Oxy's Blitzkrieg Multiplayer Map Making Tutorial

June 2003

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Introduction

This tutorial originally appeared as a series of threads on the CDV Blitzkrieg Forums.

Up until Oxy took the time and effort to share his knowledge about **Blitzkrieg** map making there really wasn't a comprehensive, step by step guide to using the powerful, and confusing **Blitzkrieg Map Editor** written in English.

In the spirit of friendly rivalry, it was noted by several forum posts that the non-English speaking sites seemed to know a hell of a lot more about map making than the rest of us and no one could find a way to share that info (due to the language barrier, and nothing more).

Oxy sat down for many hours and put it all in writing… and now they're shaking in their shoes because the English and Americans are once again approaching their shores and narrowing the gap. Thank you oxy.

As oxy put it:

It's all about "The Spirit of the Game"

scooter14 – June 2003

Well...(coughs nervously)

I am about to start a new multiplayer map, and I thought, "Perhaps people would like a tutorial on how I do this" (please note this is not because I think I am great at it or anything but I would just like to help).

I guess I will go step by step with the whole process, including the seeds of the idea and the map, etc.

That said, I guess I'll get started (more nervous coughing).

Part 1: The Idea

I haven't opened the editor yet (I'm browsing the web, hurrah!).

OK. While browsing I stumbled on US Army History (www.army.mil/cmh-pg/), which has a fine online book collection of battles.

Browsing through the research section, I found St Lo, and had a flip through the St Lo section (www.army.mil/cmh-pg/books/wwii/100-13/st-lo_0.htm).

While looking at the maps, I saw the words Panzer Lehr Counterattack, and thought, "Hmm" while taking a closer look (the map I'm talking about is at www.army.mil/cmh-pg/books/wwii/100-13/mp7.jpg).

Being blessed with Photoshop and a printer, I enlarged it, and printed it. This pic is all I need to get started on the terrain. I can worry about order of battle, and units, and such, later.

So, time to open the editor and jump in!

Part 2: Editor Preliminaries

Kind of easy to guess, but up to "File" and select "New Map". A Gucci Dialogue appears asking you what size you would like. Well, I'm guessing on another 4 player map, so I'll make it Size: 16.

Now then…

Name: StLoApproach should do fine. I can always rename it later. Try and find something not everyone will use as a map name. We don't really want 6 Battle of the Bulge maps.

Season: Well, 10-11th of July is the historical date, so you guessed it: summer.

Mod: This I will leave blank, but I know the last thing I will do is make this map compatible with the realism Mod. But that's a story for another day.

Click ok. Now the computer generates this huge open space that looks really scary and empty. Fear not!

What's next? Well, I advise you all to go to the menu bar, and click the diplomacy button:


Always change these settings first. It will make life much easier on you in the long run.
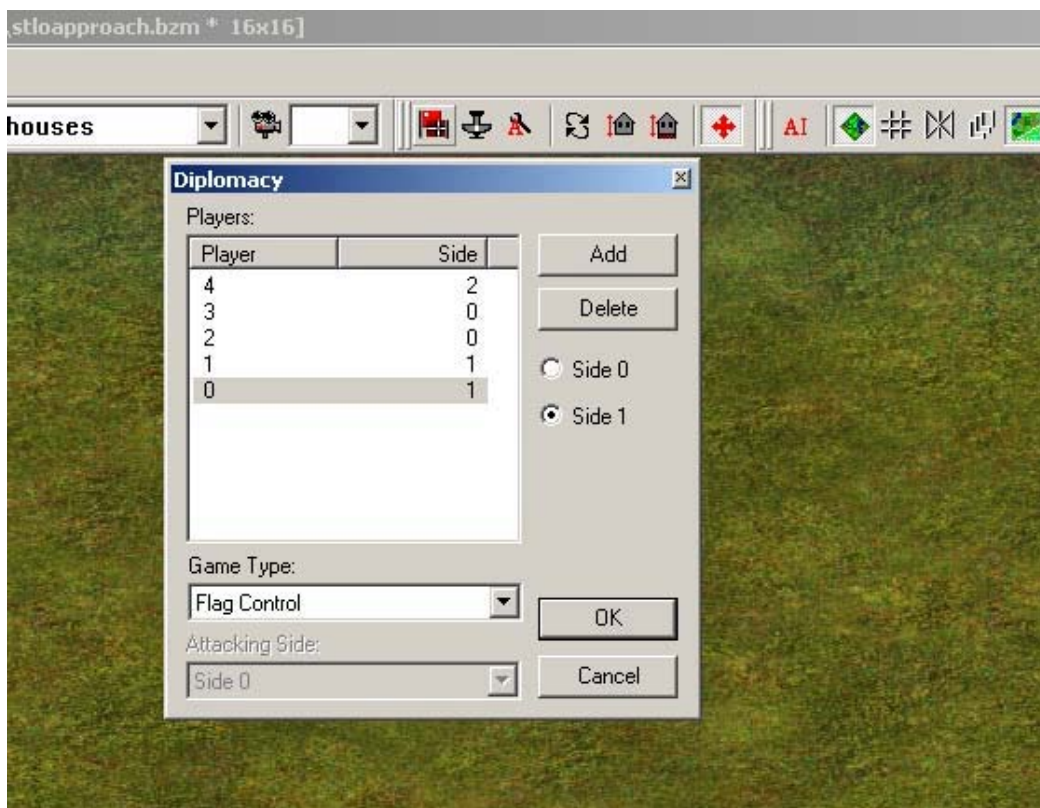
OK, you can see I have changed the game type to flag control, and added two players. Note that player 4 is neutral. Always make the players you want to be allied to be side 0, and the axis players should always be side 1. I tried it the other way around and it caused all my flags to go nuts in game.

I have made player 2 and 3 allies because I want to reuse parts of a script I did for **carentan**. Since I did it that way once, if I do it that way again I wont get confused. So that's that bit done, and you can hit ok.

Now go to the little plane icon next to diplomacy (who doesn't like playing with little planes).
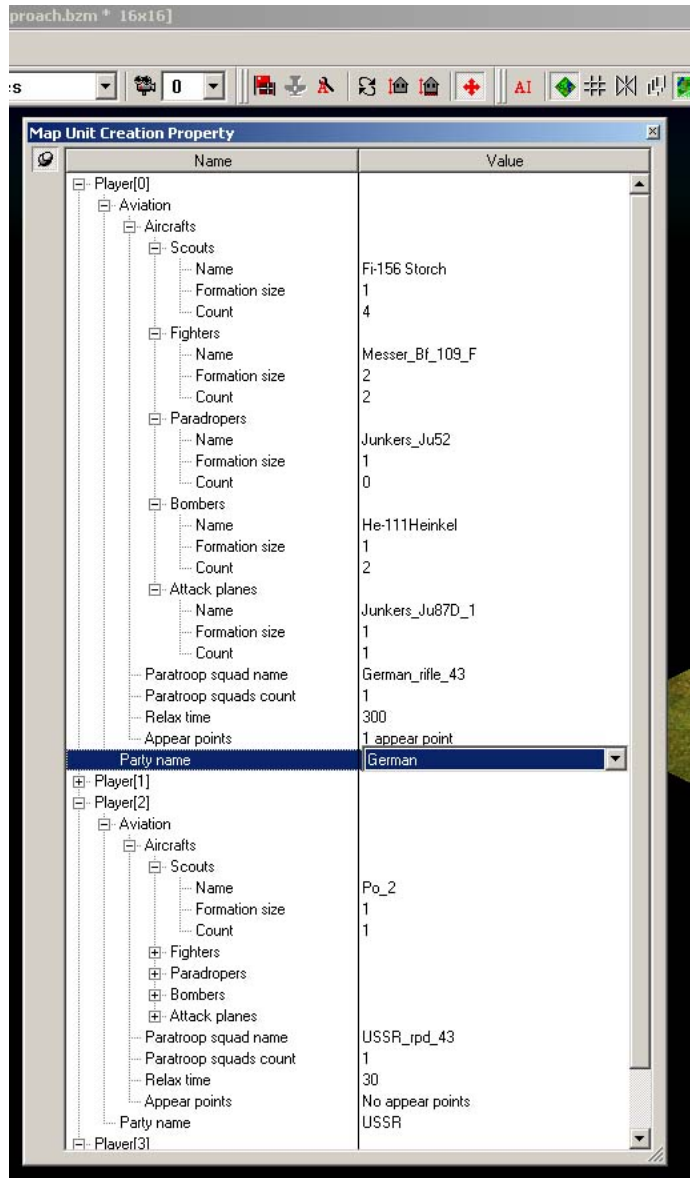
OK, here I have done the aircraft for player 0 which is an axis player. Starting with scout the Storch is the German lawnmower plane (yes I know I'm odd and I think it sounds like a lawnmower).

Formation: this number is the number of planes that appear on map when you call them.

Count: this is the total number of times you can call in the planes.

So I went down the list and changed the settings so they are correct for a German player. I decided to limit German airpower on this map since I have in mind that they had very few planes in operation after DDay, hence low count numbers and I gave them no paratroopers,

these are just map design decisions I made to fit the time really for complete accuracy I should have taken away the bombers but I would also like the map to be a little fun for the Germans too.

Appear Points

Well I have decided that the Germans will start at the bottom of the map and the Americans the top since this fits with the map I am recreating. So low Y figures and no X figure will make them start down in the bottom left.

That's it for player 0. Repeat the steps for player 1 so they get the same things.

If you decided to give them paratroopers don't forget to change the squad name to a German squad type this determines what the squad is when it hits the ground of course, I set mine to German rifle 43 even though they have no paras just to be tidy.

Para squad count: This is the number of guys who fall out of the plane, of course.

Relax Time: This is the amount of time it takes before you can call more airpower retail maps use 300 or so and it works for me so I use it too.

Party name: German

Guess what that does.

Basically for the allied players I added higher counts since they had superior air, but I made one change. I have set their ground attack planes count to zero. Why? Because the Thunderbolts, in my opinion, need fixing. I did a wee test and put 2 88cm AA guns and 2 20mm guns on a map and flew the thunderbolts over them. The planes not only destroyed all of the AA at no loss, but were barely scratched. I found these to be too unbalancing, and maps were won or lost dependant not on ground combat, but based on these planes. So I wont use them.

Ok, with those two steps done (diplomacy and aircraft) you could go to the next button along the spanner / wrench icon (ooh multilingual tutorial: English and American!). This allows you to specify the script file for this map. But, as I haven't created a script, I will leave it for now.

Part 3: Starting the Terrain

So back to the big scary space all empty and full of grass.

What I tend to find easiest is to look at my printed map from the history site and do the roads and rivers first since these will help me get my map lying the right way and make it easier for me to know where my hills and villages are going to be, though you could also do it another way, for example with carentan I laid out the buildings of the town first and then added the roads and rivers, it shouldn't matter either way but I will do roads and rivers first this time.

Now I have to take a short break as my trouble and strife is on her way home and she hates it when I'm absorbed in the computer when she arrives (I shall be back after some small talk over coffee).

Play around with roads, adding and deleting until I return.

(CDV FORUM NOTE: Thanks rico, ill just keep reediting the original post to add steps… on second thoughts no I wont ill make new posts so this thread stays close to the top muahaha - evil laugh followed by plans for world domination)

OK. Evil laughing aside small talk finished.

Where was I? Ah yes, big empty space roads and rivers.

Part 3 (Cont.).... Roads and Rivers

Well, there is a road in the historical map that divides the map kind of in half from left to right so I'll do that one first.

OK, in this pic you can see I have selected the roads menu and I have moved the box on the mini map to the place on the left side of the map where I want to start my road I will roughly follow the course of the road on the historical map and add around 15 - 20 points along the way they are useful if I want to add any bends later or make other adjustments and if I find its not working as I want I will delete it and make a new one.

I have selected an asphalt road with dirt edges as I think it suits the picture I have in my mind of how the ground looks.

A quick note about roads:
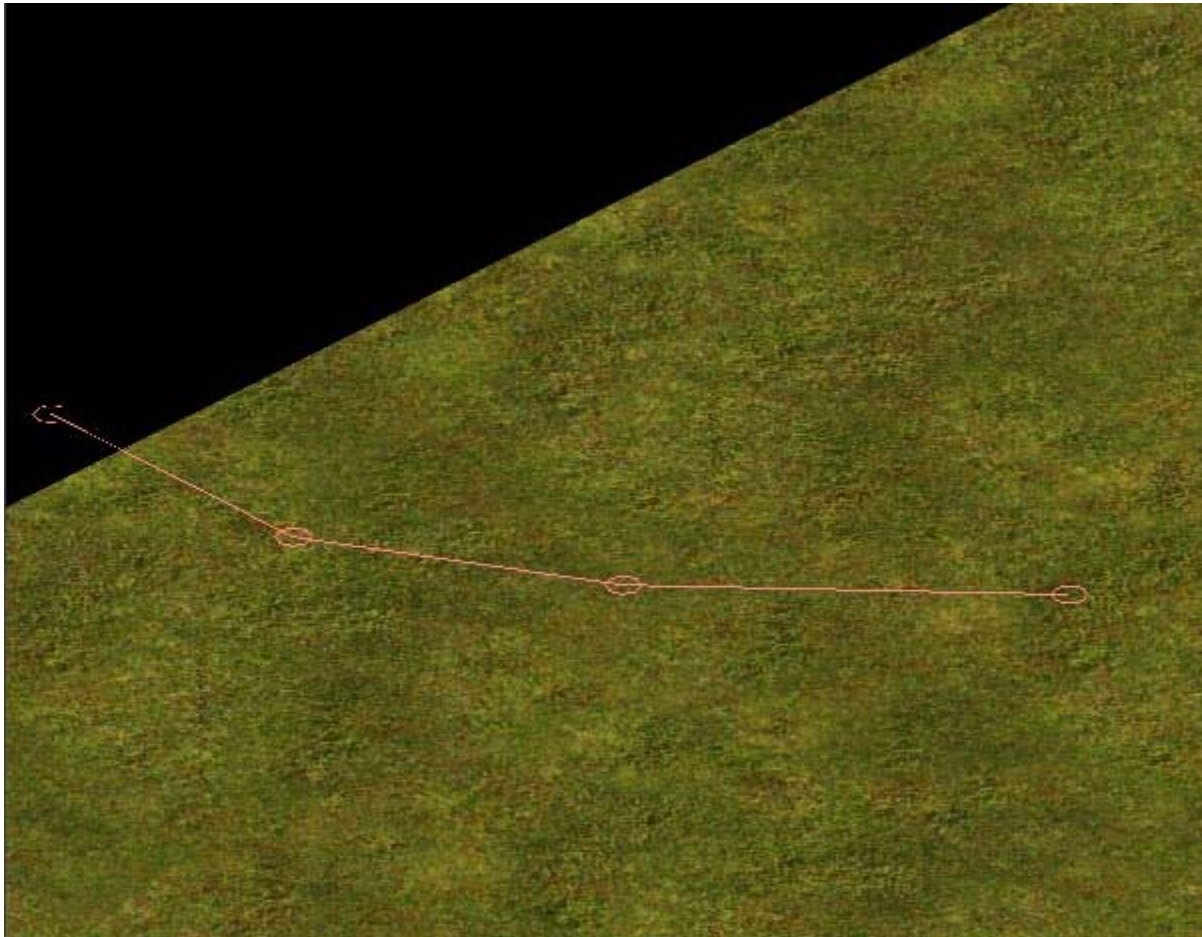
In this pic you can see I started off map (which is no problem) and I have left clicked in 4 different points this gives me 4 adjustment points if I want to play with the course of the road and once I have placed the road I can use the same points to adjust its width.

An interesting side note is that if I right click it removes the last point I laid and you can keep right clicking and remove all the points you placed and if I now right click 4 times I can move the origin of the road that's useful and ill show later when I want to create a side road or something like that.

But that's something for later.

Keep clicking out points until you are happy with your road and when you want to finish the road double click to lay the last point to actually lay the road on the map.

As you start moving across the map and laying points you notice it doesn't scroll at the edges like in game, keep right hand on the mouse and use the left hand on the arrow keys and you can scroll and click at the same time you can also move the mouse onto the mini map and move the small box if you want to make a nice long move at once. I want to place quite a few points, as I want to edit the course of the road later if it doesn't look right so I used a combination of the arrow keys next to the number pad, and the mini map box.
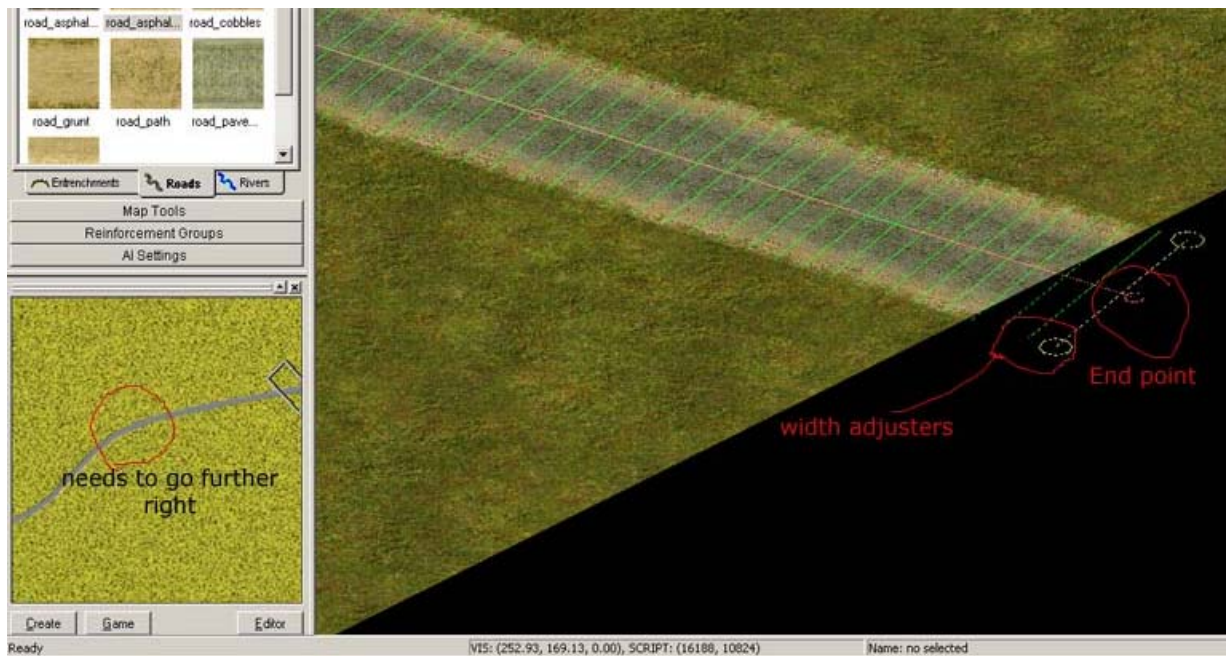
Here's my finished road you can see I ended it off the map by double clicking the last point and it has laid my road and you can see the course of the road in the mini map, you get that mini map to update by hitting the create button at the bottom of the mini map after you have lain the road.

Also in the picture you can see the width adjusters have appeared now the road is in place drag these around and well the road gets wider and narrower, advanced stuff eh =)

You can see I have circled part of the road in red on the mini map that I am not happy with and I will drag some of the points I laid earlier to make the shape of the road more how I want it to be.
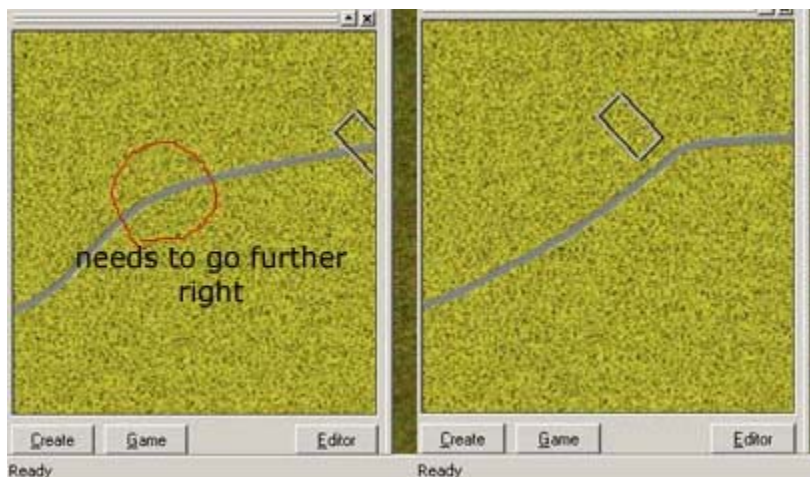
To edit the shape of the road just click on one of the points you laid and drag it to where you think it should be, a zoom function would be really handy but I read somewhere that there isn't one so drag the points and hit create on the mini map use the mini map to check how your road is looking overall.

In the above pic you can see I am now happy with how my road looks the stereo typical b4 and after pic the finished road on the right. Well that covers one road now I will lay all the other roads on the map including some dirt roads if anyone has any questions (yeah right oxy like anyone is reading your garbage) ask away.

Part 4: Road Junctions

I slapped another road down and thought both of the roads I had done so far looked a little wide so I selected the first road just by clicking on it while in the roads section, and adjusted the widths. If you want to come back later and adjust a feature just go into the menu for the terrain type you want and click on the road or bridge or river you want to adjust in the big viewport.

So I adjusted the widths and now I want to make a road junction.

Now, since you are in roads creation if you click on your already placed road thinking "hmm now ill just place a point here for a start" you will notice that you select the road you already placed.

So, click on the grass to the left of the road and then right click twice and your pointer will end up with a floating point that you can move around without having to place points. That done you can move your mouse over the road and place a start point for your new road on the already placed road (hmm I hope that wasn't too confusing).

