

# Get the Most from Your Chart of Accounts

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## **BEGIN WITH THE END IN MIND**

Almost universally, accountants have no formal training in how to set up a financial reporting system. The few resources available tend to discuss techniques from a pre-computerized world. Good financial system design can substantially reduce the cost and improve the quality of financial reporting.

A well-designed financial reporting system is an important tool for managing a business. A strong financial reporting system provides the basis for strong financial control through the budgeting process. It also provides the ability to extract the answers to “what if?” questions. Information from the financial reporting system is also the starting point for the rates used in cost analysis. A thoughtfully designed financial reporting system can be a tremendous resource. A poorly designed system can be a tremendous burden.

Today when we use the term “financial systems” we will use it broadly, including not just the general ledger, but also any module that includes dollarized data such as inventory costing or job costing. Financial systems must be able to answer many questions, which include:

- How effective are various managers at running their parts of the business?
- How much does it cost to run the company’s sales function?
- How much overtime was there in the second quarter for operating departments?
- What should it cost to run a store that operates at a particular sales volume?
- How should we price our products?

This section will focus on building financial systems on a solid foundation beginning with the development of the chart of accounts.

## **IS YOUR CHART OF ACCOUNTS WELL-ORGANIZED?**

Many accountants have never thought philosophically about their organization’s chart of accounts. They work with the limits that their existing chart of accounts imposes on them, rather than redesign it to meet the current and future needs of the organization. I will offer you a compelling reason for change. Almost universally, troubled companies have a poorly structured chart of accounts that inhibits good financial management.

Below is a list of characteristics of a well-organized chart of accounts. For your organization, count how many characteristics from each category apply.

**Figure 1-1 NORTH AMERICAN CHART OF ACCOUNTS BEST PRACTICES**

	Well Organized	Poorly Organized
1.	Multi-segmented	Single segment
2.	Short account base (4 digits)	Long account base (Over 4 digits)
3.	No redundancy or derelict digits	Redundant digits or derelict digits such as a department number included in two segments, or extra account-base digits created “for growth” but never used.
4.	Like accounts have same account base.	Operating and administrative accounts have different account bases.
5.	Standard set of account bases assigned to each department/location.	Each department has its own unique account base segments.
6.	Most operating costs assigned to a department.	Many costs not assigned to a department.
7.	1 <sup>st</sup> digit of account base defines major category of accounts (ex: asset, liability, revenue, wages, benefits).	1 <sup>st</sup> digit only has meaning for balance sheet accounts and revenues.
8.	2 <sup>nd</sup> digit of account base further subdivides account category.	2 <sup>nd</sup> digit has no particular significance.
9.	Most frequently used account bases have only 1 or 2 significant digits.	Most frequently used accounts have account bases that have 3 or more significant digits.
10.	There is a logical relationship between related P&L and Balance Sheet Accounts.	There is no logical relationship between related P&L and Balance Sheet Accounts.

Did your organization get them all? Few companies would. Even companies that have given their chart of accounts organization some thought, miss number ten. Your chart of accounts is probably in good shape if you checked “well-organized” for seven or eight of the characteristics. Less and you should probably think about doing a chart of accounts reorganization. If far less than seven of the well-organized characteristics apply to your company, there is an excellent chance that poor financial system organization is depressing your company’s potential.

## ORGANIZING THE CHART OF ACCOUNTS

Many accounting departments use old-fashioned chart of accounts naming schemes that have not fully evolved from those used in the days of heavy ledger books. In the “old days,” before computers, the general ledger and general journal were physical books with paper pages. The process was prone to human error and often made “balancing the books” the most time consuming step during period-end close.

Since the time spent identifying and correcting errors increased exponentially as the number of general ledger accounts increased, accountants were reluctant to add new accounts. Fewer accounts meant a quicker close. Accountants could also streamline financial statement preparation by numbering accounts in the same order as they appeared on the financial statements.

