
Subject: ScatterDraw data ownership
Posted by [busiek](#) on Fri, 29 May 2020 09:27:09 GMT
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Hi,

After creating new serie (say with `AddSeries<Vector<Pointf>>`) I want ScatterDraw to take control over this data. How to do it?

I mean if someone deletes the serie using `ScatterCtrl`, the data stored with it should be deleted too. I tried several approaches with `SetDataSource_Internal` or with creating `DataSource` based class storing `Vector<Pointf>`, but it seems it is not a way to do it.

Jakub

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Fri, 29 May 2020 21:27:50 GMT
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Hello Jakub

This is a good proposal. Now it has been added `SetDataSourceInternal()`. It copies all data sources to the `ScatterDraw`, so you can delete them or set them out of scope, and `ScatterDraw/Ctrl` will work properly. The only problem is that if original data source is changed, `ScatterDraw` will not change.

Subject: Re: ScatterDraw data ownership
Posted by [busiek](#) on Sat, 30 May 2020 16:37:33 GMT
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Hi,

Thank you, it works. However, my app is interactive and user can create a new serie. Calling `SetDataSourceInternal` each time a serie is added, seems to be overwhelming. There could be also a version parameterized by serie's index. Another possibility is `AddSeries(DataSource& ds)` variant with additional parameter whether to take ownership of the data source.

Jakub

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Sat, 30 May 2020 18:02:56 GMT
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Dear Jakob

If your application is interactive, I would not unlink Scatter from data. That is the nice thing of having all coupled.

In case that you need, for any case, to unlink them, `SetDataSourceInternal()` does the job just once after all `AddSeries()` calls.

In addition, if your user updates the data, you would have to call `Refresh()`. If you unlink the data, you would have to call `SetDataSourceInternal()`, so this does not require additional lines of code.

Subject: Re: ScatterDraw data ownership
Posted by [busiek](#) on Sat, 30 May 2020 20:45:34 GMT

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Dear Koldo,

OK. Currently, I simply call `SetDataSourceInternal()` whenever I need - i.e. when new serie is created. It works. However, when I want to add some another serie, I need to call `SetDataSourceInternal()` again and - as I understand - it copies all data for all series once again, while only the data of the new serie should be copied. Correct me, if I am wrong.

I operate on a very big data. The main functionality of my app is to find some nice smoothing of the given data interactively. I try several settings, create new series basing on some previous one and compare visually how they match. Currently, the interface you provided simply suffices. I just wonder what would happen if a single serie needed ~1 GB memory to store. Then avoiding any kind of copying is welcome, but it is hypothetical setting

Jakub

P.S. `Scatter{Draw,Ctrl}` is great and it saved me a lot of work

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Sun, 31 May 2020 18:51:57 GMT

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Dear Jakob

If you handle lots of data interactively, `SetDataSourceInternal()` is not the best option, as it copies the data from your source to the internal storage.

In this case, I strongly advice you to use Scatter normally, so you manage that the data will be always available for Scatter.

Subject: Re: ScatterDraw data ownership
Posted by [busiek](#) on Sun, 31 May 2020 20:24:58 GMT

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Dear Koldo,

Well yes, that would be the best option, but then I will need from ScatterDraw some callbacks informing whether a serie is removed/inserted/swapped. Actually, I would be able to live with WhenRemoved callback to release memory for removed serie.

Jakub

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Mon, 01 Jun 2020 06:00:45 GMT
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Dear Jakub

I do not understand you well. Series are added and removed by code, not by user, so why would it be necessary to add a callback?

Subject: Re: ScatterDraw data ownership
Posted by [busiek](#) on Mon, 01 Jun 2020 06:03:33 GMT
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Well, in ScatterCtrl, under Properties you can remove or rearrange series. So this action can be performed by a user interactively. I use this functionality in my app. There is no way to get feedback whether such action by a user was performed.

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Mon, 01 Jun 2020 08:35:41 GMT
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Yes, you are right.

I have added and documented this:

```
bool RemoveSeries(int index);  
bool SwapSeries(int i1, int i2);
```

```
Function <bool(int)> WhenRemoveSeries;  
Function <bool(int, int)> WhenSwapSeries; The callbacks are called just before, and if they return  
false, the operation is not done and RemoveSeries() or SwapSeries() return also false.
```

Subject: Re: ScatterDraw data ownership
Posted by [busiek](#) on Mon, 01 Jun 2020 10:27:37 GMT
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Thank you. That makes the job

Subject: Re: ScatterDraw data ownership
Posted by [koldo](#) on Mon, 01 Jun 2020 12:12:30 GMT
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Cool!
