



Modular Integrated Landscaping System (IX)

by A. Bellón (Legotron)



Over the last few months we have received several questions about how we plan and build our MILS dioramas when we go to an exhibition. The way we build a diorama is closely linked to how the members of our LUG collaborate, and for this reason it can't be said that there is one way which is better than others, although we can offer some advice and clarification for those who are interested in working with MILS dioramas.

As mentioned in our first few articles about the MILS system, this modular construction system is based on the idea of creating a simple standard with few rules that could be compatible with baseplates or other landscaping systems. To this end, both the planning and preparation have followed the same reasoning: keep it simple, both during planning and while building the dioramas.

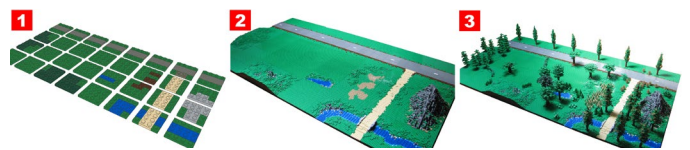


Before we start we should clarify that this is not a rule book or a new set of rules for the MILS system. In this article we will try to explain the system we have developed for planning and building our dioramas, based on the experience we have accumulated since we published the first article on MILS in HispaBrick Magazine® 013 (in 2012). In doing so, we hope to resolve some of the questions we have received about planning and building dioramas.

Planning

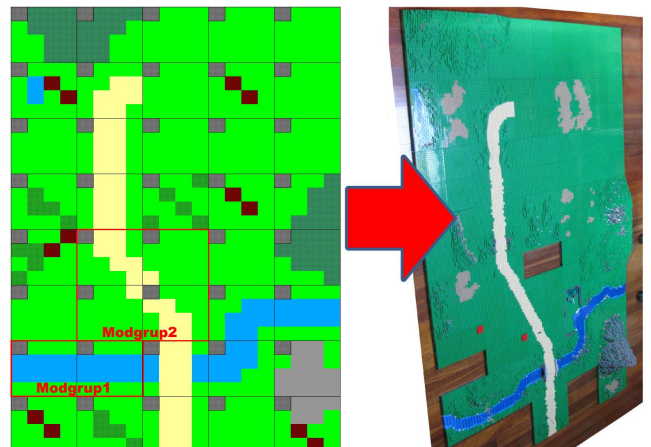
Planning is the stage where the diorama is designed. Logically, the starting point is knowing what the available space will be for the diorama, and gathering information about the modules that different participants will be contributing. In our case, for our HispaBrick Magazine® events, we work with full modules of 32x32 studs and sections of 32x16 studs, which is equivalent to 25x25cm and 25x12.5cm respectively.

So all the dimensions of the diorama must be multiples of these sizes. Depending on whether the table we build on can be accessed from one or two sides, we limit the depth of the diorama to a distance that will allow us to place decorative elements on top of it. With these parameters in mind we can establish the maximum size of the diorama. At this point we ask collaborators in the diorama to indicate the number and type of modules they will be contributing.



When all our collaborators have detailed the modules they will be contributing to the diorama it is time to start designing the layout. While we do use plans from previous dioramas as a reference, the design of each diorama is different. This layout is used to build the actual diorama at the exhibition or event. In order to carry out this planning, we have chosen a simple and easy-to-use tool. We plan the diorama in an Excel worksheet and upload it to Google Drive. This way we can consult and modify it at any time and from anywhere without having to print a new layout for every change we make. Although there are tools that allow you to make more beautiful and detailed maps, we need something simple that everyone can use, even from a smartphone or tablet, and which will allow us to make changes on the go.

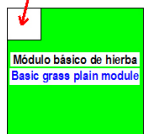
In addition, we make the map as schematic as possible, to make it easy to interpret even by people not participating in the diorama. In our case we are frequently involved in three or four different dioramas at the same event, so we can't participate fully in building all of them.



