

MIS 5121: Business Processes, ERP Systems & Controls

Basic Accounting / Financials Supplement



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Objectives



- Introduction, basic summary of accounting principles
- Link the principles together as typically done in real companies
- Demonstrate how these principles are used within SAP system





Assets = Liabilities + Owner's Equity

- Always True
- At all times
- Without Exception







Assets = Liabilities + Owner's Equity

- Assets: All Property Owned by Company
- Liabilities: All debts Company has outstanding
- Owner's Equity (aka Shareholder's Equity): Company's ownership interest in its assets after all debts have been paid

Assets – Liabilities = Owner's Equity

The Accounting Equation



Assets = Liabilities + Owner's Equity

- Always True
- At all times
- Without Exception



The Accounting Equation: Example Assets = Liabilities + Owner's Equity

- <u>Scenario 1</u>: Own \$300,000 home with \$230,000 Mortgage, Equity in Home is \$_____
 \$300,000 = \$230,000 + \$____
- <u>Scenario 2</u>: One Year later have paid off \$15,000 of Mortgage



The Accounting Equation: Example Assets = Liabilities + Owner's Equity

- <u>Scenario 1</u>: Own \$300,000 home with \$230,000 Mortgage, Equity in Home is \$ 70,000 \$300,000 = \$230,000 + \$70,000
- <u>Scenario 2</u>: One Year later have paid off \$15,000 of Mortgage



300,000 = 215,000 + 85,000

My Asset is Your Liability

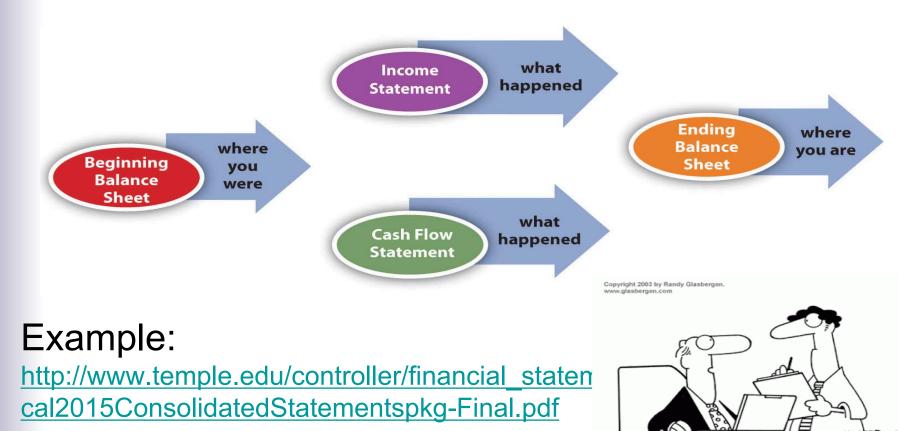
Item	You	Bank
Mortgage Loan	Liability	Asset
Checking Account Balance	Asset	Liability
Saving Account Balance	Asset	Liability

Important to understand the perspective of the account holder / owner (which hat are you wearing?)





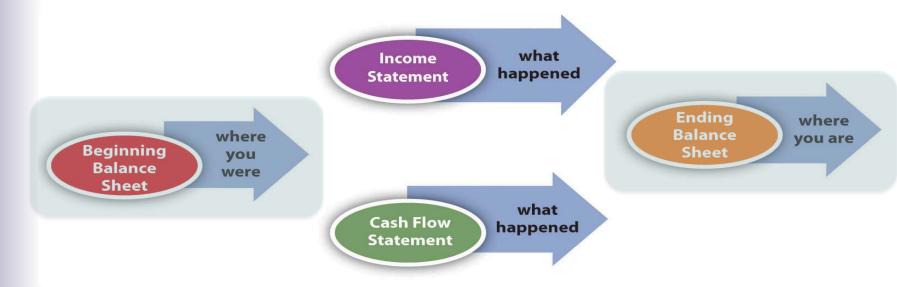
Financial Statements



"Our books are balanced. 50% of our numbers are real and 50% are made up."



Financial Statements



Example:

http://www.temple.edu/controller/financial_statements/documents/Fis cal2015ConsolidatedStatementspkg-Final.pdf

Assets: All Property Owned by Company

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Assets: All Property Owned by Company

- Cash and Cash Equivalents:
 - Balances in checking, savings accounts
 - Investments maturing within 3 months
- Inventory: Goods in stock for Sale or Use
- Accounts Receivable: Amounts
- **Property, Plant and Equipment:** Assets not easily converted to cash. e.g. buildings, mfg equipment, computers, vehicles, etc.



