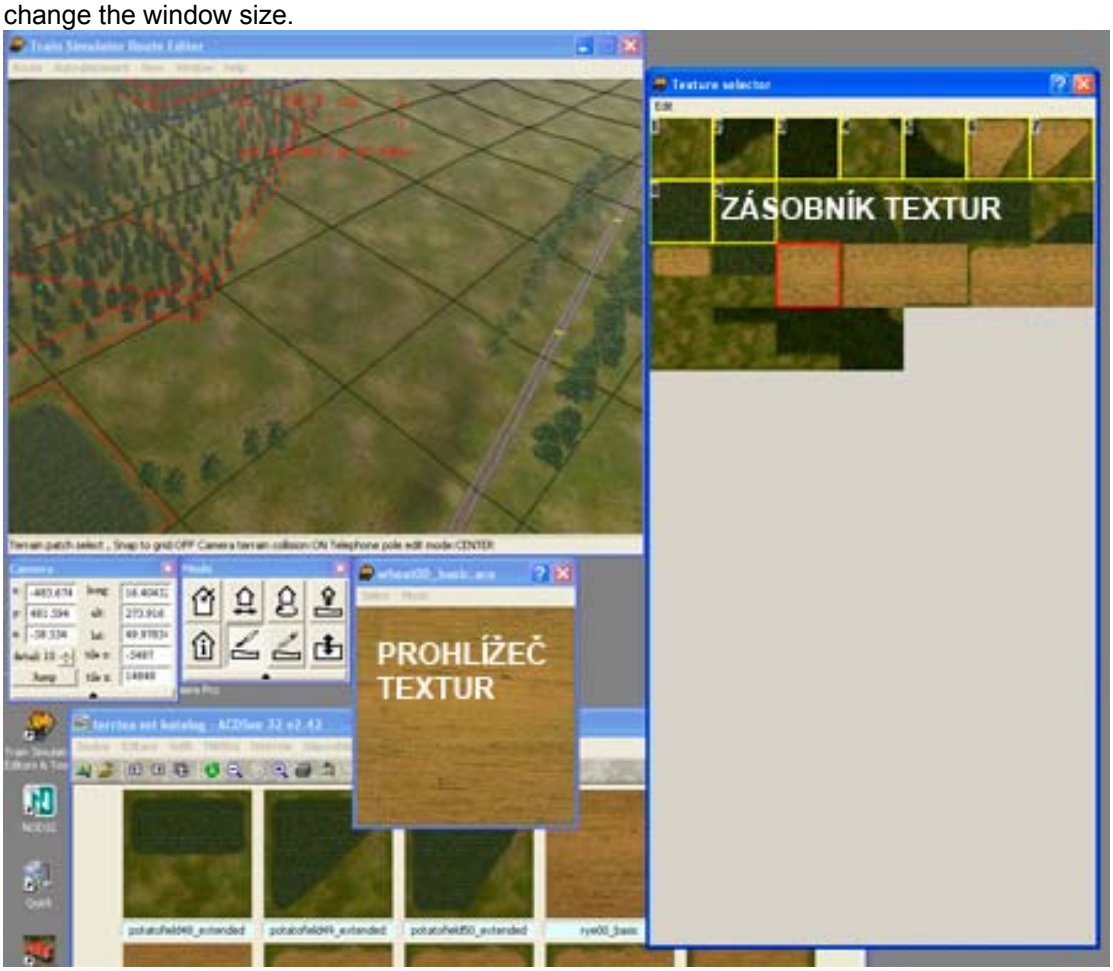
It is texture **"rye14_basic"**, now already downloaded in the "terrtex" directory of our route.



A5. So we know now, how to start. Now it is necessary to put the texture into the square in the country. We leave the catalogue and go back to the route editor and activate the item “show all”



There appear again the texture selector and editor of the chosen texture. It is possible to change the size of both windows. Be aware, that by the texture selector – there do not appear the arrows when moving with the mouse on the window frame, but after pressing the button it is anyway possible to change the window size.



We arrange the working place as we like it. Have a look, there is still open the textures catalogue at the background.