OK, so here I am making a junction I placed the first point in the middle of the old road and follow the course of the old road with the second point then the third point and so on are over the grass, I do this just because it makes it harder for people to see that I have placed a junction the idea is to get it to look as much like one piece as possible and in the worst case if it looks really bad hide the joins with trees! No one will ever know (hehe), but seriously try and make the joins between roads and suchlike look as nice as possible.
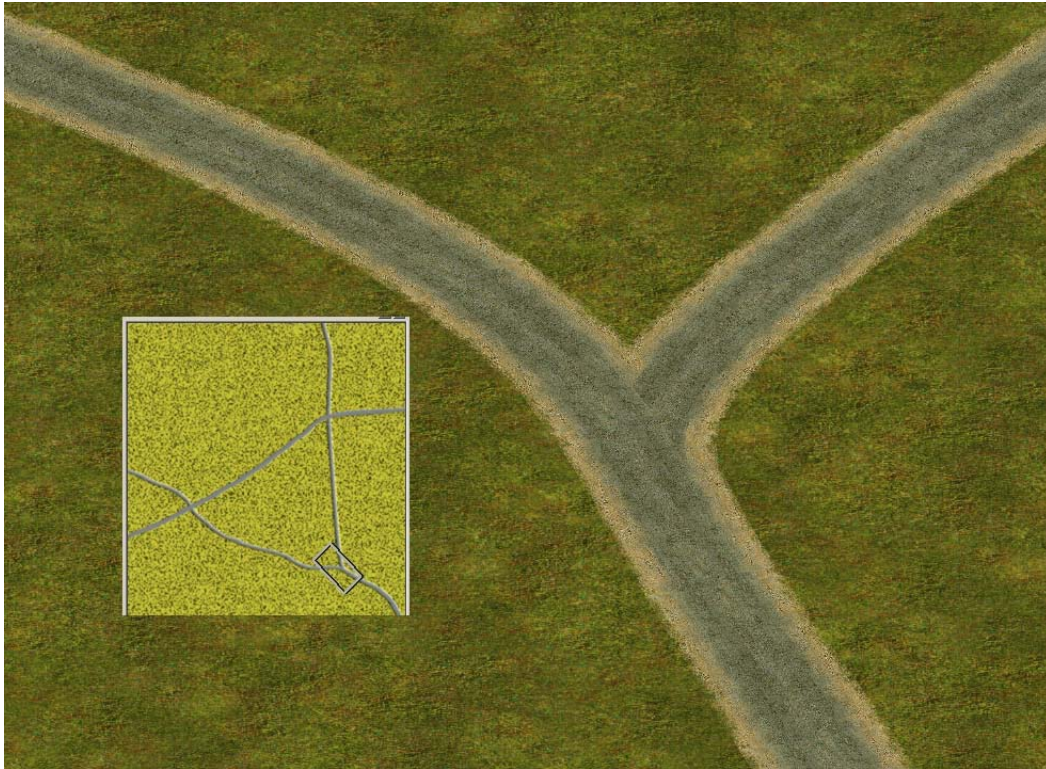
My finished road junction, road in the minimap. I adjusted the widths of both roads slightly to make them fit better together and to try and avoid any super-visible seams.

Stay tuned bob, I'll be back after eating something.

Aaah. Toast. Food for the gods.

After a few more roads have gone down, you can see what I mean about it breaking up the map into smaller chunks to work on and one of the reasons why I like to do the roads early on.

Must be time to pop in a small river then.

Part 5: Rivers

This stunning piece of photoshoppery shows the difference between Default River and one of the others known as water:
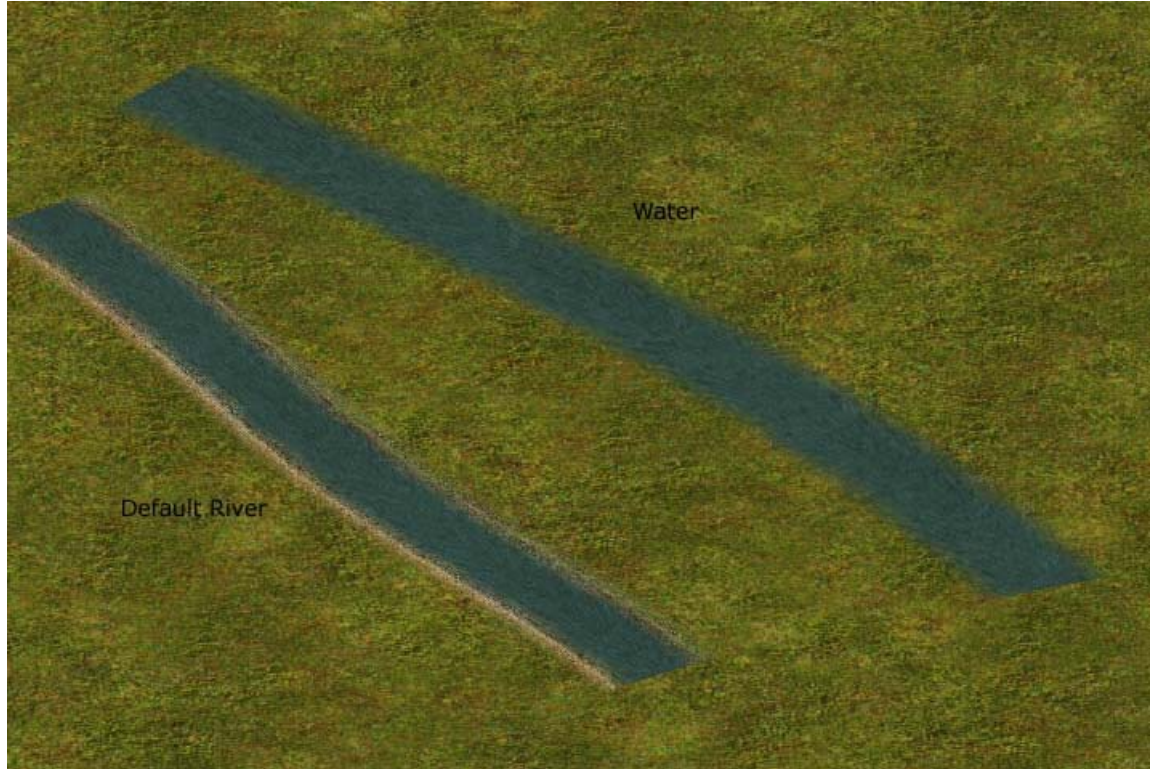
Difference? Yepps. One has a dirt bank so I will be using default river for me weeee stream.

Rivers work just like roads same clicking and right clicking same width adjusters and the same everything really so if you paid attention during the roads bit and my writing made any sense (possibly the hardest part) then this bit should be easy again I will start off map and do a wee river.

Atelo kindly added that the rivers direction flow will go from your first point towards your end point something to think about if that is going to make the map look odd if you have a river going down a valley for example they don't flow up hill.
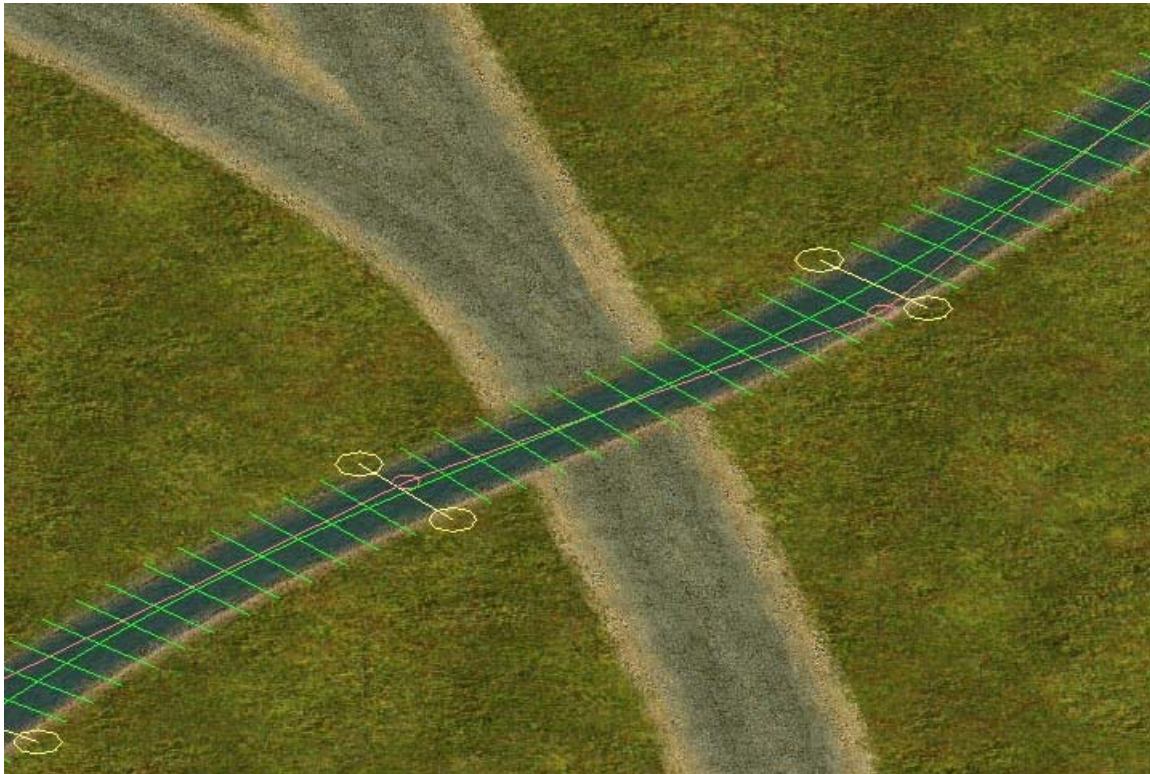
This should look pretty familiar, as I said, all the same buttons and knobs as for roads. Try and make plenty of points when placing things like roads and rivers as they give you more chances to adjust things without starting over and a reminder you can scroll the map with the arrow keys as you go.

The river looks a bit narrow where it hits the road so I will use the width adjusters and maybe move some of the points to make it the right width so it looks nice with a bridge (arggh, bridges).


dragging width adjusters
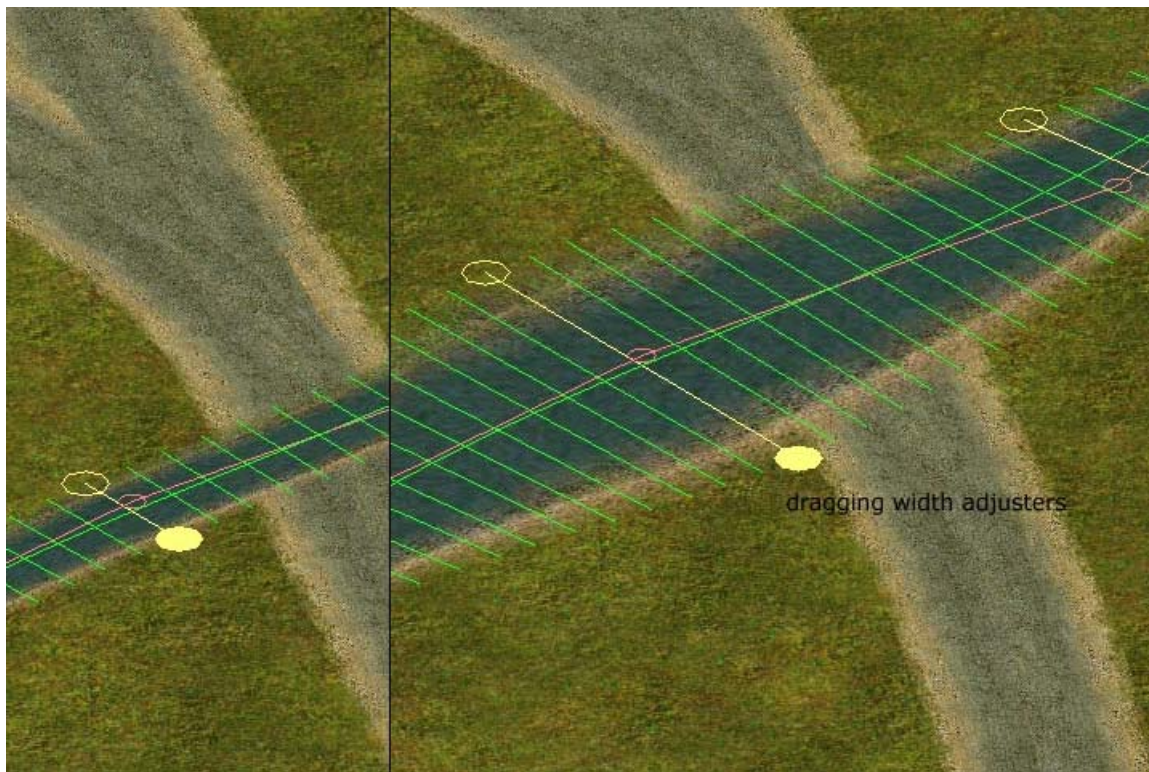
So, on the left you see me grab a width point and on the right me dragging it. I will have to drag some of the others too and I will probably move a point to make it a bit further from the junction so I will have less to worry about when doing the bridge.

Tadaaahhhh (dramatic music). A river!!

Now we need a bridge!! Hurrrahhh… Not. Bridge angles are fixed, so I will have to place the bridge and adjust the roads to fit the bridge. Here's a pic of the bridge toolbox:
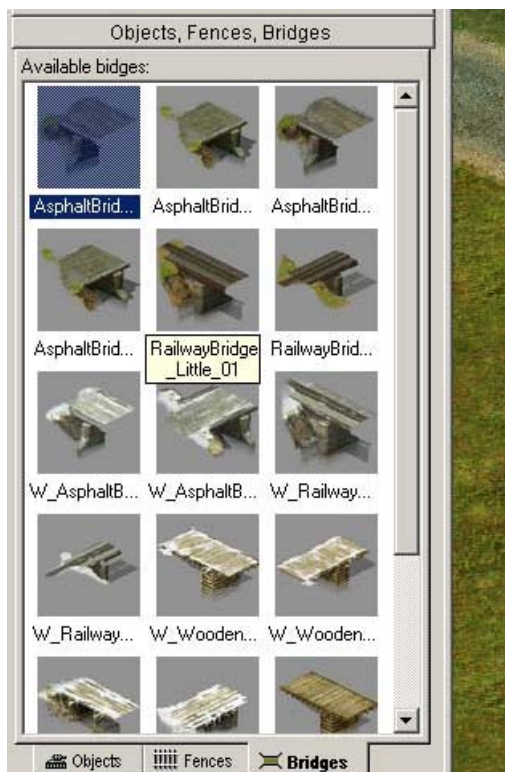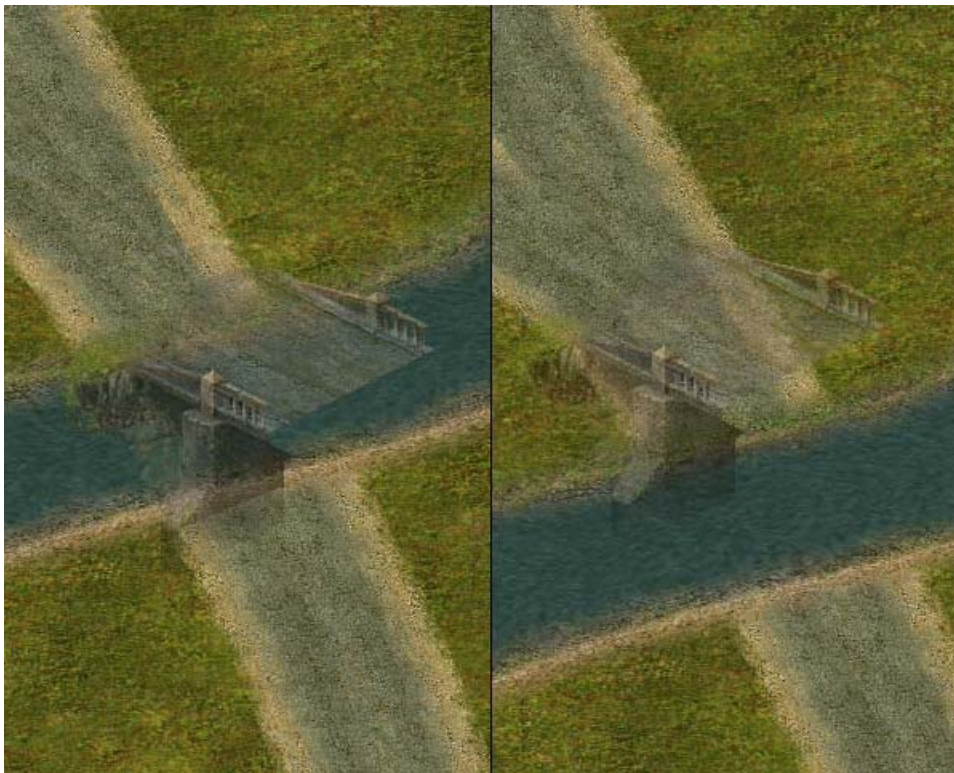
Part 6: Bridges

So the river is there the road is there and you open the tool box for bridges and select the bridge you want you move over the map and instead of a pointer you have this ghostly bridge like this:

You can see in the pic that it doesn't match the angle of the road but if I move my ghostly outline (WITHOUT CLICKING !!) A bit higher up:

That looks a bit better (the one on the right).

I will have to adjust the roads a bit but that's no drama right? We just did roads.

If you hate the way your bridge is after you have placed it to delete a bridge make sure you have the bridges tool box open and a bridge type selected move your pointer over the bridge (don't click) and hit the delete key on the keyboard and poof the bridge is gone.

To place a bridge, click and hold the mouse button down then drag and let go to place the end point.

So how does the bridge look you ask?

Well, it sucks quite badly really but once we have fiddled with the roads it will look just the ticket:

There we go. I adjusted not only the roads, but I wasn't happy with the way the river

looked, and the river banks, so I adjusted the width of the river where it passes under the bridge trying to make it look nicer basically just fiddle with all the widths and angles until you get something that looks good, if your road sucks and wont play ball delete it make a short section going onto and coming off the bridge and then continue with the road as I described in the roads section.

The more you play around the easier it is to tell at a glance what will be needed to fix things, acceptable or do you think it looks crap?


Bushes and trees hide a multitude of my sins.

Key to bridges: CLICK DRAG RELEASE. If it's a mess just move the pointer over it and press the delete key.

I guess I will call it a day for today its time for me to play some, but I suppose I can pop in a village before I do that and cover heights tomorrow maybe?

Part 7: Villages

Open the objects toolbox on the left where you find all the houses and tanks and all that jazz:
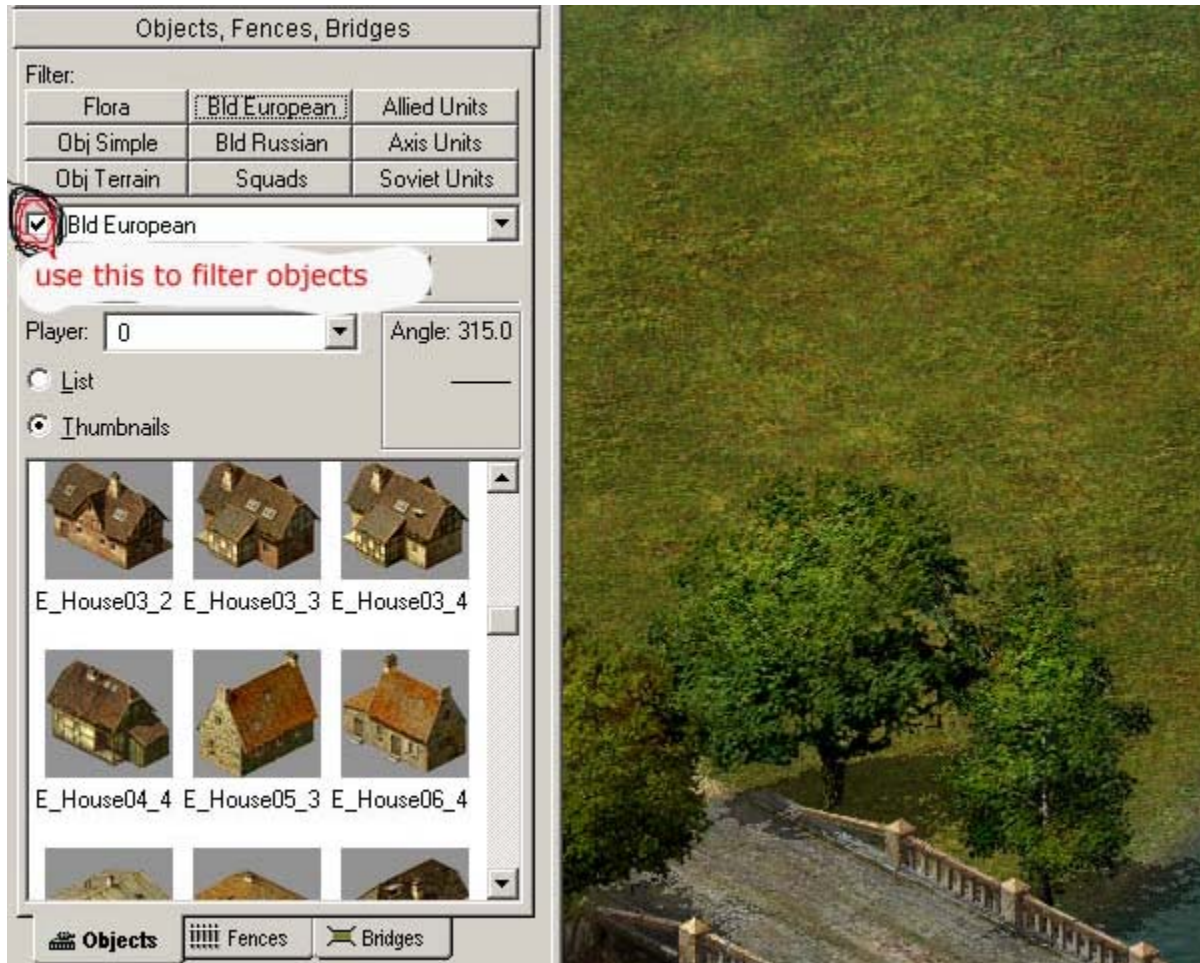

You can use the square buttons (e.g. squads) to see all the squads and so on, or use the filter drop down and the check box to be more specific. Be sure and check out the filter drop down. There is more to it than meets the eye, and it's where you find flags (for example) and we will need that later. For now drop it down and select "buildings, European", and use the checkbox to see the objects class you have selected in the drop down. If it doesn't filter your objects make sure you don't have any of the square buttons pushed in.

Also be aware that although **nival** put some buildings in as "building, Russian" doesn't mean there aren't objects there you can use in any map of any country. I used Russian train station parts in **carentan** and you cant tell, so be sure and browse through as much as you like. So long as it fits the look of your map, who cares if it says "buildings Russian"?

Buildings are easy to place and easy to move around, however for tidiness look up by the diplomacy button (see first post) and you will see a camera icon and a drop down menu. Go to the drop down and select the number 4, this will mean that all objects you place until you change that number will belong to player 4.

Does it make a difference?

