

## Microsoft Dynamics NAV 5.0

### Basel II

Technical White Paper

December 2007

This paper will give you insight into the Basel Accord (Basel II) and how Microsoft Dynamics™ NAV helps small and mid-sized businesses deal with Basel II-related regulations. It is written to help people in the Microsoft Dynamics NAV 5.0 channel consult on or implement a business solution.

[www.microsoft.com/dynamics/nav](http://www.microsoft.com/dynamics/nav)

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## ***Introduction***

Microsoft Dynamics NAV 5.0 offers the most comprehensive financial management and reporting capabilities for the product to date and gives customers the flexibility to respond to changes in the market, including regulatory ones. The most recent Basel Accord, known as Basel II, is one such change. It is a regulatory framework for financial lending institutions and a relatively recent addition to banking legislation. Although the regulations do not target businesses outside of the financial industry, the effects of Basel II can still affect other businesses.

More specifically, Basel II has fundamentally changed the decision-making process behind loan approvals. Because this change in the lending process can affect the financing options of small to midsize businesses, managing the financial structure of any business requires an understanding of the nature of these changes. Microsoft Dynamics NAV 5.0 customers should be aware of these regulations, how they may affect the financing of their companies, and how their enterprise resource planning (ERP) systems can address concerns regarding Basel II.

## ***Basel II: An Overview***

Basel II was ratified by the Bank of International Settlements (BIS), an international organization that promotes cooperation among central banks and other agencies, with the goal of establishing monetary and financial stability. Within the BIS, a group called the Basel Committee was charged with the task of creating the accord. The committee has since published a revised framework agreement that aims to make the international financial system safer and more flexible by requiring that the riskiness of banks' loan portfolios be reflected in the capital charges they need to set aside against unexpected losses. The agreement—Basel II—sets a framework for banking practices with three pillars: minimum capital requirements, supervisory review process, and market discipline. It prescribes a policy for adopting more risk-sensitive minimum capital requirements for banking organizations.

The effects of Basel II on the finances of small to midsize businesses are passive. These effects are due to the nature of Basel II's first pillar, which focuses on the identification of risk classes and the allocation of minimum capital requirements based on the amount of weighted assets within each risk class. In the broader context of financing for the small to midsize businesses sector, banks often assess small to midsize businesses as undercapitalized. They subsequently face problems raising debt financing and in obtaining risk capital or subordinated debt.

The first pillar seeks to align banks' capital allocation with the risk characteristics of a bank's lending practices, therefore causing concerns in the small to midsize business sector that the regulations will increase the cost of borrowing or impose more difficult hurdle criteria. Banks are paying more attention to the relative riskiness of their clients. To estimate the risk of their corporate clients, banks need more information than before. For small to midsize businesses that will need to contact a bank or another lending institution regarding finance, recognizing and addressing this key issue may aid in securing the right financing at the best interest rates. Small to midsize businesses that can demonstrate their fiscal stability may in turn expect lower interest rates and better access to loans. Small to midsize businesses that are more financial risk are more likely to encounter higher interest rates and collateral requirements.

## Microsoft Dynamics NAV 5.0 and Basel II

Small to midsize businesses need to convince banks that they are taking an acceptable risk and will therefore pay a reasonable return on financing provided to them. It is important that small to midsize business customers understand the new rules of the game and how they can prepare themselves for evaluation. The following Microsoft Dynamics NAV 5.0 features can aid in this process.

### Account schedules

The Microsoft Dynamics NAV account schedules can be used to show data in financial statements and for other reporting purposes. They can be used to review different types of data, as illustrated in Figure 1.

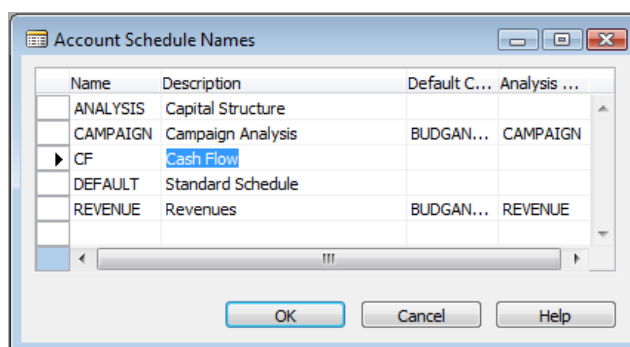


Figure 1. Account Schedule Names window

When an account schedule name has been selected, the data for that account schedule displays in the account schedule window. Figure 2 is a sample account schedule. To access the overview window from here, click **Acc. Sched.** and select **Overview** from the drop-down menu.

Row No.	Description	Totali...	Totaling	Show	New Page
	REVENUE	Posti...		Yes	
	Sales of Retail	Posti...		Yes	
11	Sales, Retail - Dom.	Posti...	6110	Yes	
12	Sales, Retail - EU	Posti...	6120	Yes	
13	Sales, Retail - Export	Posti...	6130	Yes	
14	Job Sales Adjmt, Retail	Posti...	6190	Yes	
15	Sales of Retail, Total	Tota...	6195	Yes	
	Revenue Area 10..30, Total	Posti...	6110..6195	Yes	
	Revenue Area 40..85, Total	Posti...	6110..6195	Yes	
	Revenue, no Area code, Total	Posti...	6110..6195	Yes	
	Revenue, Total	Posti...	6110..6195	Yes	

Figure 2. Revenues—Account Schedule window

In the overview window, the user can set up the row layout of the chosen account schedule. This would include parameters such as line name, line type, and totaling type. To set up the columns for the analysis view, click **Functions** in the Account Schedule window, and select **Set up Column Layouts** from the drop-down menu. A new window called the Column Layout window will open (see Figure 3). Here you can define the column parameters for the analysis view.

