

Streets 1

Overview

Streets is a system of modular units which fit together into multiple configurations. You can build up a network of interlocking streets, or use a single street with buildings and other props. Streets and buildings are a uniform size - 16x16 meters - and are posed in 'jumps' of 16m from a toolbar or by using the library presets. The pack contains textures and accessories for both right-hand drive (US) and left-hand drive (UK) streets. Buildings are separate props which sit on either side of the streets, so they can be interchanged for more variation. Many street furniture props are included, from road signs to traffic lights.

Update

The update to this pack now has 3 separate versions - Iray, 3Delight and Poser, plus 2 new corner props and a roof which form a single city block. I've also added a script to create a toolbar with all the pose presets. Other minor tweaks were made to geometry and textures, along with many additional presets.

Toolbar

The 'Streets 1 Toolbar' folder contains 10 pose presets to position and rotate streets, buildings and props. You can either use the presets in the content library, or have a docked toolbar. To create a toolbar, double-click 'Streets00 Add Toolbar'. This creates a new toolbar with 10 presets docked at the top of your UI. A single click on a preset icon will move/rotate any selected item by the appropriate value. These presets can be used with any figure or prop at all, not just the props in this pack. All the preset actions are undoable with CTRL+Z.

Pose Presets

- Move Back/Forward/Left/Right 1600 (Blue Arrows) - Jumps of 1600cm (Ztrans/Xtrans) - Position streets and buildings or other props.
- Turn Left / Right - 90 degree rotation (Blue Icons) - Rotate (Yrot) streets and buildings or other props.
- Move Back/Forward/Left/Right 450 (Green Arrows) - Jumps of 450cm (Ztrans/Xtrans) - These poses are for shorter distances to move props from the center to the sidewalk.

The pose presets are applied in the usual way. However, these are additive poses - in other words, each pose moves an object a fixed distance or rotation every time it's applied, adding that value to the existing one. (Or subtracting it, in a pose with negative values).

Example #1 - If your object is at zero translation and you apply the Move Forward 1600 pose, the object will move to Ztrans 1600. If you apply the pose again, the object will move to Ztrans 3200.

Example #2 - If your object is at Ztrans -600 and you apply the Move Forward 1600 pose, the object will move to Ztrans 1000. Apply the Move Back 450 pose, and it will move to Ztrans 550

Quick start - Basic instructions

1. Load two street units, such as a street and a junction. Select the junction and apply the Move Forward 1600 pose. In its default zero Yrot position, the junction forms a T crossing. Apply either of the rotate poses, and it will become a continuation of the street, with a side entrance.

2. Now load any 2 buildings. Select one of the buildings and apply Turn Left (or Turn Right) twice. The building rotates to the other side of the street. If you parent both buildings to the street, they will move with it as it's posed. You can now add other props, such as signposts and parent them to the street. Once you've populated a set of streets, you can save the entire set to the library, rather than rebuilding it every time.

Streets

There are 4 street units. Each one has sidewalks or corners and a curb. Presets are included to change street textures.

- Street - A straight street with left/right sidewalk.
- Intersection - A 4-way crossroads with 4 sidewalk corners.
- Junction - A T-junction with sidewalk and 2 sidewalk corners.

- Corner - A corner with sidewalk and sidewalk corner. By default, it's a left turn. Use the Turn Right pose to change it to a right turn.

Buildings

There are 5 buildings, and each one is a single wall facing onto the street. Each building has a ground floor with stores/businesses, and several upper floors of apartments. Note that these are simple props with no working parts, like opening doors, etc. Details are partly modelled and partly textured. The idea was to create buildings which don't take up huge amounts of resources in the scene.

- Bank - Ground level - A bank with ATM machine / Clothing store. Upper levels - Apartments (4 floors)
- Bar - Ground level - Wine bar / Grocery store / Butcher. Upper levels - Apartments (3-4 floors). The apartments are in 3 sections - left, center, right - with separate materials.
- Diner - Ground level - Toy store / Apartment entrance / diner. Upper levels - Apartments (3 floors). The apartments are in 3 sections - left, center, right - with separate materials.
- Hotel - Ground level - Clothing store / Hotel / Real estate office. Upper levels - Hotel rooms (5 floors)
- Office - Ground level - Staff door / Main entrance / Gallery. Upper levels - Offices (4 floors)

Block/Corners/Roof/Walls

The 2 corners can be used separately, or together to form a single city block. A 'block 1' set is included with both corners and roof in place.