No, but its a good habit to get in to save you trouble later, so if you are placing items you want to belong to player 0 select the number 0 first and so on. Here we are selecting 4 as the neutral player because the village doesn't really belong to anyone.
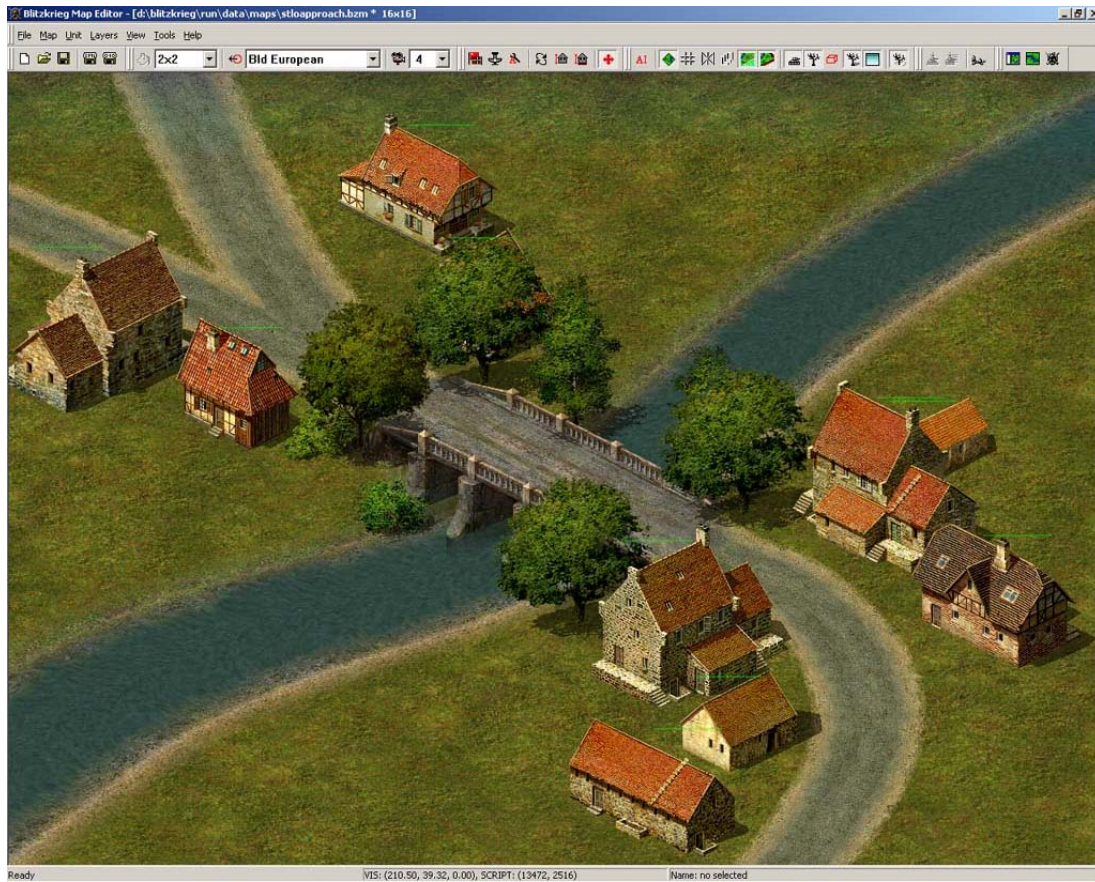
I dropped in a few houses after browsing for ones that looked about right. You could adjust the road at this point, but I wouldn't. Instead, I will look at things I can do to make the village feel and look less like it was plopped onto the map.
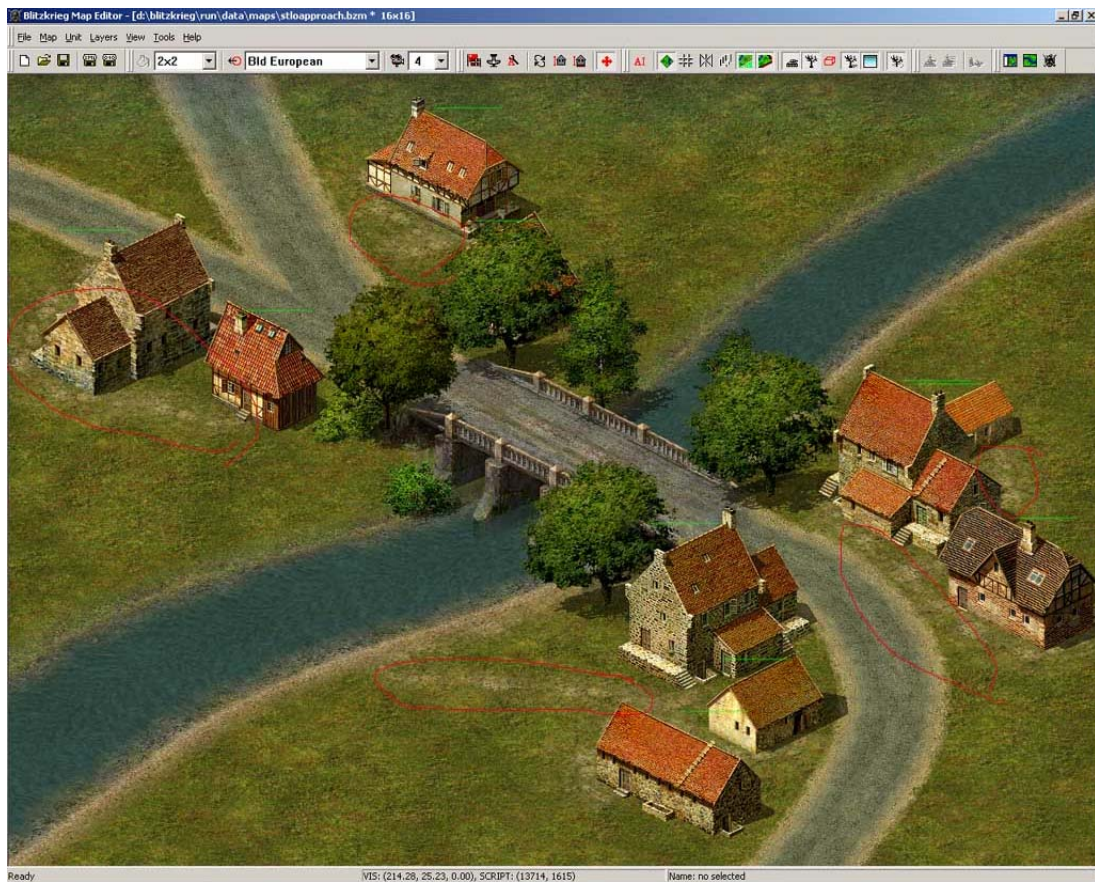
The red circles in this pic show where I have added roads.

If you open the road toolbox and select "road path" and place it on the map you will see it looks like someone has walked there a lot, hence path. Well, it's not much, but I think it gives the village a more believable look. Imagining them visiting their neighbors and connecting the houses with paths. I made one down to the river for the local fisherman as well. Small touches like that can sometimes be important, I think, so don't overlook things like that. It's an easy effect and gives a map more depth.

"Road path" works just like a road as we covered above, with width start and end points clicking and right clicking.
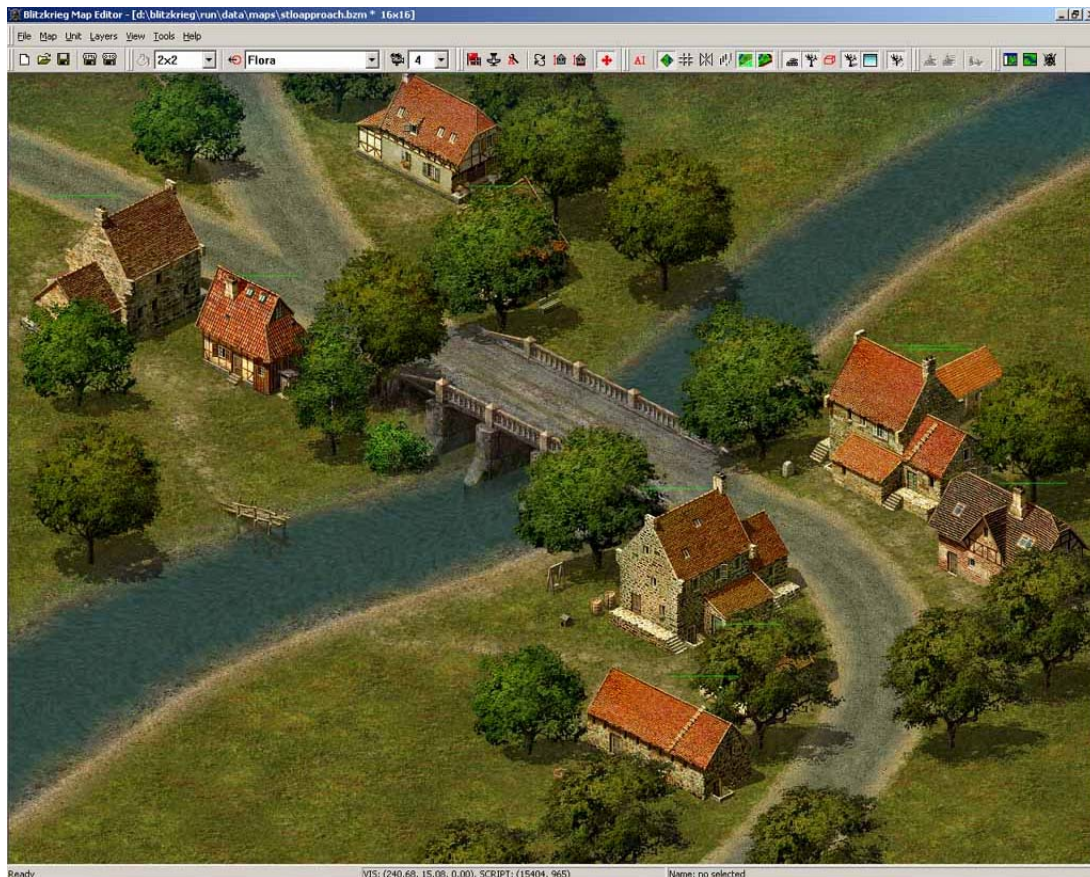
Here I have added a few more trees and some small items from the object toolbox called "objects simple." The dog kennel, the swing, the pier (which has a beaten path to it), some barrels, and your village is well on its way to looking nice.

That's it for today guys. Time for some play. If you have questions or want to say it sucks plz feel free to do so.

Tomorrow I'll look at heights. Thnkx **arn**.

Well, my opponent was vanquished for the second time today on carentan and he took his tanks and went to bed.

Since me evening opponent doesn't seem to have gotten computer permission from his wife, I am at a loose end and decided to do some more on this tutorial and panzer general was so nice I felt a bit inspired.

Me next task on looking at the map wasn't doing the heights. It was actually adding the dirt roads. This gave me the thought about how I join dirt roads to asphalt roads.

Part 8: Dirt Roads to Asphalt

Ok you read the roads bit so you have played with a few roads and so on and are getting good at placing them.

Move the mini map box to where you are want your dirt road to meet the hard road (got tired of typing that asphalt word).

Click on the grass next to the road for the start point, then right click, and you can move the start point with your pointer onto the hard road click near the edge. Drag a small distance and create a second point. Finish the road with as many points as you want to have then come back to the joint we are talking about.
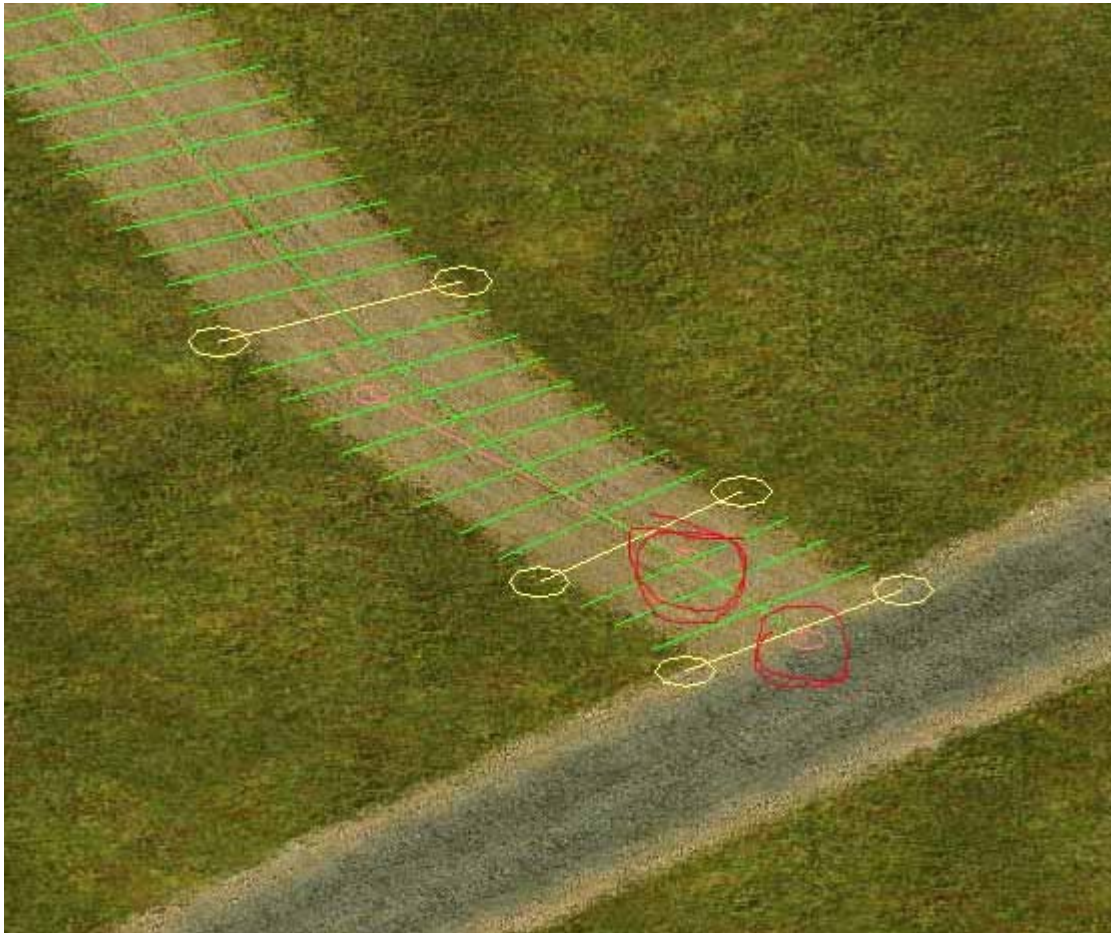
Because you have two points very close to each other it's really easy to adjust this joint and make the transition from dirt to hard road without any stress or visible seams. Click on a piece of the dirt road to select it (if you don't already have it selected), then click the point which is on the hard road and move it around a little until you are happy with the way the join looks.

Simple, eh? Very handy having those two points close together. Good for most things really.

So, that done, I went and threw in all my dirt roads with the nifty two point joints and the mini map is looking like this:
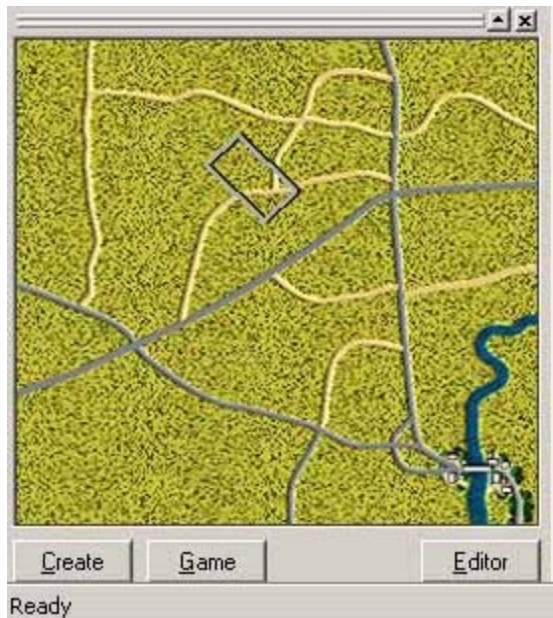
So you can see that doing the roads and rivers first is a great way of getting started and breaking up a huge empty space into manageable chunks.

CDV FORUM note from aletoledo

- Add in your river discussion that the flow of the river is from your first point to the last point (I found this out the hard way when my river was flowing in the wrong direction!)

Nice one. Thnkx **aleto**. There ya go. Listen to **aleto** on river flow direction river flows from first point you lay towards the last!

So at this point we are looking at the historical map, and looking at the road map you have laid for the game. The roads look pretty close, but you are wondering how to get all the hills in the right scale and all kinds of headaches like that. This is where you have to think about the spirit of the terrain (**oxy** unrolls a small carpet, lights some smelly sticks, and ponders the spirit of the terrain).

Seriously you can't get all the scales right. It's not possible, so you do your best to represent the major hills (with an eye to game play and fun factor).

The same goes for rivers. In real life infantry can cross streams no problem, but in Blitz they block movement, so if you think the map needs a foot bridge across that river or a road bridge where there isn't one to present more game play and tactical opportunities, then do so!! The map is about fun, it it's no fun to play then the map hasn't done its job. This also gives you a way out when someone says "they didn't have 300 tigers in that battle" you calmly reply "ahh gameplay consideration" (**oxy** removes lecture cap).

Part 9: Heights

OK, for an overview of heights before popping some heights on the map, I moved the mini map box to a nice open space with plenty of room to demonstrate:
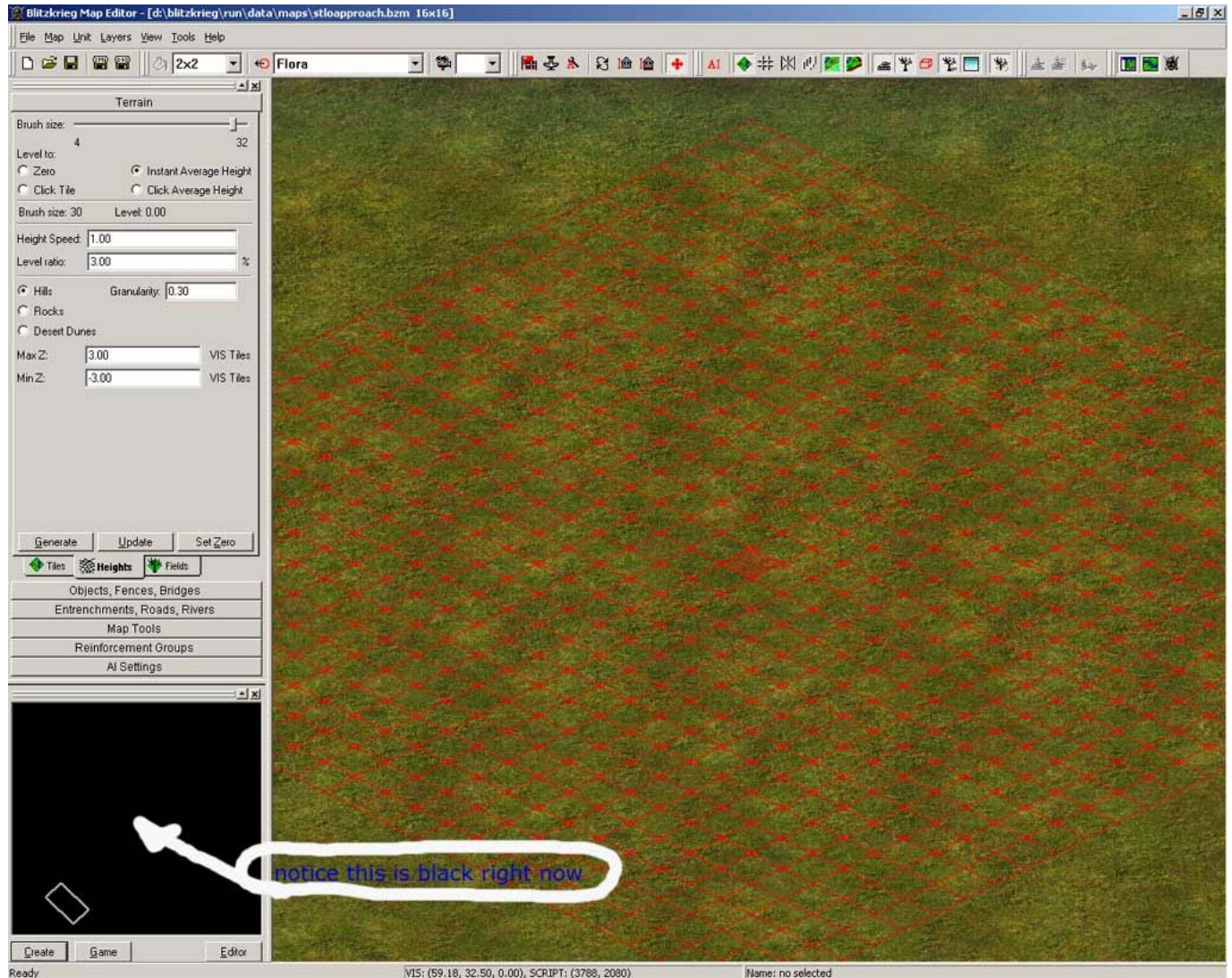
Here you see the heights dialogue. The mini has turned black and you have this weird red box chasing your mouse pointer around.

Note I have selected a size 32 brush. Why?

Well, the base of a hill naturally is much wider than the top. Sounds silly to write it but that's the way to think about it.

Notice the radio buttons in top left. You can select instant average height, like I have done. Does it matter? Hmm… probably not. I have to confess I don't mess with many functions in these menus (feel free to play around you can learn cool stuff that I would like to know about).

To build my hills I use my eye, different brush sizes, and the currently black mini map.

To control heights, left mouse button and dragging in a direction will allow you to raise a height. Right mouse button and dragging in a direction lowers a height. The middle mouse button we will save, but its used for leveling / smoothing.

I would imagine the settings such as height speed will change the amount of dragging required to raise / lower / level and the same for ratio perhaps, but I have never bothered with changing them. I just use my mouse buttons and my eye for hills and am happy with the speed at which this happens. But again, experimentation can be fun if you are bored and have an empty map.

Best tip when getting the hang of hills: Save your map first!!!

Then take the brush and stroke it around in the viewing area and see what happens to the terrain. Try not to go over the same area too much if you are creating a hill base, and only stroke a small area if you want a high rounded hill. I picked up hills by stroking my map.