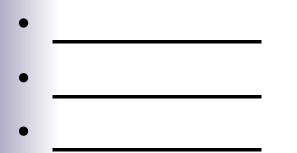




Liabilities: All debts Company has outstanding

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Owners Equity: (aka Stockholder Equity)





Liabilities: All debts Company has outstanding

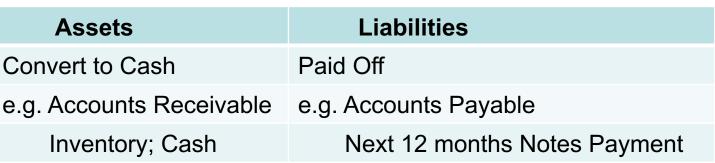
- Accounts Payable: Amounts due to suppliers for goods or services already received
- Notes Payable: Contractual obligations due to lenders (e.g. bank loans, long term leases)

Owners Equity: (aka Stockholder Equity)

- Common Stock: \$\$ invested by company owners
- Retained Earnings: Sum of all net income over business life not distributed to owners as dividend

Current vs. Long Term

- Common breakdown of Assets and Liabilities
- Current: within 12 months or less



Long Term (non-Current): Everything not current e.g. Property, Plants, Equipment, Note Payments > 12 months





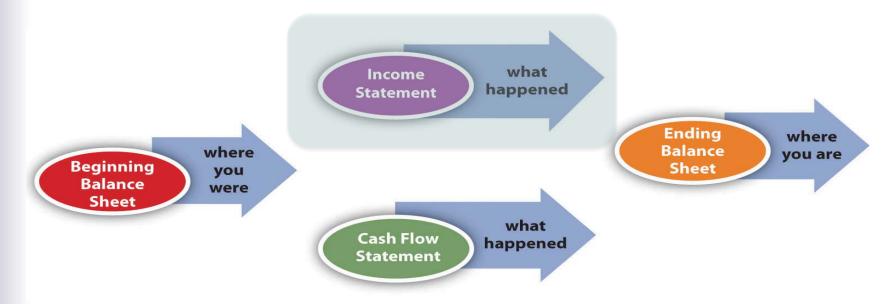
Temple University Of The Commonwealth System of Higher Education Consolidated Balance Sheets (in thousands)

	June 30, 2015	June 30, 2014
Current assets:		
Cash and cash equivalents	\$189,008	\$182,512
Investments and self-insurance trust funds	894,418	850,003
Accounts, loans and contributions receivable, net	379,796	416,052
Inventories and other assets	51,437	38,551
Deposits with trustees	31,743	24,554
Total current assets	1,546,402	1,511,672
	-,,	_,,
Non-current assets:		
Accounts, loans and contributions receivable, net	138,806	128,194
Investments and self-insurance trust funds	573,771	551,527
Deposits with trustees	79,694	160,228
Other assets	27,389	28,724
Property, plant and equipment, net	1,771,339	1,729,246
Goodwill and other intangibles	22,415	22,988
Funds held in trust by others	142,716	145,432
Total non-current assets	2,756,130	2,766,339
Total assets	\$4,302,532	\$4,278,011
Current liabilities:		
Accounts payable and accrued expenses	\$381,635	\$386,808
Deferred revenue	53,494	54,907
Current portion of long-term debt	34,768	26,131
Current portion of accrued pensions and postretirement benefits	598	641
Total current liabilities	470,495	468,487
Non-current liabilities:	266.222	274.044
Accrued expenses and other liabilities	266,239	276,861
Long-term debt	1,166,162	1,198,599
Refundable federal student loans	51,252	50,794
Accrued pensions and postretirement benefits	163,733	130,239
Total non-current liabilities	1,647,386	1,656,493
Total liabilities	2,117,881	2,124,980
Net assets:		
Unrestricted	1,651,970	1,642,977
Temporarily restricted	125,279	137,569
Permanently restricted	407,402	372,485
Total net assets	2,184,651	2,153,031
Tetal Rebilities and not except	\$4 202 522	\$4.070.011
Total liabilities and net assets	\$4,302,532	\$4,278,011





Financial Statements



Example:

http://www.temple.edu/controller/financial_statements/documents/Fis cal2015ConsolidatedStatementspkg-Final.pdf

Income Statement



- Shows financial performance over a period of time (usually a year)
 - vs. Balance Sheet point in time view
 - Balance Sheet: photo, Income Stmt: video
- Also called Profit and Loss (P&L) Statement
- Typical Organization of Statement:
 - Revenue
 - Expenses
 - Net Income

Income Statement



Revenue		
Sales	\$300,000	
Cost of Goods Sold (CoGS)	<u>(100,000)</u>	CoGS: amount paid for goods sold in this period
Gross Profit	200,000	Revenue - CoGS
_		
Expenses		
Rent	30,000	
Salaries & Wages	80,000	
Sales & Administrative	25,000	
Total Expenses	135,000	
Net Income	\$ 65,000	Gross Profit - Total Expenses