A6. In the "**textures selector**" of the route are presented all the textures used in the already mentioned blue square – **"world tile"**. We can see that in this case, there were used quite many textures. But the requested **"rye14-basic"** texture is missing. In the case, that we do not have this structure copied in the terrtex directory, we can download it overthere. Press insert….

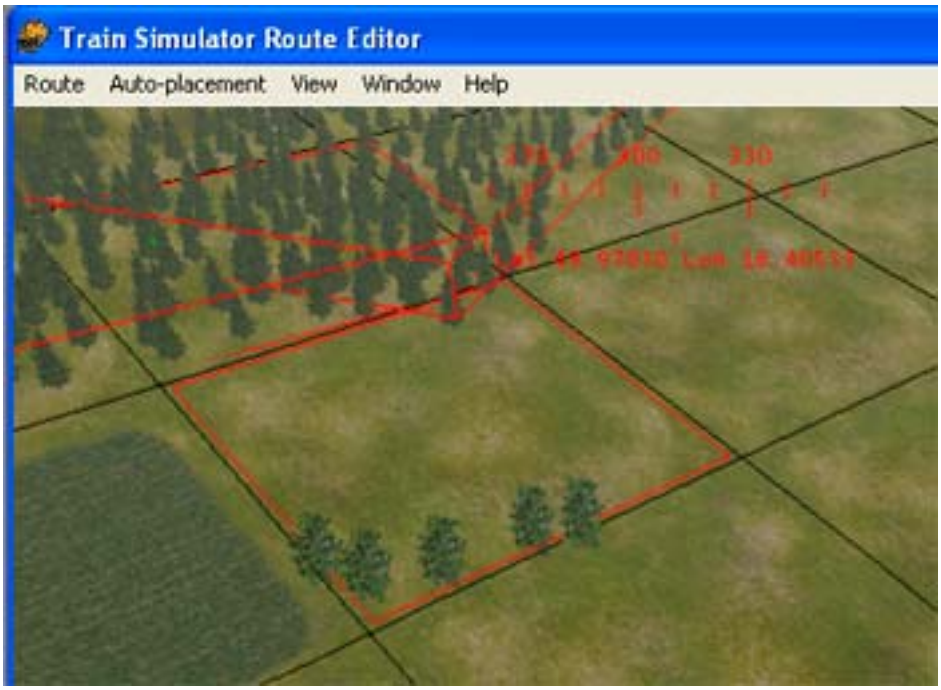


Among the files we find mentioned texture "**rye14-basic"**. Press the icon open. Texture appears in the selector as the last one – see orange sign:



If we press on our new texture with the mouse, it will be marked with the red frame and appears in the "**texture viewer**" of the route editor including the name. Tip: also if we press on any other texture already placed in the country, the editor will find it in the selector, marks with red frame and displays it in the texture editor.

A7. Now we can place the texture in the selected square in the country. We leave the selector and now in the main window of the editor press with the left mouse button on the square, where we would like to place the texture (of course we have all the time activated the command for the work with terrain textures – otherwise we will not see any squares in the country.
Selected square will be marked with red frame.



