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Business plan manager

FWA

Using Aspose to generate accounting items from basic studies

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Product Background / Overview

The solution target is to generate complex business plans from simple economic studies.

The user enters some product selling information, some investments, some general charges, persons to hire and other simple forms.

The application then generates the Profit and Loss reports and Treasury reports.

Requirements Scenario

These reports are not generated directly from simple studies but from accounting items generated by the application.

These accounting items generation can be very complex because it should take in consideration the value dates, accounting periods, VAT calculations, partial payments and other parameters.

Those generation rules should be flexible, updatable by administrator and easily testable.

Solution Implementation

We developed some models in Excel that generates accounting items.

When we inputs "parameters" in the first tab of one of those excel files then the generated accounting entries in another tab are adapting themselves (using excel formulas based on those parameters).

We then develop web forms where the end user will inputs those parameters.
When the user click 'Save' on the web form, we use Aspose.Cells to write those values into the Excel file parameters tab.
Then Aspose.Cells executes its engine to recalculate formulas of the "Accounting items" tab.
Finally we read back those accouting items in the Excel tab with Aspose.Cells and

writes into an SQL table those accouting entries.

After that the user can request correctly filled up reports in our application.

Also when the business rules are changing, the only thing an administrator has to do, is downloading the Excel model, modify it, and upload it back in the application.

Benefits

We found with Aspose a way to have :

- Fast Excel based model calculations
- Ability to user to change and test models directly in Excel (no need for complex rules engines hardcoded and hard to maintain for developers not having management knowledge)

Future Implementations

We are developing about 40 specific management applications per year. Many times those applications embed complex mathematic formulas that may change in later releases. We are sure to find new ways of using Aspose.Cells, to propose solutions to manage complex business rules and to easy maintain and develop them without republishing applications.

Conclusion

Aspose helped us developing really quickly that application, it made us earn the time of not developing business rules but only the application itself.

Aspose is definitely a great way of getting rid of complex business rules hardcoded, and its calculation engine is pretty full it understands much more excel formulas keywords than its competition (Farpoint, etc…)

It made its proofs in terms of performance and code design developers loves to use it.

Screenshots

The input parameters of the model (investments amortization calculations):

	A	B	C	D	E	F	G	H	I
1	Tableau des calculs des amortissements								
2									
3	Montant HT	1 500,00							
4	Mode	LIN	Linéaire						
5	Nombre années	3,00							
6	Taux	42%							
7	Date de démarrage de projet	01/02/2008							
8	Date d'acquisition	01/04/2009							
9	Nombre de jours restants dans l'année d'acquisition	305							
10	Compte comptable immo	218100							
11	Compte dotation immo	281810							
12	Compte dotation charge	681120							
13	Nom de l'immo	Armoire							
14	Taux de TVA	19,60%							
15	Compte de TVA sur immos	445664							
16	Franchise TVA	Non							
17	Montant TTC	1 794,00							
18	Montant à amortir	1 500,00							
19	Délais remboursement TVA	90							
20	Date rembousement TVA	30/06/2009							
21	Mode d'acquisition	AUT	Acquisition						
22									
23	Amortissements à partir de la date de démarrage								
24	2008	0,00							
25	2009	417,81							
26	2010	500,00							
27									
28	Amortissements des années à partir de la date d'acquisition								
29	Années	Montant		Si dégressif	Valeur résiduelle		Si linéaire	Valeur résiduelle	
30					1 500,00			1 500,00	
31	2009	417,81		522,26	977,74		417,81	1 082,19	
32	2010	500,00		500,00	477,74		500,00	582,19	
33	2011	477,74		477,74	0,00		500,00	82,19	
34	2012	0,00		0,00	0,00		82,19	0,00	
35	2013	0,00		0,00	0,00		0,00	0,00	
36	2014	0,00		0,00	0,00		0,00	0,00	
37	2015	0,00		0,00	0,00		0,00	0,00	
38	2016	0,00		0,00	0,00		0,00	0,00	
39	2017	0,00		0,00	0,00		0,00	0,00	
40	2018	0,00		0,00	0,00		0,00	0,00	

Accounting items generated :

	Journal	Date	Compte	Libellé	Montant débit	Montant credit	NumPiece
1	**Journal**	**Date**	**Compte**	**Libellé**	**Montant débit**	**Montant credit**	**NumPiece**
2	BQ	01/04/2009	512000	Immo acquisition 'Armoire'		1794,00	1
3	BQ	01/04/2009	218100	Immo acquisition 'Armoire'	1500,00		1
4	BQ	01/04/2009	445664	Immo acquisition 'Armoire'	294,00		1
5	OD	01/04/2009	445664	Demande remboursement immo 'Armoire'		294,00	2
6	OD	01/04/2009	445830	Demande remboursement immo 'Armoire'	294,00		2
7	BQ	30/06/2009	445830	Remboursement TVA pour 'Armoire'		294,00	3
8	BQ	30/06/2009	512000	Remboursement TVA pour 'Armoire'	294,00		3
9	OD	31/12/2008	281810	Dotation aux amortissements 'Armoire', 2008		0,00	4
10	OD	31/12/2008	681120	Dotation aux amortissements 'Armoire', 2008	0,00		4
11	OD	31/12/2009	281810	Dotation aux amortissements 'Armoire', 2009		417,81	5
12	OD	31/12/2009	681120	Dotation aux amortissements 'Armoire', 2009	417,81		5
13	OD	31/12/2010	281810	Dotation aux amortissements 'Armoire', 2010		500,00	6
14	OD	31/12/2010	681120	Dotation aux amortissements 'Armoire', 2010	500,00		6
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