

## CoCoALib - Design #1547

### Require decimal mode for ostream?

05 Dec 2020 13:55 - John Abbott

<b>Status:</b>	Closed	<b>Start date:</b>	05 Dec 2020
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	John Abbott	<b>% Done:</b>	100%
<b>Category:</b>	Safety	<b>Estimated time:</b>	0.70 hour
<b>Target version:</b>	CoCoALib-0.99800	<b>Spent time:</b>	0.70 hour
<b>Description</b> In issue <a href="#">#1529</a> we have decided to require that when reading from an istream the stream must be in decimal mode. Should we require the same for writing to an ostream?  If so, maybe we should supply a function which converts an integer (or rational?) to a string using the given base?			
<b>Related issues:</b> Related to CoCoALib - Design #1529: INPUT questions <b>Closed</b> <b>31 Oct 2020</b>			

#### History

##### #1 - 05 Dec 2020 13:55 - John Abbott

- Related to Design #1529: INPUT questions added

##### #2 - 17 Feb 2021 10:09 - John Abbott

- Status changed from New to In Progress

- % Done changed from 0 to 10

I do not like the idea of converting a BigInt or BigRat to a non-decimal string via normal output operators.  
[We could produce an explicit fn which does convert BigInt or BigRat to a string using a given base]

I suggest using assertions to check that ostream is in decimal mode; or possibly print out a warning?  
It could be surprising to the user/programmer if printing can cause an error.

##### #3 - 17 Feb 2021 10:27 - John Abbott

- Status changed from In Progress to Resolved

- Assignee set to John Abbott

- % Done changed from 10 to 70

I have now added assertions to printing for BigInt, BigRat (which anyway prints a BigInt), PPMonoidElem, and finite fields.  
That should cover virtually all cases!

PS: and symbol

##### #4 - 17 Feb 2021 11:06 - John Abbott

- Status changed from Resolved to Feedback

- % Done changed from 70 to 90

I have changed most/all output fns so that they **assert** that the ostream is in decimal mode.  
Contrast with input fns which **give error** if istream is not in decimal mode.

It is possible that some minor output fns have been skipped... probably not so important.

**#5 - 04 Feb 2022 21:50 - John Abbott**

- *Status changed from Feedback to Closed*
- *% Done changed from 90 to 100*
- *Estimated time set to 0.70 h*