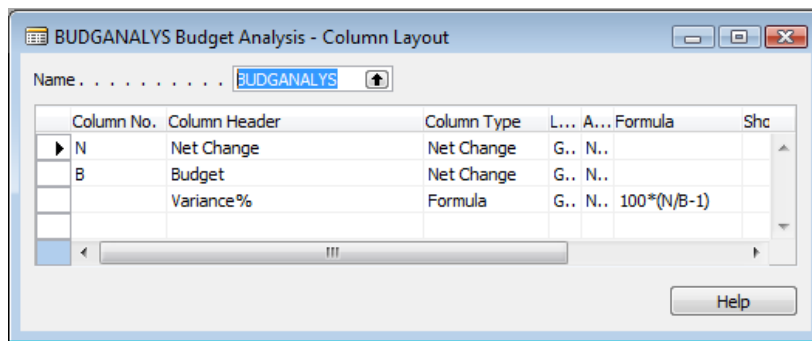


Figure 3. Budget Analysis—Column Layout window

Users can then select which budgets to filter and to combine multiple budgets per department or project. The resulting data can be exported to Microsoft® Office Excel® for further review or printed from a print preview window. To access either of these options, click **Functions**. After the information has been exported to Excel or printed, it can be used for reporting purposes.

### Key performance indicators

Account schedules can also display key performance indicators (KPIs). After defining KPIs for strategic or operational performance for a given business, a company can use account schedules to show performance via KPIs over a period of time. For example, if a company chooses to use the current ratio, it can use account schedules and the data in Microsoft Dynamics NAV to calculate this ratio. Figure 4 shows how data can be exported to Excel to show current assets and liabilities, and how these numbers were calculated in Microsoft Dynamics NAV, in a familiar financial statement format. This process can be repeated with many other KPI measures.

	Net Change Debit	Net Change Credit	Balance at Date Debit	Balance at Date Credit
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Figure 4. KPIs

### Budgets

Being able to determine a budget and stick to it is an important part of proving financial viability. With Microsoft Dynamics NAV 5.0, creating and managing budgets is easy. Users can produce precise overviews of a budget in a print preview or export to Excel for review. In the budget window, users can view details of the budget and apply various filters to isolate the desired information.

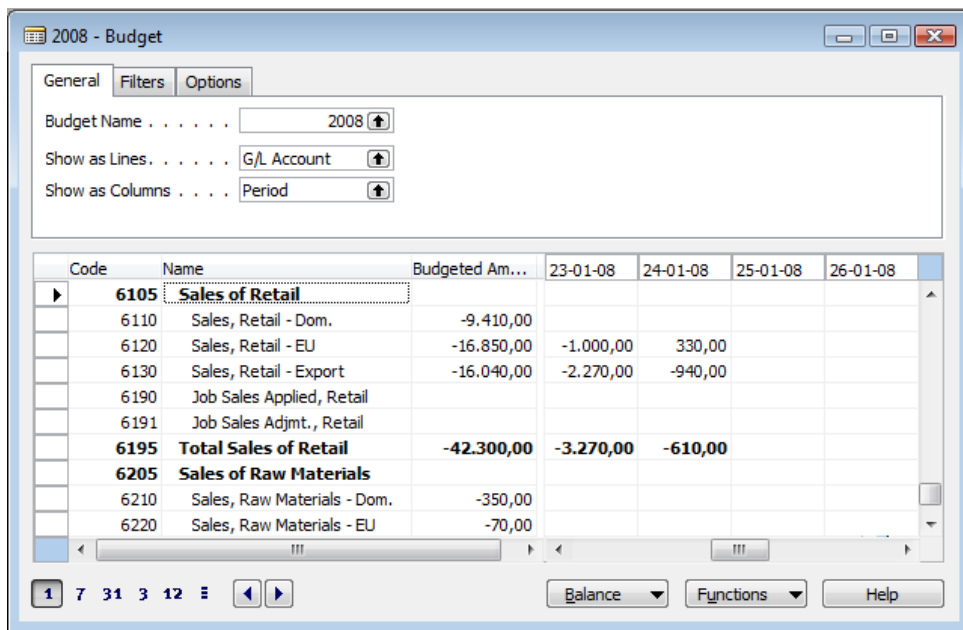


Figure 5. Budget window

The process of creating and reviewing a budget is simple with the help of Import from Excel and Export to Excel functionality.

