**Helper Guide for mappers.**

#1 - Always, and I mean always back up your maps manually. Although MoHRadiant has an auto backup feature, its safer and a good habit to get into. Try to save before making any major changes to your map. This means that even if you screw up, your work is always safe.

#2 - When building structures, always build them using the caulk texture and then texture each individual surface that can be seen by players of your map. For those of you who don't know where to find the caulk texture its located in the common texture set, and consists of green and pink squares - make sure you select the right one.

#3 - Try not to use CSG subtract. Build brushes individually. This may sound obvious, but there are people out there who construct their maps by hollowing out brushes, and carving hallways in between 'rooms'. Don't. It may be quick, but in the long run, your levels will be much easier to maintain and will help you express your ideas easier if each brush is placed individually.

#4 - It is vital to get your texturing perfect. Get ideas about textures and how to use them by running around the MoH official levels and taking screenshots (use F12 or bind a key to screenshot) of those that you think will be appropriate to your map. You can then look at the screenshots using PSP 7 or some other image program. Use these shots as a reference as to how to use the textures.

#5 - On the subject of textures, do not use all the textures that you can find. On the other hand don't just use 2 or 3 textures. Vary your textures so that the map looks real and use them appropriately.

#6 - Use textures to your advantage. Many textures in all games are designed to be used across 2 or more brushes. Also the textures are available to make your map look great.

#7 - Allow yourself to be influenced. This doesn't mean that you should copy your favorite map,, but if you're really stuck for ideas, look around the official levels or other user made levels you admire or enjoy playing, and try to appreciate how they might be built. Eventually you'll have a collection of ideas that you can alter into your own vision, and then you can create your own great map.

#8 - Use forums/discussion boards. Make sure you read the FAQ's and if you have a question try to check that it hasn't already been answered in a post before hand.

#9 - When scripting, try to break it down into parts. Get a piece of paper and make a flow chart or a diagram of how things are supposed to interact. This will help you visualize the order of events, help you seek out errors and is good mapping practice too.

#10 - When mapping take your time. You may think the map you've just created in 3 hours is great but chances are unless you're a mapping genius it won't be. Remember there are no prizes for creating the most levels. Treat every level as something special, something to take pride in. Don't release a crappy level that could be made better with effort and time. Creating a map that surrounds an actual battle/scene in WWII, makes the map more authentic and adds some "class" to you design.

#11 - A great tip I saw when I was mapping for Half-Life is: Fix on the go. If you're testing your map and you find a single error, fix it there and then, no matter how trivial it may appear to be. This is so you don't get a build up of errors, causing you to forget the older ones. Keeping errors and defects to their absolute minimum is essential for a map that looks professional.

#12 - Keep an eye on you FPS (frames per second). Go to the console and type in cg\_drawfps 1. A little indicator will appear in the bottom left of your screen whilst your playing. Go play some of the official levels, both sp and mp, and get an idea of what kinda speeds you get. Remember HIGH is good, LOW is bad. Also remember that if you have a high performance machine, other people playing your map with a less powerful computer will get less fps than you do. To switch the display off again type cg\_drawfps 0.

#13 - Compile your maps properly. There's nothing worse than downloading and playing a map just to find it runs at a max speed of 3fps on your system because it hasn't been properly compiled. So, remember, always compile properly, and do a full vis.

#14 - Don't rely on prefabs for your whole level, or use too many models. Yes it may be quick and easy but it turns your map into a mockery. Don't Do It !!!

#15 - Not everyone is a MoH god, that is, not everyone may have as much skill at playing MoH as you do. So, make sure your map is a challenge for the stronger players on harder skills, but still possible for the beginner who has only completed MoH once.

#16 - Playtest your map to the death. Get your friends, clan and anyone else you know to playtest your map too. Not only is it helpful to spot errors you might have missed, they can also give you suggestions on how to improve your map or find leaks/exploits that are best fixed before map is released to public.

#17 - Please, please, please use clip brushes for those bits that stick out, the bits which players catch themselves on. Again its good mapping practice.

#18 - Spotlights are great inventions, especially if you're building a map where eye-candy is a requirement. Take a look at the single player levels in MoH where spotlights are used...then go learn how to use them. A word of caution though. Spotlights seem to be quite a drain on system resources so use them sparingly.

#19 - Every game engine (well the most important ones) since Wolfenstien 3D have used a square system of 4, 8, 16 etc for walls, etc. So reign in that impulse to build a wall 51 units long. Optimise your maps. Apparently, thicker walls helps BSP and CSG compile faster though I have yet to see concrete proof of this.

#20 - Try at every turn to avoid repetition. It makes a good level look bad. Not only try to vary your textures and objects, try to vary your sounds / effects as well. Oh and don't forget to try to vary your maps lighting.

#21 - Plan your map out before you start. This is how many of the Pro's do it. They make detailed drawings before they start up the map editor. Some of them don't do this, they have the ability to just start up the editor and get on with it. Neither method has been proved to be the best, it just depends on which method your suited to. When starting out you may find it easier to plan maps out, and as you progress you'll be able to just start building a map straight away.

The above credit from .map Surgeon. Additional comments/changes by bobzilla.