We have created a schematic representation of all possible modules we may have. It is very basic and easy to understand. Each module is represented by a 4x4-cell grid. The top left cell is an identifying brick indicating who the module belongs to. The rest of the cells are a schematic representation of the (32x32) module or (32x16) segment.

Representación esquemática de un módulo Schematic module representation

Esquina de identificación
Identification corner

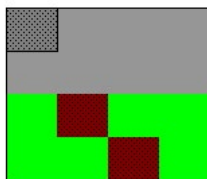
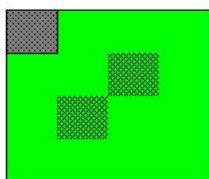
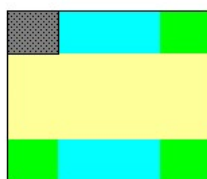
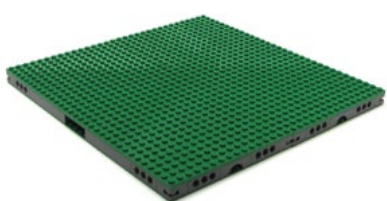
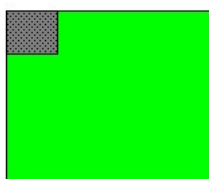
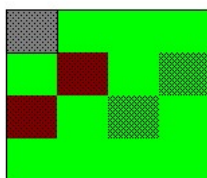
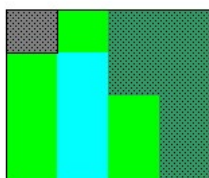
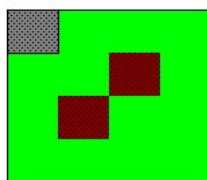
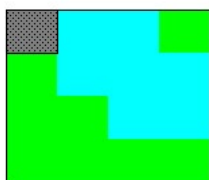
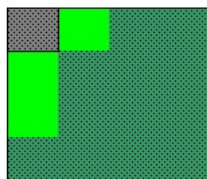
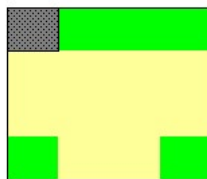


Módulo básico de hierba
Basic grass plain module

32 x 32 studs

Elementos de terreno / Terrain features

	Camino Road		Relieve pequeño del terreno Small landscape feature
	Barro Mud		Rio River
	Montaña Mountain		Mar Sea
	Colina Hill		Cultivo Crop field



The representation is highly schematic so it is important to take care to differentiate any modules that form a modgroup (a MILS-compatible section made from non-MILS elements) or those which represent a very specific module. It is also important to take into account that you will need to represent modules that aren't BTMs (basic terrain modules) in all their possible orientations. In this way you can then simply copy and paste the different modules as you prepare the map.

Template with examples of modules in an Excel file for creating layout plans:

http://www.abellon.net/MILS/img/MILS_modules_templates.xls

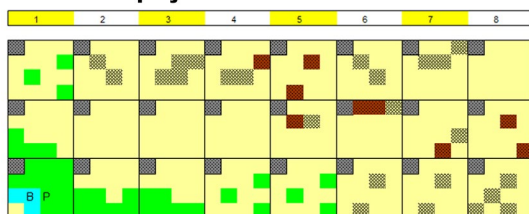
Now that we have enough modules, it is not necessary to use every single module each time we build a diorama, so we can make dioramas with more or less rivers, roads or mountains. We follow the rule of using completely flat Basic Terrain Modules (BTM) for at least a third of the diorama, and on these we place buildings and other elements that require flat surfaces. Having this flexibility when it comes to choosing from the available modules allows us to reuse small sections of plans we have used previously and that we especially liked in other dioramas. This of course reduces the planning work. The most complicated part is keeping track of the modules that have been used and those that are still available. One of the advantages of having additional modules is that if you've prepared a map with more modules of a certain type than you have available you can easily substitute them with the additional modules that you weren't initially going to use.

As mentioned previously, at some of our events several participants are involved in a number of dioramas, as well as in organisational duties, so we have needed help from other members to build the dioramas.