Income Statement



Sometimes Separate Operating vs. Non-Operating

Operating: From sale of company's primary products / services

<u>Operating Income</u>: Operating Revenue -Operating Expenses

 Non-Operating: Unrelated to core operation of business

e.g. Interest income / expense; investment gain or losses

Net Income: Operating Income + Non-Operating Income

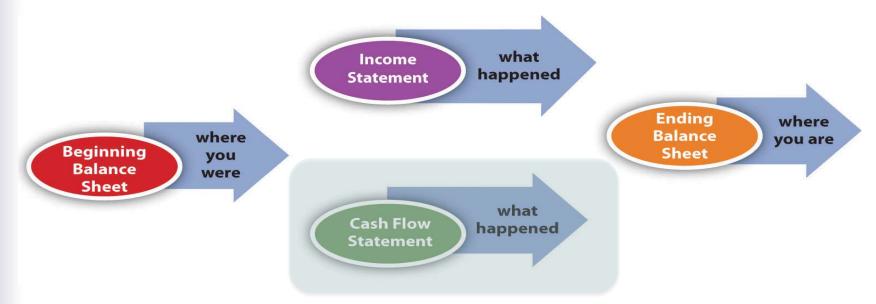
Temple University Of The Commonwealth System of Higher Education Consolidated Statement of Activities For the Year Ended June 30, 2014 (in thousands)



	Unrestricted Net Assets	Temporarily Restricted Net Assets	Permanently Restricted Net Assets	Total Net Assets
Revenues:				
Tuition and fees (net of discounts of \$90,499)	\$672,914			\$672,914
Commonwealth of Pennsylvania appropriation	126,624			126,624
Federal grants and contracts	123,713			123,713
Commonwealth of Pennsylvania grants and contracts	12,056			12,056
Local grants and contracts	3,418			3,418
Private grants and contracts	34,761			34,761
Contributions for operations and endowments	23,737	\$21,114	\$15,337	60,188
Investment return	37,922	2,634	367	40,923
Sales of educational activities	8,649			8,649
Auxiliary enterprises	95,133			95,133
Patient care activities (net of bad debt expense of \$47,318)	1,497,846			1,497,846
Other sources	47,698			47,698
Net assets released from restrictions	17,036	(17,036)		
Total revenues	2,701,507	6,712	15,704	2,723,923
Expenses:				
Educational and general:				
Instruction	433,311			433,311
Research	166,235			166,235
Public service	16,433			16,433
Academic support	156,850			156,850
Student services	76,731			76,731
Institutional support	126,527			126,527
Student aid	12,016			12,016
Total educational and general	988,103	0	0	988,103
Auxiliary enterprises	118,558			118,558
Patient care activities	1,580,321			1,580,321
Total expenses	2,686,982	0	0	2,686,982



Financial Statements



Example:

http://www.temple.edu/controller/financial_statements/documents/Fis cal2015ConsolidatedStatementspkg-Final.pdf

Cash Flow Statement



Reports Company's cash inflows and outflows over an accounting period (e.g. year)

- Differences vs. Income Statement
 - Timing
 - Income: Accrual of when revenue / expense delivered (revenue is due or liable for expense)
 - Cash Flow: when cash is actually received or disbursed
 - Cash Flow includes additional types of transactions
 - Investments (e.g. Loans, Capital Expenditures)
 - Dividends

Cash Flow Statement



Cash Flow from Operating Activities		Also: interest paid;
Cash Receipts from Customers	\$300,000	Interest / dividends
Cash paid to Suppliers	(50,000)	From investments
Cash paid to Employees	(40,000)	
Income taxes paid	(55,000)	
Net Cash Flow: Operating Activities	155,000	
Cash Flow from Investing Activities		Also: purchase / sale of
Cash spend on purchase of equipment	<u>(210,000)</u>	Stocks or bonds
Net Cash flow: Investing Activities	(210,000)	
Cash Flow from Financing Activities		Also: take out loan, pay
Dividends paid to shareholders	(25,000)	loan principle, etc.
Cash received from issuing new shares	250,000	From investors
Net Cash Flow: Financing Activities	225,000	
Net Increase (Decrease) in cash:	\$170,000	

Temple University Of The Commonwealth System of Higher Education Consolidated Statements of Cash Flows For the Years Ended June 30 (in thousands)