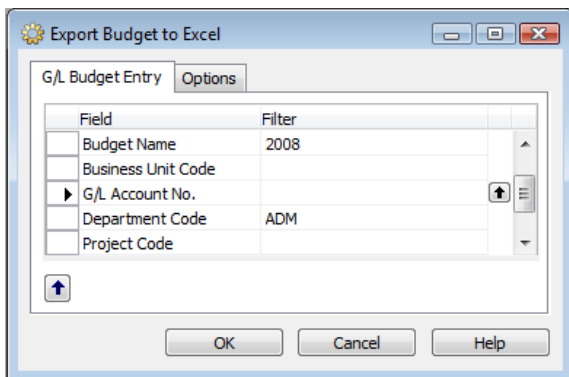


Figure 6. Export Budget to Excel window

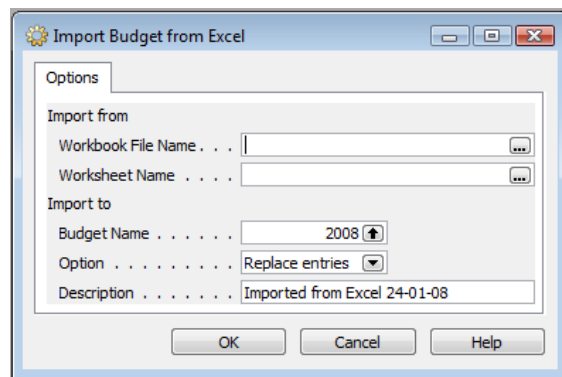


Figure 7. Import Budget from Excel window

By using one of the two windows shown above, users can easily export a budget to Excel, make changes, and import it back into Microsoft Dynamics NAV. They can also export an existing budget to Excel for review by a bank. When exporting, users can apply filters to isolate the desired information for alterations or review.

The account schedule can be used to create cash flow statements. By setting up account schedules for cash flow, users can easily track asset movements by specifying acquisitions and disposals broken down according to asset type/group. Users can view an account schedule for cash flow in the Account Schedules overview window (see Figure 8).

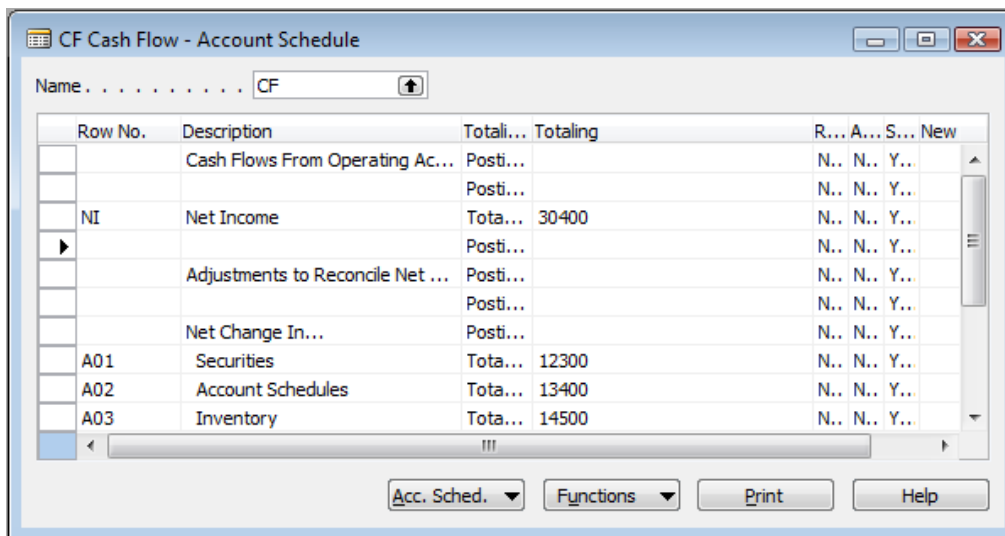


Figure 8. Cash Flow overview window

In Microsoft Dynamics NAV, users can create traditional finance budgets that support the special purpose documentation generated by account schedules that use the table filter or line filter. Figure 9 shows the account schedule overview with the account revenue cross-referenced by the budget analysis column layout. With this view, it is easy to see the actual values of revenue compared to the budgeted values.