Because of the various limitations of paper ledger books, a common numbering scheme still used by many companies is as follows:

1xx	Assets
2xx	Liabilities & Equity
3xx	Revenues
4xx	Cost of Sales – Purchases
5xx	Operating Costs – Labor
6xx	Operating Costs – Benefits
7xx	Operating Costs – Other
8xx	Administrative Costs
9xx	Non-Operating Costs

(Where “x” represents a digit with many possible values)

This method assigns a definition to the first number in the series. Using the 1-Series for Assets and the 2-Series for Liabilities is almost universal even today. Equity is generally in the 29x or 3xx series and revenues are often 3xx or 4xx.

It is also common to find a chart of accounts that assigns a definition to the second digit. For example, 10x is typically a cash account, 11x is accounts receivable, 20x is accounts payable and 29x is usually an equity account. Account numbering schemes in pre-computerized days were usually three digits, thus, there were only ten account numbers available for most types of accounts, e.g. 100-109 for cash or 110-119 for accounts receivable. When a company required more accounts, it was common to assign sub-accounts labeled 100-1, 100-2, 100-3, etc., creating the possibility of 100 accounts for an account type. In practice, financial managers discouraged the addition and proliferation of accounts.

Many organizations computerizing in the 1970s and 1980s merely automated their manual system, usually adding more digits to allow “room for growth.” As years passed, financial managers often added more accounts to accumulate and report desired detail. Today, many companies have a chart of accounts that has little rhyme or reason, inhabited by a hodge-podge of derelict accounts and derelict digits.

Unfortunately, many companies continue to use chart of accounts schemes that have not fully evolved from the days of manual bookkeeping. Accounting literature suggests that internal purposes constitute approximately 90% of the use of all financial information. Thus, it makes sense for us to organize general ledger systems to support internal financial requirements, such as financial planning, responsibility reporting, cost accounting and ad hoc analysis.

Financial managers receive requests for answers to many different kinds of questions or for information in many different formats. Such requests may include:

- “How much overtime was worked this period in each department?”
- “How much overtime was worked by office personnel?”
- “What is the cost of the sales function including overtime and benefits?”

These questions may be either easy or difficult to answer, depending on the organization of the general ledger system.

### **Modern Best Practice**

A common problem with financial reporting systems is that the organizational structure expressed in the chart of accounts does not match the real organization structure, the organizational chart or the information provided in the payroll system. In fact, the organizational chart itself may not reflect the real operating structure of the company. A company consisting of 100 to 500 people may have 15 functional departments according to the organization chart, 8 departments in the Chart of Accounts, 4 departments in the payroll system and 12 departments based on how the company actually operates. In such cases, the Chart of Accounts and the payroll systems require reorganization to match the real organization structure.

### **The Hierarchical Chart of Accounts**

Best practices today dictate a hierarchical chart of accounts structure to take advantage of the benefits offered by computerized accounting systems.

The chart of accounts for each company should mimic the organizational structure while maintaining the same basic account-department scheme across all locations. For example, if

account #12-5000-90 (Location-Account-Department) means South Bend-Regular Wages-Administration and location #14 is the location number for Indianapolis, then Regular Wages-Administration for Indianapolis should be #14-5000-90.

Most large organizations use a hierarchical chart of accounts. This allows financial reports to be prepared for specific segments of the organization according to the varied needs of a wide audience of financial statement users. Such structures might appear as follows.

Company-Location-Account-Department	C-LLL-AAAA-DD
Company-Location-Department-Account	C-LL-DDD-AAAA
Company-Account-Department	CC-AAAA-DDD

General ledger software requirements often dictate the order in which each segment must appear to please the software's report generator module. For example, since trial balances print in account number order, the department may need to appear after the account base so that most reports appear in an order that is "logical" to financial managers.

A common chart of accounts structure for a single location company is:

Account-Department	AAAA-DD
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The company may want to avoid defining a segment for artificially defined portions of the company such as a division code. Since division designations are often arbitrary, they are subject to periodic rearrangement by the CEO. Imagine using a code to indicate that the company's Maryland operation was in the Northeast region. Without a region code, it is a relatively easy task to move Maryland to show up on a report for the Southeast. However, to change the region code from NE to SE for past transactions may involve a major data conversion.

