CoCoA-5 - Design #1091

ExternaLib-MathSAT: (first) prototype CoCoA-5 interface for MathSAT

13 Jul 2017 17:17 - Anna Maria Bigatti

Status:	Closed	**Start date:**	13 Jul 2017
Priority:	Normal	**Due date:**	
Assignee:	Anna Maria Bigatti	**% Done:**	100%
Category:	CoCoA-5 function: new	**Estimated time:**	8.01 hours
Target version:	CoCoA-5.2.2	**Spent time:**	7.00 hours

Description

Related issues:			
Related to CoCoALib - Feature #1090: ExternaLib-MathSAT: first prototype	**Closed**	**12 Jul 2017**	**29 Jul 2017**

History

#1 - 13 Jul 2017 17:32 - Anna Maria Bigatti

- % Done changed from 0 to 40

- Estimated time set to 16.00 h

First prototype working, very naive implementation

```
/**/ M := mat([[1,9],[2,5]]);   L := [123,456];
/**/ LinSolve(M, ColMat(L));
matrix(QQ,
 [[3489/13],
  [-210/13]])
/**/ MSatLinSolve(record[eq := ConcatHor(M, ColMat(L))]);
matrix(QQ,
 [[3489/13],
  [-210/13]])
```

Now I have to make it working for 3x3 matrices ;-)
Need some data type designing....

#2 - 14 Jul 2017 11:04 - Anna Maria Bigatti

- % Done changed from 40 to 60

```
MSatLinSolve(record[leq := matrix([[1,2,3, 4],  --   x1 +2*x2 +3*x3 <= 4
                                    [9,8,7, 0]]),-- 9*x1 +8*x2 +7*x3 <= 0
          eq :=  RowMat([1,0,0, 0]),  -- x1 = 0
          lt :=  RowMat([0,1,0, 0])   -- x2 < 0
          ]);
```

gives

```
matrix(QQ,
 [[0],
  [-14/5],
  [16/5]])
```

#3 - 14 Jul 2017 11:04 - Anna Maria Bigatti

- Related to Feature #1090: ExternaLib-MathSAT: first prototype added

#4 - 21 Jul 2017 16:28 - Anna Maria Bigatti

- Status changed from New to In Progress

#5 - 11 Dec 2017 17:58 - Anna Maria Bigatti

- Subject changed from ExternaLib-MathSAT: prototype CoCoA-5 interface for MathSAT to ExternaLib-MathSAT: (first) prototype CoCoA-5 interface for MathSAT

- Status changed from In Progress to Closed

- % Done changed from 60 to 100

- Estimated time changed from 16.00 h to 8.01 h