CoCoA-5 - Design #525

BuiltInFunctions: evalArgAsT1OrT2, evalArgAsT1OrT2OrT3, ... last argument

08 Apr 2014 09:40 - Anna Maria Bigatti

Status:	Closed	**Start date:**	08 Apr 2014
Priority:	Normal	**Due date:**	
Assignee:	Anna Maria Bigatti	**% Done:**	100%
Category:	Cleaning	**Estimated time:**	2.50 hours
Target version:	CoCoA-5.1.1 Seoul14	**Spent time:**	2.75 hours

Description

the functions **EvalArgAsT1OrT2OrT3...** modify the last argument (int) giving 1 or 2 or 3...
the functions **EvalArgAsT1OrT2** modifies the last argument (bool) giving isFirst

Should we change **EvalArgAsT1OrT2** so that it behaves like the others?
It would be a good idea, but it is extremely delicate work because of silent conversions between int and bool.

2014-08 done: last arg in all functions now is int (usually called which)

Related issues:

Related to CoCoA-5 - Feature #384: IsZero for matrix	**Closed**	**05 Jul 2013**
Related to CoCoA-5 - Support #296: Documentation for Parser/Interpreter	**In Progress**	**24 Jan 2013**
Related to CoCoA-5 - Design #294: BuiltInFunctions: General "OneLiner" for ar...	**Closed**	**23 Jan 2013**
Related to CoCoALib - Support #452: Documentation for adding functions to CoC...	**Closed**	**01 Mar 2014**

History

#1 - 08 Apr 2014 11:02 - John Abbott

I like the idea of making them all "compatible".

Another option would be to have an enum with one value for each type, and the function returns the enum value corresponding to the type actually found. This would make the order of the types in the template irrelevant:

```
TypeEnum ActualType;
auto arg1 = EvalAsT1OrT2OrT3<BigInt, BigRat, RingElem>(ARG(1), ActualType);
switch (ActualType)
{
  case BigIntType: ...
  case BigRatType: ...
  case RingElemType: ...
}
```

I don't guarantee that this could be realised...

#2 - 15 Jul 2014 11:02 - Anna Maria Bigatti

- Subject changed from BuiltInFunctions: EvalArgAsT1OrT2 to BuiltInFunctions: evalArgAsT1OrT2

- Category changed from Parser/Interpreter to Cleaning

- Status changed from New to Resolved

- Assignee set to Anna Maria Bigatti

- % Done changed from 0 to 80

We agreed that it would be handy to have the same interface for
evalArgAsT1orT2 and **evalArgAsT1orT2orT3**.
The last argument of **evalArgAsT1orT2** is the bool **isT1**, whereas in the new view it should be an int **which**: this is the situation
isT1=true would give which=1, that is T1
isT1=false would give which=0, that is invalid, but it usually used as !isT1, that is T2.
HOWEVER I left a non-implemented version with bool so that passing bool instead of int would not link.
All done: it works

#3 - 15 Jul 2014 12:27 - Anna Maria Bigatti

- Status changed from Resolved to Feedback

- % Done changed from 80 to 90

cvs-ed

#4 - 27 Aug 2014 18:09 - Anna Maria Bigatti

- Tracker changed from Bug to Design

- Subject changed from BuiltInFunctions: evalArgAsT1OrT2 to BuiltInFunctions: evalArgAsT1OrT2, evalArgAsT1OrT2OrT3, ... last argument

- Status changed from Feedback to Closed

- % Done changed from 90 to 100