Corner Materials - I had some difficulty finding a sensible way of naming materials. Since corners can be rotated into any one of 4 positions, front/back/left/right made no sense. So I decided on 1 & 2 prefixes for the upper levels and 'store1/store2' for the lower levels. Viewing the corner from the front, 1 is the left wall and 2 is the front wall.

- Corner 1a - Upper apartment levels, plus 2 stores. Note that 'store1' (on the far left) forms a corner with 1b.
- Corner 1b - Upper apartment levels, plus 2 stores. 'Store2right' (right-hand corner) forms a corner with 1a.
- Roof 1 - The roof has various utility pipes, solar panels, etc, plus an extension to the corner 1a apartments
- Wall 11 - This is the left-wall from corner 1b. I've included it as a separate wall prop so it can be used in the same way as the building facades.
- Wall 12 - The front wall from corner 1b. As above

Pre-parented files

For convenience, I added 3 files where the buildings are already parented to a street.

- 01 street - Street with bar/bank
- 02 corner - Corner with hotel/office
- 03 junction - Junction with diner

Rotation

The pivot point of streets is in the world center to allow easy positioning. Buildings also have their pivot point in the world center to allow them to be switched from one side of the street to the other without using additional translation movements. Any building can be used on the left or right by rotating it twice with a Turn pose. It will then be positioned correctly on the opposite side of the street. Note that the pivot point for the blocks and roof is in their local center, not world center. This is to allow correct rotation.

Measurements

- Each street unit is 16 x 16 meters (52.5 ft)
- The road surface is 8 meters wide (26.25 ft)
- Each sidewalk is 4m (13.12 ft) wide.
- Buildings are 16m wide to match the streets
- The sidewalk/pavement is at ground level, but the road surface is 10cm lower. If I had made the street at ground level, you would have to raise all people and street furniture 10cm to match the sidewalk.

Props - Street Furniture

General props for use on the sidewalk or in the street. Props which would normally be used on the sidewalk load by default on the right-hand side of the street. To move them to the left-hand side, use the 'Move Left 450' preset (2 clicks), or make the Xtrans value negative. Normal street props load in the center.

- Bollards - There are 4 different bollard designs - 1 rounded concrete and 3 metal. Note that the 'simple' bollard loads with a single metal texture, but actually has 2 materials - dark and light in alternating stripes - with a preset for an alternate version.
- Bus Shelter - If you prefer a shelter with no billboard, copy the glass material and paste it to the billboard material.
- Bus Stop - Can be used with the shelter or on its own.
- Island - Loads in the center of the street. Can be used on its own or with the keep left sign.
- Keep Left Sign - Loads in the center of the street.
- Litter Bin - This is designed to attach to the signpost.
- Signs - Additional signs which can be added to a signpost. See Signs below
- Signposts - Signposts in 9 different shapes. See Signs below
- Roadworks Stand - Loads in the center of the street. Note that the square sign textures - no entry, etc - can also be used on this, (and even some of the round ones).
- Streetlamp - Has on/off presets and can act as a support for other props (litter bin, etc)
- Traffic Cone - Loads in the center of the street.

Props - Signposts & Signs

There are 9 different types of traffic signposts and signs. The signposts are complete - post and sign - and the signs have no post. These can be added to a signpost as a secondary sign and placed lower down on the post or used with the morphing signpost prop. The sign textures are listed here and are all included as presets.

- Signpost (no sign) - Acts as a support for any sign, plus other props, (litter bin, street names, etc). Has a morph to raise/lower its height.
- Diamond - 4 textures - Dead End / Intersection / Kids Zone / Pedestrians
- Horizontal - 3 textures - Road closed / Left Only / Right Only
- Octagonal - Stop sign
- One Way - 2 textures - Left / Right
- Round - 8 textures - Ahead / No Entry / No Parking / No Stopping / Roundabout / Speed 30 / Turn Left / Turn right
- Square - 6 textures - Hospital / No Left Turn / No right Turn / No Turns / No U Turn / Parking
- Triangular (Down) - 2 textures - Pedestrians / Traffic Lights
- Triangular (Up) - 2 textures - Give Way / Yield
- Vertical - 6 textures - Ahead Only / One Way Left/Right / Left/Right Only / Speed 30

UK Props - Some iconic British props. Most of these load by default on the left-hand side of the street.

- Pedestrian Beacons - Two pre-positioned Belushi beacons - one on either side of the street. Use this with the '31e UK street crossing 1' texture on the street.
- Pedestrian Crossing - Two pre-positioned traffic lights - one on either side of the street - with a 'request' control box attached to each light. Used with the '31e UK street crossing 1' texture on the street.
- Postbox - The classic red British postbox. Note that this uses a normal map for the embossed details (only visible in a render).
- Street Names - 2 types of street nameplate. See Extras below.
- Telephone Booth - Sadly, the old red telephone booths have almost disappeared from streets in the UK. The parented door can be opened/closed.
- Traffic Lights - Although this style of traffic light is primarily found in the UK, some American cities use them too.

