

Introduction

The Roman Ornamental Doric Starter Kit provides the core elements of Greco-Roman architecture, the entablature and the column. These correspond with the lintel and post which are essential to the buildings of many cultures throughout the world. In addition, the product provides walls. Finally, pavements (or flooring) are provided to complement the other components. With this product you can create a classical environment with virtually unlimited design possibilities within the structure of the components provided. If you want a colonnade with sixteen columns wide and twenty columns long, you can build that. If you want a colonnade that is twelve columns long and four columns wide, you can build that. If you want a cross-shaped enclosure with multiple 90° corners, you can build that, too!

You can select from thirteen provided preset configurations or create your own as you wish. This guide provides helpful information for creating your own configurations. One of the basic principles of classical architecture is endless variation within a canon of accepted forms and patterns.

Purpose of the Guide

The pieces are modular and must follow the supported spacing. This guide gives additional information for people interested in classical architecture. However, as long as you observe the supported spacing of the modules, you'll be able to use the product to create your own configurations. You can also resize the presets by selecting the parent component and changing the scale in the parameters.

The Classical Measure

The core unit of classical architecture is the diameter which was the width of the column shaft at its bottom (without considering the added width of the 'base'). From the length of the diameter, a classical architect could generate all the lengths for the columns, the widths between the columns, and the details on the entablature (lintel). You don't need to understand this to use this product, as long as you know that you need to work within the supported spacing explained below.

Unit Spacing

In order to build your own creations, you'll need to load and space the modular components the right distance. The core components are the columns (columns and pilasters) and the entablature segments. The ancients considered the 'eustyle' to be the most ideal spacing for columns. For this product, this distance is 3.25 meters. Additional lengths of 4 meters and 6.5 meters are also provided for additional variety. The 4 meter length is ideal for central bay of a colonnade. The 6.5 meter length is double that of 3.25 and is useful for long colonnades so fewer segments are needed. Only one of the entablature units has an additional 6.5. Alternatively, you could double the columns used to create narrower spacing between columns.

These are the lists of spacing for several types of units in this kit. The lists assume that you are starting from the middle and working out in a straight line. Similar to a graph, you may need to

make a combination of positive and negative values for a complete row centered on the middle of the scene.

Lists of Intercolumniation Values for use in Studio

This list gives the values if the middle of the mid-bay is at the 'middle' of the scene. In this list each bay is 3.25 meters wide, from the midpoint of one column to the midpoint of the next. The values are given in centimeters, so 3.25m is 325cm.

162.5
487.5
812.5
1137.5
1462.5
1787.5
2112.5
2437.5
2762.5
3087.5
3737.5

This list gives the values if the middle bay is at the middle of the scene and is itself 4 meters wide, with the other bays only 3.25 meters wide.

200
525
850
1175
1500
1825
2150
2475
2800
3125
3450

This is the list of spacing for 3.25 pavement and wall sections from the middle if only 3.25 size is used. If you wish to use the larger 4x4m pavement section, you can extrapolate the values (400, 800, etc.) very easily.

0
325
650
975
1300
1625
1950

2275
2600
2925
3250
3575
3900
4225
4550

Top of Entablature: If you wish to stack another column on top of the entablature, the height in Studio is 1067.5.

Resizing

If you wish the components to be smaller, it is recommended that you set up the pieces first with the correct distances. Then make all the components child objects of one of the components (perhaps a pavement section or a column). Then reduce the parent object to the desired size. The other components will resize correctly as child objects to the parent object.

Instancing

DAZ Studio 4.5+ users are encouraged to consider the use of the instancing feature for large setups. This will reduce the load on your system and improve performance overall. Use instancing with repeating elements (columns, entablature, pavements).

Glossary

architrave: The architrave is the lowest of the three 'registers' or horizontal parts of the entablature. It rests on the entablature below the frieze. It is the part that actually touches the capital of the columns.

base, basis: The base of the column or pilaster is the decoration at the bottom. This architectural style, Roman Ornamental Doric, is inspired directly by the archaic Greek Doric and thus its columns have no base (basis).

capital: The top of the column is decorated with the capital or 'head' of the shaft.

column: A vertical shaft with a capital and base used to hold up the entablature, the column is essential to lintel and post architecture.

cornice: The cornice is the highest portion of the entablature. It sticks out further than the rest of the entablature, much like the 'frame' of a picture. In addition to adornment, the cornice serves the practical purpose of keeping the face of the entablature free of rain water.

dentil: A dentil is box-like embellishment repeated along the entablature to give beauty. The ancient Greek Doric entablature did not have dentils. This entablature, however, is a Roman adaptation and has dentils.

entablature: The entablature is the horizontal section that rests on the top of the columns and pilasters. The entablature corresponds structurally with the lintel of a 'lintel and post' construction.

entasis: This is the ancient Greek term for the delicate reduction of the column from bottom to top. This was mathematically involved. These columns, however, are reduced in the Roman style as understood in the Renaissance which is sometimes called 'diminution.'

fluting: Fluting is a series of long, vertical cuts into the side of a column or pilaster to give added beauty. This product has columns and pilasters both with and without fluting.

frieze: The frieze is the flat, horizontal section running down the middle (middle along an up and down axis) of the entablature. In this product, the frieze has a red marble texture and is lined with periodic triglyphs in the ancient Doric style. In Classical Greek, the frieze was called the 'zoophoros,' meaning animal-bearer as it was sometimes enriched with reliefs of beasts.

pavement: The pavement, from the Latin word, 'pavimentum,' is simply the stone flooring. The texture for the flooring is tesserae which are small pieces of flat marble set into mortar to create a hard, tile floor. This is a simple mosaic as was used in the Roman world.

pilaster: A pilaster is a square-shaped column. It can be used as an alternative to the round column. The pilaster was more often used by the ancient Romans, especially against walls. There is an alternative half pilaster that can be used with the cut face against a wall. This is called an 'engaged' pilaster. You may wish to use this to reduce the number of polygons in your scene.