## The Account Base

A modern chart of accounts might have this organization:

1000 – 1999	Assets
2000 – 2899	Liabilities
2900 – 2999	Equity
3000 – 3999	Revenue
4000 – 4999	Materials or Purchased Goods
5000 – 5999	Wages
6000 – 6999	Benefits
7000 – 7999	Departmental Supplies and Services
8000 – 8999	Other Revenue and Expenses

The major differences are that a modern **account base** consists of four digits rather than three and like accounts for operating departments and administrative departments share the same account base. For example, instead of placing Operating Wages in the 5XX series and Administrative Wages in the 8XX series, all wages might appear in the 5XXX series.

Four digits is the most common length for an account base. Where a longer account base is present, one or more digits is usually derelict, redundant (sometimes repeating the department code) or used for a function better performed by a cost accounting module. Information systems personnel often encourage accounting to create a longer account base to allow “room for growth.” What they fail to realize is that businesses typically grow by adding divisions, locations and departments, not by inventing new types of assets that they must squeeze between cash and accounts receivable.

### **Locations and Departments**

One of the most significant benefits of a hierarchical chart of accounts is to be able to publish financial statements for an individual location, as well as for individual department managers. Such reports become an important tool for managers trying to meet their objectives. Each manager should bear the responsibility, or “own” the accounts within their location or department. All expenses that the manager is responsible for should appear in one of their accounts.

A popular method of setting up departments in the general ledger is to list all of the functional departments from the organization chart in the order from most direct to least direct and number them with two or three digits by fives or by tens (10, 20, 30, 40...). All zeros (“00” or “000”) are conventionally used for expenses not associated with a single department. For example, a year-end adjustment to Accrued Workers Compensation Insurance appears in department “00” rather than apportioned among the actual “real” departments.

### **Organize to Answer “What if?” Questions**

Many companies have trouble extracting answers to “what if?” questions from their general ledger because their chart of accounts organization resembles their financial statements. For instance, if the CEO asks the financial manager to find out how much overtime the corporation paid last period, it is more difficult to extract the information from the system if operating overtime begins with “51xx” and administrative overtime begins with “71xx.” This request becomes even more difficult when the CEO wants to know the total cost of running a single function and the chart of accounts lacks departmentalization.

Like expenses should have the same account base regardless of location or department. For example, each department might have the following expenses processed through accounts payable:

#7000	Supplies & Department Expenses
#7100	Repairs
#7500	Travel & Lodging
#7600	Meals & Entertainment
#7800	Training

Most people-related department expenses can post directly from the payroll system.

#5000	Regular Pay
#5100	Overtime Pay
#5200	Double time Pay
#5300	Vacation Pay
#5400	Holiday Pay
#5500	Bonus Pay
#6000	Cafeteria Plan Expense
#6100	FICA Expense
#6200	FUTA Expense
#6300	SUI Expense
#6400	Workers Compensation Expense

In each of these examples, the most commonly used expenses have account numbers with a single significant digit to make them easy to remember. List related expenses in series to facilitate the extraction of data. An inquiry on all accounts beginning with a “5” would provide total company wages or “6” would provide all benefits.

An implication of a structured chart of accounts is that even a one-location company with one hundred employees may have five hundred to a thousand different account/department combinations. This quantity is actually easier to manage than a much smaller number of accounts that are part of an unstructured numbering scheme because this method uses a logical combination of prefixes and suffixes to make the account numbers.

In the above illustration, with 10 departments (including the “00” default department) there would be 160 resulting account/department combinations. Employees who work with the account numbers on a regular basis have little to learn because the most prolific part of the structured chart of accounts, payroll and payroll related benefits, normally posts directly from the payroll software and does not require memorization. Even with a manual payroll posting, accounts would not be that difficult to remember since “5” means “Wages” and “6”

means “Benefits.” It is easy to remember the order in the series where each account segment falls. Accounts payable clerks also appreciate a structured chart of accounts because this architecture generally has significantly fewer account bases. With a structured chart of accounts, the hierarchy does the work.

### **Make Account Numbers Logical and Easy to Remember**

Logical numbering schemes reduce coding errors and data entry work. It is best to avoid using more digits than necessary. If a company has ten locations, a two-digit location code provides ample room for growth. For most companies that are a bit larger, a three-digit location code will suffice. Make the numbers easy to remember by using successive digits to sub-divide higher-level categories.

