

community*viz*[®]

Exploring Your
CommunityViz
Version 5.1 Upgrade



Exploring Your CommunityViz Version 5.1 Upgrade
Document version 1.0

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Introduction to CommunityViz Version 5.1

CommunityViz® Version 5.1, including Scenario 360™ and Scenario 3D™, is an upgrade to Version 5.0 of Placeways' award-winning CommunityViz software for planners. Version 5.1 offers new features and upgrades that include:

- **Display Mode** – switch to a presentation-friendly display with the click of a button
- **Charts Upgrade** – attribute charts, range charts, reference ranges, error bars, and more
- **Super Templates** – template an entire analysis—logic and presentation included—for use in other locations
- **Load Data** – an easy-to-use wizard for adding or replacing data without disturbing your analysis logic
- Plus, **improvements and updates** throughout

Also in Version 5.1:

- **Analysis Diagrams discontinued** – the flowchart-like logic trees are no longer available beginning in this release

This short guide, intended for people who are already using CommunityViz 5.0, provides a tour of the major new features available in Version 5.1.

As always, **up-to-date Help documentation** can be found online and throughout the CommunityViz 5.1 interface.

We hope you enjoy the new CommunityViz Version 5.1!



Display Mode

Switch to a presentation-friendly display with the click of a button

Bridging between sophisticated analysis and engaging presentations is one of the great strengths of CommunityViz. Now it's even easier with the new **Display Mode**. As a bonus, there's a new, stand-alone **Scenario Chooser** control.

Display Mode provides one-button rearrangement of your screen into presentation-friendly format.

The **Display Mode**  button appears on the **360 Toolbar**. Click once to toggle Display Mode on and click again to toggle off. The button is highlighted when Display Mode is on.

Entering Display Mode

- Sets the ArcMap window to full screen
- Closes:
 - All 360 Setup windows
 - All 360 toolbars *except* for the **360 Toolbar** and the **Saved Views Browser** toolbar. Font sizes in the Saved Views Browser are increased for added readability.
 - The **360 Content** window
 - The **Indicators** list
 - The ArcMap **Table of Contents**
- Opens:
 - The **Assumptions** analysis window. Its fonts are made larger and bolder for added readability. The Export Assumptions and Help buttons are hidden for simplicity.
 - The new **Scenario Chooser**

Exiting Display Mode

- Returns your display to its state before Display Mode was turned on. You can pick up right where you left off.

When in Display Mode, you can open and close windows and resize screens normally to make any adjustments needed after you first turn it on. If you open the **Indicators** window when in display mode, it gets larger, bolder fonts as well. The Export Indicator Values and Help buttons are hidden for simplicity.

Scenario Chooser

This handy toolbar works just like the Active Scenario dropdown on the Analysis tab of the 360 Content window, but it stands alone. The dropdown serves both as a way to choose the active scenario and as an easy-to-read, easy-to-position reminder of which scenario you're viewing.



Charts Upgrade

Attribute charts, range charts, reference ranges, error bars, and more

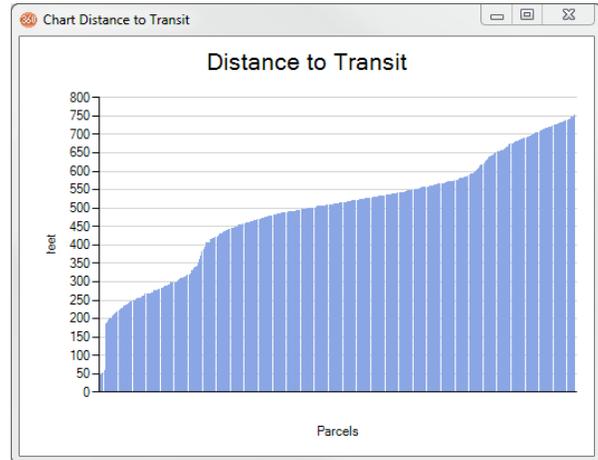
Version 5.1 introduces a basketful of new and useful chart types and features. They are all designed to address needs that come up in everyday use of CommunityViz as you seek to understand your analysis and communicate its results to diverse audiences.