	2015	2014
Cash flows from operating activities:		
Change in net assets	\$31,620	\$181,932
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Currency translation adjustment	(77)	38
Provision for bad debts and impairments	57,288	51,352
Depreciation	137,996	130,491
Amortization and accretion	1,081	(2,595)
Realized and unrealized gain on investments	(1,702)	(80,566)
Actuarial change in accrued pensions and postretirement benefits	37,591	(11,664)
Loss on disposal of property, plant and equipment	953	1,856
Noncash contributions received	(2,184)	(434)
Proceeds from sale of donated securities	2,184	434
Contributions, grants and investment income of and for property,		
plant and equipment and for long-term investment	(61,205)	(94,670)
Changes in operating assets and liabilities:		
Accounts and contributions receivable	(65,644)	(105,189)
Inventories and other assets	(10,326)	186
Accounts payable and accrued expenses	(1,170)	31,547
Deferred revenue	(1,413)	(7,212)
Accrued pensions and postretirement benefits	993	(1,866)
Net cash provided by operating activities	125,985	93,640
Cash flows from investing activities:		
Purchases of investments, deposits with trustees and self-insurance trusts	(928,547)	(940,487)
Sales and maturities of investments, deposits with trustees and self-insurance trusts	939.651	953,722
Purchases of property, plant and equipment	(198,231)	(204,037)
Proceeds from sale of property, plant and equipment	305	31
Loans to students	(9,959)	(10.987)
Proceeds from collections on student loans	9,561	8,605
Net cash used by investing activities	(187,220)	(193,153)
Cash flows from financing activities:		
Proceeds from contributions, Commonwealth grants and investment income		
restricted to property, plant and equipment and long-term investment	91,125	70,371
Refundable federal student loans	458	(215)
Change in split interest agreements	(371)	110
Proceeds from long-term debt	3,743	6,123
Payments to retire long-term debt	(27,161)	(36,154)
Net cash provided by financing activities	67,794	40,235
Exchange rate adjustments	(63)	(51)
Net increase/(decrease) in cash and cash equivalents	6,496	(59,329)
Cash and cash equivalents at beginning of the year	182,512	241,841
Cash and cash equivalents at end of the year	\$189,008	\$182,512
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$62,656	\$63,847
Property, plant and equipment acquired through capital leases	\$1,742	\$22
Accrued property, plant and equipment	\$9,821	\$28,544



Debits and Credits



Single-Entry: e.g. personal checkbook

		Jaar	i ouccount						_
190	4				2	Dr.			
Jan.	1	Cash on hand,		2	3	4	17		Г
0		Paid Jan. rent to C. L	l. Issacs						
	3	Cash sales				\mathcal{L}	60		ĺ
	14	Recd. from. E. D. Wi	illiams, in full,	1	1	5	_		
	23	" " B. L. Johns	, on act.		Τ	8	_		
	28	Paid to S. J. Keen, on	r account,		Τ				ł
		" wages for Janua						1	
	31		age 18,					1	
		V	0	3	5	9	77	3	

Double-Entry: Required for AP

- Equal Debits and Credits made in accounts for <u>each</u> transaction
- Enforces Accounting Equation

Assets = Liabilities + Owner's Equity Debits = Credits



Debits and Credits

- <u>Example 1</u>: Company uses \$ 40,000 cash to purchase new equipment
 - Assets = Liabilities + Owner's Equity Cr -40,000 = -- + --Dr +40,000
- <u>Example 2</u>: Company purchased equipment with a loan



Assets = Liabilities + Owner's Equity Dr +40,000 = Cr +40,000 + --



Debits (Dr) and Credits (Cr)

- Dr and Cr only designate the two halves of each transaction - also known as a 'Journal Entry'
- Impact on balance depends on type of account

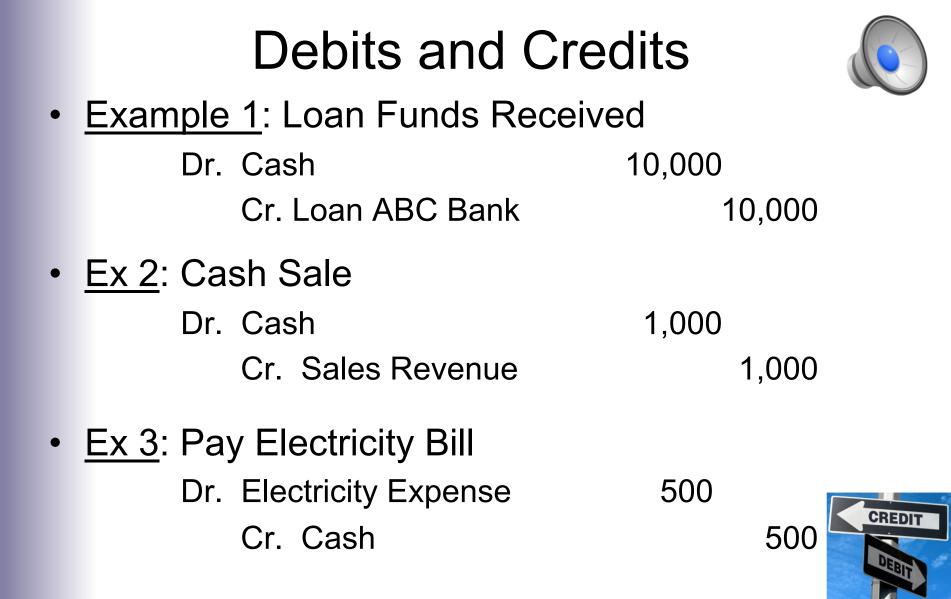
Balance Sheet Accounts

Income Statement Accounts

Asset		R	evenue
Debit	Credit	Debit	Credit
Increase (+)	Decrease (-)	Decrease (-)	Increase (+)
Li	ability	E	xpense
Debit	Credit	Debit	Credit
Decrease (-)	Increase (+)	Increase (+)	Decrease (-)
Owne	er's Equity		
Debit	Credit		
Decrease (-)	Increase (+)	Copyright 2013 M	oney-Zine.com