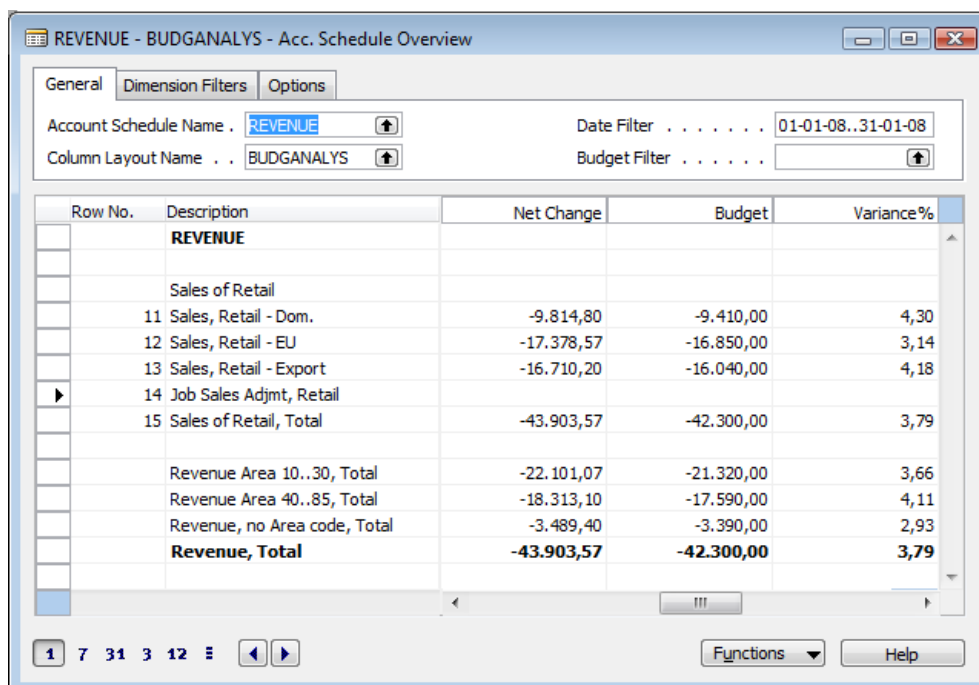


Figure 9. Account Schedule overview window

With account schedules, people can easily use Microsoft Dynamics NAV to create the reports needed by a specific financial institution. Users can simplify the process of creating a report by defining necessary information in the account schedules. When the information has been defined, it can either be used with Microsoft Dynamics NAV (see Reporting below) or exported to Excel (see Figure 10).

	A	B	C	D
1	Filters			
2	Date Filter	01-01-08..31-01-08		
3	Budget Filter	2008		
4				
5	Currency	GBP		
6				
7	Column1	Column2	Column3	Column4
8	REVENUE	Net Change	Budget	Variance%
9				
10				
11	Sales of Retail			
12	Sales, Retail - Dom.	-9.814,80	-9.410	4,301806589
13	Sales, Retail - EU	-17.378,57	-16.850	3,136913947
14	Sales, Retail - Export	-16.710,20	-16.040	4,178304239
15	Job Sales Adjmt, Retail			
16	Sales of Retail, Total	-43.903,57	-42.300	3,790945626
17				
18	Revenue Area 10..30, Total	-22.101,07	-21.320	3,663555347
19	Revenue Area 40..85, Total	-18.313,10	-17.590	4,110858442
20	Revenue, no Area code, Total	-3.489,40	-3.390	2,932153392
21	Revenue, Total	-43.903,57	-42.300	3,790945626

Figure 10. Account Schedule Overview with Budget Filter exported to Excel

The flexible functionality of account schedules and budgets in Microsoft Dynamics NAV makes it easier than ever to analyze and report on various data for review. Account schedules provide a robust set of tools that enable users to create reports and overviews for internal use. Users can create highly tailored reports that contain specific information, such as cross-referencing to budgets that financial institutions may specifically request to see.

## Reporting

Reporting functionality enables the user to create written documentation of the financial status of the company directly from within Microsoft Dynamics NAV. The first step in creating such a report is opening a reporting tools window, like the Account Schedule reports window in Figure 11.

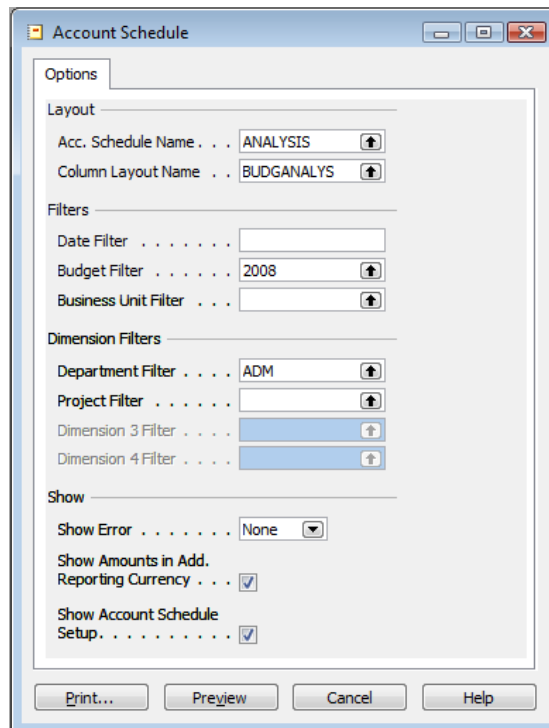


Figure 11. Account Schedule window

From this window, users can define an account schedule and budget, and then filter the information based on business, department, and project unit filters before printing the report. After the report has been defined, they can preview it in a new window or print it (see Figure 12).

Account Schedule		10. September 2007		
CRONUS International Ltd.				
Page 1				
Period	01-01-08..31-01-08			
Fiscal Start Date	01-01-08			
Account Schedule	REVENUE	Revenues		
Column Layout	BUDGANALYS			
Analysis View	REVENUE	Sales Revenue		
All amounts are in GBP.				
Acc. Schedule Line: Date Filter: 01-01-08..31-01-08				
Row No.	Description	Net Change	Budget	Variance%
<b>REVENUE</b>				
Sales of Retail				
11	Sales, Retail - Dom.	-9.814,80	-9.410,00	4,30
12	Sales, Retail - EU	-17.378,57	-16.850,00	3,14
13	Sales, Retail - Export	-16.710,20	-16.040,00	4,18
14	Job Sales Adjmt, Retail			
15	Sales of Retail, Total	-43.903,57	-42.300,00	3,79
Revenue Area 10..30, Total				
		-22.101,07	-21.320,00	3,66
Revenue Area 40..85, Total				
		-18.313,10	-17.690,00	4,11
Revenue, no Area code, Total				
		-3.489,40	-3.390,00	2,93
<b>Revenue, Total</b>				
		<b>-43.903,57</b>	<b>-42.300,00</b>	<b>3,79</b>

Figure 12. Account Schedule report

The Trial Balance/Budget report uses the budget described above and compares it to the trial balance by period. People can choose, for example, to see a trial balance for selected dimensions or use the report at the close of an accounting period or fiscal year, and apply a series of filters to isolate relevant information. They can also set additional fields on the tab.

