# CoCoALib - Feature #1602

## Sparse matrix (SparseMat)

02 Jul 2021 17:26 - John Abbott

Status:	New	Start date:	02 Jul 2021
Priority:	Low	Due date:	
Assignee:		% Done:	0%
Category:	New Function	Estimated time:	0.00 hour
Target version:	CoCoALib-0.99900	Spent time:	0.20 hour
Description			
Create new type for representing sparse matrices.			
Then check all code which by default creates a DenseMat (because there has been no other choice so far)			
Related issues:			
Related to CoCoALib - Feature #1598: RingHom: implement phi(X) as apply(phi,			Closed 10 Jun 2021

### History

### #1 - 19 Jul 2021 14:17 - John Abbott

- Related to Feature #1598: RingHom: implement phi(X) as apply(phi, X) also for X vector and matrix added

### #2 - 30 Sep 2021 14:13 - John Abbott

Do we want to handle structured matrices like sparse matrices? e.g. Toeplitz matrices are specified by just a few elements.

Some sparse matrices may also have some "special structure": *e.g.* a multiplication-by-indet matrix modulo a 0-dim ideal probably contains many columns which are all 0 except for one entry which is 1.

Perhaps start with KISS?

#### #3 - 15 Feb 2024 22:42 - John Abbott

- Target version changed from CoCoALib-0.99850 to CoCoALib-0.99900