US Props - Some typical American props. Most of these load by default on the right-hand side of the street.

- Fire Hydrant - Uses a normal map for the embossed details (only visible in a render).

- Mailbox - Classic American mailbox.
- Street Names - 2 types of street nameplate. See Extras below.

The traffic lights are made up of several props and designs.

- Traffic Boom - A metal boom arm which attaches to a streetlamp. This has a traffic light parented to it.
- Traffic Wire - A wire running from building to building with a parented traffic light positioned in the center. The wire has a morph to raise the sides if a window ledge or other obstruction is in the way.
- Traffic Wire Left/Right - These are traffic lights with a cable which can be added to the main wire prop for the one way street system. They load on the left and right sides, already in position. When all 3 traffic lights are on the wire, they sit above the 3 lanes for the one way streets.
- Traffic Light Post - A traffic light on a metal post.
- Traffic Light Only - An extra prop which can be positioned on a signpost.
- Walk Sign - This is designed to attach to the streetlamp prop. It has presets for Walk / Dont Walk.

Props - Extras

- Burglar Alarms - 2 simple alarms. These load on the right, roughly in position against the buildings, but will need to be moved according to which building you're using.
- Drain - Loads in position in the gutter on the right-hand side of the street. To move to the left-hand side, make the Xtrans a negative value.
- Manhole cover - Loads in the center of the sidewalk on the right-hand side of the street. Uses a normal map for the embossed details (only visible in a render).
- To Let Sign - Loads on the right, roughly in position against the buildings, but will need to be moved according to which building you're using.
- Street Names (US/UK) - There are 2 of each prop - US & UK versions. They're identical props, but with different textures. They load on the right, roughly in position against the buildings, but may need to be moved according to which building you're using. These have a back material and bands so they can be used on the signpost prop.

Materials & Presets Streets - The streets presets are divided into US and UK presets. Presets are named for each prop - street, intersection, etc. To keep preset names short, I've used the following abbreviations.

- US
- broken/solid - (2-way) - Broken (single yellow) = passing allowed. Solid (double yellow) = passing prohibited
- broken/solid - (1-way) - Broken (single white) = changing lanes allowed. Solid (single white) = changing lanes discouraged
- X = crosswalk / A = straight ahead / L = left turn / R = right turn
- UK
- dash/line - 2-way road markings. Dash (single broken white) = passing when safe. Line (single white) = no passing
- Y0 = no yellow lines / Y1 = single yellow line (restricted parking) / Y2 = double yellow line (no parking)

US textures - There are two main sets of textures - normal two-way traffic or one-way traffic with 3 lanes. Variations include crosswalks and ahead/left/right turns on 3-lane roads.

UK textures - There are three main sets of textures (all for two-way traffic) with white center dashes/lines - no kerb yellow line, single yellow line, and double yellow line. Variations include pedestrian crossings, junction boxes, and Stop/Yield directions.

Other Presets

- Signs - There are presets for each type of sign covering all the variations listed under props.
- Streetlamp - 3 presets for Off, On (Halide), On (Sodium)
- Bollard Simple - An alternative preset using the light/dark materials on the bollard.
- Traffic Lights - These 3 presets are for both US/UK traffic lights. Red, Amber & Green.
- UK Beacons/Crossing/Pedestrian Request - Presets to switch these props off/on
- US Walk Sign - A walk/dont walk preset.

Poser

Poser requires a figure in the scene before you can apply Poses or MATs to a prop. To get around this limitation, I've included a 0 null prop. A null is simply an invisible figure with no body parts. If you have no figure in the scene, load this to allow poses and MATs to be applied.

In Poser, the pose presets call up a Python script, which executes the pose command. These Python scripts are installed in 'Poser/Runtime/Python/poserScripts/Streets' and should not be moved from that location.

Due to scaling changes, Poser centimeters don't match other programs. The standard pose jump for streets of 1600cm will display as 1720cm in Poser. If you use Poser Native Units, the value is 6.582. The smaller pose jump of 450cm displays as 483.75cm / PNU 1.845

Attributions

Thanks to DAZ for the following script samples by Rob Whisenant. Thanks also to Josh Darling for his help with this.

[Create Toolbar Script](#)

[File Find Script](#)

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