For example, if “1” means “Assets,” you might use the following numbering scheme.

10xx Cash  
11xx Accounts Receivable  
12xx Inventory  
15xx Fixed Assets  
16xx Accumulated Depreciation

Thus far, we have talked in terms of account numbers being entirely numeric; however, some organizations might choose to use alphabetic characters for one or more segments instead. For example, using three digit airport codes (LAN, LAS, LAX) or two digit state codes (ND, NJ and NY) would make it easy to associate an account with a particular city or state.

*QuickBooks* users sometimes dispense with account identifiers altogether and just use account descriptions. Regardless of whether descriptions appear with account numbers, it is a big help if account naming is hierarchical as well. For example:

Wages, Regular – Sales  
Wages, Regular – Administration  
Wages, Overtime – Sales  
  
Wages, Overtime – Administration  
Wages, Vacation Pay – Sales  
Wages, Vacation Pay – Administration

## **Avoid Accounts without an Assigned Responsibility**

It is advisable to avoid the temptation of assigning an account number that is not associated with a department or a location. If the maintenance department controls cleaning supplies, those costs should appear in an account for that department. If someone in administration handles office supplies, those expenses should appear in that department's budget. Thus, #7127-00 Cleaning Supplies becomes #7100-60 Supplies – Maintenance and #8470-00 Office Supplies becomes #7100-90 Supplies – Administration. Alternatively, actual usage could determine each department or location's expense.

## **Activity-Driven Assignments**

Some organizations automatically apportion costs among departments or locations according to specific measurement of that area's consumption of the resource. For instance, accounting may automatically distribute occupancy costs according to the floor space occupied by each department. This is an acceptable method as long as the following factors exist:

- The apportionment percentage is objectively determined.
- Responsible managers understand (and agree) with the assignment of costs.
- Managers can discontinue or reduce using the resource, thus avoiding all or a portion of the cost.

Even when objectively assigning overhead costs to departments, physically separate these cost assignments on reports intended for department managers. Assigned or allocated costs should always appear after the total line for the manager's controllable expenses.

## **Balance Sheet Structured Accounts**

Use hierarchical identification techniques within the balance sheet where appropriate. For a company with several locations, use the location code on the balance sheet to identify the bank accounts, inventory and fixed assets associated with each location. This makes the job easier when preparing tax returns for various states and municipalities or when attempting to calculate return on investment by location.

Account numbers for prepaids, withholdings and accrued liabilities can be easy to remember by creating account bases that combine balance sheet and income statement prefixes. Thus, if #21xx means Withholdings, #22xx means Accrued Liability, #5xxx means Payroll and #9900 is Federal Income Tax Expense, then a logical number scheme would appear as follows:

#2199	Withholding - Federal Income Tax
#2250	Accrued Liability - Payroll

These methods allow accounting systems users to forget about memorizing accounting numbers because they can quickly look an account number up or better yet, easily figure it out based on the company's account numbering conventions.

## **CONVERTING TO CURRENT BEST PRACTICES**

The amount of work necessary to convert to these best practices will depend on many factors including:

- How far is the company's current method from best practices?
- Are the proper segments currently defined and of the right length?
- Does the company's software have a structured view of the account numbers or is the account number a free-form field?

The conversion job is usually easiest if the accounting software views the account number as a free-form field. This is particularly common in software packages designed for smaller companies. In such cases, the Controller may create additional account numbers that co-exist with the old account numbers. This may be possible even if the old account numbers and the new numbers are of a different format. Such a conversion may even be done mid-year as both the old numbers and new numbers co-exist in the general ledger.

Many software packages view general ledger account numbers as segmented. While these packages tend to have more advanced features than those that treat the account number as a free-form field, a key trade-off is that if the old and new defined segments have different lengths or represent the same aspects of the organization hierarchy, the accountant may have no choice but to reinstall the general ledger software.

## **METRICS DRIVEN FINANCIAL CONTROL**

Another modern best practice is to determine an *output measurement* for the various departments within the company and then calculate a performance *metric* for each department denominated in cost/x. We discuss these techniques in a later article.

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