Two other financial reports available in Microsoft Dynamics NAV 5.0 are the Fiscal Year Balance report and the Balance Comp. - Prev. Year report. The Fiscal Year Balance report (see Figure 13) shows balance sheet movements for selected periods. It shows the closing balance by the end of the previous fiscal year for the selected ledger accounts, the fiscal year until this date, this fiscal year by the end of the selected period, and the balance by the end of the selected period, excluding the closing entries. The report can be used at the close of an accounting period or fiscal year.

Fiscal Year Balance											CRONUS International Ltd. 10 September 2007, 10:30:56	
Fiscal Year Starting Date : 01-01-08 Period : 01-01-08..31-01-08 Indentation Level : None G/L Account: No : 6100.6995												
No.	Name	Closing Balance 31-12-07		Fiscal Year until this period		This period 01-01-08..31-01-08		Balance 31-01-08		Profit & Loss 31-01-08		
		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	
6100	Revenue											
6105	Sales of Retail											
6110	Sales, Retail - Dom.		751,114.33			1,840.60	256,788.30				1,008,062.03	
6120	Sales, Retail - EU		54,263.01			2,614.90	19,993.47				71,641.58	
6130	Sales, Retail - Export		112,235.98				16,710.20				128,946.18	
6190	Job Sales Applied, Retail											
6191	Job Sales Adjmt., Retail											
6195	Total Sales of Retail		917,613.32			4,456.50	283,491.97				1,208,649.79	
6205	Sales of Raw Materials											
6210	Sales, Raw Materials - Dom		4,449,213.62				361.50				4,449,575.12	
6220	Sales, Raw Materials - EU		518,428.43				72.29				518,500.72	
6230	Sales, Raw Materials - Expo		880,171.63								880,171.63	
6290	Job Sales Applied, Raw Mat											
6291	Job Sales Adjmt., Raw Mat											
6295	Total Sales of Raw Materials		5,847,813.68				433.79				6,348,247.47	
6405	Sales of Resources											

Figure 13. Fiscal Year Balance report

The Balance Comp. - Prev. Year report shows an overview of the general ledger accounts with information about the current period, the balance at the end of the period (YTD, end of period, or any other ending date), the balance in the same period of the previous year, and the balance (YTD, end of period, or any other ending date) of the previous year. Both reports' contents can be further defined by setting filters.

Aged Receivables and Payables reports are also part of the report offering in Microsoft Dynamics NAV 5.0. Banks use these reports to estimate cash flows and to identify if the company is either poor at collecting outstanding amounts or withholding due payment. Using the same filters as described above, users can generate a report for specific accounts and periods.

Aged Accounts Payable											7. September 2007	
CRONUS International Ltd.											Page 1	
Aged as of 24. January 2008 Aged by Posting Date Vendor: No.: 10000..40000												
No.	Name	Curre Code	Balance	Aged by Posting Date					Before 28-12-07			
				18-01-08 ..24-01-08	11-01-08 ..17-01-08	04-01-08 ..10-01-08	28-12-07 ..03-01-08					
10000	London Postmaster	GBP	-114,357.45	0,00	-15,846,00	-8,245,76	-90,285,69	0,00				
20000	AR Day Property Management	GBP	-2,904,53	-1,368,90	0,00	0,00	-1,535,63	0,00				
30000	CoolWood Technologies	GBP	-93,998,66	-3,638,00	-19,500,00	35,430,00	-106,290,66	0,00				
<b>Total (LCY)</b>			<b>-211,260,64</b>	<b>-5,006,90</b>	<b>-35,346,00</b>	<b>27,184,24</b>	<b>-198,091,98</b>	<b>0,00</b>				
				2,4%	16,7%	-12,9%	93,8%	0,0%				
Currency Specification		GBP	-211,260,64	-5,006,90	-35,346,00	27,184,24	-198,091,98	0,00				

Figure 14. Aged Accounts Payable report

Reports can be made for different sets of data and with different filters. This flexibility is especially valuable when creating reports intended for banks or other financial institutions that demonstrate the financial health of a company.

### Business Analytics

Business Analytics in Microsoft Dynamics NAV is another tool that can be used for reporting and analytical processes. It provides an interface between Microsoft Dynamics NAV and Microsoft SQL Server™ Analysis Services. The Basis version of Business Analytics makes it possible to populate cubes in SQL Server Analysis Services automatically with data from Microsoft Dynamics NAV. Any online analytical processing (OLAP) client that can access SQL Server Analysis Services can then be used to analyze the data, create reports in other programs like Excel, and more. The Advanced version of Business Analytics includes a rich client that has views and reports already defined, and that works with the predefined cubes that are installed with the Basic version.

Business Analytics can be used to create defined reports with graphs, charts, or other graphics such as globes and maps from within Microsoft Dynamics NAV.