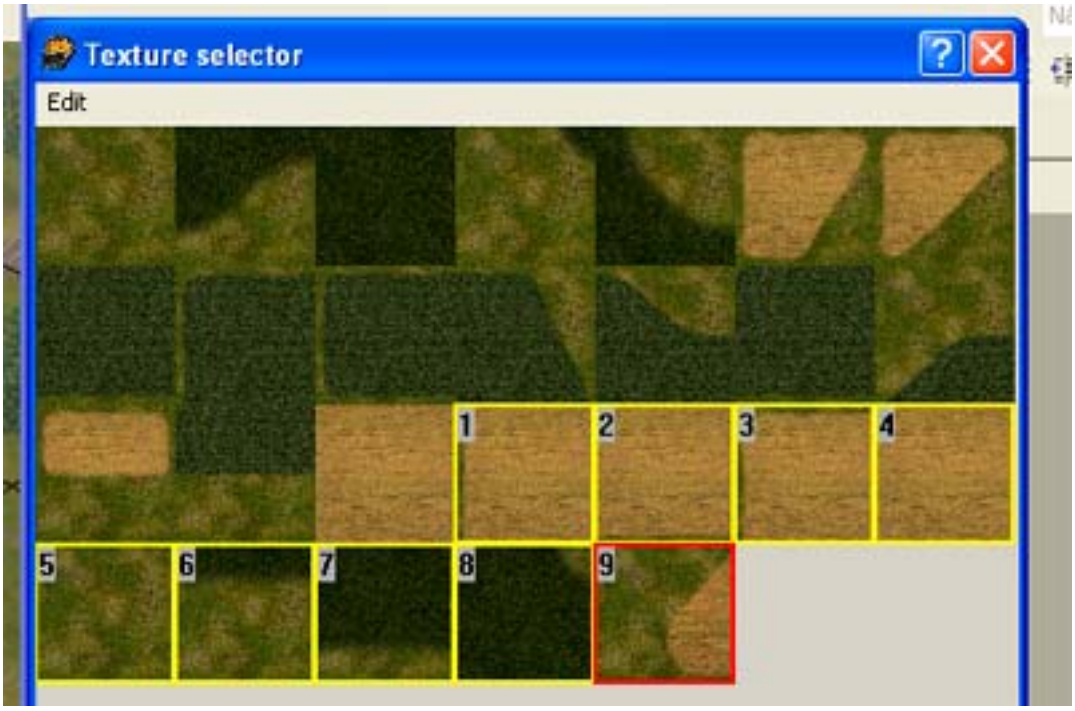
A8. Now we activate again the **"texture selector"** – press on the upper toolbar of the window. We press on our new structure and in the texture editor we make sure, that this is the right one.



We can see, that nine textures in the **"selector"** have yellow frame and are numbered 1 – 9. The numbers correspond with the numerical keys on the alphabet keypad (below F1, F2, etc…., not the ones from the numerical keypad).

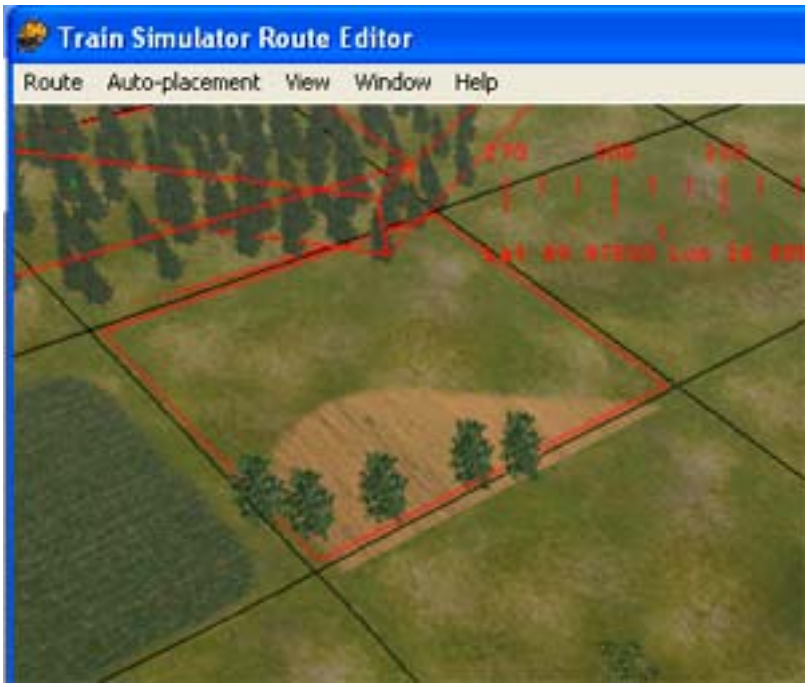
If we press for example the key 5, the texture that is in yellow frame with no. 5 will be placed into the chosen (red framed) square in the country (during this operation you have to have again active main

window of the route editor). We need to get our texture into yellow frame, to be finally able to use it. Press the key **Q** (active selector window), this way we move the group of yellow frames by one field. We repeat it so long, until we have our texture in one of the yellow frames. Does not matter in which one.