General Ledger (G/L)

- Place where all company's journal entries get recorded
- Original: paper ledger Today: accounting software
- Key financial document-Source for All financial statements

General J	ournal			#1001
Date	Details	A/C #	Debit (Dr)	Credit (Cr)
1 May 20XX	Cash	301	10,000	
	Loan - ABC Bank	401		10,000



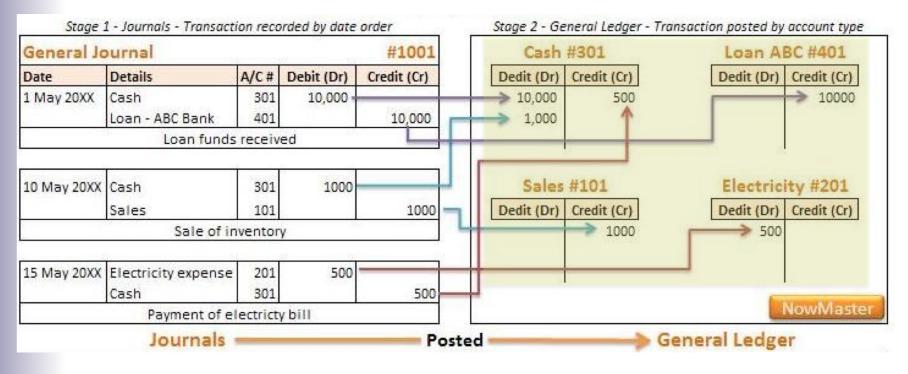
10 May 20XX	Cash	301	1000	
	Sales	101		1000
	Sale	e of inventory		

	Journals =			Po
	Payment of ele	ectricty bi	11	
	Cash	301		500
15 May 20XX	Electricity expense	201	500	

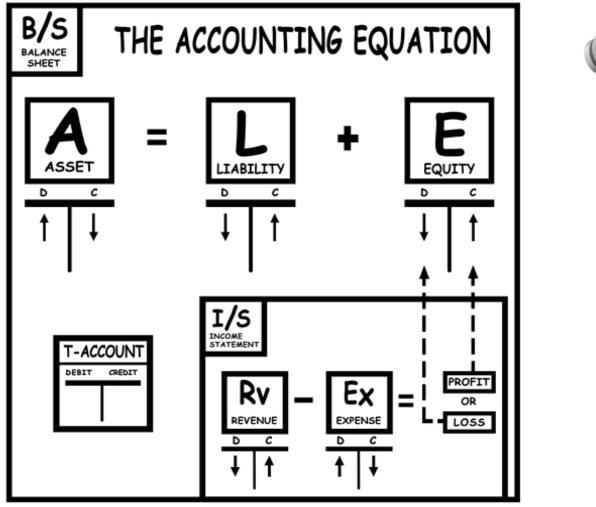


T-Accounts

- Tool to view activity in an account over period of time
- Useful tool to visualize impact of transaction series
- Beginning and ending balances sometimes included



Summary





General Ledger (G/L) in SAP

• Global Bike Inc. company G/L accounts are in three groups



Account Group	Number Range
BS – Balance Sheet	100000 – 399999
PL – Profit and Loss	400000 - 999999
RA – Reconciliation	110000 – 310000

Profit and Loss (P&L) accounts track the income and expenses (aka Income Statement Accounts). At end of fiscal year, "closed" to **Retained Earnings** balance sheet account.

Reconciliation Accounts track changes to sub-ledger accounts (e.g. for each vendor, customer). When sub-ledger account posted, automatic posting made to **Reconciliation** G/L account to keep the G/L balanced.



General Ledger (G/L) in SAP



 Accounting ▷Financial Accounting ▷General Ledger ▷Information

 System ▷General Ledger Reports ▷Master Data ▷G/L Account List

 ▷SAP minimal variant
 Transaction:
 S_ALR_87012327

G/L Account List								
🔍 🔁 📜 🛅	G/L Account Lis	t						
Gener selections								
Company Code 52FS to	FS Overview (860) G/L Account List Milwaukee					Time 15:26:54 RFSKVZ00/FS-52	Date 04/01 Page	
Enter company code, then to to the execute icon	ChartofAccts: CHFS = Fitter Snacker Chart of Accounts Sort: G/LAccount, CompanyCode							
click off the execute icon	Name 1 Cont	ents l	Name 2	Contents 2	Name 3	Contents 3	Name 4	Contents 4
	G/L acct 100000	Company Code	Company	Code Name				
	Section	GENERAL DATA						
		ral Standard Bank			Account Group	BS		
	Section	STATUS IN CHART						
	Creation block		Posting Block 52FS Company Code Name		Planning block		Deletion flag	
	G/L acct 100000	Company Code		Code Name	52 Fitter Sna	acker		
	Section Toy setereory	ACCOUNT CONTROL	Reconcil.ID		E/R diff. key		last surveyors	USD
	Tax category Balances in LC X		W/o tax		Account extern.		Acct currency	050
	Section	ACCOUNT MANAGEN			Account extern.			
	Line items X	ACCOUNT HANAGET	OI management		Sort key	001		
	Section X	DOCUMENT ENTRY			SOLO NCY	001		
	Field status gp ZGBS		Auto. posting		Supplement		Rec.act ready	
	G/L acct 110000	Company Code	Company	Code Name				
	Section	GENERAL DATA						
		Accounts Receivable Reconciliation			Account Group	RA		
	Section	STATUS IN CHART OF ACCTS						
	Creation block		Posting Block		Planning block		Deletion flag	
	G/L acct 110000	Company Code	52FS Company	Code Name	52 Fitter Sna	acker		
	Section	ACCOUNT CONTROL	1					