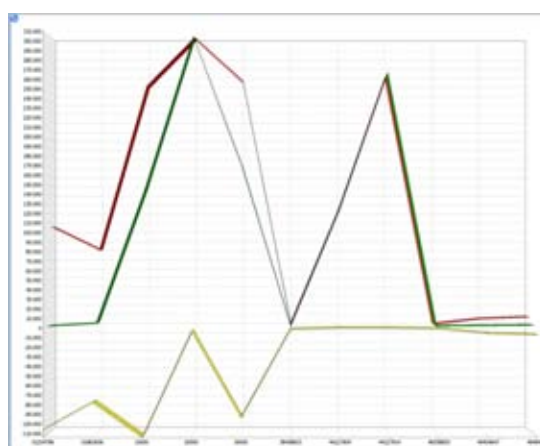


Figure 15. Graph generated with Business Analytics Advanced

These analytical and reporting tools can help give an accurate and understandable representation of a company's financial data. Although data selected for review can be from anywhere within Microsoft Dynamics NAV, people concerned with Basel II should consider extracting data similar to that shown in the analysis schedules above.

### Fixed Assets

Fixed assets and depreciation are factors banks and financial institutions take into account when evaluating the riskiness of companies as borrowers. To show the current value of fixed assets and to show the effect of tax dispositions taken with the fixed assets on the cash flow of the company, it may be necessary to create different depreciation books. New depreciation books can be created through the Administration window, and users can find the Depreciation Book Card by clicking **Application Setup**, then **Financial Management** and then **Depreciation Books**. After the Depreciation Book Card window is open, users can create a new card by clicking **Functions** and selecting **Create FA Depreciation Books** from the drop-down menu.

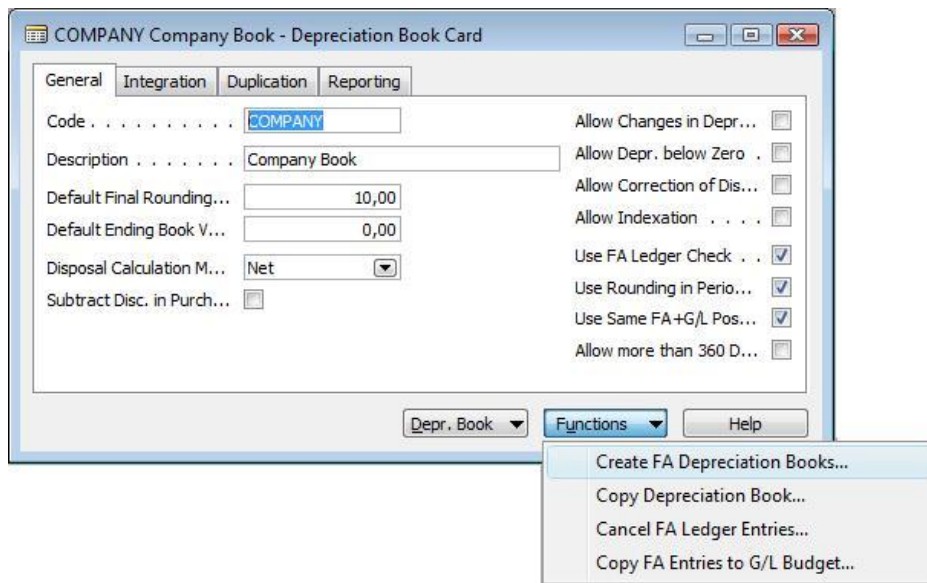


Figure 16. Depreciation Book Card window

Next, the Create FA Depreciation Books window opens (see Figure 17). In this window, the depreciation book can be defined for use in the future. A similar process can also be applied if the user would like to copy an existing book to a new book.

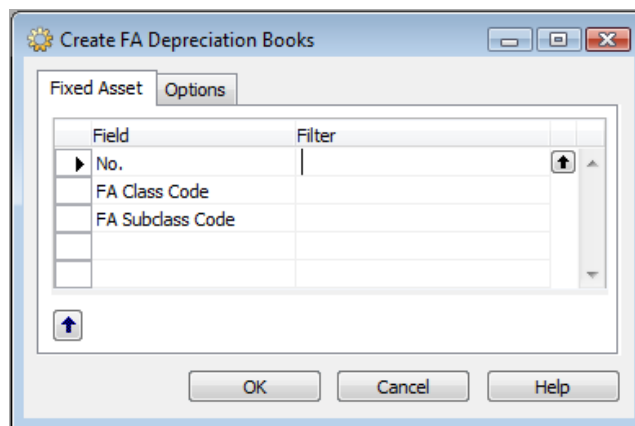


Figure 17. Create FA Depreciation Books window

After a depreciation book has been created, users can easily apply different books to fixed assets. In the following example, a conveyor lift is given different depreciation books. Figure 18 shows the fixed asset card for the conveyor lift.