Roman Doric Ornamental: This architectural variation was used in the ancient Baths of Diocletian by the Romans. It is derived from Greek architecture.

triglyph: A triglyph is an adornment to the frieze consisting of three vertical protrusions. By the time of the construction of stone temples by the Greeks, triglyphs had become purely ornamental. However, it is believed that in very ancient times when the Greeks built their temples out of wood, the triglyph represented part of the various pieces of the wooden construction.

Naming

There are twenty six basic units in this product. Just like the letters of the alphabet, these can be combined within the rules of classical architecture to create dozens and dozens of possible configurations. The types of units are columns, entablatures, pavements, and walls. The units begin with 'DO' that stands for 'Doric Ornamental.' The second letter is the type of unit. The last letter or letters further differentiate the unit from the others.

Inventory

Pavements

DO_P_325x325: This is a pavement section that measures 3.25 meters by 3.25 meters

DO_P_4x325: This is a pavement section that measures 3.25 meters by 4 meters

DO_P_4x4: This is a pavement section that measures 4 by 4 meters

Columns and Pilasters

DO_C_C: This is the basic, round column without any fluting. It has a classical correct capital and base.

DO_C_CF: This is the round column with fluting.

DO_C_P: This is the square pilaster without fluting.

DO_C_PF: This is the square pilaster with fluting.

DO_C_PHF: This is a half pilaster with fluting. It can be used against a wall. It is provided to reduce the number of unused polygons because the fluting adds a lot more. Unlike the other columns and pilasters which can be used without walls, this unit, DO_C_PHF, should be used with its rough face against a wall segment.

Entablature

DO_E_0D: This is solitary entablature to cap the top of a column or pilaster. It is *not* continuous and thus should not be joined to another entablature. Unlike the other entablature sections, this segment, DO_E_0D, is meant only to be used with a column or pilaster.

DO_E_325: This is an entablature segment. It has 'rough' ends and should be used with other segments to create a continuous entablature. It is 3.25 meters long in DAZ Studio.

DO_E_4D: This is an entablature segment like DO_E_325 above, except that it is 4 meters long. It has 'rough' ends and should be joined with other segments for continuity.

DO_E_65D: This is the longest entablature segment. It is 6.5 meters long and corresponds to two eustyle widths.

DO_E_C_325D: This is a corner segment of entablature. It has two unfinished or 'rough' ends and thus must be joined to other segments for a continuous entablature. The width of both sections corresponds to 3.25 meters.

DO_E_CS_65D: This is a cross section of entablature. Each segment is 6.25 meters long. It has four 'rough' ends and so must be used with other segments for continuity.

DO_E_End_325D: This is an end segment of entablature. It corresponds with 3.25 meter length. It has one 'rough' end that needs to be joined to another entablature segment. The other end is finished and should not be joined to another segment.

DO_E_TE_65D: This is a t-section. The longest section corresponds to 6.5 meter length. It has three ends. Two are 'rough' and must be joined to other entablature segments. The one perpendicular end is finished and should not be joined to another segment.

DO_E_TS_65D: This is similar to DO_E_TE_65D. However, all three ends are 'rough' and need to be joined to other segments for continuity.

Walls

DO_W_325D: This is a wall segment. It is 3.25 meters long and should be used with the entablature segment which is also 3.25 meters long (DO_E_325).

DO_W_4D: This is a wall segment. It is 4 meters long and should be used with the entablature segment which is also 4 meters long (DO_E_4D).

DO_W_65D: This is a 6.5 meter long wall segment and should be used with DO_E_65D.

DO_W_65D_TE: This is a 6.5 meter long t-section wall segment. It should be used with DO_E_TE_65D.

Conventional Combinations

These are the possible combinations within classical architecture. They all use entablature segments.

Column (Columns or Pilasters) + Entablatures

You can use columns and entablatures to create a very classical look with an ancient Greek ambience. The half pilaster (DO_C_PHF) is the only exception as it is designed to be used in combination with a wall segment.

Walls + Entablatures

You can use walls with entablatures of the same length and configuration. You do not need to use columns with this combination.

Walls + Columns (Columns or Pilasters) + Entablatures

Texturing

The models rely upon uv mapping that is within the bounds of the 'box' and that is outside, so texture artists will need to create some textures from repeating tiles. Entablature and Column surfaces are labeled by element. Column and Pilaster elements are numbered to show which elements can be combined into a single texture map.

Sources

The Classical Orders of Architecture (First Edition), Robert Chitham, Rizzoli Press
A Parallel of the Orders of Architecture, Charles Normand, Tiranti's Edition