You will notice the mini map is showing shades of gray and white. The more white in the shade the higher the piece of terrain
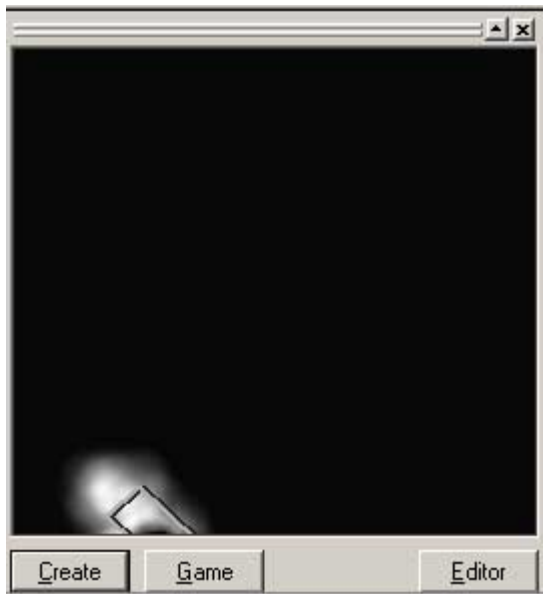
Your best bet with this is to play around with making terrain higher and zeroing it again using the "set zero button". This button flattens out your whole map, but since you are just messing around its no problem. You can see on the mini map different shades of gray showing different heights. The default setting of height speed is quite fast and I use very small click drags if I am doing the base of a hill over a wide area.

Remember: the more you go over a single spot the higher that spot will be.

Now, you notice I have this dark area near the map border where the height hasn't been raised and you want to get rid of it but don't want to raise the other parts of the hill only that little bit:
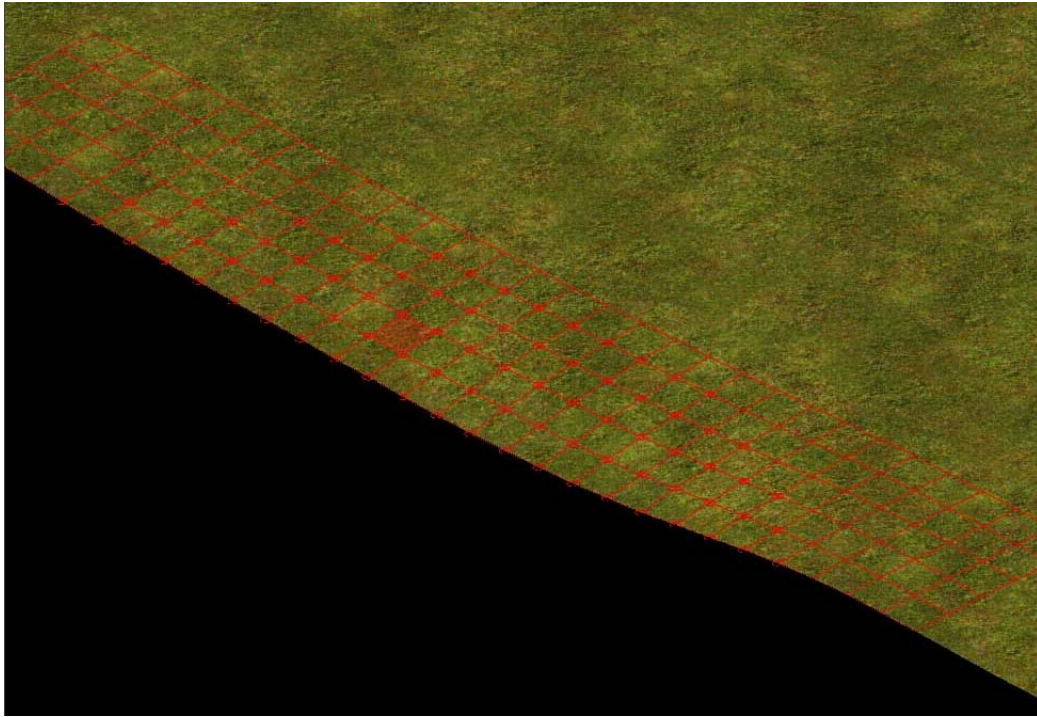
Just move the brush to the edge like in the picture, maybe even a bit further, and do small quick click drags and the height will go up a little. Don't worry if there are some small gray bits here and there as no hill is perfectly rounded.

So here is a small hill I just made as an example. I used a smaller brush since I wanted a small hill that fit on screen for people to look at. I made it using brush size 14 and stroking round and round in circles with the mouse button held down constantly. I didn't let it off once from start to finish, and I didn't stop moving my mouse around until I was happy with how my hill looked.
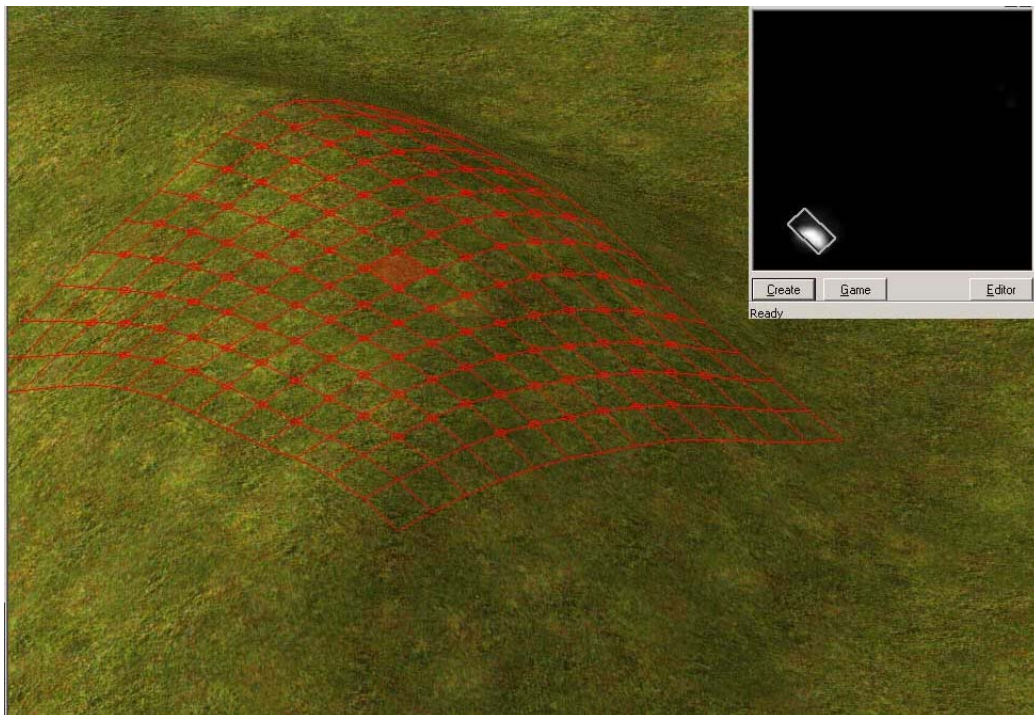
So stop reading and start stroking!

You can also see on the mini map how the height profile looks.

Now you might notice that in some places you cant raise the height any more this means you have to make a broader base. In other words, you have to raise the height of the terrain further from the highest point in order to raise the total height of the hill because you can only stretch the mesh so far. The map will force you to make slopes rather than cliffs, which is why they included the cliff objects.

So for a start off, the best way to become familiar with making hills is using a medium sized brush (easier to see results), and holding the mouse button down while moving the mouse around nice and steady and watching your hill rise like newly baked bread.

Tomorrow ill go through some hills for my map step by step and show you how I did the sunken roads for **carentan**. In the mean time, play around with the height tool after saving your map, and if the hill you are playing with gets out of hand set the height to zero with the zero heights button and start again. Mess with it. See what kind of hills you can do. I am being dragged from the screen now kicking and screaming

see you tomorrow.

Thnkx for the kind words.

Morning folks (**oxy** peering bleary eyed at the screen in his best and only red bathrobe).

Coffee is the most important meal of the day !

Part 9: (cont) Hills, Heights, Sunken Roads/Paths and Other Nifty Bumpy Bits

Since yesterday, you have, as diligent students, been busy stroking your terrain as I described. You haven't? Oh, well stroke it now then. I can't stress enough that just getting the feel for hill behavior by doing it is super important.

Anyway, I have used "open recent" to open me wee StLo approach map, and I have taken the liberty of photo shopping some hills onto my mini map.

No, the read lines do not show a one eyed seal that exploded.

I looked at my historical printout and looked at the contours the map shows. Remember yesterday I got all Zen and talked about the spirit of the terrain? Well, the spirit spoke to me and said, "what you need is a valley to fight in more or less but it's only a shallow valley." So, the red lines show more or less where the highest hills will be. This definitely doesn't mean that the rest of the countryside is flat!! As **ID** can tell you **Carentan** doesn't have a whole lot of flat ground on it (in fact rumors from the front indicate he got bogged down in some hedgerows).

But my mind is wandering. Sorry (focus, oxy, focus).

OK, red lines = highest hills,

Are these hills exactly like the map of the battle? No. Why not? Because it's the spirit of the terrain, and good gameplay is dictating where I pop up my hills. OK, I'll start with the "one eyed seal" hill down on the minimap by the village we did yesterday.

OK. In the editor I used a size 28 brush and used the left mouse button in small clicks and drags to raise a kind of outline for my hill, I used the roads I placed as a guide to tell me where I was on the map and a rough outline can be seen in the black heights minimap:
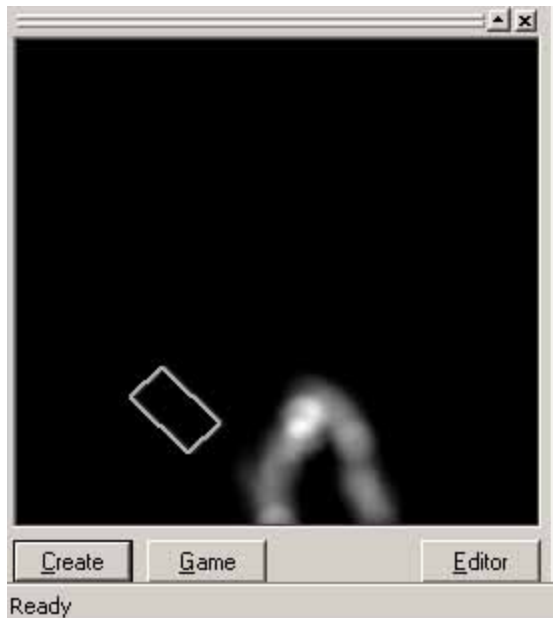
"But its all black in the middle oxy!" Yes. I haven't raised the terrain there yet. I am just doing an outline. If you compare the mini map with the red lines and the heights minimap you can see I need to raise the terrain further out on the left. Remember, the different shades of gray show the different levels of height. At this point I'm not aiming for smoothness just a rough outline.

So I went back to the editor and tried adding some more height on the left, but the outline wasn't looking nice. So, since I saved before starting, I reloaded the map and started again. If it's your first hill you could have hit zero all heights, but don't get used to that button!!! Imagine you have created the perfect hills and only one is messed up and you zero heights... **Save now! Save often!**

You may notice when stroking the terrain if you accidentally move the mouse pointer over the minimap you end up scrolling off somewhere. Fear not. Move the map back to where you want to be and carry on. If you have created an almost perfect hill and end up in another part of the map by accident and create a bump you don't want, then lower it with the right mouse button, or smooth it out with a large brush and the middle mouse button.

How's the outline looking now?

More like the seal with one eye. You can see the hot white spots on the left. That's where I went over the same bit of terrain several times so it ended up higher than the other parts. Does it matter? No because it's the outline. The hill has lotsa sculpting and stroking to come.

Right, then I went back to the editor and used a size 24 brush and filled in the middle:
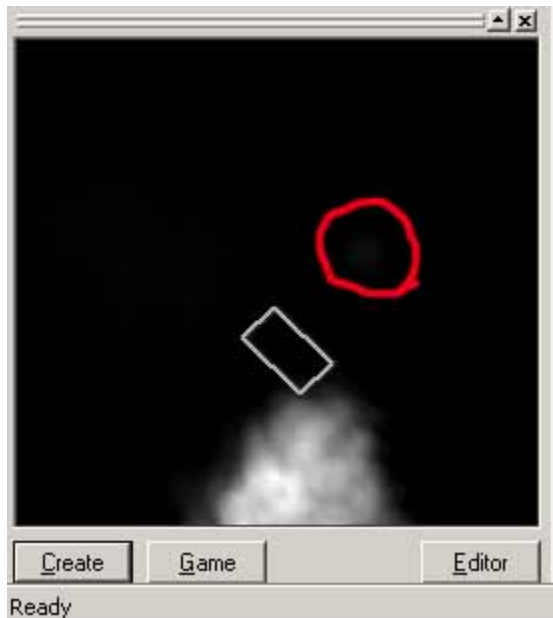
Trying to get uniform height, I also used the middle mouse button a bit with the radio button "instant average height checked. Those radio buttons govern middle mouse button behavior, so, with instant average height you get a smoothing effect, and with zero checked you get, well, Zero height (i.e. if it lowers the terrain feel free to twiddle with those buttons to see what happens… if you saved it doesn't hurt).

Now you see on the mini map a red circle with a slight bump. That's where I hit the minimap while stroking and ended up somewhere else. Does it matter? No. If it did I would set the Zero radio button and zero it with the middle mouse button. But I don't mind that bump, it whispers nice things to me while I work, so I will leave it alone.

So, to fill in the middle of the hill I only looked at the heights mini map and held down the left mouse constantly and moved the mouse in circles. When it was something like level with the outline, I moved the minimap box a bit and carried on.

"But it looks all bumpy oxy!" Yes it does. And if I want to, I will smooth it using "instant average height" radio button, and the middle mouse button. Cool function. If you don't have a mouse with middle mouse button get one! Mine has scroll wheel that doubles as middle mouse button when pressed.

So I have an outline I have filled in the middle. Does my hill look cool? No, it's barely noticeable. So now I will go back and raise and smooth until it's looking as I want it to. Oh, and you noticed I talk about it as the seal with one eye, well that circle which might be an eye is a small bump on the hill with a village on it. On the historical map and I intend to include this feature.

So I went back the editor and raised my whole hill some more using different sized brushes and combinations of middle and left mouse button to smooth and raise the hill. To get it looking just right can be hard, and can take time, but if you aren't happy don't keep raising the hill! Use a large brush and lower it with the right mouse button and then smooth it with

the same brush. Take a smaller brush and raise then a slightly larger one to average the heights for smoothness. It all depends on the effect you are looking for:
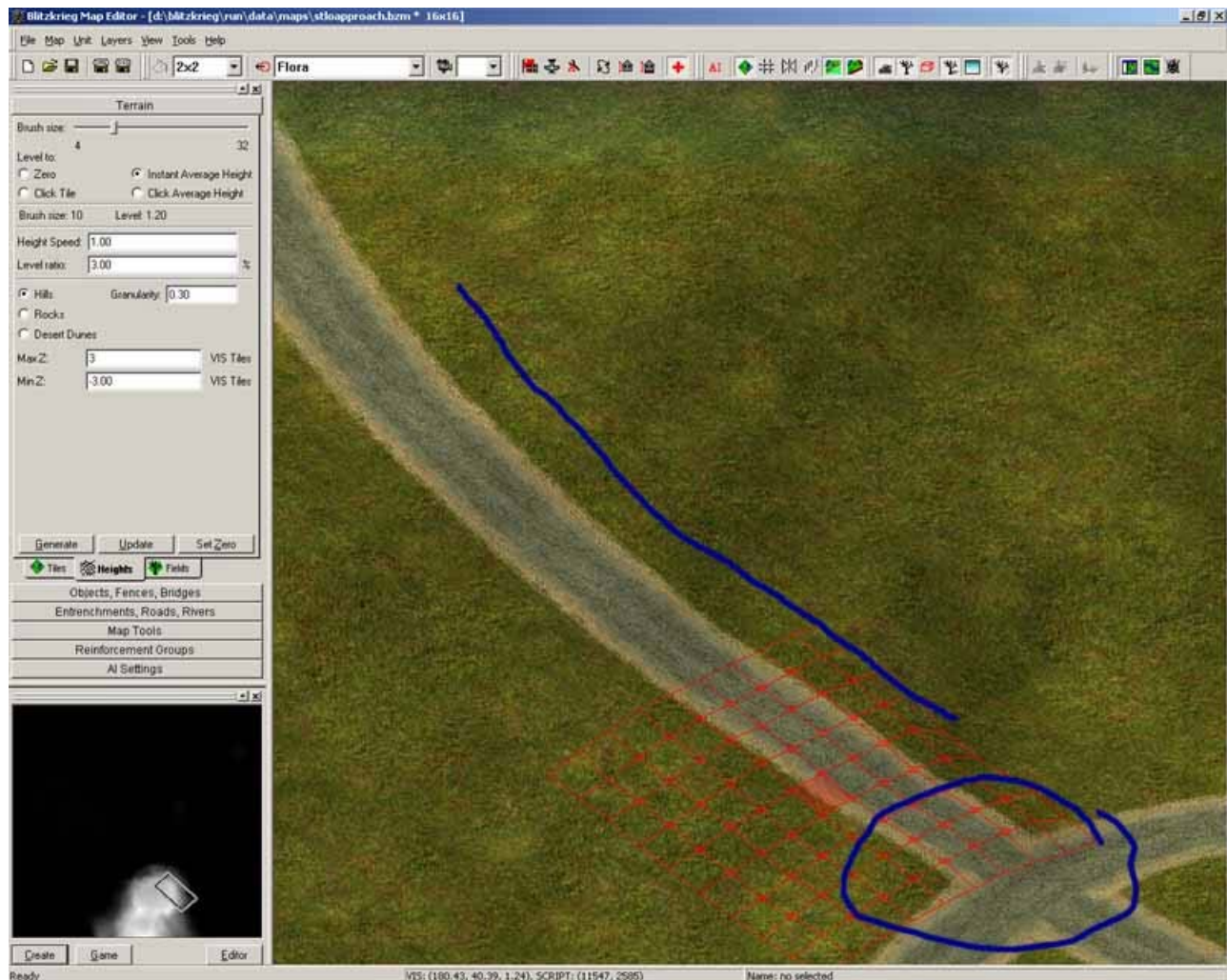
This isn't such a great picture, but what I'm trying to show is how steep I think the hill is and how bumpy the road looks. When you are raising terrain under a road you have to hit the "update" button to see the effect of your hill on roads, rivers, and objects. I think I will lower my hill some more with a large brush and spend some time smoothing my road with small brushes.

Right, then I went back to the editor and pushed, pulled, raised, lowered, and middle mouse buttoned the road sections to smooth it. But remember, the average height function is nice for smoothing but if you have a large height at one side of the brush and a low height at the other side you may get a bump rather than a smoothing effect when using small brushes.

It's better to lower the higher parts with the right mouse button, and then use average height with middle mouse button to create a gentler slope.

Hills can be hard. **EXPERIMENT A LOT!!!**

In the second pic you can see I have a gentler slope, and thus a slightly more believable road going up the hill to the village.

What I am going to do now though, is grab some more coffee and pop my village on top of the hill. Sometimes it can be easier to see how the hill looks with objects on it, so feel free to throw them on and take them off. Every time you change a height under a road object hit "update" so you can see the effect on your object even if the change is minor!! It helps you see what you are doing.
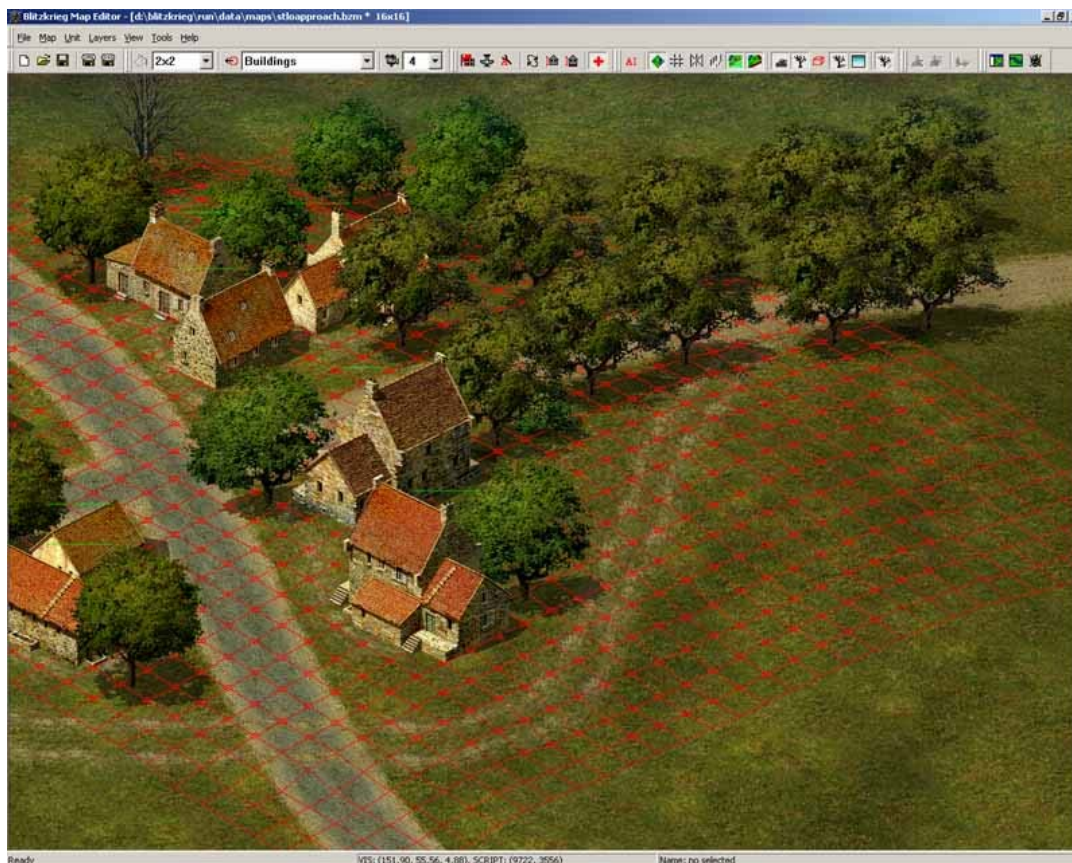
I hope it's not too hard to see but I have dropped my hill top village on the map and overlaid a 32-size brush so you can see the contours better.

Look like crap? Maybe, and if it does we can always go and rub the hill some more.

The brush size selector, in case you got this far and haven't discovered, is just above the radio buttons I was talking about earlier in the heights tool panel.