Cost Controlling (CO) in SAP

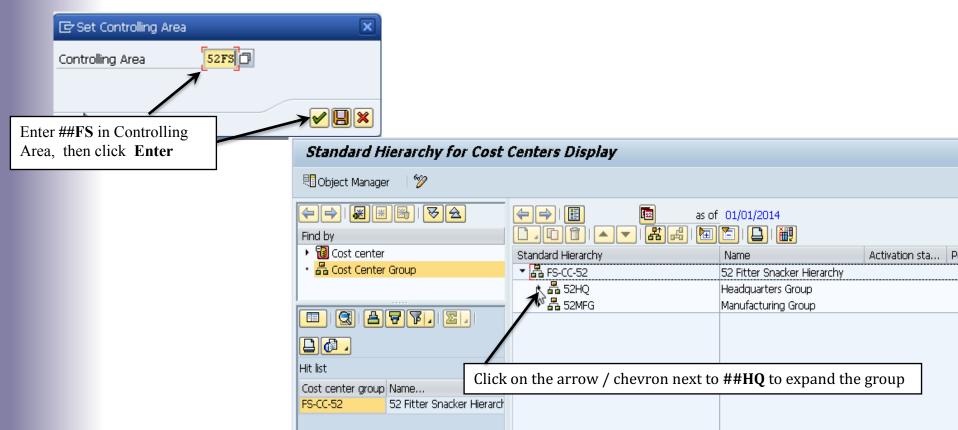


- General Ledger (G/L) used by external users (via statements)
- Internal users use G/L data but also need more cost details -> CO
- Different requirements for internal & external accounting data users although the underlying data usually the same for both
- Data can be "captured" when recording business transactions and then presented in different ways for different users
- Expenses relevant to cost accounting are recorded in CO with:
 - Primary Cost Element 1 to 1 relationship with G/L account
 - Secondary Cost Element logical groupings of costs
 - Cost Center
 - Where costs occur in organization
 - Required for CO relevant postings
 - Organized in Standard Hierarchy

Cost Controlling (CO) in SAP



Accounting ▷Controlling ▷Cost Center Accounting ▷Master data ▷Standard Hierarchy ▷Display Transaction: OKENN



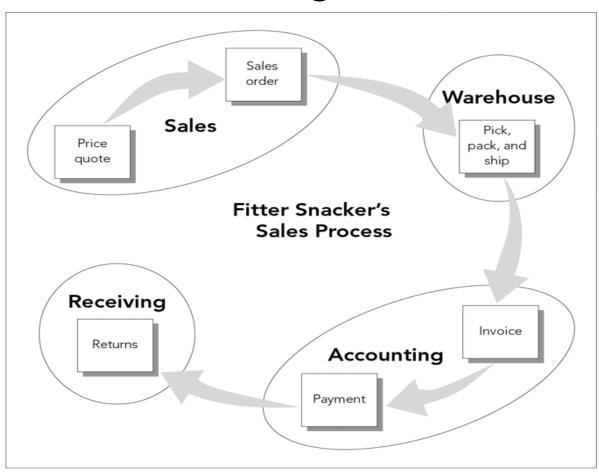
References

 Piper, David CPA 'Accounting Made Simple', Simple Subjects LLC. ISBN 978-0-981452-2-1

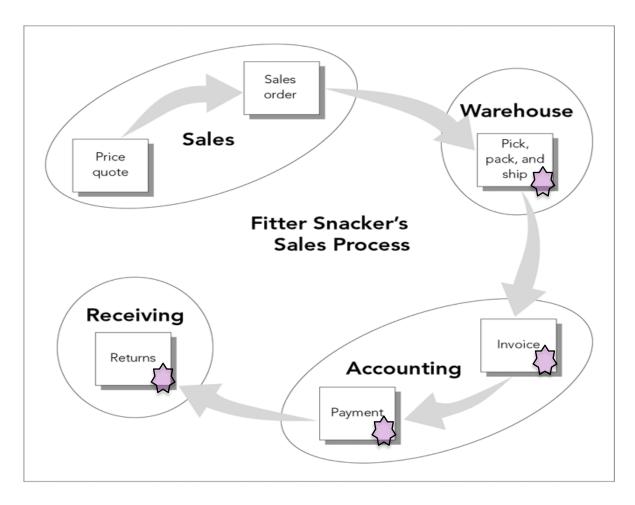


Extra Slides

Sales Process – Where are the Accounting Entries?

