# ERP CONSOLIDATION ACCOUNTING SERIAL EXERCISE 

Zane Swanson<br>University of Central Oklahoma<br>zswanson@uco.edu<br>Siegfried Chan<br>University of Central Oklahoma<br>schan@uco.edu


#### Abstract

This project looks at an Enterprise Resource Planning (ERP) system from a pedagogy academic accounting point of view. For the purposes of this paper, a Microsoft ERP system, Great Plains Dynamics (GP), is used in a serial consolidation exercise/homework problem. Access to ERP was done using Cloud computing. The ERP information is entered in journal form in GP and then aggregated with Management Reporter.


Keywords:
Enterprise Resource Planning (ERP) system, Cloud computing, Great Plains Dynamics (GP)

## 1. INTRODUCTION

Accounting information systems are a necessary component of learning consolidation accounting because of the full financial statement nature of the issues. Specific textbook problems typically utilize a spreadsheet approach, generally with EXCEL. While spreadsheets are useful for learning purposes, the "real world" uses Enterprise Resource Planning (ERP) systems to do the accounting cycle of an investor company and its subsidiary as contrasted with the Pacioli double-entry bookkeeping which used for university instruction purposes. An argument can be made that students should learn what is utilized in the work place in order to secure employment. Practically all Fortune 500 companies and many mid-level firms use a type of ERP (e.g. General Motors Mitchell 2006). Therefore, an educational need exists to show students how to process accounting cycle information in multiple entities and "roll up" the information into ERP consolidated reports which have applicable consolidation elimination entries. In summary, this consolidation serial exercise addresses a set of educational needs both in accounting and accounting information systems. The following section gives a review of serial multi-chapter accounting textbooks. Then section three covers the development of the serial exercise. Then section four addresses the ERP GP processing. Lastly, section five gives the summary and conclusions.

## 2. BACKGROUND REVIEW

As of this writing, the consolidation texts with one known exception (Hoyle, et al 2011) have not incorporated multi-chapter problems in ERP systems as presented in the current paper's project. There are other examples of consolidation serial exercise problems already available but this project focuses on how to work a problem using current software. Notwithstanding push-down accounting, there are three different consolidation approaches: cost, partial equity, and equity. All of these approaches do result in the same consolidated statements; however, the teaching challenges are pronounced. This serial exercise follows the equity method.

## 3. SERIAL EXERCISE AND REPORTS

This section overviews the serial exercise. The initial purchase features of a combination are described in Appendix I. Every attempt is made to create a fairly straight-forward combination. One firm TopDrawer buys 100 percent ownership of another (BottomShelf) at the beginning of period XXX1. The firms remain separate legal entities. As discussed previously, each period includes more complex features of business activities which require appropriate reporting. The next event that occurs in period XXX2 is a purchase of 10 percent of the subsidiary BottomShelf by outside parties (i.e., non-controlling interests [NCI]). In period XXX3, TopDrawer sells equipment to BottomShelf and inventory is sold between the affiliates. Period XXX4 has an interaffiliate debt transaction. As the semester project moves forward, specific transactions are taken from Appendix I and shown how to put into GP. Everyday entries do
not vary much from each other; hitting upon characteristics critically different from EXCEL seemed better than working the entire problem. The spreadsheet version of this report and subsequent periods’ reports can be available upon request.

## 4. ERP GP PROCESS

Appendix II has an ERP walkthrough for the acquisition. There is also a setup process for each company, but it is not shown because it is not the main theme of this serial exercise. Also, this project utilized a cloud computing company's ERP site which provides some advantages. Students (and faculty) do not have to set up the company ... only the accounts. Also, students do not have to come to school to work on their project or buy GP. There can be one school provided server with the software which students can log onto through the internet and then work from basically anywhere.