Attribute Charts

In addition to indicators and assumptions, you can now chart dynamic and non-dynamic attributes. Attribute charts are ideal for visualizing distributions—say, how far houses are from bus stops, or how evenly suitability scores are spread across features. You may also find they are helpful for plotting values in a lookup table.

Attribute charts appear side-by-side with other types and are set up with the same controls, but there are a few differences from indicator and assumptions charts. Refer to About Attribute Charts in the Help for details, but here are some key points:

- Use attribute charts sparingly: they take a lot of computational power and some time to draw, especially when the number of features is in the hundreds or thousands
- You can **sort** entries based on the value of any attribute in the same layer. This feature helps clarify patterns and may also provide new insights: try sorting distance to a bus stop by home value, for example.
- Attribute chart types are point, line, and bar only
- X-axis tick labels show a sampling of about 5 values from the sort attribute, and y-axis values of individual attributes are not labelled. Consider turning on y-axis grid lines if you need more detail.

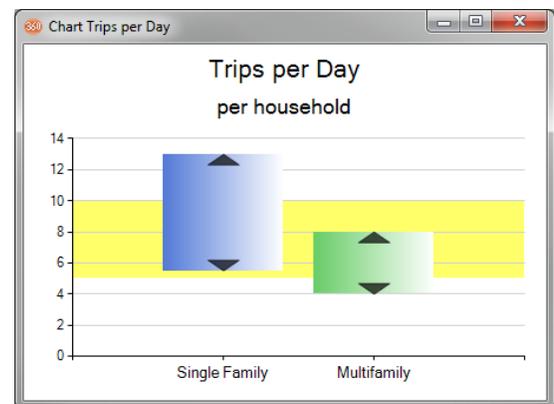


Range Charts

Range charts are bar charts that don't necessarily start at 0. They are perfect for showing high-to-low, min-to-max, before-to-after, or just the difference between two numbers. The two numbers you provide don't have to be in order: the top can become the bottom as respective values change during analysis. Optional range markers displayed at each end help distinguish range charts from bar charts.

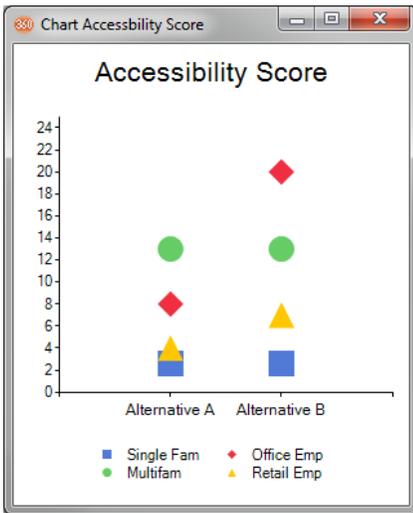
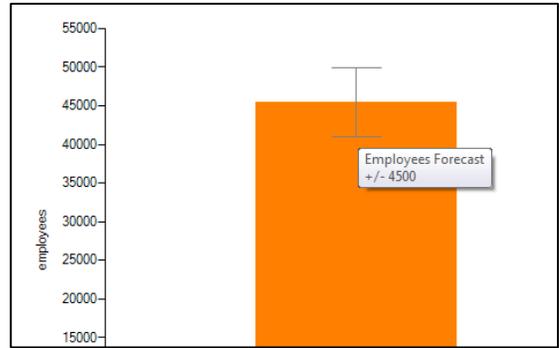
Reference Ranges

This version renames "Threshold Lines" to "Reference Lines" and also introduces **Reference Ranges**, handy horizontal bands of color that sit in the background of the chart at positions you specify using either an exact number *or* variable assumptions or indicators. Use Reference Ranges to show classifications and acceptable regions; use Reference Lines to show exact targets, goals, or benchmarks.



Error Bars

Now you can show uncertainty in your results using error bars. Error bars work on bar charts, line charts, and point charts. They are always symmetrical: they show $\pm X$, where X is a value you specify with an exact number or variable assumptions or indicators. Hover over the error bar on the chart to read its value. If you need X to be a percentage, create an indicator which value is the desired percentage of the item you are charting, and then use that indicator as the error bar value.

