CoCoA-5 - Design \#1041
Separators for elements of a list
07 Apr 2017 22:19 - John Abbott

| Status: | In Progress | Start date: | 07 Apr 2017 |
| :---: | :---: | :---: | :---: |
| Priority: | Normal | Due date: |  |
| Assignee: |  | \% Done: | 10\% |
| Category: | enhancing/improving | Estimated time: | 0.00 hour |
| Target version: | CoCoA-5.4.2 | Spent time: | 0.75 hour |
| Description |  |  |  |
| Currently elements of a "list" are printed with comma-space-space between successive elements. |  |  |  |
| The string defining this separator is written out several times: |  |  |  |
| - VectorOpera <br> - Interpreter.C <br> - TmpF5Mat. <br> - ideal.C | - |  |  |
| Does it make sense for CoCoALib to offer a public string whose value is the separator used in CoCoALib between elements when printing lists? Discuss \& decide! |  |  |  |
| Note that elements in a matrix use a different separator! |  |  |  |

## History

\#1-07 Apr 2017 22:21 - John Abbott
I have put this in the section CoCoA-5 even though the solution involves (possibly) modifying CoCoALib, because the problem becomes evident in CoCoA-5 (which should print its lists compatibly with those in CoCoALib).

I'm not sure about separators between elements in a matrix... :-/
\#2-07 Apr 2017 22:24-John Abbott
Here is an example involving a matrix:

```
>>> M := mat([[1,2],[3,4]]);
>>> M;
matrix(QQ,
    [[1, 2],
        [3, 4]])
>>> indent(GetRows (M));
[
    [1, 2],
    [3, 4]
]
```


## \#3-27 May 2021 10:50 - John Abbott

- Target version changed from CoCoA-5.?.? to CoCoA-5.4.0

I am not so sure about it being useful to allow a user to change the string
However, it would be a good idea to have a single string (constant?) which contains the separator; rather than having the separator string being defined in several places.

It is also unclear whether entries in a matrix should be separated by the same string...
I would expect so, but apparently this is not the current situation.

## \#4-04 Nov 2021 20:31 - John Abbot

- Target version changed from CoCoA-5.4.0 to CoCoA-5.4.2


## \#5 - 04 Jan 2024 10:14 - John Abbott

- Status changed from New to In Progress
- \% Done changed from 0 to 10

I still agree with my comments in note 3 above.
For matrices, there are really 2 separators: between elements in a row, and between rows.

## Proposed action

- gather all list element separators into a single constant somewhere (where?)
- put the matrix separators into two constants
- perhaps include cross-reference comments between the list separators \& the matrix separators?

