CLAIMS

What is claimed is:

1. A method to customize a visualization, the method comprising:

receiving first input effective to select a visualization type to apply to a visualization of data of a data source;

generating a semantic layout of the visualization based on a contract associated with the visualization type, the semantic layout specifying one or more of relative locations, arrangement, and relationships of a plurality of data objects to represent in the visualization, the plurality of data objects including data of the data source, the contract including a schema that specifies a set of data fields and one or more relationships between one or more data fields of the set of data fields to generate and display the visualization;

receiving second input effective to alter a set of one or more graphical objects to display for each data object of a subset of the plurality of data objects from a default set of one or more graphical objects to a custom set of one or more graphical objects, wherein the default set is different than the custom set and wherein the second input comprises conditional customization input or data object-specific customization input;

generating a concrete layout of the visualization that specifies the set of one or more graphical objects to display for each of the plurality of data objects, wherein the concrete layout specifies the default set for a first data object of the plurality of data objects that is not included in the subset and the custom set for a second data object of the plurality of data objects that is included in the subset; and

displaying the visualization of the data of the data source based on the contract, the semantic layout, and the concrete layout, the visualization having the visualization type.

2. The method of claim 1, wherein receiving the second input effective to alter the set of one or more graphical objects to display for each data object of the subset from the default set to the custom set comprises receiving the conditional customization input that specifies a

predetermined custom set of one or more graphical objects to display for each data object of the subset, each data object of the subset satisfying a predetermined condition specified by the conditional customization input.

3. The method of claim 2, wherein the plurality of data objects includes a plurality of employees of an organization, wherein the predetermined condition comprises having a job at or above a predetermined level of the organization, and wherein displaying the visualization comprises displaying a hierarchical organizational chart, including:

displaying the default set for each of the employees below the predetermined level of the organization; and

displaying the predetermined custom set for each of the employees at or above the predetermined level of the organization.

4. The method of claim 2, wherein displaying the visualization comprises:

displaying the default set for each data object of an other subset of the plurality of data objects, the other subset including the first data object, wherein each data object of the other subset of the plurality of data objects fails to satisfy the predetermined condition; and

displaying the predetermined custom set for each data object, including the second data object, of the subset that satisfies the predetermined condition.

5. The method of claim 4, further comprising, in response to an update at the data source that alters the second data object to no longer satisfy the predetermined condition, updating the visualization to reflect the alteration, including changing a display of a set of one or more graphical objects for the second data object from the predetermined custom set to the default set.

6. The method of claim 1, wherein receiving the second input effective to alter the set of one or more graphical objects to display for each data object of the subset from the default set to the custom set comprises receiving the data object-specific formatting input that specifies the custom set to display for the second data object.

7. The method of claim 6, wherein displaying the visualization comprises:

displaying the custom set for the second data object; and

displaying the default set for the first data object.

8. The method of claim 7, further comprising, in response to an update at the data source that alters the second data object, updating the visualization to reflect the alteration while maintaining the custom set for the second data object.

9. The method of claim 1, further comprising, prior to displaying the visualization mapping data of the data source to the contract such that the contract is satisfied.

10. The method of claim 1, further comprising:

receiving third input effective to alter a third graphical object of the plurality of graphical objects, the alteration implicating a change to a third data object of the data of the data source; and

altering the third data object at the data source consistent with the alteration to the third graphical object.

11. A non-transitory computer-readable storage medium having computer-executable instructions stored thereon that are executable by a processor device to perform or control performance of operations comprising:

receiving first input effective to select a visualization type to apply to a visualization of data of a data source;

generating a semantic layout of the visualization based on a contract associated with the visualization type, the semantic layout specifying one or more of relative locations, arrangement, and relationships of a plurality of data objects to represent in the visualization, the plurality of data objects including data of the data source, the contract including a schema that specifies a set of data fields and one or more relationships between one or more data fields of the set of data fields to generate and display the visualization;

receiving second input effective to alter a set of one or more graphical objects to display for each data object of a subset of the plurality of data objects from a default set of one or more graphical objects to a custom set of one or more graphical objects, wherein the default set is

different than the custom set and wherein the second input comprises conditional customization input or data object-specific customization input;

generating a concrete layout of the visualization that specifies the set of one or more graphical objects to display for each of the plurality of data objects, wherein the concrete layout specifies the default set for a first data object of the plurality of data objects that is not included in the subset and the custom set for a second data object of the plurality of data objects that is included in the subset; and

displaying the visualization of the data of the data source based on the contract, the semantic layout, and the concrete layout, the visualization having the visualization type.

12. The non-transitory computer-readable storage medium of claim 11, wherein receiving the second input effective to alter the set of one or more graphical objects to display for each data object of the subset from the default set to the custom set comprises receiving the conditional customization input that specifies a predetermined custom set of one or more graphical objects to display for each data object of the subset, each data object of the subset satisfying a predetermined condition specified by the conditional customization input.

13. The non-transitory computer-readable storage medium of claim 12, wherein the plurality of data objects includes a plurality of employees of an organization, wherein the predetermined condition comprises having a job at or above a predetermined level of the organization, and wherein displaying the visualization comprises displaying a hierarchical organizational chart, including:

displaying the default set for each of the employees below the predetermined level of the organization; and

displaying the predetermined custom set for each of the employees at or above the predetermined level of the organization.

14. The non-transitory computer-readable storage medium of claim 12, wherein displaying the visualization comprises:

displaying the default set for each data object of an other subset of the plurality of data objects, the other subset including the first data object, wherein each data object of the other subset of the plurality of data objects fails to satisfy the predetermined condition; and

displaying the predetermined custom set for each data object, including the second data object, of the subset that satisfies the predetermined condition.

15. The non-transitory computer-readable storage medium of claim 14, the operations further comprising, in response to an update at the data source that alters the second data object to no longer satisfy the predetermined condition, updating the visualization to reflect the alteration, including changing a display of a set of one or more graphical objects for the second data object from the predetermined custom set to the default set.

16. The non-transitory computer-readable storage medium of claim 11, wherein receiving the second input effective to alter the set of one or more graphical objects to display for each data object of the subset from the default set to the custom set comprises receiving the data object-specific formatting input that specifies the custom set to display for the second data object.

17. The non-transitory computer-readable storage medium of claim 16, wherein displaying the visualization comprises:

displaying the custom set for the second data object; and

displaying the default set for the first data object.

18. The non-transitory computer-readable storage medium of claim 17, the operations further comprising, in response to an update at the data source that alters the second data object, updating the visualization to reflect the alteration while maintaining the custom set for the second data object.

19. The non-transitory computer-readable storage medium of claim 11, the operations further comprising, prior to displaying the visualization

mapping data of the data source to the contract such that the contract is satisfied.

20. The non-transitory computer-readable storage medium of claim 11, the operations further comprising:

receiving third input effective to alter a third graphical object of the plurality of graphical objects, the alteration implicating a change to a third data object of the data of the data source; and

altering the third data object at the data source consistent with the alteration to the third graphical object.

21. The method of claim 1, further comprising, prior to displaying the visualization, translating data of the data source from a first format to a standardized format.