In keeping with the idea to provide students with a competitive edge upon graduating, this project used Microsoft's Great Plains ERP software because of its focus on small and medium-sized companies. There are two components. One is the module which has the data which was entered in journal form. Students are familiar with journal entries which are utilized to keep it simple. The other component is a reporting program. Appendix III has examples of transaction journal entries and elimination entries for the acquisition. There are journal entries establishing the books for TopDrawer and BottomShelf. There is an elimination entry.

Account identification is necessary in ERP computer programs. This project used a nine digit scheme XXX-YYYY-ZZ where XXX is a company identifier (e.g., 000 is TopDrawer and 001 is BottomShelf) YYY is a four digit line item (e.g. 1100 for cash) account specification. ZZ is a category identifier of 00 for account, 09 for elimination entry and 08 for non-controlling interest. For teaching purposes, XXX is also used to specify student groups (e.g. 700 and 701 for group 7). There are reasons for using groups. One is that students can interact with each other, and college evaluations reward the use of group activity. A second reason is that every individual student company will require a separate set-up which is time consuming.

This project generally followed Hoyle, et al (2011) and that is the reason for the specific non-controlling interest column. Other texts (e.g., Baker 2011) utilize debit and credit fields for eliminations that include the non-controlling interest effects.

There are pedagogy issues because the software has a fairly complex ERP closing process in practice. In this ERP example, closing journal entries are employed at the beginning of a subsequent period similar to textbook approaches. Thus, the ERP example tries to keep it simple. The ERP software project utilized "months" periods representative of a year. For example, Year XXX1 is January, Year XXX2 is February and so forth. Appendix III only shows a walkthrough of the journal entries and report for the acquisition of BottomShelf by TopDrawer. The full four years' GP reports are available from the authors by request. This information is sufficient to start the process, but not to publicly disclose all information to potential students.

## 5. SUMMARY AND CONCLUSIONS

This project shows how to formulate a serial exercise for consolidation accounting utilizing ERP GP systems. The exercise works through consolidations from the initial purchase to progressively more difficult inter-affiliate situations such as sales of depreciable equipment between entities. The ERP GP processes include entity journal entries and Management Reporter reports of consolidations. A major strength of this serial exercise is that students are able to work their way up the learning curve of increasingly more difficult problems while being able to keep in perspective the big picture of the entities' financials. From a teaching point of view this project demonstrates how "real world" ERP can be utilized in the classroom with consolidation accounting in a manner heretofore unutilized.

## REFERENCE

Baker, Christensen and Cottrel, Advanced Accounting: Ninth Edition. McGraw- Hill. 2011.

Hoyle J., T. Schaefer, and T. Doupnik, Advanced Accounting, Tenth Edition. McGraw Hill. 2011.
Mitchell, Robert L. November 13, 2006. "How GM is driving economies of scale in ICT." COMPUTER-
WORLD The voice of the ICT community. Retrieved from
http://computerworld.co.nz/news.nsf/mgmt/71C5318115C76205CC25
72220013C083

## APPENDIX I SERIAL EXERCISE FACT SITUATION

## Initial Statement:

At the beginning of Year XXX1, TopDrawer acquired 100 percent of the outstanding common stock of BottomShelf Company. To acquire these shares, TopDrawer issued $\$ 400,000$ in long-term liabilities and 20,000 shares of common stock having a par value of $\$ 1$, but a fair value of $\$ 31.50$ per share. TopDrawer paid $\$ 60,000$ to accountants, lawyers, and brokers for assistance in the acquisition and another $\$ 24,000$ in connection with stock issuance costs. In TopDrawer's appraisal of BottomShelf, it deemed two accounts to be undervalued on the subsidiary's books: Land by $\$ 40,000$ and Buildings by $\$ 60,000$. The Buildings have an expected 10 year life.

## Year XXX1 Transactions:

TopDrawer - (1) Inventory was sold on account for $\$ 500,000$ which cost $\$ 232,000$. (2) Cash of $\$ 200,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 60,000$ were recognized with $\$ 12,000$ being paid in cash, $\$ 32,000$ being recognized for depreciation for Buildings (net), and $\$ 16,000$ being recognized for Equipment (net). (4) TopDrawer declared and paid dividends of $\$ 60,000$ to its shareholders. (5) TopDrawer recognized its portion of BottomShelf's net income equal to $\$ 24,000$ for the equity method. (6B) TopDrawer recognized its portion of BottomShelf's dividends equal to $\$ 36,000$ for the equity method.