Download the map, (www.superfug.com/stlo.rar), right click and "save as". I included the download link because it can be pretty hard to see from small pics what is going on. Now you can open it in your editor, weeeeee, and destroy my wee hills and villages to your heart's content.

Notice that some French farmer has been driving his tractor around or maybe its tank tracks. Remember, it's the small details that give your map life. Think about the people that live there.. Sounds bizarre I know, but it helps you know what small details to put in. Not too many and just enough.

One more thing, don't try middle mouse button operations when your brush size = 4. Nothing happens. Use a minimum of 6.

Someone mentioned a reward for the tutorial. I have been rewarded. Look! My post rank is lance corporal. Hehe.

Now I will take a short break to watch IDmans play test replay of **Carentan**. Back soon.

CDV FORUM NOTE From War Commander

- Oxy Great Tutorial is it the same for SP map can you help me and everyone on here understand how to save the map and then play the map in the game please

Before picking up the tutorial again ill try and answer wars question.

For single player I have to confess I don't know, as I haven't made a single player map yet. I will be doing so after this tutorial map is done (sorry about this but I am a multiplayer person so have focused on this area first).

If you want to play the tutorial map as it is now in game take a tank, any tank will do, from the objects tool box and drop it on the map. Double click on the tank and set the player number to 0 so it belongs to player 0. Hit save. Top right in the editor you see the Blitzkrieg icon if you are running 2000 or XP you can hit that button and you will be able to drive your tank around your map in game. If you are not running XP or 2000, save the map in the multiplayer folder and close the editor. Open the multiplayer folder of your blitzkrieg installation and you will see your map files there. Open Notepad; write the name you want to give your map in the empty notepad document. Save this file as a .txt file in the multiplayer folder, and make sure it has exactly the same file name as your map. You now will have a .txt file called stloapproach.txt in your multiplayer folder. With that done launch the game and create a multiplayer server. If you have done all the steps correctly then you should see your map in the list. Select it and start the server. If your player 0 is German in your map select German side and launch the game. If your player 0 is allied, select allied and launch the game. The game will warn you that you are starting with no opponent. Click that you want to continue, the game will load and you will be given the message you have won! Cool. You won. Now hit return to game, and drive your tank around the map.

This will be covered again later in the tutorial, but I felt it was good to help war out right now.

Right, after a small break watching IDman battle it out on **Carentan** (now released, plug, plug) I have also found some time to finish off the major hills for stlo approach, and my

heights mini map looks like this:

Since you have been playing with heights… You have been, haven't you? You can do those hills no problem, right? You have worked hard and practiced the art of left clicking, right clicking, and middle clicking, and are creating nice smooth hills! If you can't then get yer arse into gear and practice! It gets easier the more you do it.

So all my major hills are in place, and I updated when I raised bits under roads… So I know my roads don't look bad, and they will get looked at some more now.

When you raise hills under roads pay attention if your road ends off map. They may now be dragged onto the map as the terrain lifted up, so go and check all your road ends and river ends. All of mine seem to be in place so I can relax while you do that.

Part 10: The Ledge Road

This is still using the heights tools and what I want to do is create a ledge for my road on that hill in the left of the minimap. You can check back and see a road runs along that hill. Well, I have some nifty anti tank ambushing and so on in mind there and I want a ledge for my road to sit on:

Here I am going to use a size 8 brush to raise a bank next to the road:

So I took my size 8 brush and held down the left mouse button and stroked back and forth, and around a little, and used some middle mouse button to smooth it.

It's looking how I want it to so far, so I'll carry on.

Here we go. I went further along the road and did the same thing with a size 8 brush (the one you see in pic is size 16 to show you better how the land lies).

You can see on the mini map height profile how that measures up to the rest of the terrain. It makes a nice sharp bank for raining down death and anti tank destruction from entrenched infantry. Weeeeeeeeeeee!!!

Now I used the middle mouse button to smooth the top of the bank in case engineers have trouble digging trenches. If they have too much trouble then I will come back to the editor and smooth it some more.

Now I am going to work on the lower side of the road.

For the lower side I used a size 6 brush and moved it quite quickly back and forth along the roadside since I only wanted a small increase in height. You can see on the piece of the heights mini map where the ledged road is now running. I hit update on my terrain and checked the road to see if it was level, and smoothed it with "instant average height" middle mouse button size 6 brushes. I also tweaked small bits of the bank up with a size 4 brush if I felt it was too low.

I am pretty happy with my bank for now and I will leave it alone. Maybe I will go back to it later when I am adding trees (that hill will be a wooded hill), and some paths perhaps.

So we will do sunken roads and paths now. Still heights related using heights tools.

Bocage country. St lo was some of the worst bocage terrain in France, and I have looked at lots of pics of this type of terrain to get a feel for what I am making.

35 exciting pages of weird and wonderful pics in AltaVista and I am hitting gold:

This kind of activity, though sometimes mind numbingly boring, is very important to help you create nice terrain.

Arrrgh. The wife's home, so work must stop for small talk again.

While I'm off, try and play around with some of the terrain you see in the pics and make the path or the road. I'll come back later and show you how I do it. Yours might be better!

I have made it successfully back, despite her forcing me to sit under the burning gaze of some huge yellow orb in our garden.

Mission "Small Talk" successful.

I also used small piece of that withered organ I call my brain to create a summary of hill making while she talked about how nice our flowers looked.

The Summary:

Small, slow mouse movements result in large changes in height. Large, fast mouse movements result in small changes in height.

Is that understandable? Is the heights section living up to your expectations? I hope so, but if it isn't please let me know.

Righty. You have all been busy building sunken paths and roads and it's all looking uber! Now I am going to do some.

If you all downloaded my **carentan** map DDayplus 6 (WARNING SHAMELESS PLUG), and all have visited www.roadtovictory.co.uk (WARNING ANOTHER SHAMELESS PLUG), you can see in dday plus 6 I experimented for the first time with sunken roads and paths and this is how I make them.

Part 11: Sunken Roads and Paths

OK, I have selected a suitable spot on my map to demonstrate and this is good since it's a tricky spot. It runs diagonally across the land mesh, not parallel which is much easier to do.
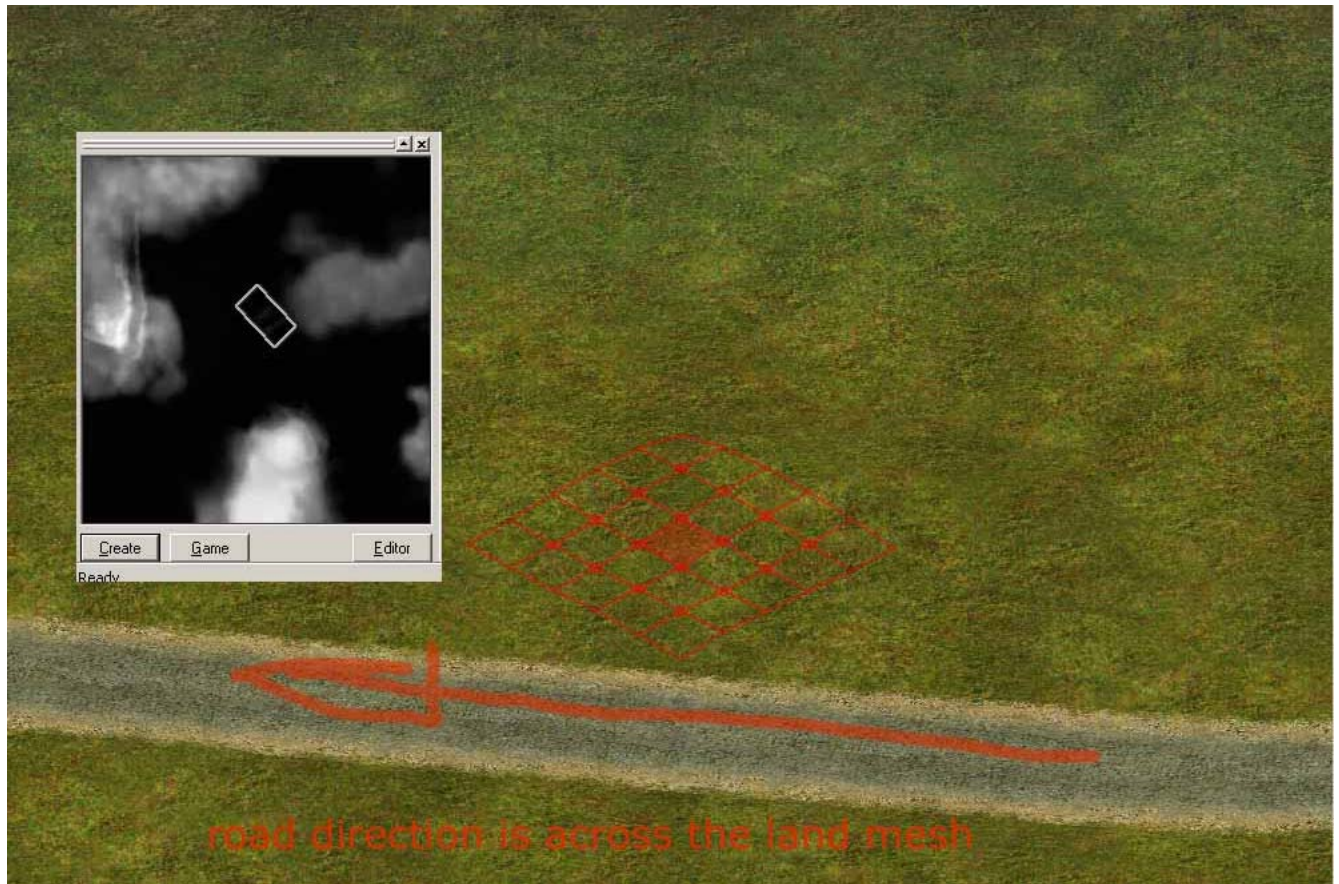
I have a size 6 brush and I am going to raise a bank on the topside of the road. If you imagine the brush is diamond shaped, then you would try and keep the bottom tip of the diamond off the road as much as possible so you'll have to do less smoothing later.
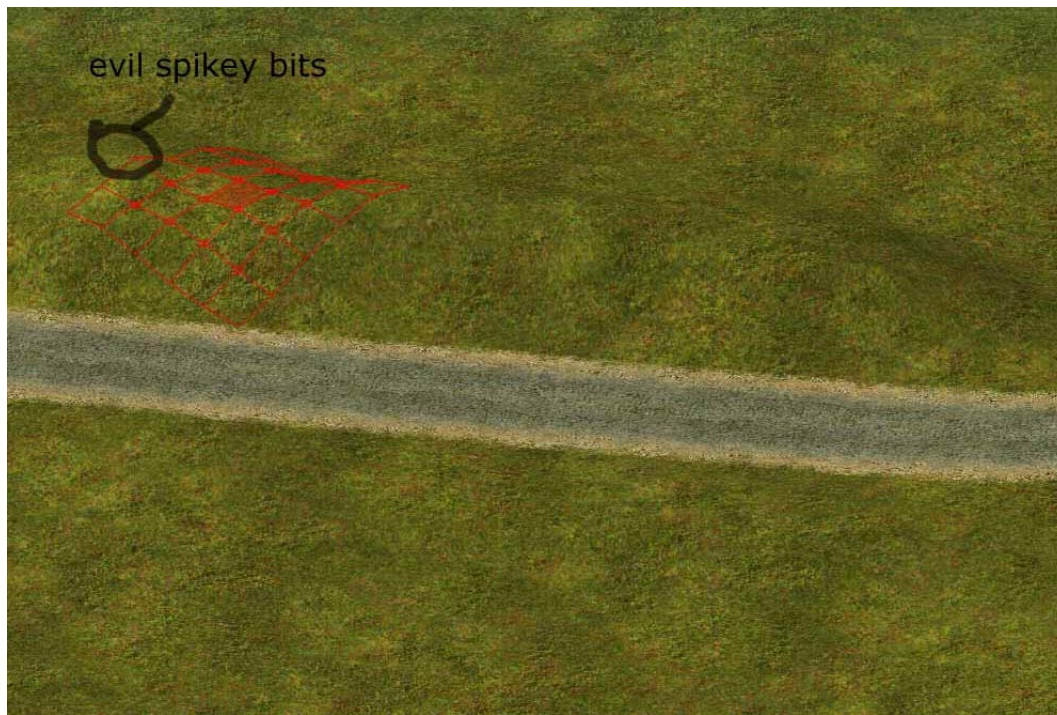
Here you can see I raised the terrain on the top side of the road by running the brush left and right while holding down the left mouse button. I had to let the bottom tip of the brush go onto the road to raise it to the height I wanted, but its no worries as it didn't upset the road too much.

You can see in the pic that after raising the height I have these spikey bits. They are where the mesh isn't happy about being pulled so much in such a small space. I will go over them with "instant average height" selected in the toolbox and the middle mouse button:

OK, it didn't get too much smoother, but try for as smooth as you can. I even went to brush size 4 on this to see if helped and the mesh got a tiny bit smoother:
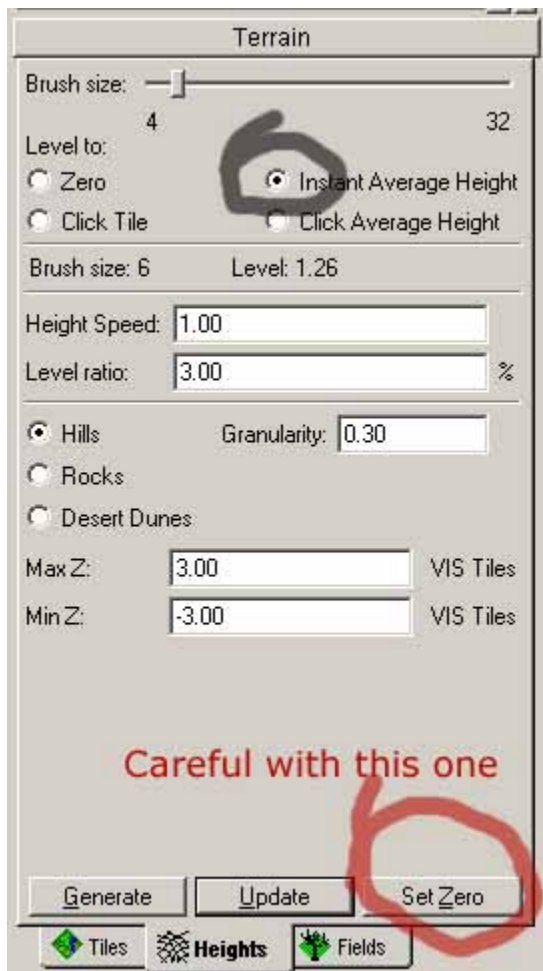
I should have shown this pic earlier. It's the heights toolbox and you can see the radio buttons I am talking about. **Stay away from the set zero if you have done tons of hills!**

If you want to lower a hill and not ALL hills, use the zero radio button and the middle mouse button. **DO NOT USE "SET ZERO" button!!!** That will reset all heights in your map (remember "Save now, Save often").

You also see in the picture that raising the banks can deform the road (hit update button to see effect of height change on objects and roads, etc).

This is no drama and we can go back and fiddle with the road width and position to make it look different if you feel like it.

I am going to do the lower bank now. Remember, we are going across the land mesh so totally smooth banks are hard to get without adding a lot of width to the banks. Expect that even with smoothing they will be a little jagged. It's no huge drama in the big picture.
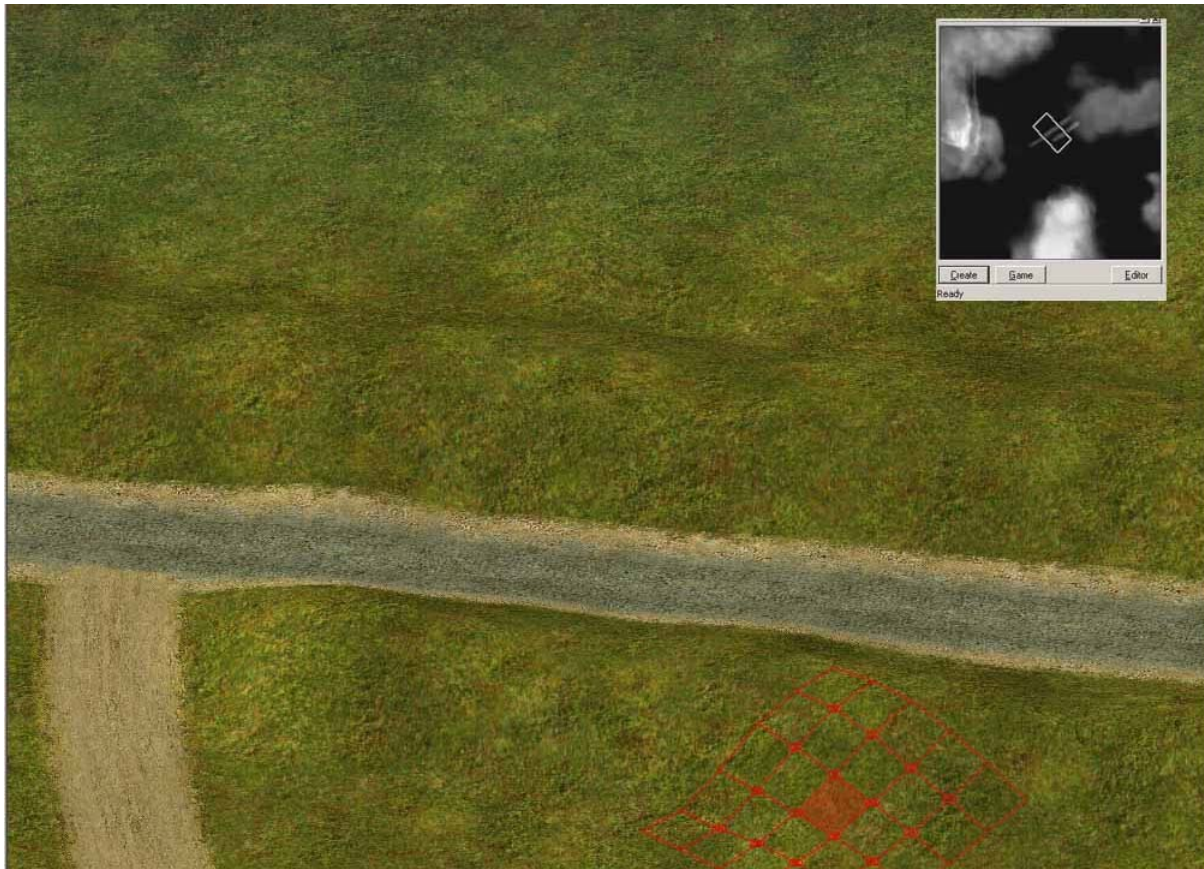
OK, I have done the lower bank. It looks less smooth but I have plans.

Now we come to the road junction. These are a little tricky, and just look at the before and after pic to see what I have done:


Well okay, it wasn't that tricky. The land mesh is working in our favor now so we get a

much smoother effect and it was easy to work the corner in. I went ahead and added some more banks and you can see the effect better in this pic:

VIS: (137.68, 111.67, 0.00), SCRIPT: (8811, 7147)   Name: no selected
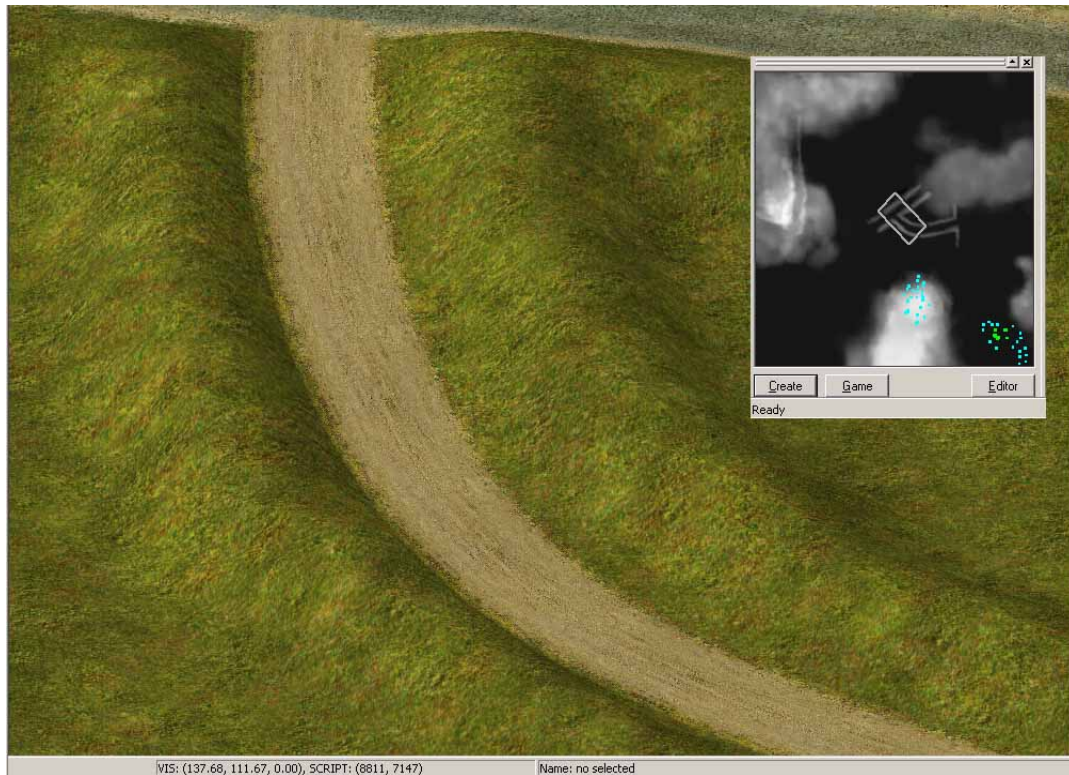
The last thing I did was raise and flatten the whole field just to see how it would look. I saved first, of course, in case I didn't like it.
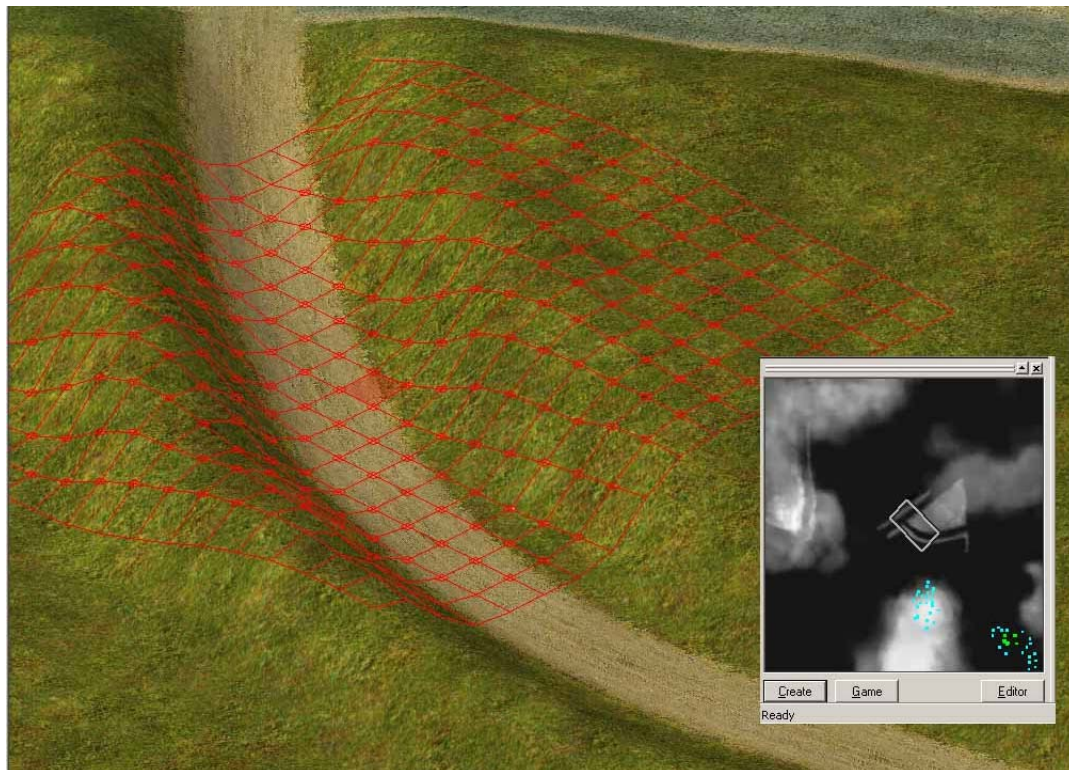
Again, I have overlaid the large mesh so you can see the road is quite deep. I guess that's about it for sunken roads. An easy effect that adds some more dimension to your maps.

