CLAIMS

What is claimed is:

1. A method to display a graphical diagram, the method comprising:

displaying a plurality of graphical objects in a graphical drawing canvas, the plurality of graphical objects representing a plurality of data objects included in structured source data;

receiving first input effective to select a property of the plurality of data objects;

receiving ~~first~~ second input effective to group first and second graphical objects of the plurality of graphical objects based on ~~a~~ the selected property ~~of the plurality of data objects~~; and

replacing the first and second graphical objects with a summary graphical object in the graphical drawing canvas in response to receiving the ~~first~~ second input, wherein:

the first and second graphical objects represent first and second data objects of the plurality of data objects; and

a value of the selected property of each of the first and second data objects is the same.

2. The method of claim 1, further comprising:

receiving ~~second~~ third input effective to expand the summary graphical object; and

replacing the summary graphical object in the graphical drawing canvas with the first and second graphical objects in response to receiving the ~~second~~ third input.

~~3. The method of claim 1, wherein:~~

~~receiving the first input comprises receiving input effective to select the property;~~

~~the first and second graphical objects represent first and second data objects of the plurality of data objects; and~~

~~a value of the property of each of the first and second data objects is the same.~~

~~4. The method of claim 1, wherein:~~

~~receiving the first input comprises receiving an individual selection of the first graphical object and an individual selection of the second graphical object; and~~

~~the property comprises an indication of selection of each of the first and second graphical objects.~~

~~5~~3. The method of claim 1, wherein:

the plurality of graphical objects further includes a third graphical object not grouped with the first and second graphical objects;

prior to replacement of the first and second graphical objects with the summary graphical object, the first graphical object is coupled by a connector to the third graphical object in the graphical drawing canvas; and

the method further comprises replacing the connector between the first graphical object and the third graphical object with a connector between the summary graphical object and the third graphical object in the graphical drawing canvas.

~~6~~4. The method of claim 1, wherein:

the first graphical object includes first conditional formatting; and

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas comprises applying the first conditional formatting to the summary graphical object.

~~7~~5. The method of claim ~~6~~4, wherein:

the second graphical object includes second conditional formatting; and

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas further comprises applying the second conditional formatting to the summary graphical object such that the summary graphical object has both the first and second conditional formatting.

~~8~~6. The method of claim 1, wherein:

the plurality of graphical objects further includes third and fourth graphical objects;

the graphical diagram includes first and second containers;

the first and second graphical objects are positioned within the first container;

the third and fourth graphical objects are positioned within the second container;

the ~~first~~ second input is further effective to group the third and fourth graphical objects together;

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas comprises replacing the first and second graphical objects in the first container with a first summary graphical object in the first container; and

the method further comprises replacing the third and fourth graphical objects in the second container with a second summary graphical object in the second container.

~~9~~7. The method of claim ~~8~~6, further comprising:

receiving container input effective to turn off a container level of the first and second containers such that they are removed from the graphical diagram; and

replacing the first and second summary graphical objects with a single summary graphical object.

~~10~~8. The method of claim ~~8~~6, further comprising:

receiving first container input effective to turn off a container level of the first and second containers such that they are removed from the graphical diagram;

receiving second container input effective to turn on a container level of third and fourth containers such that they are included in the graphical diagram, wherein the first and third graphical objects belong to the third container and the second and fourth graphical objects belong to the fourth container; and

displaying a third summary graphical object in the third container that represents the first and third graphical objects and a fourth summary graphical object in the fourth container that represents the second and fourth graphical objects.

~~11~~9. A non-transitory computer-readable medium having computer-readable instructions stored thereon that are executable by a processor to perform or control performance of operations comprising:

displaying a plurality of graphical objects in a graphical drawing canvas, the plurality of graphical objects representing a plurality of data objects included in structured source data;

receiving first input effective to select a property of the plurality of data objects;

in response to receiving the first input, ~~effective to~~ grouping a first graphical object and a second graphical object~~s~~ of the plurality of graphical objects based on ~~a property of the plurality of data objects~~the selected property; and

replacing the first and second graphical objects with a summary graphical object in the graphical drawing canvas in response to receiving the first input, wherein:

the first and second graphical objects represent first and second data objects of the plurality of data objects; and

a value of the selected property of each of the first and second data objects is the same.

~~12~~10. The non-transitory computer-readable medium of claim ~~11~~9, the operations further comprising:

receiving second input effective to expand the summary graphical object; and

replacing the summary graphical object in the graphical drawing canvas with the first and second graphical objects in response to receiving the second input.