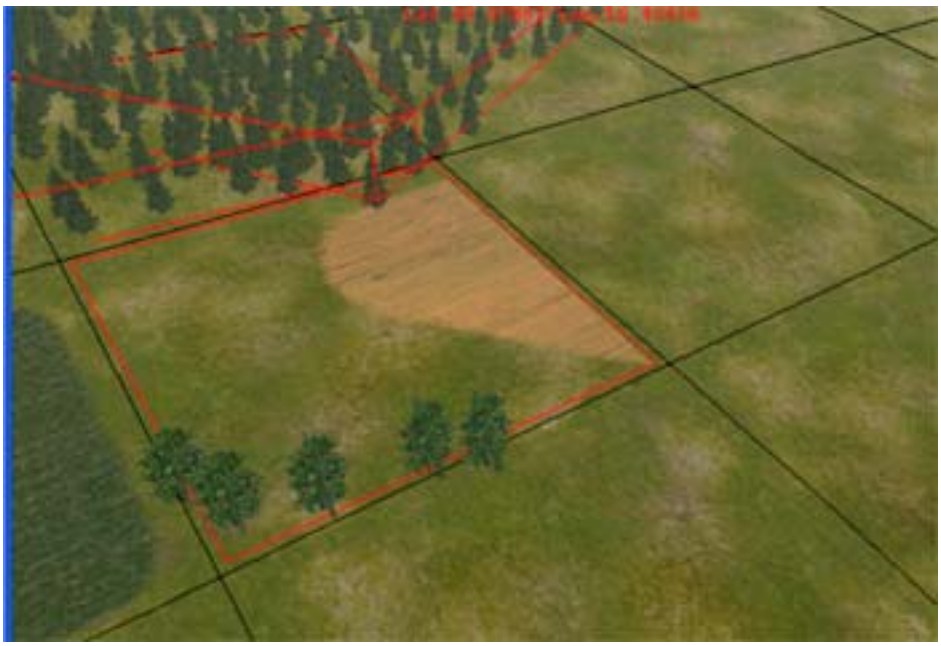


The texture is at the last position in the selector, it means in the yellow frame with no. 9 (after pressing Q again, the set of yellow frames will skip to the beginning) and at the same time it is also red framed, because we have displayed it in the editor (this is not a prerequisite when placing it into the country – the texture editor has only informative character).

A9. We activate the main window of the editor (either press on the requested square in the country or on the upper toolbar of the main window). We press the key **9** and the texture will appear in the marked square in the country.



A10. Now it is necessary to rotate the texture into the right position. Press with the right mouse button on the square with the newly placed texture in the main editor window. From the menu we use the commands **mirror (horizontal, vertical, forward, diagonal, backward diagonal) and rotate 90, 180, 270 grades**. We combine them so long, until we get the requested result – see next picture. It is necessary to try it, until some time of work it is just routine ….. The result should be the position visible on the next picture:



So this is the way how to handle the whole procedure from choosing the suitable texture until placing it in the country.

Part B. SPECIFIC RULES FOR THE WORK WITH THE TERRAIN TEXTURES FROM THE *"TERRTEX SET"*

B1. Now we will continue in completing of the whole field. We will look again into the catalogue and will choose another necessary textures.

Now it is important to explain more detailed the purpose of the **"basic set"** and **"extended set"** At the beginning we there were mentioned so called blue squares – **"world tiles"**. They consist of 16 x 16 = 256 black squares filled with textures.

In these 256 squares in **one** **"world tile"** it is possible to use maximum **64** different textures (represented by separate *.ace file on the disc). In another blue **"world tile"** we can use other textures but again only 64 pcs. When we will move in the route editor, when skipping from one blue square into another, there will change the textures in the **"texture selector"**, of course only under the condition, that the next **"world tile"** consist at least some different textures than the previous one.

What does it mean?

1. On the whole route, we can use unlimited amount of terrain textures. Limited is only the amount of textures in **one** blue **"world tile"** and it is **64**.
2. When we try to put into the texture selector **65th** texture, the one with no.1 will be replaced but not only in the selector, if it is already placed in the country it will be replaced also on all positions in the corresponding **"world tile"**, without the possibility to return!