BottomShelf - (1) Inventory was sold on account for $\$ 140,000$ which cost $\$ 90,000$. (2) Cash of $\$ 56,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 20,000$ were recognized with $\$ 10,000$ being paid in cash, $\$ 4,000$ being recognized for depreciation for Buildings (net), and \$6,000 being recognized for Equipment (net). (6A) BottomShelf declared and paid dividends of \$36,000 to its shareholders.

## Year XXX2 Transactions:

TopDrawer - (1) Inventory was sold on account for $\$ 550,000$ which cost $\$ 254,000$. (2) Cash of $\$ 240,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 66,000$ were recognized with $\$ 18,000$ being paid in cash, $\$ 32,000$ being recognized for depreciation for Buildings (net), and $\$ 16,000$ being recognized for Equipment (net). (4) TopDrawer sold $10 \%$ of its investment in BottomShelf for cash of $\$ 101,800$ to a 3rd party, NCI. (5) TopDrawer declared and paid dividends of $\$ 60,000$ to its shareholders. (6) TopDrawer recognized its portion of BottomShelf's net income equal to $\$ 23,400$ for the equity method. (7B) TopDrawer recognized its portion of BottomShelf's dividends equal to $\$ 36,000$ for the equity method.

BottomShelf - (1) Inventory was sold on account for $\$ 154,000$ which cost $\$ 98,000$. (2) Cash of $\$ 62,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 24,000$ were recognized with $\$ 14,000$ being paid in cash, $\$ 4,000$ being recognized for depreciation for Buildings (net), and $\$ 6,000$ being recognized for Equipment (net). (7A) BottomShelf declared and paid dividends of \$40,000 to its shareholders.

## Year XXX3 Transactions:

TopDrawer - (1) Inventory was sold on account for $\$ 600,000$ which cost $\$ 280,000$. (2) Cash of $\$ 264,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 96,000$ were recognized with $\$ 50,000$ being paid in cash, $\$ 32,000$ being recognized for depreciation for Buildings (net), and $\$ 14,000$ being recognized for Equipment (net). (4) TopDrawer paid $\$ 400,000$ cash for additional inventory.
(5) TopDrawer declared and paid dividends of $\$ 100,000$ to its shareholders. (7A) At the beginning of the year, TopDrawer made an intercompany downstream sale of some of its equipment to BottomShelf. The cash received from BottomShelf was $\$ 60,000$ and the carrying value of the equipment was $\$ 38,000$ which resulted in a gain of $\$ 22,000$. (8) TopDrawer recognized its portion of BottomShelf's net income equal to $\$ 41,000$ for the equity method. (9B) TopDrawer recognized its portion of BottomShelf's dividends equal to $\$ 36,000$ for the equity method. (10A) TopDrawer deferred the full amount of the gain equal to $\$ 22,000$ on the intercompany downstream sale for the equity method. (10B) TopDrawer amortized the downstream sale gain of $\$ 2,200$ for the equity method. Straight-line depreciation was used based on a 10 years useful life.

BottomShelf - (1) Inventory was sold on account for $\$ 210,000$ which cost $\$ 108,000$. (2) Cash of $\$ 190,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 32,000$ were recognized with $\$ 16,000$ being paid in cash, $\$ 4,000$ being recognized for depreciation for Buildings (net), and \$12,000 being recognized for Equipment (net). (3B) BottomShelf recognized an extra $\$ 6,000$ depreciation expense because of the purchase of equipment from its parent (see journal entry \#7B).
(4) BottomShelf paid $\$ 100,000$ cash for additional inventory. (6) BottomShelf made an intercompany upstream sale of inventory to its parent company, TopDrawer. Sales on account were $\$ 40,000$ which cost $\$ 24,000$. At the end of the year, TopDrawer still had
intercompany profits of $\$ 10,000$ from the upstream sale. (7B) BottomShelf bought some of TopDrawer's equipment for $\$ 60,000$ cash. (9A) BottomShelf declared and paid dividends of $\$ 40,000$ to its shareholders.