~~13. The non-transitory computer-readable medium of claim 11, wherein:~~

~~receiving the first input comprises receiving input effective to select the property;~~

~~the first and second graphical objects represent first and second data objects of the plurality of data objects; and~~

~~a value of the property of each of the first and second data objects is the same.~~

~~14. The non-transitory computer-readable medium of claim 11, wherein:~~

~~receiving the first input comprises receiving an individual selection of the first graphical object and an individual selection of the second graphical object; and~~

~~the property comprises an indication of selection of each of the first and second graphical objects.~~

~~15~~11. The non-transitory computer-readable medium of claim ~~11~~9, wherein:

the plurality of graphical objects further includes a third graphical object not grouped with the first and second graphical objects;

prior to replacement of the first and second graphical objects with the summary graphical object, the first graphical object is coupled by a connector to the third graphical object in the graphical drawing canvas; and

the operations further comprise replacing the connector between the first graphical object and the third graphical object with a connector between the summary graphical object and the third graphical object in the graphical drawing canvas.

~~16~~12. The non-transitory computer-readable medium of claim ~~11~~9, wherein:

the first graphical object includes first conditional formatting; and

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas comprises applying the first conditional formatting to the summary graphical object.

~~17~~13. The non-transitory computer-readable medium of claim ~~16~~12, wherein:

the second graphical object includes second conditional formatting; and

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas further comprises applying the second conditional formatting to the summary graphical object such that the summary graphical object has both the first and second conditional formatting.

~~18~~14. The non-transitory computer-readable medium of claim ~~11~~9, wherein:

the plurality of graphical objects further includes third and fourth graphical objects;

the graphical diagram includes first and second containers;

the first and second graphical objects are positioned within the first container;

the third and fourth graphical objects are positioned within the second container;

the first input is further effective to group the third and fourth graphical objects together;

replacing the first and second graphical objects with the summary graphical object in the graphical drawing canvas comprises replacing the first and second graphical objects in the first container with a first summary graphical object in the first container; and

the method further comprises replacing the third and fourth graphical objects in the second container with a second summary graphical object in the second container.

~~19~~15. The non-transitory computer-readable medium of claim ~~18~~14, the operations further comprising:

receiving container input effective to turn off a container level of the first and second containers such that they are removed from the graphical diagram; and

replacing the first and second summary graphical objects with a single summary graphical object.

~~20~~16. The non-transitory computer-readable medium of claim ~~18~~14, the operations further comprising:

receiving first container input effective to turn off a container level of the first and second containers such that they are removed from the graphical diagram;

receiving second container input effective to turn on a container level of third and fourth containers such that they are included in the graphical diagram, wherein the first and third graphical objects belong to the third container and the second and fourth graphical objects belong to the fourth container; and

displaying a third summary graphical object in the third container that represents the first and third graphical objects and a fourth summary graphical object in the fourth container that represents the second and fourth graphical objects.

17. A computer-implemented method to display a graphical diagram on a display device, the method comprising:

displaying a plurality of graphical objects in a graphical drawing canvas, the plurality of graphical objects representing a plurality of data objects included in structured source data;

receiving first input effective to select a property of the plurality of data objects;

receiving second input effective to group first and second graphical objects of the plurality of graphical objects based on the selected property, the plurality of graphical objects further including a subset of graphical objects that are unrelated to the first and second graphical objects and that are displayed in the graphical drawing canvas;

in response to receiving the second input, replacing the first and second graphical objects with a summary graphical object in the graphical drawing canvas while continuing to display the subset of graphical objects that are unrelated to the first and second graphical objects in the graphical drawing canvas;

receiving third input effective to expand the summary graphical object; and

in response to receiving the third input, replacing the summary graphical object in the graphical drawing canvas with the first and second graphical objects while continuing to display the subset of graphical objects that are unrelated to the first and second graphical objects in the graphical drawing canvas.

18. A computer-implemented method to display a graphical diagram on a display device, the method comprising:

displaying a plurality of graphical objects in a graphical drawing canvas, the plurality of graphical objects representing a plurality of data objects included in structured source data, the plurality of graphical objects including a first graphical object including a first conditional formatting and a second graphical object including a second conditional formatting that is different from the first conditional formatting;

receiving first input effective to group the first graphical object and the second graphical object based on a property of the plurality of data objects; and

replacing the first graphical object and the second graphical object with a summary graphical object in the graphical drawing canvas in response to receiving the first input, wherein

replacing the first graphical object and the second graphical object with the summary graphical object in the graphical drawing canvas comprises applying both the first conditional formatting and the second conditional formatting to the summary graphical object.

19. The computer-implemented method of claim 18, wherein:

receiving the first input comprises receiving an individual selection of the first graphical object and an individual selection of the second graphical object; and

the property comprises an indication of selection of each of the first and second graphical objects.

20. The computer-implemented method of claim 18, wherein:

receiving the first input comprises receiving input effective to select the property;

the first and second graphical objects represent first and second data objects of the plurality of data objects; and

a value of the property of each of the first and second data objects is the same.

21. The method of claim 1, further comprising:

displaying a plurality of graphical connectors in the graphical drawing canvas, the plurality of graphical connectors representing relationships between data objects of the plurality of data objects; and

in response to receiving the second input, replacing the plurality of graphical connectors with a summary graphical connector in the graphical drawing canvas.