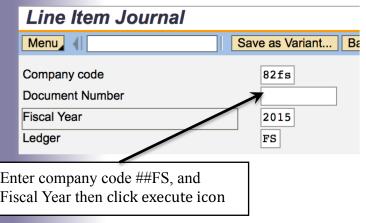


Sales Process: Accounting Entries



Activity to Date in SAP

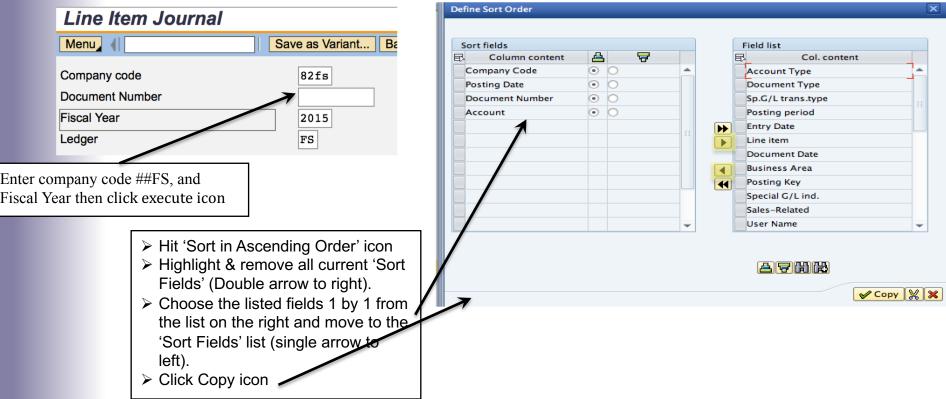
Information System Deceneral Report Selection Deceneral AccountingDeceneral Ledger Reports Document Deceneral De



Activity to Date in SAP

 Information System Deceneral Report Selection Deceneral Accounting

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Activity to Date in SAP

Activity from previously executed process steps (e.g. Sales Process, etc.) are listed. **Note:** Offsetting Debits and Credits for each document

Line Item Journal															
Menu 🖌		Ba	ick I	Exit Cancel	Syst	em		De	tails Sort in	Ascending Order	Sort i	n Descending Order	Set F	Filter Delete Filter	Total
2 Fitter Snacker Line Item Journal Time 23:01:30 Date 11/14 alamazoo Ledger FS RFEPOJ00/FSFAC-09 Page															
Pstng Date	Entry Date	DocumentNo	Itm	Doc. Date	BusA	PK	SG	S 1	Account	User Name	LCurr	Amount in	LC T	x Assignment	
CoCode	82FS Acct	Туре D Тур	e	RV SpG/1	L		Pe	erio	d 20151	0					
10/30/2015 CoCode	10/30/2015 82FS Acct			10/30/2015 RV SpG/1		01		x	83 d 20151	FSFAC-09 0	USD	2,655.0	0	009000007	T
10/30/2015 10/30/2015 CoCode		90000000	3	10/30/2015 10/30/2015 DZ SpG/1		50 40		erio	600000 610000 d 20151	FSFAC-09 FSFAC-09	USD USD	2,950.0 295.0		20151030 20151030	
10/30/2015 CoCode		140000000	2	10/30/2015 DZ SpG/1		15		rio	83 d 20151	FSFAC-09 0	USD	2,655.0	0-	20151030	
10/30/2015 CoCode	10/30/2015 82FS Acct			10/30/2015 WL SpG/1		40		rio	100000 d 20151	FSFAC-09 0	USD	2,655.0	0	20151030	
10/30/2015 CoCode	10/30/2015 82FS Acct			10/30/2015 WL SpG/1		99	Pe	rio	200200 d 20151	FSFAC-09 0	USD	2,448.0	0-	20151030	
10/30/2015	10/30/2015	49000000	2	10/30/2015		81		Τ	790000	FSFAC-09	USD	2,448.0	0	20151030	

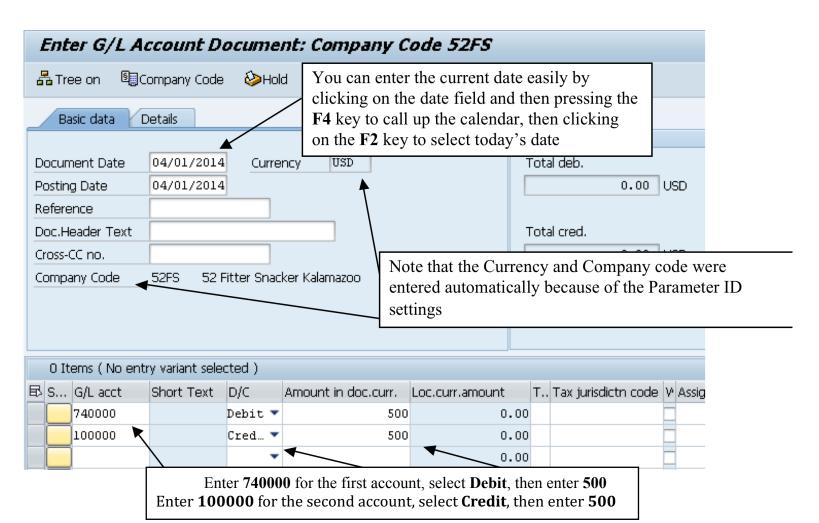
Statement of Retained Earnings

Retained Earnings as of Jan 1, 2014	\$30,000	
Net Income	50,000	From Income Stmt
Dividends Paid to Shareholders	<u>(20,000</u>)	