## Year XXX4 Transactions:

TopDrawer - (1) Inventory was sold on account for $\$ 620,000$ which cost $\$ 290,000$. (2) Cash of $\$ 282,000$ was collected from accounts receivables. (3) Other operating expenses of $\$ 102,000$ were recognized with $\$ 56,000$ being paid in cash, $\$ 32,000$ being recognized for depreciation for Buildings (net), and $\$ 14,000$ being recognized for Equipment (net). (4) TopDrawer paid $\$ 300,000$ cash for additional inventory. (5) TopDrawer declared and paid dividends of $\$ 100,000$ to its shareholders. 10. (9, 10 and 11) Rates almost immediately rapidly fall after BottomShelf's bond issue and BottomShelf decides to retire the debt and refinance. To do the deal, TopDrawer buys the bonds for 106,710 based on an 8 annual percent yield. (12B) TopDrawer recognized its portion of BottomShelf's net income equal to $\$ 41,000$ for the equity method. (12B) TopDrawer recognized its portion of BottomShelf's dividends equal to $\$ 36,000$ for the equity method. (13) TopDrawer recognized its portion of BottomShelf's net income equal to $\$ 54,553$ for the equity method. (14) TopDrawer continues to amortize the downstream sale gain of $\$ 2,200$ for the equity method.

BottomShelf -1 . Inventory was sold on account for $\$ 222,000$ which cost $\$ 118,000$. 2. Cash of $\$ 198,000$ was collected from accounts receivables. 3. Other operating expenses of $\$ 38,000$ were recognized with $\$ 22,000$ being paid in cash, $\$ 4,000$ being recognized for depreciation for Buildings (net), and $\$ 12,000$ being recognized for Equipment (net). 4. BottomShelf paid $\$ 114,000$ cash for additional inventory. (6, 7 and 8 ) In an exchange of debt on $1 / 1 / \mathrm{XXX} 4$, BottomShelf issued 100,000 in 10 year bonds with $9 \%$ cash interest. Because of market conditions BottomShelf sold the debt for 93,854 for a $10 \%$ effective yield. (12A) BottomShelf declared and paid dividends of $\$ 40,000$ to its shareholders.

## APPENDIX II EXCEL SPREADSHEET WORK THROUGH

This appendix contains a walkthrough of the serial problem which was set up above. The transactions for each year after the acquisition are given in the spreadsheet.

| $\underbrace{\text { Beg Year XXX1 }}_{\text {Accounts }}$ | TopDrawer <br> Company | TopDrawer | BottomShelf | Consolidation Entries |  | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Company* | Company | Debit | Credit | Totals |
| Assets |  |  |  |  |  |  |
| Cash | 120,000 | 36,000 | 40,000 |  |  | 76,000 |
| Receivables | 540,000 | 540,000 | 180,000 |  |  | 720,000 |
| Inventory | 720,000 | 720,000 | 280,000 |  |  | 1,000,000 |
| Land | 400,000 | 400,000 | 360,000 | 40,000 |  | 800,000 |
| Buildings (net) | 840,000 | 840,000 | 440,000 | 60,000 |  | 1,340,000 |
| Equipment (net) | 320,000 | 320,000 | 100,000 |  |  | 420,000 |
| Investment in BottomShelf | 0 | 1,030,000 | 0 |  | 920,000 | 0 |
|  |  |  |  |  | 110,000 |  |
| Goodwill |  |  |  | 10,000 |  | 10,000 |
| Total Assets | $\underline{\underline{2,940,000}}$ | 3,886,000 | 1,400,000 |  |  | 4,366,000 |
|  |  |  |  |  |  |  |
| Liabilities \& Equity |  |  |  |  |  |  |
| Accounts payable | 300,000 | 300,000 | 80,000 |  |  | 380,000 |
| Long-term liabilities | 860,000 | 1,260,000 | 400,000 |  |  | 1,660,000 |
| Common stock | 220,000 | 240,000 | 240,000 | 240,000 |  | 240,000 |
| Additional paid-in capital | 720,000 | 1,306,000 | 0 |  |  | 1,306,000 |
| Retained earnings, | 840,000 | 780,000 | 680,000 | 680,000 |  | 780,000 |
| Total Liabilities \& Equity | $\underline{2,940,000}$ | 3,886,000 | 1,400,000 | 1,030,000 | 1,030,000 | 4,366,000 |