If you really want to have varied country and spend a lot of time working with many terrain textures, that will not be sorted, there might be the chaos. If it happens, that in the particular world tile you will get close to allowed 64 texture, it can happen easily, that you forget and enter the 65th and lot of work is lost once and for all. Not mentioning the load on your computer , when you will fill this way one square after other and also the total lost of orientation in the overloaded "terrtex" directory of this route.

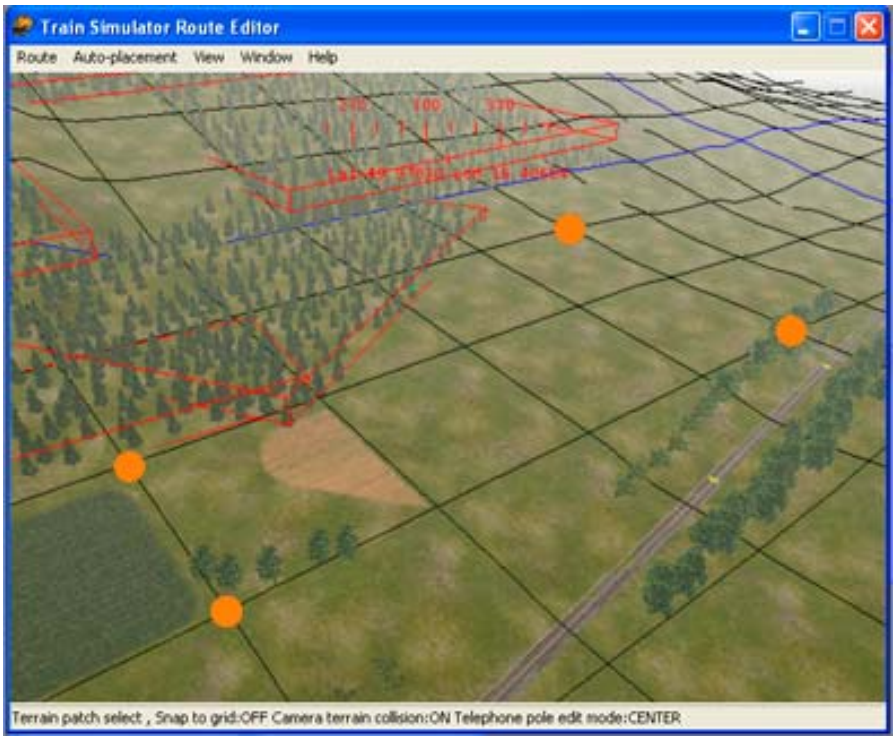
„Basic set"

Because of above mentioned reasons, there is the **"basic set"**. It contains 15 basic textures of each structure (crop), which you can use to create the most basic shapes of the surface. **"Basic set"** presents the basic unit of textures, that you can copy as a **whole** into the **"terrtex"** directory, without loosing the orientation or overfilling the "terrtex". By average demands on the country exterior is this set fully sufficient. It is also possible to take away from it some textures. It is the basic unit for the orientation.

„Extended set"

If your demands are higher, or if there is the situation in the editor, when it is necessary to react differently than the **"basic set"** allows – the typical situation is, when the field texture interferes in the rails – common problem, we will try to find the suitable texture in the **"extended set"**. **We will not copy** the content of this set into the terrtex directory **as a whole**, but only the chosen textures in the moment when we need them and after thorough consideration.