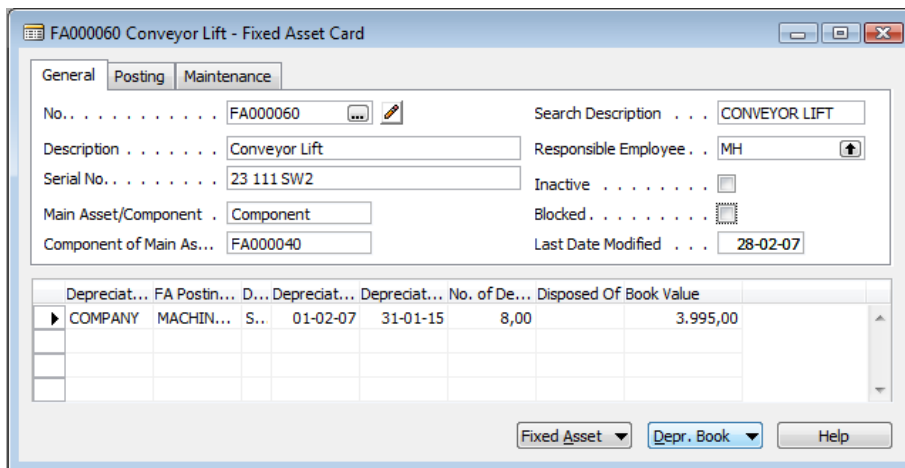


Figure 18. Fixed Asset Card window

Clicking **Fixed Assets** and then selecting **Depreciation Books** will open a depreciation books window.

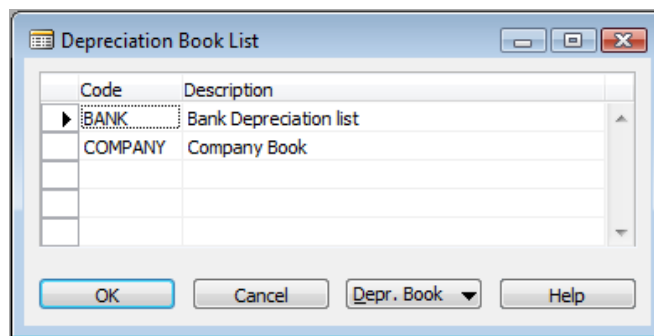


Figure 19. Depreciation Book List window

From here, a newly created book called **Bank Depreciation** list can be selected. Users can design different books to report to or take information from different sections of the general ledger. After the user highlights the correct book and clicks **OK**, the user will return to the fixed assets card.

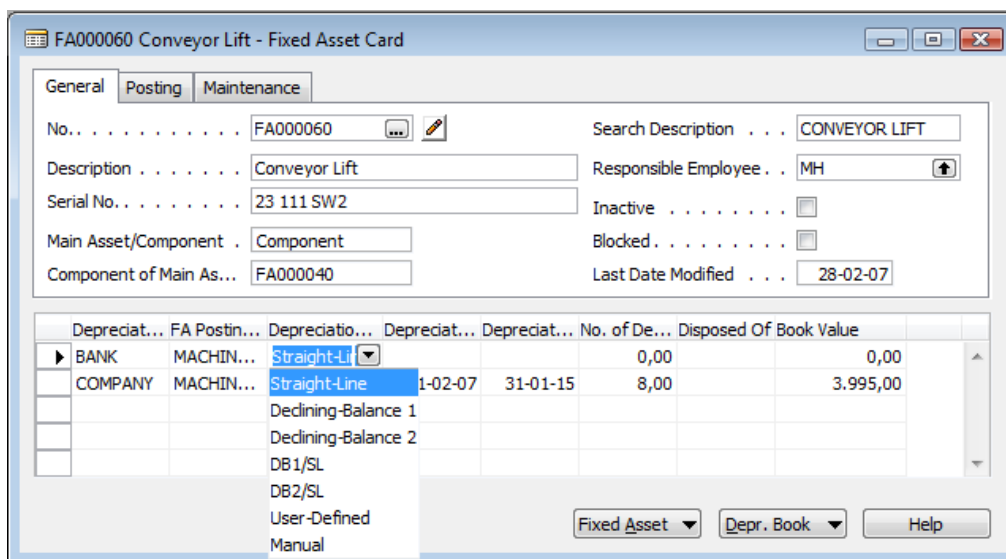


Figure 20. Fixed Asset Card window

From here, users can select the depreciation method and dates. This functionality underlines another valuable use for multiple depreciation books; company structure tax regimes may dictate the use of two or more different depreciation methods such as straight-line or declining value for the same fixed asset. Selecting different methods will alter the book value of the fixed asset in different scenarios. If necessary, one depreciation book could be used for the company's financial statement, a second for tax reporting, a third for reporting to a parent company, a fourth for reporting to a credit institution, and so on.

## Work in progress

Work in progress calculations, also known as WIP, are critical to giving an exact financial valuation of ongoing projects. Jobs in Microsoft Dynamics NAV 5.0 provides five different methods for calculating WIP: cost value, sales value, recognizable cost, percentage of completion, and completed contract. Based on the user's specific accounting needs, he or she can select the correct WIP calculation and then calculate the WIP, post it to the general ledger, and reverse it out to be recalculated. Part of a job that is not relevant for that particular accounting period can be excluded from the WIP calculation easily through the new job task lines.