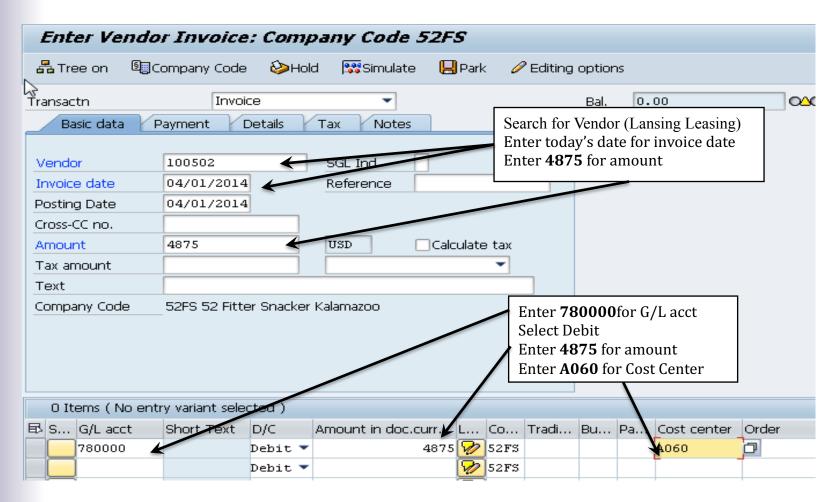
Retained Earnings - Dec 31, 2014 40,000

- Retained Earnings: not the same as Cash
 - Retained Earnings: undistributed profits over company's existence
 - Is a *distribution* of profits (expenses reduce profit)
 - Usually are invested to grow business (buy inventory, purchase property and equipment, etc.)

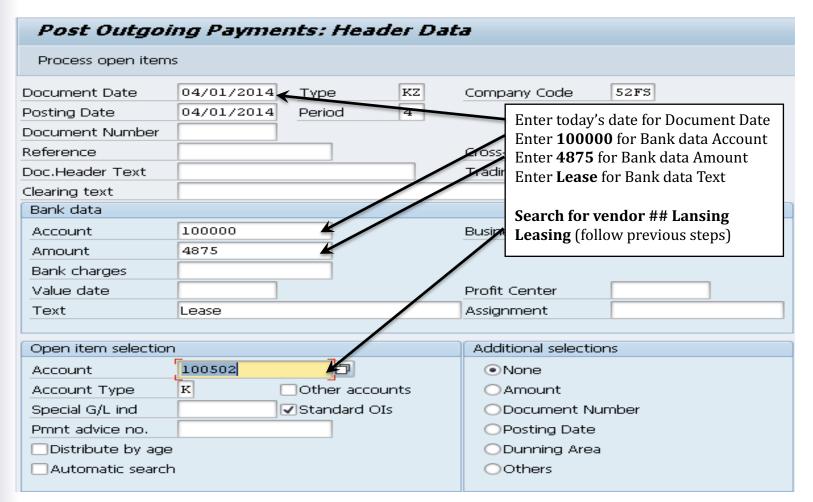
Accounting ▷Financial Accounting ▷General Ledger ▷Posting ▷Enter G/L Account Document Transaction: FB50



Accounting Definancial Accounting Definancial Accounting Definition: Payable Document Entry Definition: FB60



Accounting >Financial Accounting >Accounts Payable>Outgoing Payment >PostTransaction: F-53



Accounting Detail

Document Edit		tings En <u>v</u> ironment		ት የ የ ነ 🗶	1 🕲 🖪	
 ♥ ■ Display ♥ ■ ③ ④ ≛ 	Accounting document 90000002,					
Reference	09/06/2004 WH100 USD	Company Code Posting Date Cross-CC no. Texts exist	FS 09/06/2004	Fiscal Year Period	2004 9	accessible from the document flow screen
		lls Athletic Clu evenue	Tx b	Amount in USI 2,160 2,400 240	.00-	Accounts affected by the sales order

Figure 3-12 Accounting detail for the West Hills sales order

Workshop Parameters

Х **Financial Accounting Options** • FOP ##FS • BUK **Company Code** ##PS **Purchasing Organization** • EKO • FWS USD Currency 20 **Fiscal Year** • GJR **CHFS** • KPL Chart of Accounts ENGLISH • SPR Language • WRK ##PT Plant

Your Assigned number based on User ID