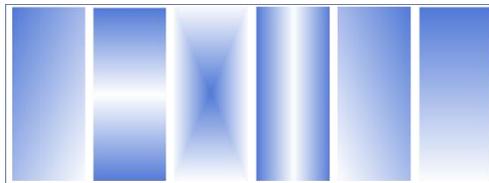


Adjustable Line Thickness and Point Size

In Version 5.1 there are more settings available in the Default Settings for New Charts (available from the 360 Toolbar menu, Default Settings...). These include the thickness of lines in line charts and the size of points in point charts. Try thicker lines to make a stronger visual statement, or extra-large points for a fresh take on bar charts.

And more...

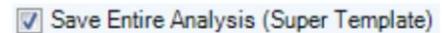
Look throughout the New Chart/Edit Chart window for other small improvements and options (like more gradient choices, shown here), and notice useful improvements in the displays as well.



Super Templates

Template an entire analysis—logic and presentation included—for use in multiple locations

If you do work for—or support the work of—more than one place, Super Templates are for you. For example, we've seen this need in regional agencies, county governments, and consulting firms. The idea is this: you want to make a reusable CommunityViz analysis that provides a lot of functionality with a minimum of effort. You want it to be a case of "just add data," and it is.

A rectangular button with a light blue background and a thin border. It contains a small blue checkmark icon followed by the text "Save Entire Analysis (Super Template)".

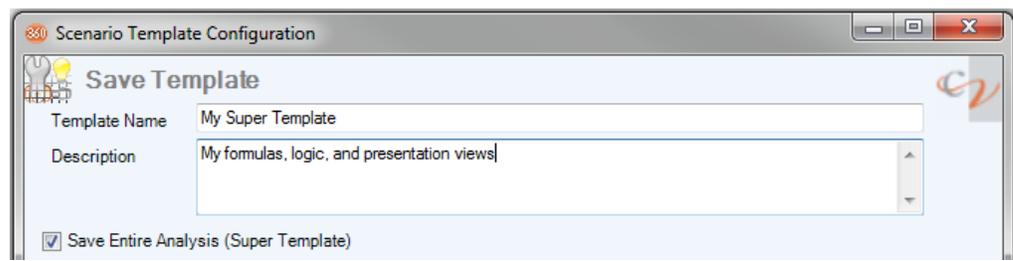
Creating Super Templates

To create a **Super Template**, you simply create a CommunityViz analysis and then click a few buttons. (Specifically, **360 Toolbar** menu | **Analysis ►** | **Save Template...**, provide a title and description, check the Super Template box, and click **Save Template**.)

Almost everything in your analysis, except the actual data and some Decision Tool settings, is saved. The trick is to make the original analysis as polished and reusable as you can, keeping in mind that it may be used later by people who don't know it nearly as well as you do.

Super Templates save both your analytics and your presentation, and we encourage you to pay attention to both. **Saved Views**, for example, are very helpful. When making them for Super Templates, you may wish

to use the handy **Zoom to Layer** feature (it's an option on the Saved Views **Properties** form). This will ensure that Saved Views have an appropriate map extent even when they're being applied in a different location.



to use the handy **Zoom to Layer** feature (it's an option on the Saved Views **Properties** form). This will ensure that Saved Views have an appropriate map extent even when they're being applied in a different location.

Super Templates are saved as portable files you can share with anyone you want. They have the file extension *.cvtem* (not to be confused with regular Scenario Templates, whose extension is *.sctem*), and by default they are stored in `CVFiles\Templates`.

Using Super Templates

To use a Super Template, you create a new, empty analysis and then load the template with a few clicks (**360 Toolbar** menu | **Analysis ►** | **Load Template...**). Depending on the size of the analysis it may take a bit, but as you watch all the layers, attributes, indicators, assumptions, charts, scenarios, Saved Views, and so on will be automatically created. After that, all that's left is loading new data and running an update (which again might take a while the first time through).

For loading the data, Version 5.1 includes a valuable new tool called **Load Data**. It's described in a separate article.

Once the Super Template's analysis is loaded, it works like any other analysis. You are free to work with it normally, including making any changes you wish.

Load Data

A new wizard for adding or replacing data without disturbing the rest of your analysis

Let's say you've been working on a CommunityViz analysis for a while and you created a number of dynamic attribute formulas in a particular layer. But now someone gives you an updated version of that layer—added features, for example, or the latest attribute values. How do you trade out your old layer for the new one without losing all your formulas?