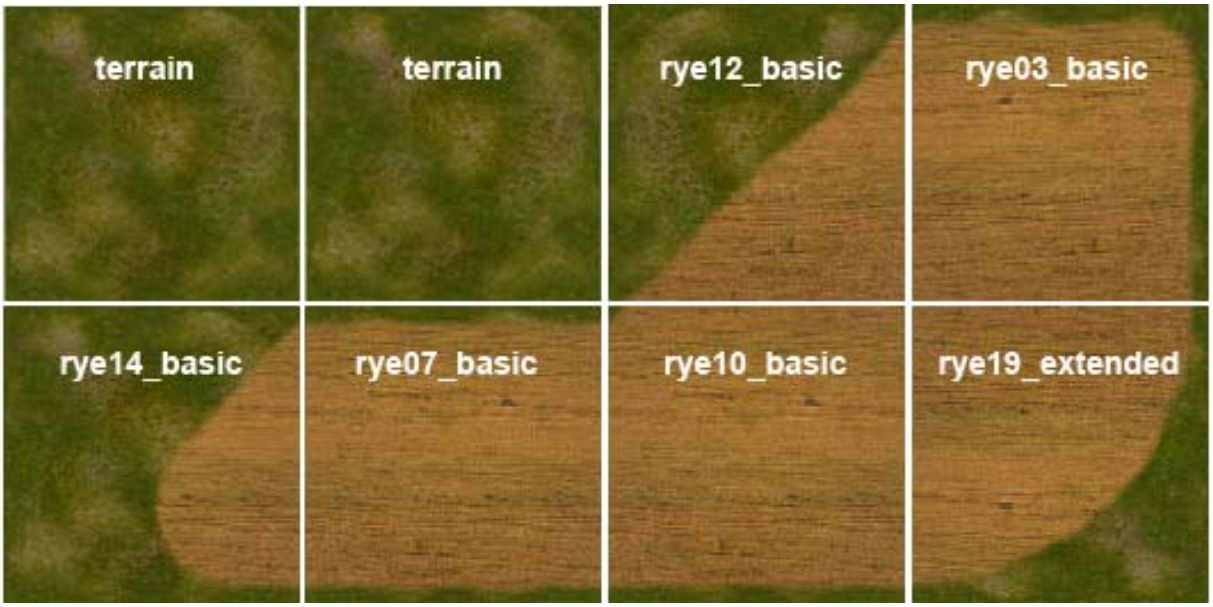
B2. Lets go further. Remind us our intention – finish the field marked by orange dots.



We chose in the "**set catalogue"** step by step all the textures, which are suitable for our intention. We proceed square by square according to the manual in the Part A, we rotate and mirror the textures the way, that they are tied correctly. We use maximally the "**basic set"**, which is immediately to our disposal and if necessary we copy into the **"terrtex"** directory chosen texture from the **"extended set"** and load it into the **"selector"** according to the above mentioned manual.
We create the imagination of the country surface step by step during the work and according to it we also step by step chose the textures.

This is of course the procedure in the moment, when we already have some practice and we remember the textures at least a little bit.

B3. At the beginning we present and describe a little bit our set. Now it is also the time to explain the principle of the textures sets and their interlocking. At the following picture, we can see the set, as it should look like:



It is necessary to go through square by square in this set and try to place them. After placing them in the editor, they will be rotated in different directions and will not interlock. Find out, which squares should be rotated and which must be mirrored to reach the appearance that is on the picture. It is necessary to keep the direction of the texture (lines) of shown crops. It requires little bit of imagination. The principle can be generalized on the following pictures.



rye04_basic



rye05_basic

These two pictures can be just rotated in the editor. They are basically 2 exemplars of the same. The difference is just in the structure and direction (lines) of the crops texture.



rye03_basic

This is the sample of the structure, that can be if necessary also mirrored, to have the textures interlocked. These are diagonally symmetrical squares.