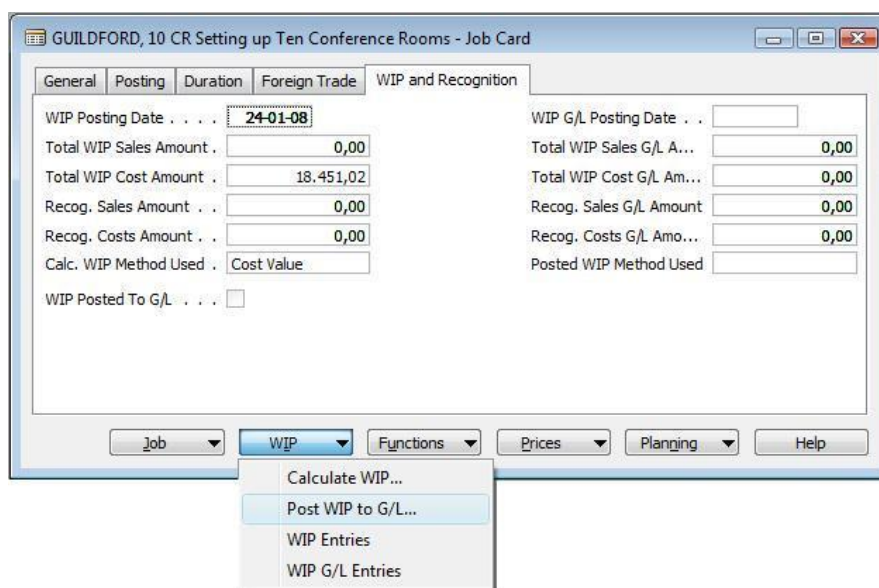


Figure 21. Posting WIP to G/L

The Job WIP to G/L report gives an easy-to-read overview of WIP on current projects. This report shows the value of work in progress on selected jobs compared to the amount that has been posted in the general ledger. Users can define what is included in the report by setting filters and additional fields on the tabs.

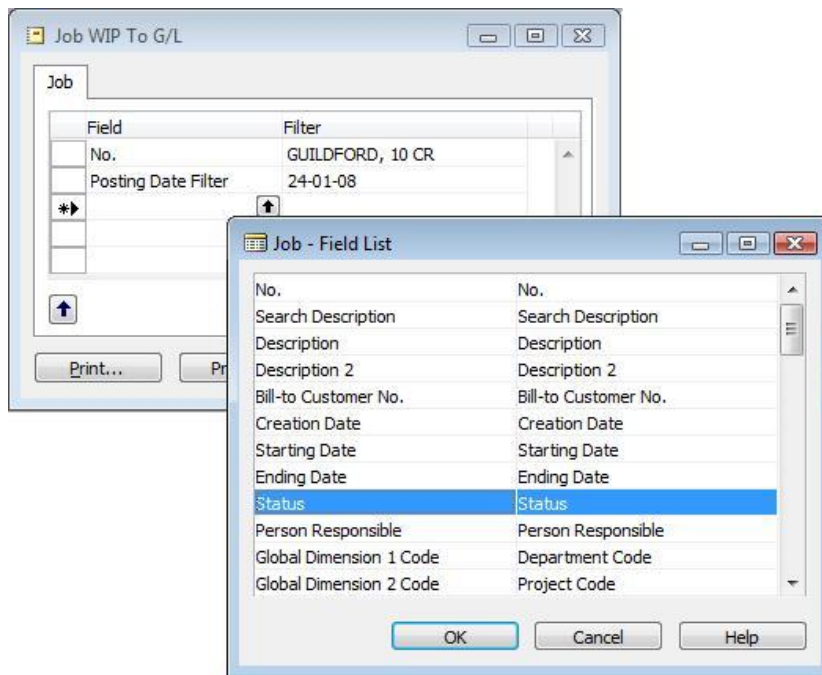


Figure 22. Generating the Job WIP to G/L report window

With the Job WIP to G/L report, getting an overview of WIP values from a specific job, posting date, or account is easy. Within this report, the user can view where the WIP was posted, what method was used to calculate WIP, the WIP amount, the general ledger balance and any discrepancy between the WIP amount and general ledger balance.

Job WIP To G/L							5. September 2007	
CRONUS International Ltd.							Page 1	
Job: No.: GUILDFORD, 10 CR, Posting Date Filter: 24-01-08								
G/L Acc. No.	Description	Job Posting Group	Account	WIP Amount	G/L Balance	Difference		
2231	WIP Job Costs	SETTING UP	WIP Cost Amount	18.451,02				
				18.451,02	18.451,02	0,00		
<b>Total</b>				18.451,02	18.451,02	0,00		

Figure 23: Job WIP to G/L report

With WIP in Jobs, it's never been easier to account for the value of ongoing projects. Users can easily calculate the WIP for the relevant part of a job and post it to the general ledger; then, users can generate a report to show these values based on a series of filters. This is helpful in showing the value of ongoing projects to a third party.

## **Conclusion**

For subject matter experts, the impact of Basel II has meant an increased demand on financial information from credit institutions. By using account schedules, reporting, Business Analytics, fixed assets, and improved WIP calculations to report detailed, tailor-made data for their banks, Microsoft Dynamics NAV users have accurate financial data and analysis's at their fingertips when dealing with financial institutions that now have these regulations to contend with. It's never been easier to create a detailed overview of a company's financial status for external review than it is now with Microsoft Dynamics NAV 5.0.

## **About Microsoft Dynamics**

Microsoft Dynamics is a line of financial, customer relationship, and supply chain management solutions that help businesses work effectively. Delivered through a network of channel partners that provide specialized services, these integrated, adaptable business management solutions work like and with familiar Microsoft software to streamline processes across an entire business.

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