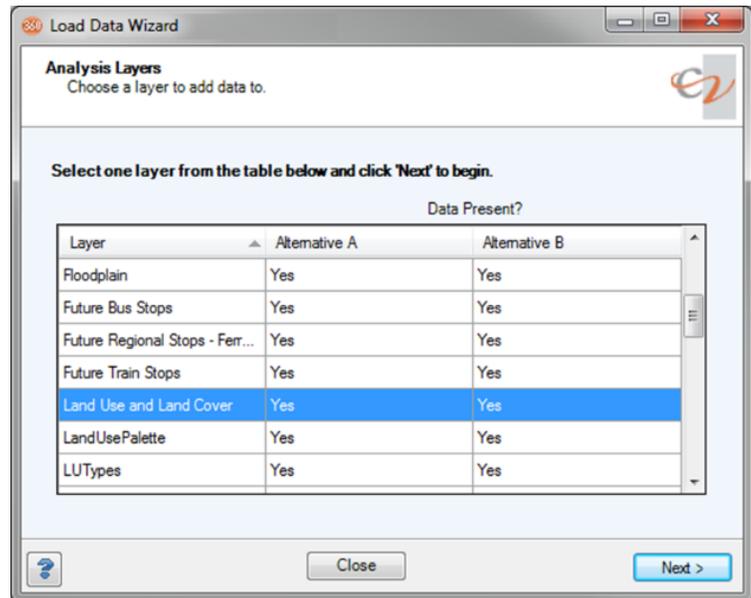
Answer: it's possible, but not that easy. That is, it *was* not that easy until now, with the introduction of the **Load Data** tool.

What It Does

Load Data provides an easy, wizard-based way to add to or replace records in an existing layer in your analysis. It's convenient if the source of the new data has the same attribute names as your existing data, but it's not required: the wizard allows you to cross-match attribute names if it can't find them automatically. (Only non-dynamic attributes are loaded; dynamic attributes will be generated automatically by Scenario 360.)

How It's Used

One application is adding data after loading a **Super Template**, another of the new features in Version 5.1. Another application is replacing an older dataset with a new one.



To access the wizard, use the **Scenario 360** toolbar menu | **Data ►** | **Load Data...**

Here are a few tips:

- Load Data works for both dynamic and non-dynamic layers
- It copies the source data to the target layer, leaving the source intact
- Only file geodatabase datasets and shapefiles are supported
- Before loading new data, check that it uses the same coordinate system as the current analysis
- All records in the source data are loaded, so check the extent of each source dataset and clip them (or create a subset dataset) ahead of time if necessary
- After loading data, you will probably want to run an analysis update. The wizard will prompt you.

Analysis Diagrams Discontinued

The flowchart-like logic trees are no longer available – use the new Dependencies tab instead

Analysis Diagrams are no longer available in Version 5.1. In their place on the 360 Toolbar and 360 Content Window you will find buttons for the new **Display Mode**, which has a different purpose.

Analysis Diagrams were part of the CommunityViz for over 10 years. The flowchart-like logic trees showed interdependencies among analysis components, providing a visual representation of how the analysis worked. Over time, however, analyses have grown larger and more complex, and users have told us the diagrams had become too unwieldy to use. What people really need now is something simpler: a way to tell which other components depend on just one component of interest: for example, an assumption that is used in several formulas.

Therefore, in Version 5.1 a new **Dependencies** tab appears on the setup windows for dynamic attributes, indicators, and assumptions. Click it to find out that component's downstream *dependencies* (attributes and/or indicators whose formula uses it) and, if applicable, its upstream *precedents* (assumptions, attributes, or indicators used in its own formula).

Plus...

In addition, look for these new upgrades and improvements

- **Allocator 5** now runs much faster for Incremental Updates.
- **Saved Views** now handle docked panes better. For best results when creating Saved Views, dock panes to the extreme top, bottom, left, or right of the ArcMap window and avoid nested or stacked docks.
- **Bug fixes** throughout the application.

As always, up-to-date Help documentation can be found online and throughout the CommunityViz 5.1 interface.

We hope you enjoy the new CommunityViz Version 5.1!