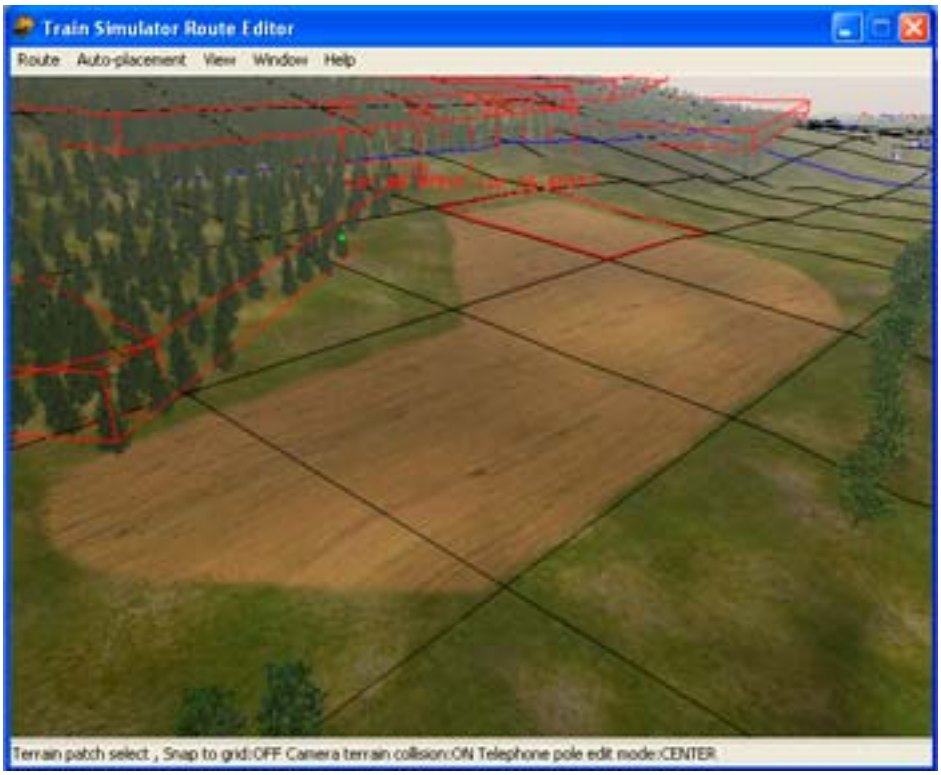
terrain

This is the basic country texture. Under the condition, that you want to use the textures from **"terrtex set"**, **replace** the default terrain textures in the directory of your route by this texture.

There are 3 different basic terrain textures at your disposal. They have different structures of color shades and intensity of the difference between the green and dry grass. Of course they interlock. It is up to you, which of them you chose as a basic and when entering as a default you de facto spread it out on the country. Then you can use the remaining 2 to break the mosaic created by repeating of one texture. This "mosaic making" is unfortunately the toll for the variety and convincingness of the country in detail. The mosaic is visible especially in the editor, where it does not matter and in the long-distance views in the simulator. This phenomenon can be also eliminated by the suitable conception of the country, housings and forests including their base textures.

The basic principle of combining the textures is clear. Narrow grass border enables to create narrow balks among the different surfaces. "Extended set" contains the textures also with the broad grass border.

At the end the result of the work in the editor……



……..and simulator……..



After finishing the work in the editor the content of the “texture selector” will be reduced and only used textures will stay. The same will happened also when moving between blue **“world tiles”**.

Part C. APPENDIX AND ADDITIONAL INFORMATION ABOUT THE *"TERRTEX SET"*

C1. Helpers

By the textures of some crops (beet and others) it is very difficult to have a good orientation when working in the editor and define the right orientation and interlocking of the squares. It is caused by the very similar colors of the crops and also of the grass border in the intention to keep the real appearance and convincingness. That is the reason, why there is at your disposal for each set of textures also the **"helpers"** set.
If you have some problems with orientation, you can use the appropriate **"helpers"** set by copying it into the **"terrtex"** directory. The helpers textures have the same name as the original textures, it means when there are the originals already in the **"terrtex"** directory, they will be overwritten.
"**Helpers"** textures are graphical substitutes of the original textures. They have strong structure and coulours and they have the texture number according to the catalogue. They should help to improve the orientation when manipulating with the textures in the editor. After finishing the work, we copy back to the **"terrtex"** directory the original textures with the same names.

Graphical layout of **"helpers"** textures:



There are the **"helpers"** textures available only for the **"basic set"**.

C2. Useful recommendations

1. Focus the work with the textures only on the area, where you can see it during the train raid. You save the time and requirements on the computers performance
2. Use the **"forest"** texture sets as the base of needle leaf forests placed as a blocks (forest.dat definition).
3. In one **"world tile"** use adequate number of textures (max. 3 **"basic sets"** + additional textures)
4. Combine the "terrtex set" with vegetation models and with greenery textures groups http://www.virtuallandscaping.net . When using other models and textures we can not guarantee coherent graphical expression and convincingness of the displayed country.