Time for the path.

I chose a boring piece of land leading towards the banks I made earlier. It's looking quite drab, but we are going to throw in a sunken path using exactly the same method as roads:
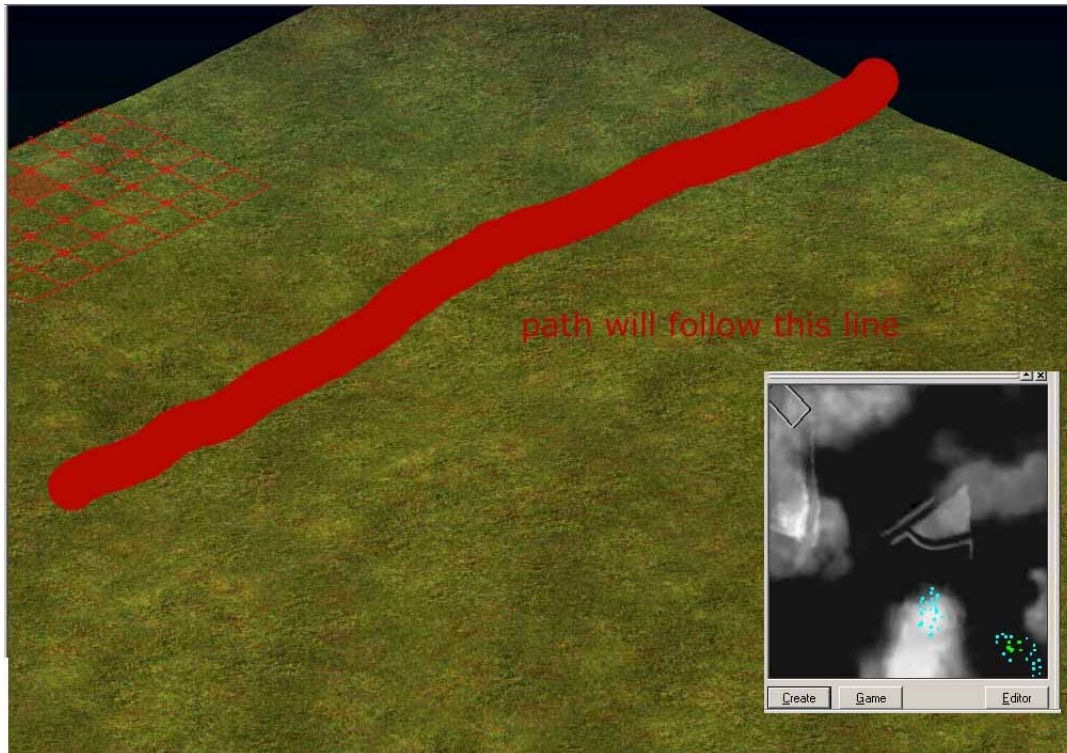
Using the size 6 brush, and the right mouse button, I am going to sink some ground. Oops. I used a size 8 by mistake:
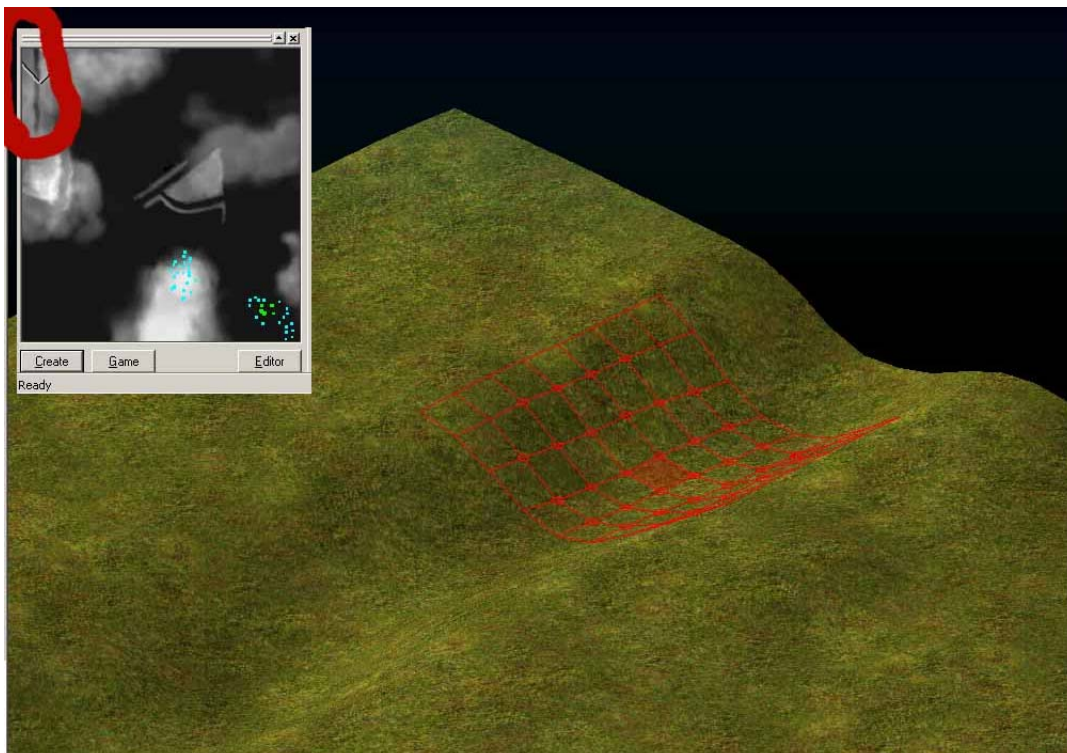
Not uber convincing really, is it?

So now I will raise the top bank a little, and the lower bank with 4 and 6 brushes, and left mouse button to make it look nicer:
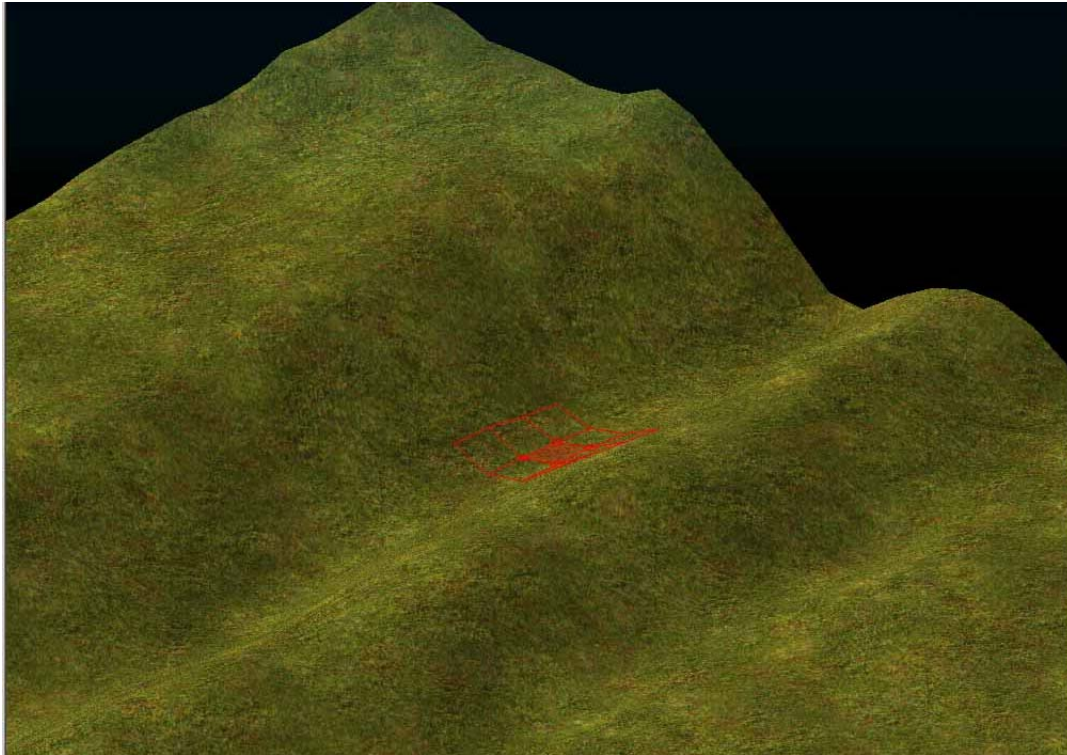
OK, I also used a 4 and 6 brush and right clicked to sink the terrain on the road side to create a more pronounced lip on this sunken path. I also used the same 4 and 6 brushes to raise the upper part and sink the bits behind that for a more pronounced lip there too.

How does it look? Hit update and then place a road path in the bottom of the ditch:

This is a really deep and extreme example, but scroll back and look at the original terrain and you can see that it's quite a difference. I am going to go and add the rest of the bocage roadsides and field boundaries, plus some villages. This is all stuff we have covered so go practice while I do that.

Right, I have been away had some food and then bocaged all my roads and placed all my villages. I've added some small paths connecting the villages, and bocaged the riverbanks. I got a little bored with banks so I dug some ditches with the right mouse button, and created some raised sections of road by right buttoning each side of the road. This is the tedious part.

The mini map for heights is looking like this (the blue dots are houses):
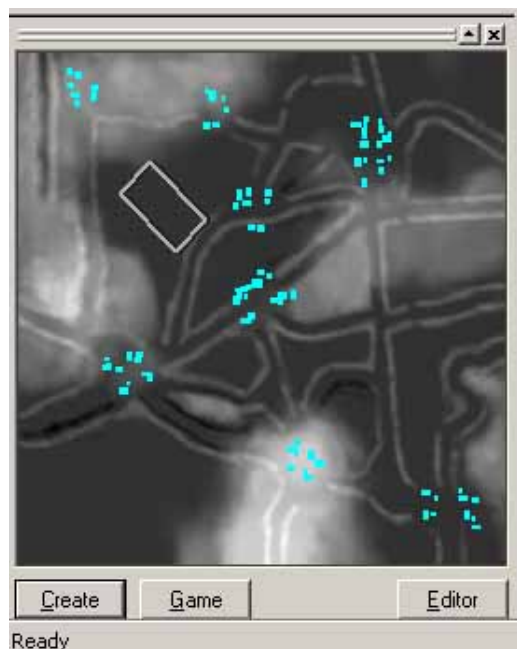
Well where are we going from here? I have to add smaller earth banks for the field borders in the larger spaces. I'll do that and throw trees and bushes along the banks, then do a part covering quick creation of random grasses and so on. 40 minutes later my field borders are done all using size 4 brush and sweeping back and forth in a line to raise a mound:
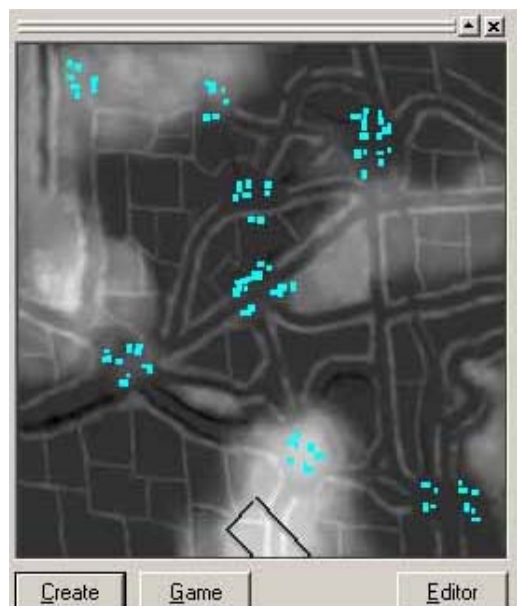
Of course I did all the painting in the big view, and the mini map is just to show detail (Sorry. I posted this after getting a horrible thought of someone trying to figure out how I was painting on the mini map).

Are you all sick of heights yet? I know I am. Hehe, but if you look back at the aerial photo of bocage type countryside and this mini map you might see some similarities.

How does all this correspond to the historical map you ask?

Well all the roads and villages are roughly right and the number of buildings in them the rest is (ghostly chorus) "spirit of the terrain". Hehe.

When I finished my last mounds of earth, I hit the update button, and checked all my roads, paths, and rivers (etc), to see if they were upset. I opened the "roads rivers" tool box, and pulled some points here and there when they needed adjusting to make them sit on the newly created dips and mounds and so on.

CDV FORUM NOTE from aletoledo

- Great discussion on heights!! Perhaps a little too in-depth on height examples for a simple tutorial, but I liked it. I've almost given up on heights for one reason; they don't seem to block LOS. Do you know a method to make them block LOS or is there a minimum height that starts to block?

No clue. I build them cos they look nice and trust the game engine to do the rest.

Play ddplus 6 and see how the line of sight reacts. I know that the higher you are the more you see, even on small heights. On my first map the Germans have a LOS advantage due to some very small hills, so I guess they don't block it as such, but add to it and it's trees and so on doing the blocking.

Time to pick up the pace. My holidays are approaching fast and people are asking about describing my script.

So we have done basic setup: done roads / rivers /bridges/villages lots on heights

I guess you can all place objects now after looking at villages tanks and squads are much the same and we will come to them in a sec.

Part number I've forgotten… maybe 11?

Part 12: Fields

So my map is now covered in fields, and green green grass all over the place, and I want to fill my fields with different random textures and objects to make them look different… random, and not so green.

You remember clicking and right clicking for roads.... well this will come in handy here because we want to mark an area for the computer to fill with stuff, and making that selection is like placing a road.

Go to the terrain toolbox (same place you find heights), and click the fields tab
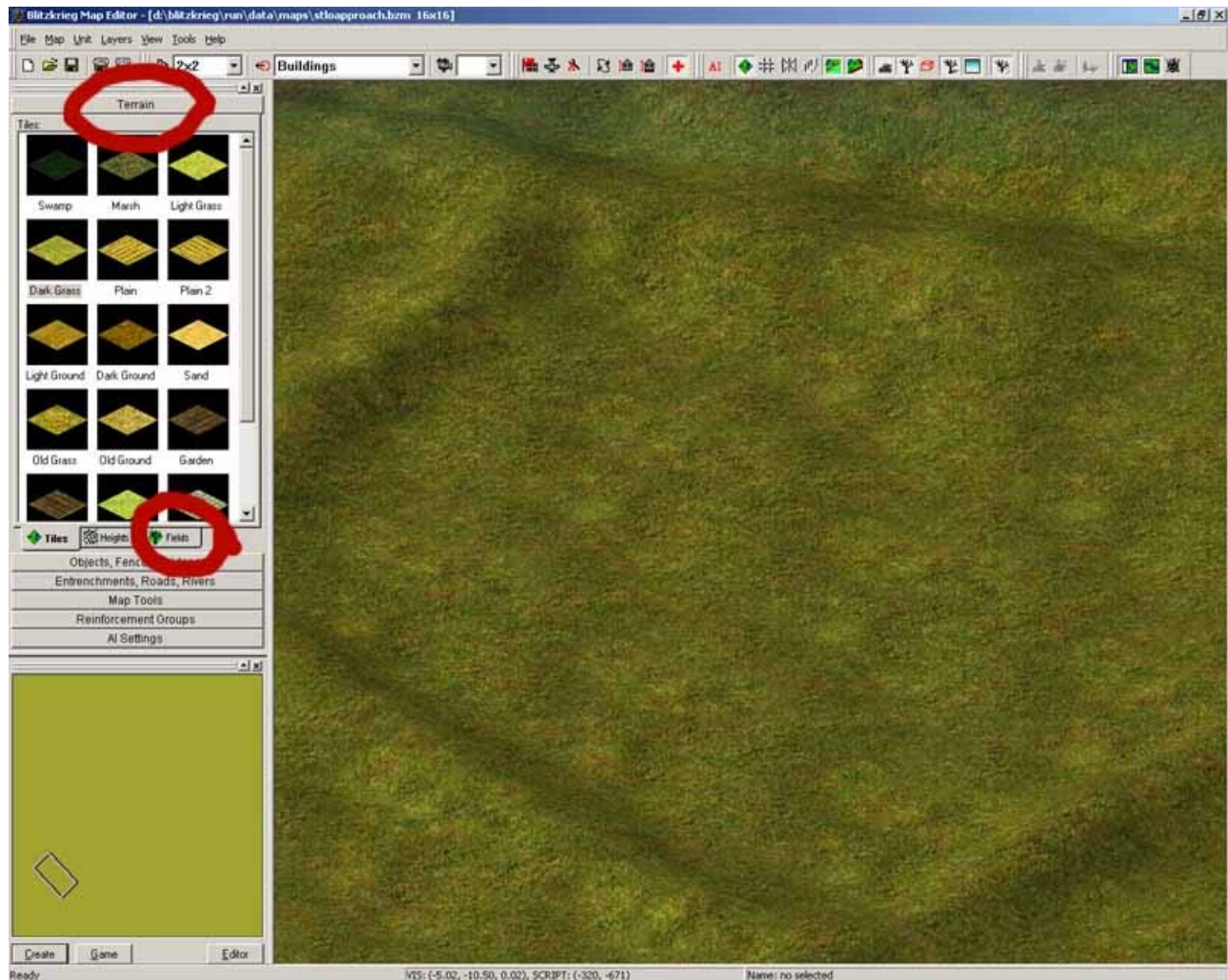
Your mouse cursor will change to the same one as making roads. In the pic I have clicked some points. To close this put your last point on your first and double click. You just created a field. Now, top left you see a drop down menu (have you saved your map? If not, do it now because until you learn these field types in your head you are never sure what you are getting).

