

CoCoALib - Feature #966

New function or explain: first and last for a vector?

10 Nov 2016 08:43 - Anna Maria Bigatti

Status:	Closed	Start date:	10 Nov 2016
Priority:	Normal	Due date:	
Assignee:	Anna Maria Bigatti	% Done:	100%
Category:	Documentation	Estimated time:	2.22 hours
Target version:	CoCoALib-0.99700	Spent time:	2.15 hours
Description			
In CoCoA-5 we often first and last for making sub-lists. This is tedious to translate into C++. Make good C++ documentation, or write a trivial/inefficient function for handy-handling of short lists.			
Related issues:			
Related to CoCoALib - Feature #357: Constructor for vectors? CoCoAVector		Rejected	24 May 2013

History

#1 - 10 Nov 2016 09:05 - Anna Maria Bigatti

- Related to Feature #357: Constructor for vectors? CoCoAVector added

#2 - 10 Nov 2016 09:06 - Anna Maria Bigatti

- Assignee set to Anna Maria Bigatti

Equivalent to first,last:

```
vector<RingElem>(x.begin(), x.end()-1))  
vector<RingElem>(x.begin()+2, x.end())
```

#3 - 10 Nov 2016 16:11 - John Abbott

I am not yet convinced that first and last are good ideas for C++.

What exactly are the hoped-for semantics? Maybe last can be implemented relatively efficiently, but I have doubts about first. I am concerned that they may make wasteful copies of the elements of the list/vector.

#4 - 10 Nov 2016 19:05 - Anna Maria Bigatti

John Abbott wrote:

I am concerned that they may make wasteful copies of the elements of the list/vector.

Surely they do make wasteful copies. That's why I wrote "short lists" ;-)
Anyway, I'm adding some examples in ex-c++.

#5 - 05 Aug 2018 16:19 - Anna Maria Bigatti

- Category changed from *New Function* to *Documentation*
- Status changed from *New* to *In Progress*
- Target version changed from *CoCoALib-1.0* to *CoCoALib-0.99650 November 2019*
- % Done changed from *0* to *20*

#6 - 05 Aug 2018 16:19 - Anna Maria Bigatti

- Subject changed from *New function: first and last for a vector?* to *New function or explain: first and last for a vector?*

#7 - 01 Oct 2019 12:10 - John Abbott

- Target version changed from *CoCoALib-0.99650 November 2019* to *CoCoALib-0.99700*

#8 - 13 Jan 2020 18:34 - Anna Maria Bigatti

- Status changed from *In Progress* to *Resolved*
- % Done changed from *20* to *70*

OK, I think we should not make a function in lib.
I added an example in `ex-c++.C`.

Now I realized that there is a `ex-c++-vector.C`, so I think my original example should be split into the specific example files.

... not today.
In time for next release? not sure.

#9 - 14 Feb 2020 10:21 - John Abbott

- Status changed from *Resolved* to *Closed*
- % Done changed from *70* to *100*
- Estimated time changed from *3.00 h* to *2.22 h*

I have moved the example into a new file `ex-c++-vector2.C` which illustrates how to "translate" the CoCoA-5 functions **append**, **first** and **last** into C++.