To be honest, the experience has been a big success. Even working with AFOLs from other countries and dealing with subsequent language issues, on more than one occasion AFOLs who were not involved in making the MILS modules were able to prepare the diorama following these plans. In just a few minutes we could explain what needed to be done so they could build without further help. This has saved us a lot of time.

One of the parts of the planning we have been most pleased with is that people who had never even heard of MILS were able to build a complete MILS diorama following a few simple instructions.

Western display

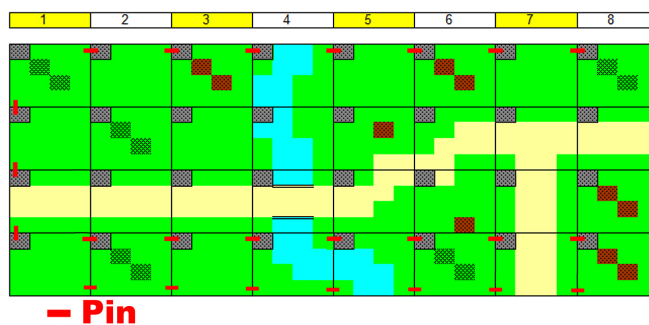


Building the diorama

We build the diorama following the plans we have prepared for each event. Despite all the preparation, sometimes there are unforeseen circumstances that need to be solved on the go. We try to lay out all the modules we are going to use and check to see if the width and the depth of the space we have corresponds to what was initially planned.

Before we start laying out the diorama, we stack the modules on one side of the table and then start laying them out from one side to the other, following the plan. We locate the modules that form the outer perimeter and link them with pins. Contrary to what many people who have asked about the MILS system think, we only connect a few modules with pins. By connecting only the outer perimeter, or even only the side facing outwards, we can then fill in the center with unconnected yet securely placed modules. Further pin connections can still be used to correct for variations in the underlying table surfaces or where tables meet.

However, minimizing the number of pin connections reduces complexity and makes it much easier to swap modules around without having to remove a whole lot of pins and surrounding modules.



When all the modules are in place and we have cleared the construction area, we do a visual check. We particularly pay attention to areas where rivers and roads may cause too much clutter or where mountains may block parts of the diorama from view. These are things that can be hard to see on paper but stand out once the modules are in place. They can also be easily corrected by changing a few modules around or substituting them with remaining ones. For this reason we always bring a few extra modules along, just in case we need make any last minute changes. It can also happen that a participant forgets to bring along some modules. In that case, and if no additional modules are available, we may need to shorten the total length of the design.

On other occasions things can be more complicated, specifically when more than one module needs to be changed, since this may modify important structures in the diorama. Over time we have realised that one of the major issues is the placement of mountains, which involve the use of many modules. On paper the design may look good, but once it has been laid out on the table you might realise something doesn't fit. For this reason we try to place the mountains at the edges or corners of the diorama, making any later changes in their location less problematic.

When the placement of all the modules has been confirmed it is time to start putting buildings and other structures on top of it. After that we continue adding decorative elements and minifigs. Normally each contributor is in charge of providing

and placing the elements for a specific area of the diorama. To this end, the diorama is divided into different sections, delimited by rivers, roads or mountains. These divisions tend to be transversal so we don't get in each other's way. Each one takes care of decorating their assigned area so that we can keep separated the parts each participant brings along. This way, when it is time to pack up, there is no risk of trees or minifigs getting mixed up, and each person takes all (and only) their own elements back home. Since decoration is done by area instead of by module, the effect is much more realistic and we avoid the chessboard look of having modules that are highly decorated right next to others that are almost empty.

Unlike the task of placing the modules, much less planning goes into adding the decoration. After deciding which areas are forest, farmland or pasture, each person adds the pieces they have available following their own criteria, while trying to ensure the areas are reasonably similar to other areas of the same style to keep the diorama homogenous. Finally, when everything else is ready, we place the mosaic panels representing the background behind the diorama.

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