Select a summer field type, maybe number 8 for example:
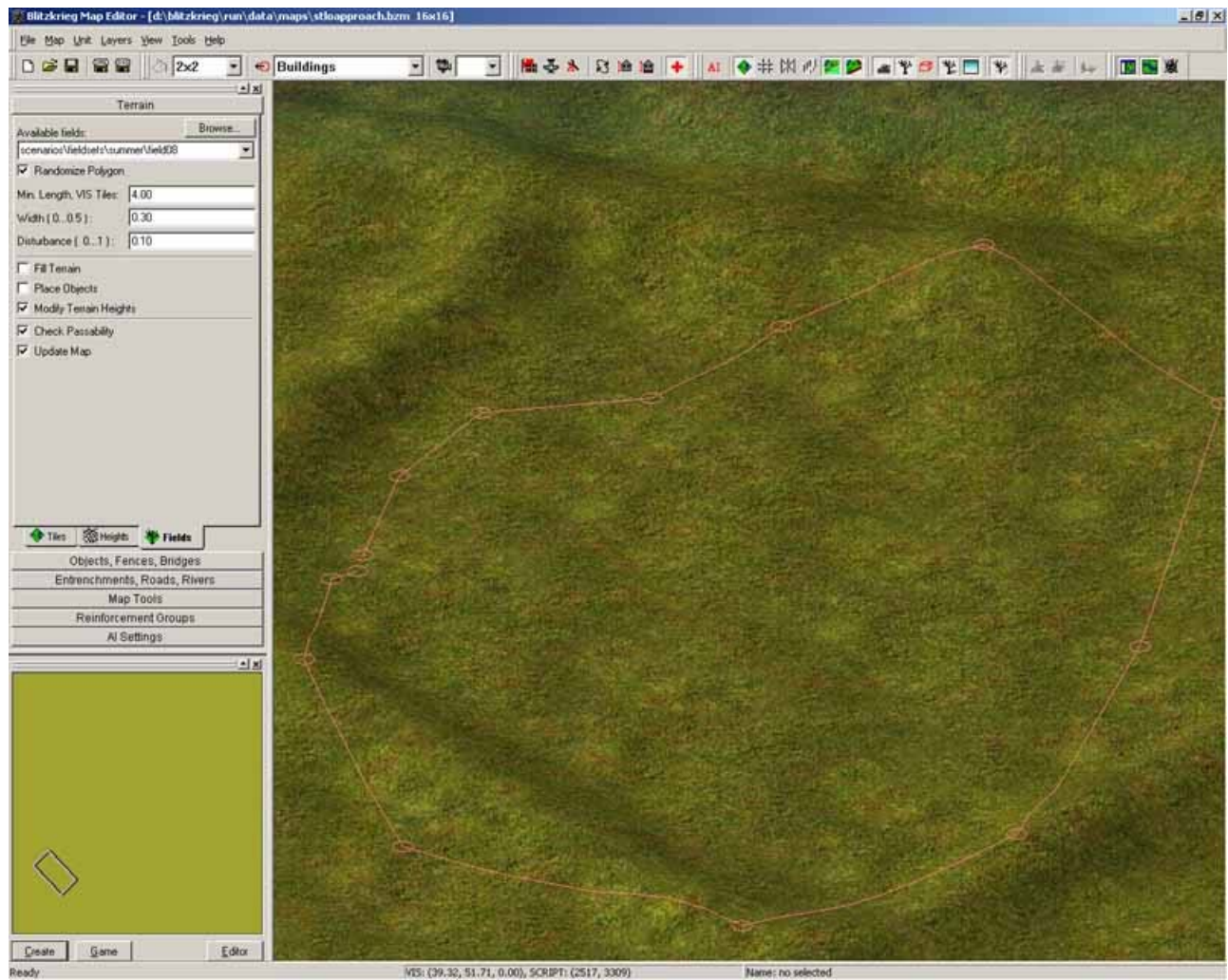
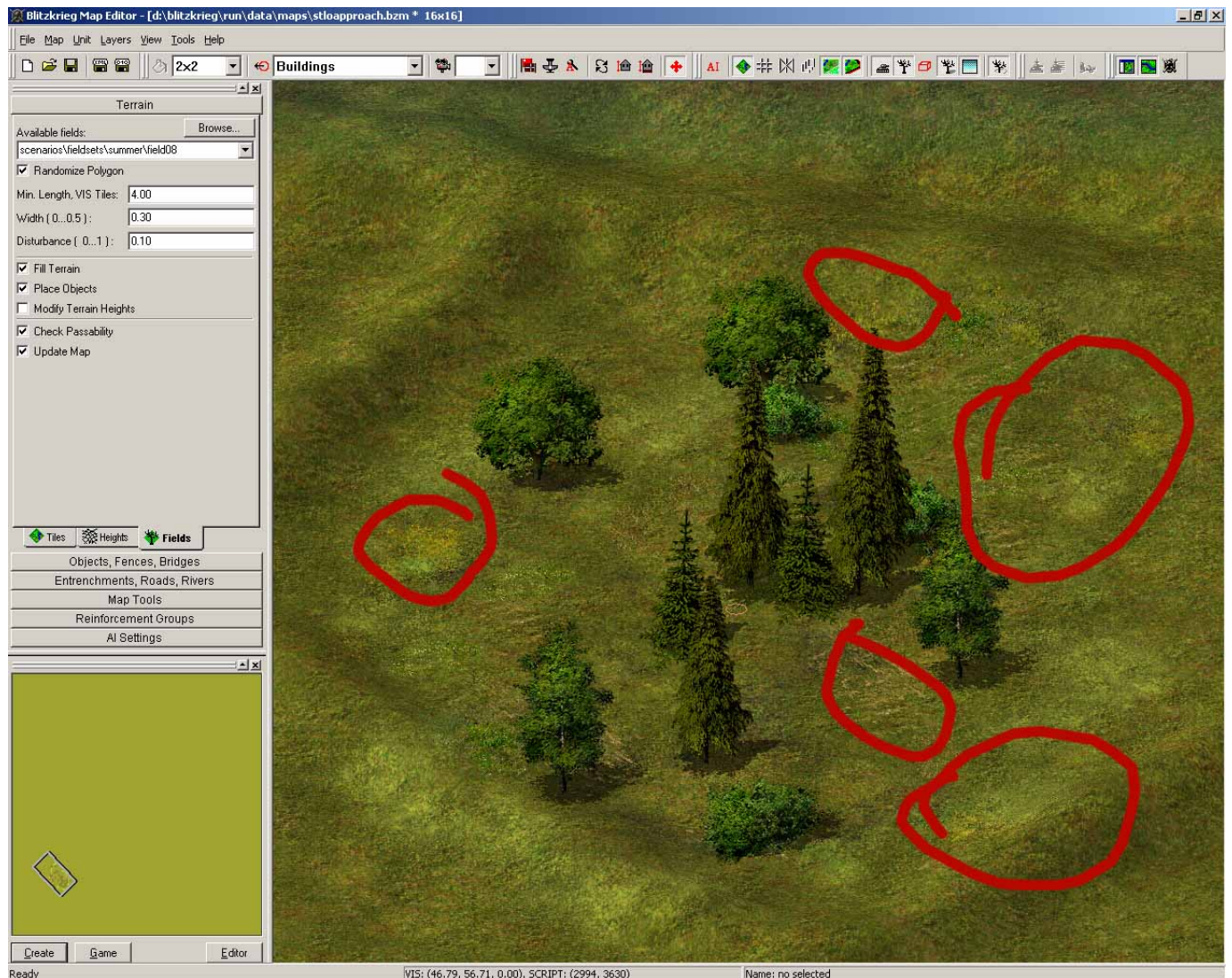Notice the "options", "modify terrain height", "fill terrain", etc? Right now I just want it to fill terrain and place objects. So I deselect the heights modifier. As I want it to place objects this will throw random trees and bushes out too, so I leave that checked.

Now have you saved your map? I hope so.

Double click in the middle of your selected area. Results:

I would remove the pine trees as I don't think they fit, but the red circles show that flowers have been added and dry patches of earth. This is a fast way to fill the map and make it look different.

That's fields basically. The best way to test it is to experiment with the field types, saving your map so you can just open it again to get rid of unwanted effects like a swamp in the middle of your city.

You did save right?

I always use the vanilla settings, i.e. I don't mess with the rest. I just throw out the flowers and see how it looks, and delete trees. I don't think "fit" or "belong" and in this field I generally switch to objects to delete the trees and move things around till I am happy.

Here's "bocage done quick".
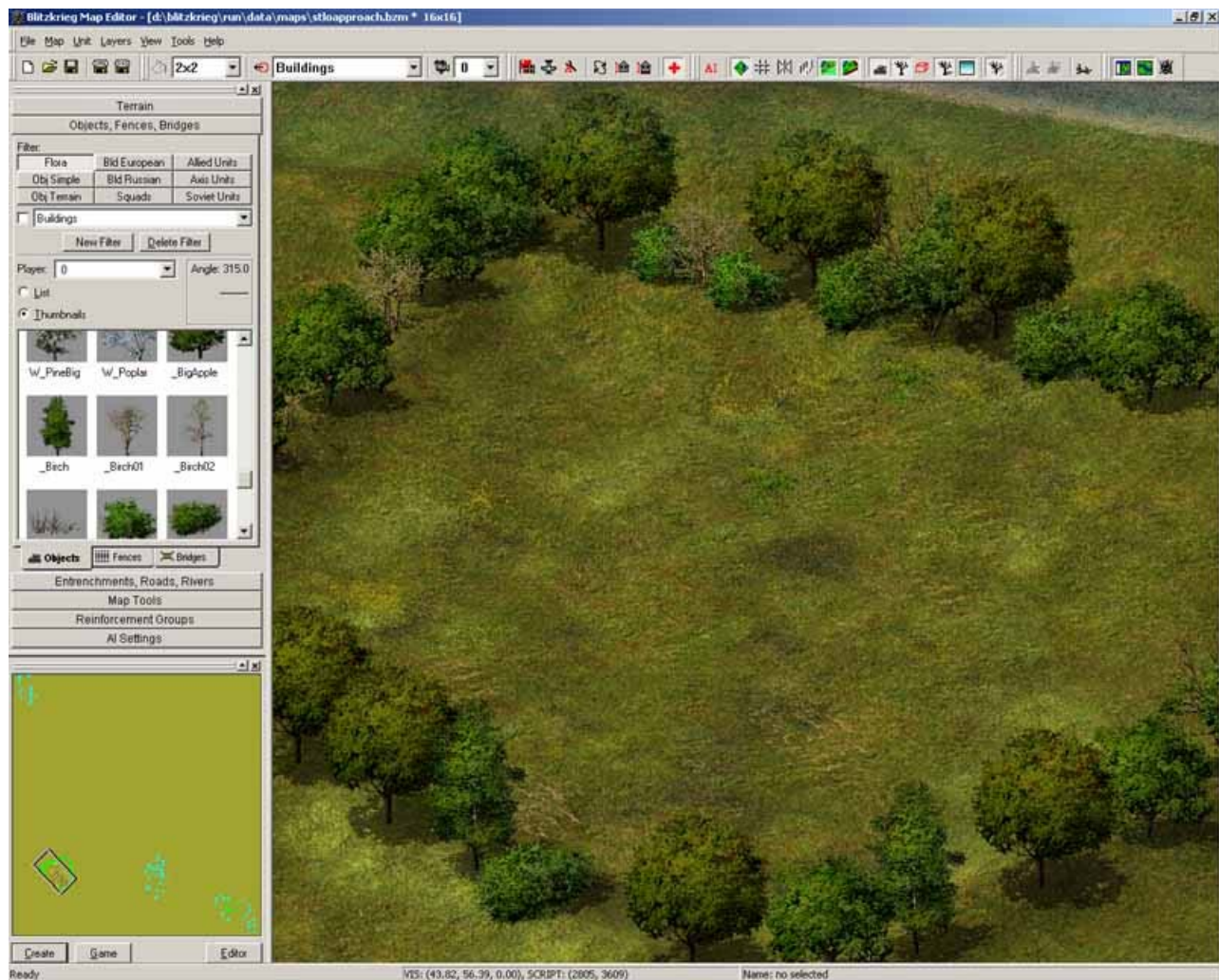
So, in summary:

Select "Fields tool box". Click out points to mark an area. Right clicking to take back your last point if you make a mistake (don't forget to save). Use field type remove, or modify heights, if you don't want some new hills. Double click last point on first point, select field type, and double click in the middle.

Any questions

I have been at this since 0900 and its 2215 so its time for a break.

I will do more tomorrow

CDV FORUM NOTE from LONG RIFLE

- God bless thee and keep thee Oxy, for thy great works which thou doest. And I certainly hope that the makers of this game see your posts as the proper way to make a tutorial!!!! You are going to continue I hope..............how do you get the map to actually work??????

Oxy
Mapping God

Yes I will be continuing but I need to sleep now and then. I am pushing hard to get it finished before I am dragged from my computer for holiday by the lady of my house.

Thanks for the kind words everyone 😊

ill be doing more today, player cameras, flags, warehouses, script areas, unit placement, reinforcement groups & finally a basic script
(bleaahhh ewww scripts, cough choke, gag) so by the end of today (lady love willing .. she might make me do housework ^^)
the map should be playable multiplayer and you can all expand on the process to do a completed map, right now I am in the trusty red bathrobe drinking my coffee and about to write an after action report of a 2 v 1 game I had last night with idman and spuddy on DDay plus 6.

Oh and I just noticed that my title has changed from Lance Corp (there goes all the loot =()
I didn't do that but it was a very nice thought of the person who did ^^

are gods allowed to wear red bathrobes? if not ill go back to corp 😊

CDV FORUM NOTE from War Commander

- Many thanks "Oxy" Keep it coming👍 👍 Will you be showing how Reinforcements comes out??

Oxy
Mapping God
It will demonstrate how to set up flags capture reinforcements and some times ones, ala the **carentan** script (aka - the only one I have written).

Part 13: Flags

Right then.

I haven't placed out any more objects since I don't want you all to wait around while I do all my trees and so on. So you will just have to imagine that my map is now covered in trees, plants, and bushes. My terrain is all nicely randomized and looking fine.

Its time to lay out some flags. Looking at the mini map it seems pretty clear to me where I am going to put out flags:
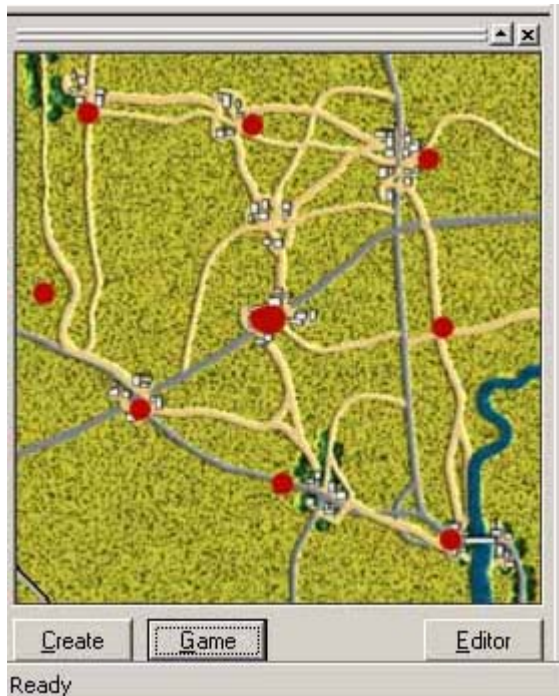
The red dots are places where I will have flags I think. This will encourage use of the whole map and give a variety of fighting. If I find in play testing that the flags aren't good I can always change them.

So to the editor:

You see I have changed the player number to 4 because the flags are neutral in ownership, and I have opened the objects tool bar and set a filter in the dropdown so I just see the flags. I am going to put flags out now in the places I have indicated on the minimap above.

Remember when you are placing objects select it in the toolbox and you see the ghostly outline stuck to your mouse pointer. Left click where you want to place it, and just keep left clicking if you want to place many, or right click to get a plain mouse pointer back. I have placed my flags and now its time for a script area.

Script areas can be placed using the map tools section. What do you use them for? Well, when you place a script area you give each one a name and you can use it in a script to check things like, are there any allied units in this area? Are there any Germans there? Are the units in that area fit and healthy? Are they damaged, and how many of them are there? Those kinds of things. I am going to use these script areas for flag reinforcements, so I need one on each flag for the final map, but I will just place one and move on since the process is just rinse and repeat.

OK, you can see all the knobs and buttons.

"Add Damage" - as the name suggests you can damage units using script areas.

I haven't looked into this much but I would refer to the help file in the editor if I wanted to know more about it. One neat thing is I know you can set this value to heal a unit in the script area. Also I guess you could set up a field hospital or repair yard kind of arrangement. However that's not what I'm going to do right now. Just a tool for me to use in the script. You see, you can make it a square area or a circle advanced tutorial, eh. Well I'm going to pick circle since that suits my task best.

I moved to that village by the bridge from earlier, and moved the mouse over the flag. Then its left click, hold and drag. You'll see this light green circle appear. That's your script area. Just keep dragging with the mouse button held down until its the size you want then release. When you release, a dialogue window pops up and prompts you to name it. I called it **setown** for south east town. You could call it AX120z345, but my brain doesn't work that way, so I called it something I will remember.

The important thing here is to keep a standard. **If you use capital letters in the name it has to be exactly the same in the script, or it won't work**. I used all lowercase.
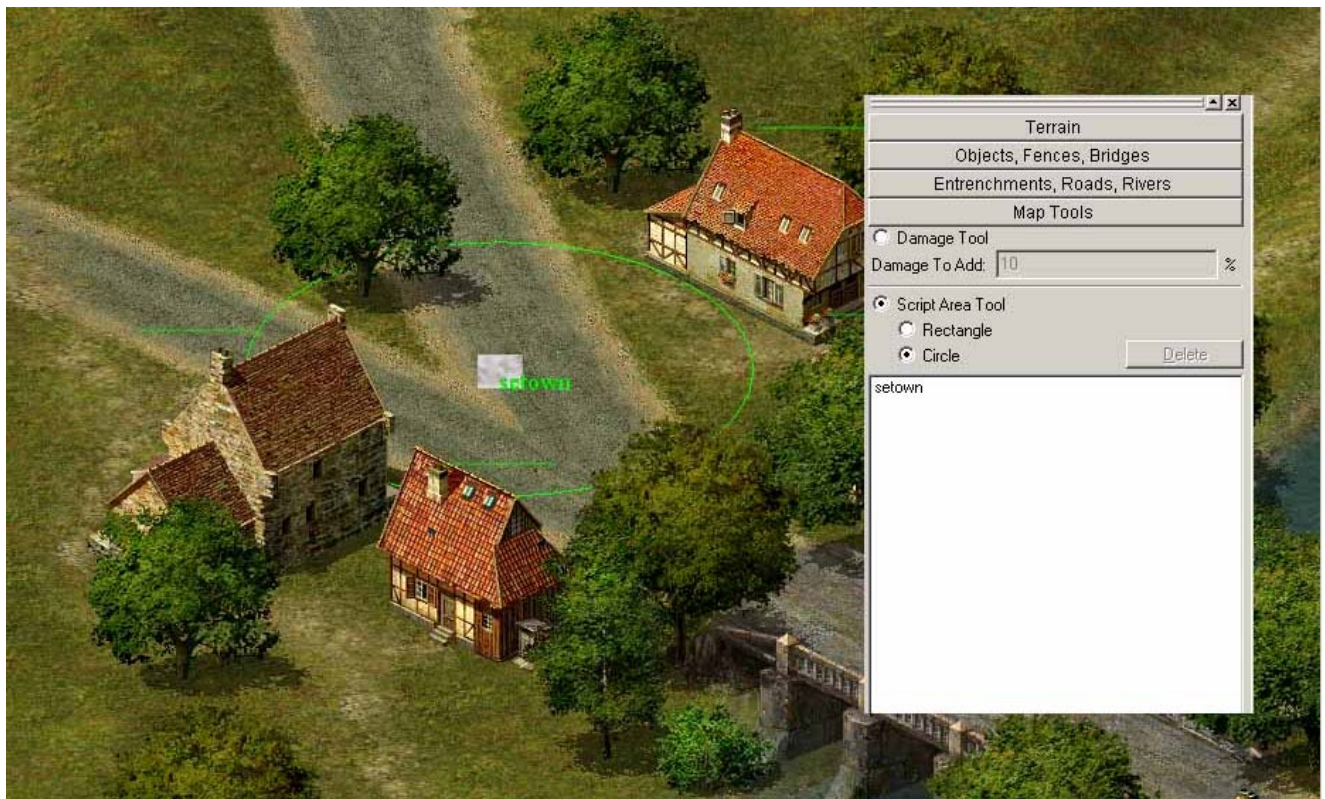
Here you can see the finished script area and notice that in my map tools toolbox **setown** has appeared in the list of areas. Now I would go and do the other 8, but since its a repeat procedure I won't, and we will move onto player starts.

Way back at Part 1, when we did the diplomacy settings, I made player 0 an axis player. Go to the player number drop down menu and set it to player 0 (that's the drop down menu next to the little camera icon at the top look at the pic where I was placing flags if you are a bit lost).

Now I'm going to move my view so I am looking at the bottom right corner of the map, and if I have player 0 set in the drop down menu I will hit the camera icon:
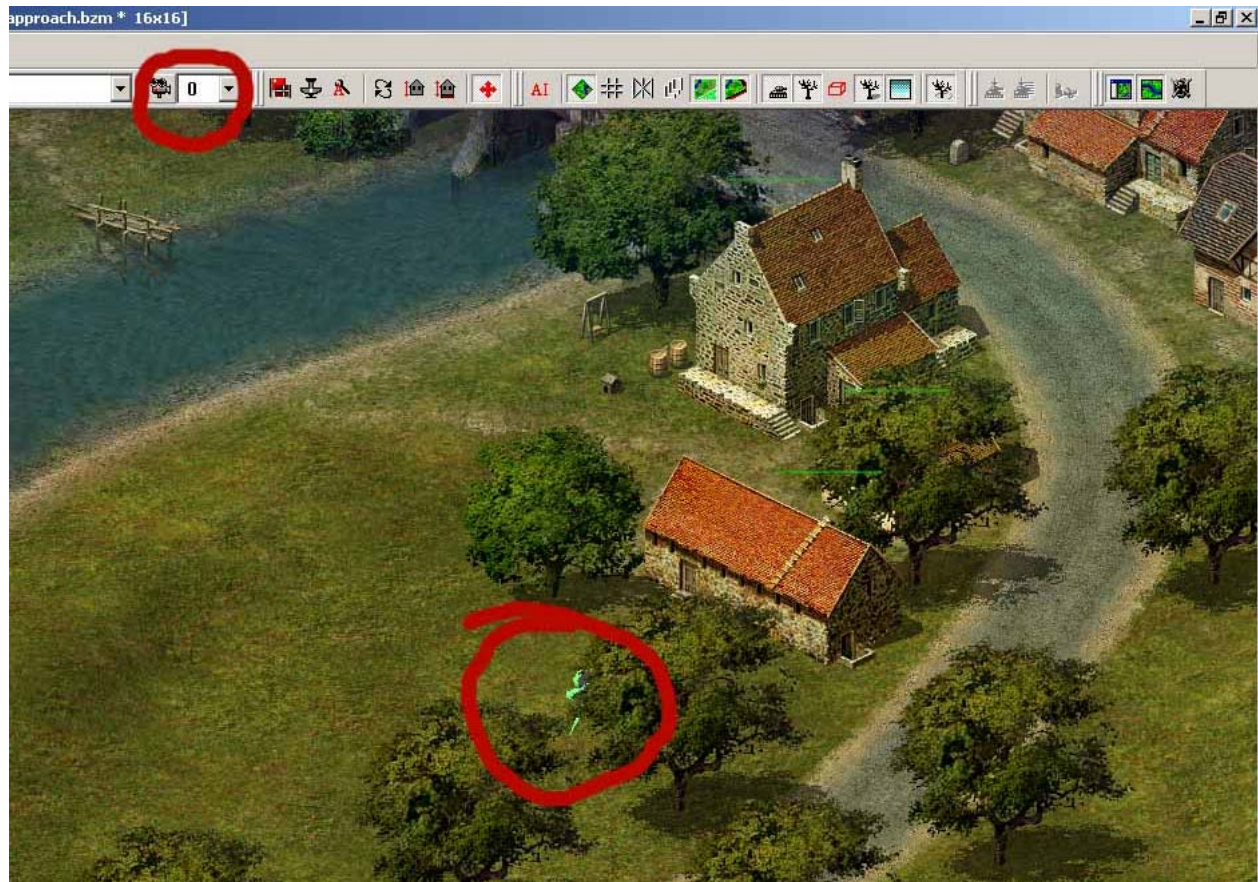
Here I circled the drop down menu I mean for player selection, and the camera button. I pressed it, and you can see the camera has appeared behind the tree. This camera is where the players view starts when the game starts, so you don't want him looking at the top of the map if his units start at the bottom. He or she will get tired of scrolling to their units every game.

I'm not happy with it behind the tree so ill move it onto the road. The camera always appears in the center of the small box on the mini map so I will move that small box a little and press the camera button again, making sure player 0 is in the drop down.

3 tries later, and I'm in the middle of the road.

Naturally you would rinse repeat for the other players. I'm just doing player 0 since its all I need to test the map. When you hit the blitzkrieg button top right in the editor then you always play as player 0 so do all your testing stuff on player zero (don't forget to fully test all the other players in multiplayer later so you know they work).

Now you could say, "Weeee lets go and get some tanks and blow up the village!!" But no,

have patience. We are doing warehouses now:
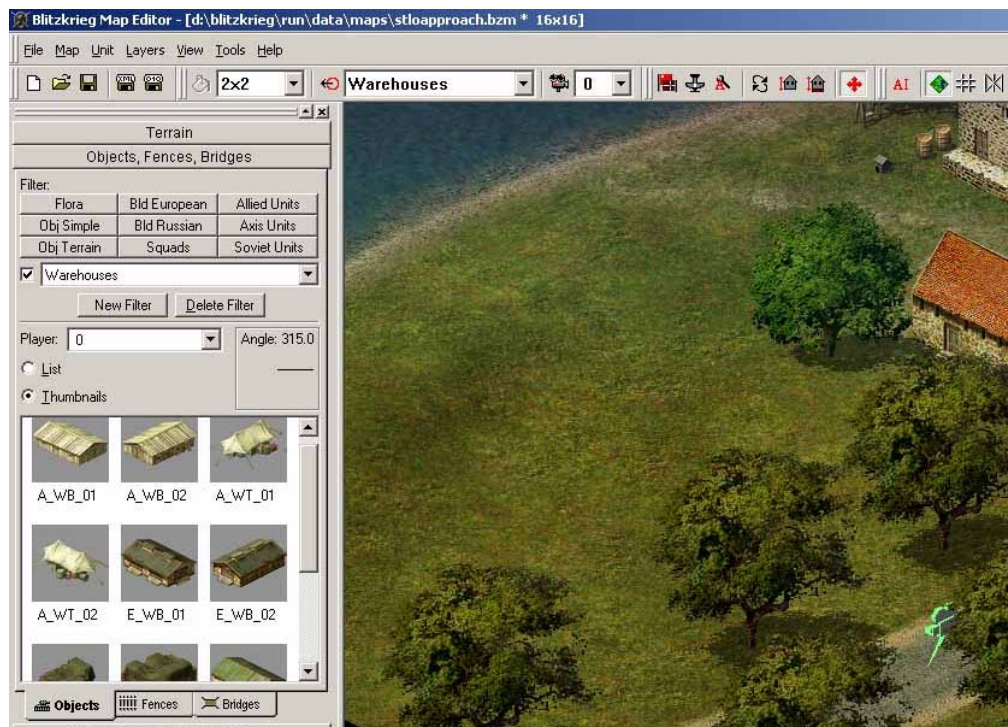
Open objects tool box and filter for warehouses, make sure player 0 is still in the drop down.

In my first map, ddayplus one, supply vehicles (when they ran out of mines, etc) wouldn't automatically go to the depots for more. I had to tell them to go, which was annoying, and I didn't know why. I posted about it on **nivals** forum, and **warpy** kindly supplied me with the answer. Each player has to have 1 large building type warehouse, and the smaller depots are linked to that automatically if they aren't too far away.

So I have filtered warehouses and I will pick a building I like:
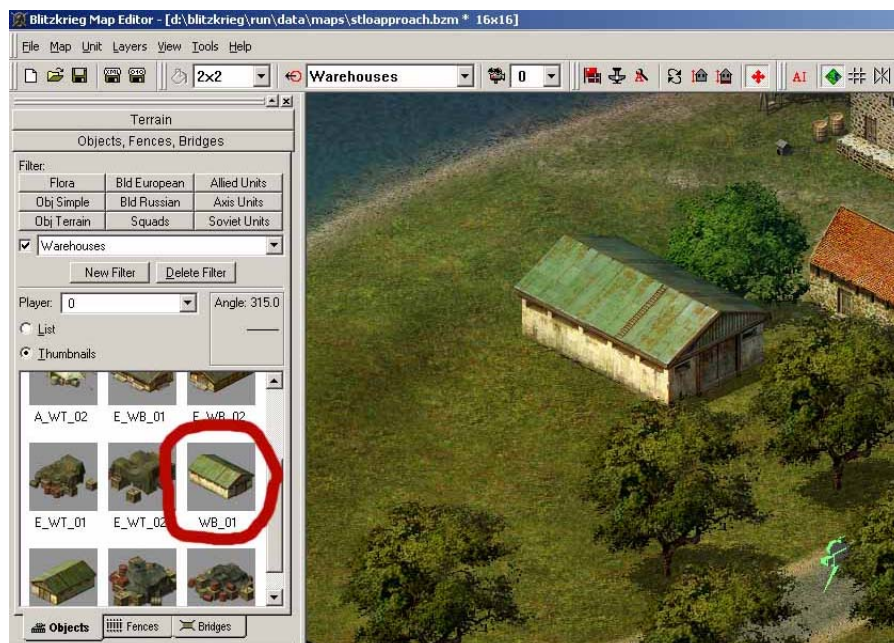
Tadaaahh!!! Warehouse "wb_01" is on the map and it belongs to player 0 because I have player 0 set in the drop down window. Don't forget if you have the wrong player set just

double click on the object and change its ownership in the properties window that pops up.

I then went and placed a smaller depot (the piles of crates) wt_01. If you are interested on the other side of the river he also belongs to player 0.

And that's warehouses really. You would repeat this for all the other players and add some neutral ones to the middle, or just leave the ones at the starts to simulate long supply lines.

According to me wee agenda I need to talk about unit placement now. But, I am being forced to go out into the horrid daylight, and the worst atrocity is I am being forced to go to the shops!

So it will have to wait, I'm afraid.

In the mean time place cameras and warehouses for the other players and make some script areas (**oxy** goes away muttering darkly about women and clothes shopping).

Did I thank you for making it sticky barney ? .. if not I'm sorry

thnkx =)

Shoes!! Regiments of shoes!! Horrible shopping. I have returned safely from a mind numbing tour of clothes and shoe stores.

I have also gone into me wee map and added warehouses and depots for the other players. I also added a script area in the middle north town called **town**.

Time to grab some troops.

Part 14: Placing Troops

Normally, at this point I would hit the books and read the official history for clues as to which regiments were involved. What their order of battle was, what equipment they had, and any shortages that can be taken into account if you want to make it as accurate as possible, but for now I will just make units.

So, I set the player drop down to 0 since I'm going to place player zeros units, and I open objects and set the filter drop down to axis tanks. I'm going to make 1 group for initial placement, and two reinforcement groups.

Initial placement. I have thumbnails up since I'm blind and it helps me see what they are. I think panthers are by far the gucciest tank in the game so I'll have a couple of them. Once you have them selected you get the ghostly tank attached to your mouse pointer as you can see in the pic:
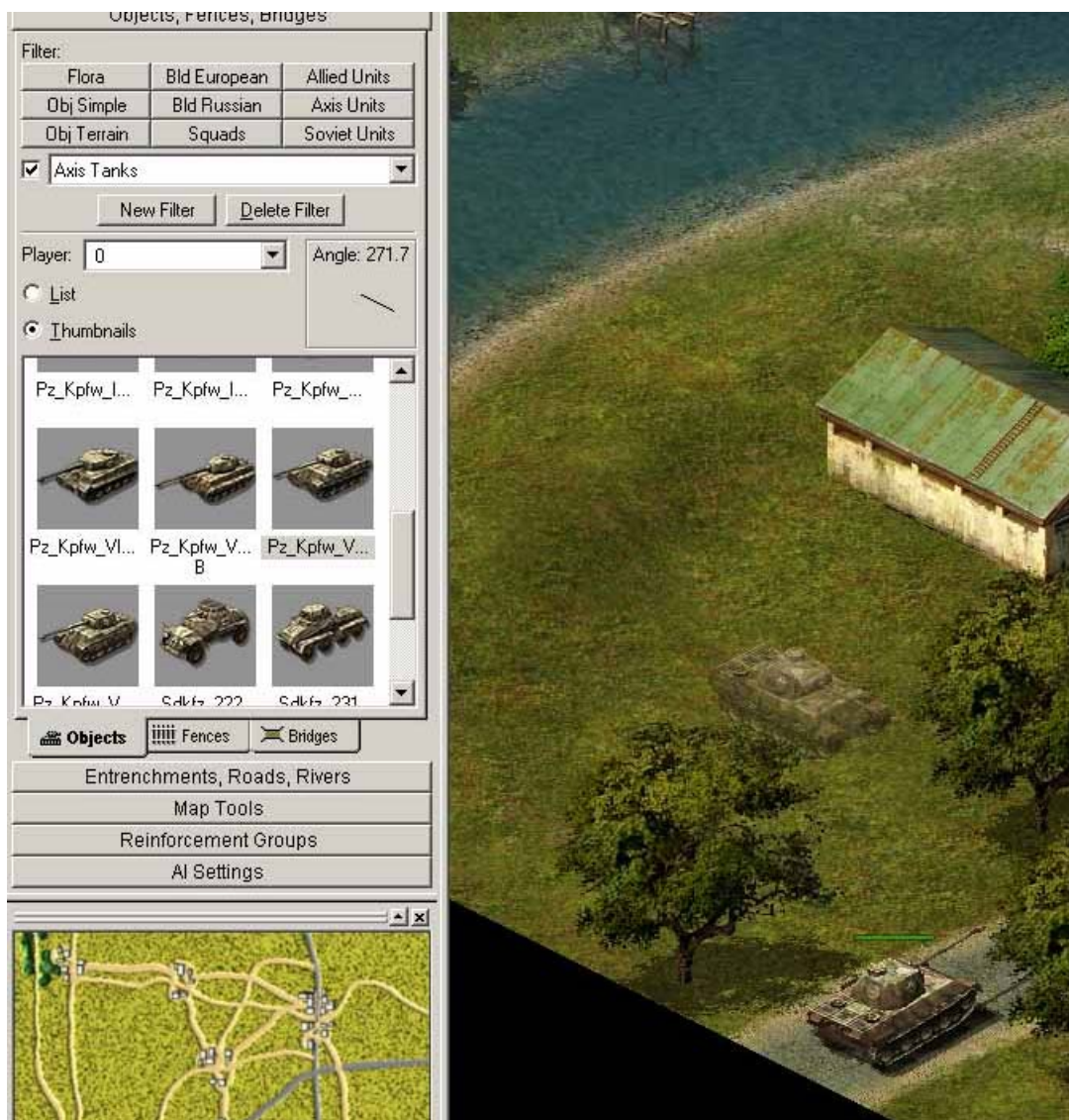
I have placed one but I wanted to show rotation, so this on is at the wrong angle. Just move the pointer over to the angle meter in the tool bar and move it to point in the right direction. When you move the mouse pointer back you will see mr ghostie tank is facing the right way. Left click and drop him on the road in front of the other one. Right click to clear the mouse pointer, or left click to place another tank. I'm just going to have 2. Its enough for now. If a unit has been placed already, and its angle is wrong just left click it (only possible while you are in objects tool box) and adjust the angle as above.

So, because you set the player drop down to zero these tanks belong to player 0. If you forget (and I do all the time) just left click the first tank and ctrl click the second tank to add it to the selection, and hit enter on your number keypad for the properties window and change them there.

Since I have them both selected, and I have properties open, I am going to give them a script id. You see its currently script id −1. If you don't want to write a script and want all the units on the board right away leave it at script −1, then when you start the game he will pop up.

I have changed the script id to 100. Why? Well, you can used any number really (avoid 0). Don't start numbers with 03, for example, I'm superstitious, no I think it might mess up **lua** script, but I haven't tested so I don't know. But I don't need extra problems.

I used 100 and 300 for the axis players in **carentan**, and 200 and 400 for allies. These are fixed in my head and I will reuse them to make life easier for me.
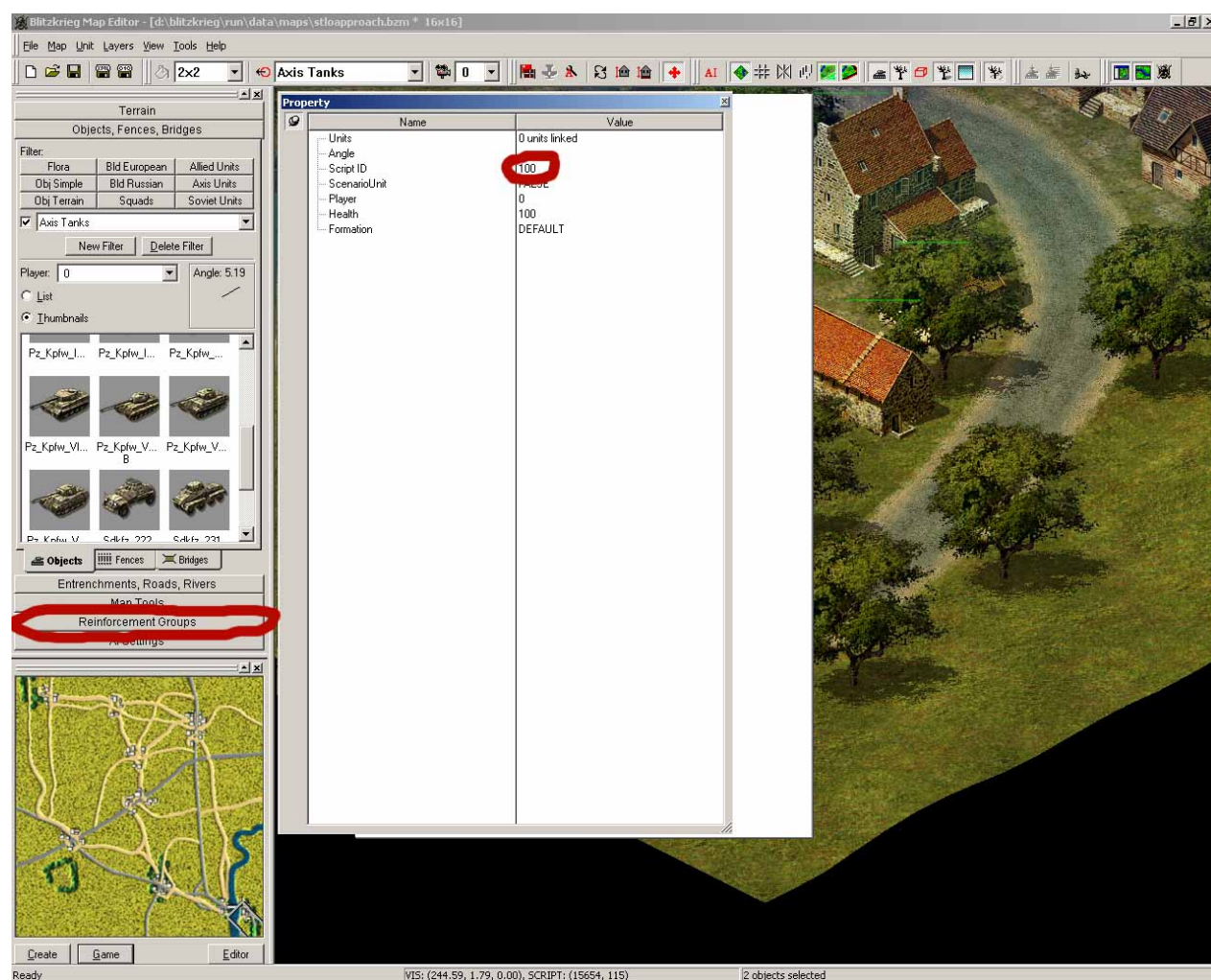
Now, I will make these two tanks part of a reinforcement group. Click on the reinforcement group button in the tool bar (in red on the pic).

Now you will see an empty list and button called new group. Hit that button and a window pops up asking for a name, I made the new group 100.

For simplicity's sake, I was worried on **carentan** that it would cause problems in my script, that my units script id was 100, and that my reinforcement group was called the same, but it didn't seem to care so neither will I.

So, make it 100 and hit enter. You see reinforcement group 100 is now in the list. Left click on it in the list so it is highlighted, and go to the group property window below it and hit the "add unit with script id" button. Yepps, you guessed it. A window pops up and you type in the script id of the units you want to be in this group, in this case I add 100 and hit enter. Those two tanks are now part of reinforcement group 100, and in my script if I tell the script to LandReinforcement(100); they will appear on the map right there where I have placed them.

That's reinforcement groups, script ids, and placement covered. Now I'm just going to add two more groups for player 0 and three groups for the other 4 players, so each player has three reinforcement groups made up of units with three different script ids.

I'm using 100, 101,102 for player 0

200 201 202 for player 2

300 301 302 for player 1

400 401 402 for player 3

I know, I know. It looks odd and you don't have to use the same numbers as me, but I'm using odd numbers for axis players and even numbers for allied player. Weird guy, eh.

So if you have done everything right you have 12 reinforcement groups in the list. In total, 3 different ones for each player.

So a short time later, and hey, presto, my reinforcement group list looks like this:

Why have I checked the check boxes? Well, because once they are checked and I highlight another group the checked ones vanish from the map. They are still there, but they become invisible in the editor, and I use this to check if I have made any mistakes when using the "add units with script id " button.

You will make mistakes. I did just adding these few units, so get used to using the function.

Why have I made 3 groups? For each player?

Well groups 100 200 300 and 400 are the initial units, and I will tell the script to check if that player is in the game before placing the units. If they aren't there their units wont go into the fight.

Groups 101 201 301 and 401 are flag reinforcements. I will show you how to do that (that's why the scripts areas are there), and 102 202 302 and 402 will be timed reinforcements

Unless I have forgotten something the map is ready to go but for the script.

Go up to the buttons at the top and hit the script icon (the ones with the spanner on it), a window pops up and here you write the name of the script.

I will use oxy since I love meself so much. You can also browse but that's a bit pointless since the script doesn't exist yet.

Hit "SAVE AS" under file and save the map called "stloapproach" in the multiplayer folder and that's the editor work done for now.

Now it's scripting! Hurraahh... Not.

Part 15: Lua Files

NOTE: In this section pay close attention to the exact case of each script. Actual scripts are **boldfaced** for easier recognition.

How do I make a **.lua** file?

Easiest way is copy one from the multiplayer folder "central conflict". For example, copy it to your desktop and open it. Rename it by right clicking on it and typing a new name, in this case "oxy". Now open it in Notepad. This method guarantees you no problems with file format.

So… big blank page.

Ewwww. How did I learn to script? I stared at retail scripts till they made some sense (I cant program to save my life).

So the first thing we need is a:

function Init()

This shows the script where to start, I guess. For some reason its at the bottom of the retail files, so I put mine there too.

function Init()
RunScript("begin", 500);

If I use capitals, you do too. Capital letters can make or break a script as I discovered in scripting **carentan**. This command in the init function tells the script to run another function called "begin" in 500 milliseconds. Someone told me they were milliseconds. I have no clue, but thnkx to gamer 33 we know that 10000 = 10 seconds. I'm not mathematician so don't ask me if they are milliseconds. I'm a trusting soul.

Now the forum here doesn't allow tabs in lines of text but each of my RunScript lines are tabbed once:

function Init()
RunScript("begin", 500);
RunScript("timed", 10000);

This new function "timed" I will use to land the timed reinforcements:

function Init()
RunScript("begin", 500);
RunScript("timed", 10000);
RunScript("flagchecker", 500);

Bet you can't guess what the flacgchecker function does. Yepps, it will be to see if someone has captured a flag.

That covers the init function so we need an end;

function Init()
RunScript("begin", 500);
RunScript("timed", 10000);
RunScript("flagchecker", 500);
end;

OK, so the script is off and running. Now we need to write the begin, timed, and flagchecker functions. Unlike in my tutorials, you have to be super careful about capital letters, spelling and symbols like **;** and **,**

function begin()
if (IsPlayerPresent(0)==1) then
RunScript("A10",500);
end;
end;

So whats this do? Well it checks if player 0 is in the game, and if they are it runs A10 function which will put their initial units on the board once we have written it.

Notice the **if** statement has its own **end;** it tells the function that that's the end of the **if** basically and **if** that e**nd;** is missing the script wont run. You need one of these lines for each player, and since its a 4 player game I need 4 of them. I will copy and paste, and I just need to change the player number and the name of the new reinforcement function for each player.

So in the end it looks like this:

function begin()
if (IsPlayerPresent(0)==1) then
RunScript("A10",500);
end;
if (IsPlayerPresent(1)==1) then
RunScript("A1",500);
end;
if (IsPlayerPresent(2)==1) then
RunScript("A2",500);
end;
if (IsPlayerPresent(3)==1) then
RunScript("A3",500);
end;
Suicide();
end;

Note there is a **Suicide();** after the last **end;**. This tells the script to only run once, so if it sees the **Suicide();** command it takes out a wee katana and chops its own head off never to run again unless I tell it to.

Now I need to write the new functions here that the begin script is told to run.

They will look like this:

function A10()
LandReinforcement(100);
Suicide();
end;

You remember when we created the reinforcement group 100 200 300 400 in the editor? Well this is where they get told to pop onto the map, and you need one for each player.

So you get this:

function A10()
LandReinforcement(100);
Suicide();
end;

```
function A1()
LandReinforcement(300);
Suicide();
end;

function A2()
LandReinforcement(200);
Suicide();
end;

function A3()
LandReinforcement(400);
Suicide();
end;
```

So that's the begin, and its new functions done.

Now we need the flag checker:

```
function flagchecker()
if (GetNUnitsInArea (0, "westbridge") >=5) and
(GetIGlobalVar("Reinfwestbridgeaxis", 0) == 0) then
RunScript("Axis104", 30000);
RunScript("Axis304", 60000);
SetIGlobalVar("Reinfwestbridgeaxis", 1);
```

NOTE: a post by **lou** just reminded me if you are placing an artillery piece, and you want it to start the game mounted on a truck, drop a truck on the map, and the arty piece. Select the truck only and move it over the arty piece. You should see an up arrow appear on them. Drop the truck and they are now linked.

With mortars some vehicles wont carry them. If the arrow doesn't appear try another transport.

Double click on these linked units to separate them.

Thnkx **lou** I meant to put that in but it slipped my tattered brain.

It's the same process with infantry and trucks. Drag a truck over the infantry and look for the up arrow. If it doesn't show, then I have it backwards and you grab the infantry and drag them onto the truck.

Remember to experiment.

Conclusion

Here endeth the whole lesson.

CDV FORUM NOTE from PanzerGren
-Oxy I know ur script is fr multiplayer but for single player can u just copy and paste a script and edit it or do u have to start from scratch?

I have to confess that I don't know. However, that said, it's the same language and the same overall commands so the same functions will work, I guess. You only have to worry about one player so I would guess a lot of the scripting can be cut an pasted. I don't know much about single player as you know but my best guess would be that most bits will work

fine cut and pasted.

I will be looking into single player when I get back from holiday since Rico asked me to and he and barney work so hard they deserve something back.