## Elimination Entries XXX1

BottomShelf Common
BottomShelf Retained Earnings (Beg)
Investment BottomShelf

Land
Buildings
Goodwill
Investment BottomShelf

Equity Income BottomShelf

Investment BottomShelf
Dividends

Other operation expenses
Buildings (net)


Investment in BottomShelf 36000

| Year XXX2 Financials | TopDrawer | BottomShelf | Consolidati | Entries | NCI | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accounts | Company | Company | Debit | Credit |  | Totals |
| Revenues | 550,000 | 154,000 | 0 | 0 |  | 704,000 |
| Cost of goods sold | 254,000 | 98,000 | 0 | 0 |  | 352,000 |
| Other operation expenses | 66,000 | 24,000 | 6000 | 0 |  | $\mathbf{9 6 , 0 0 0}$ |
| Equity income BottomShelf | 23,400 |  | 23,400 | 0 |  | 0 |
| Consolidated Net income | 253,400 | 32,000 | 0 | 0 |  | 256,000 |
| NCI income |  |  | 0 | 0 | 2600 | 2,600 |
| Net income to controlling interest |  |  |  |  |  | 253,400 |
|  |  |  |  |  |  |  |
| Retained earnings (beg) | 952,000 | 692,000 | 692,000 | 0 |  | 952,000 |
| Net income (above) | 253,400 | 32,000 | 0 | 0 |  | 253,400 |
| Dividends distributed | 60,000 | 40,000 | 0 | 36,000 | 4000 | 60,000 |
| Retained earnings (end) | 1,145,400 | 684,000 | 0 | 0 |  | 1,145,400 |
| Assets |  |  |  |  |  |  |
| Cash | 483,600 | 76,000 | 0 | 0 |  | 559,600 |
| Receivables | 1,150,000 | 356,000 | 0 | 0 |  | 1,506,000 |
| Inventory | 234,000 | 92,000 | 0 | 0 |  | 326,000 |
| Land | 400,000 | 360,000 | 40000 |  |  | 800,000 |
| Buildings | 776,000 | 432,000 | 54000 | 6000 |  | 1,256,000 |
| Equipment (net) | 288,000 | 88,000 | 0 | 0 |  | 376,000 |
| Investment in BottomShelf | 919,800 | 0 | 36000 | 838800 |  | 0 |
|  |  |  |  | 93600 |  |  |
|  |  |  |  | 23400 |  |  |
| Goodwill |  |  | 10000 |  |  | 10,000 |
| Total assets | 4,251,400 | 1,404,000 | 0 | 0 |  | 4,833,600 |
|  |  |  |  |  |  |  |
| Liabilities \& Equity |  |  | 0 | 0 |  | 0 |
| Accounts Payable | 300,000 | 80,000 | 0 | 0 |  | 380,000 |
| Long-term Liabilities | 1,260,000 | 400,000 | 0 | 0 |  | 1,660,000 |
| Common stock | 240,000 | 240,000 | 240000 | 0 |  | 240,000 |
| Additional paid-in capital | 1,306,000 | 0 | 0 | 0 |  | 1,306,000 |
| NCI (Beg) |  |  |  | 93200 | 93200 |  |
|  |  |  |  | 10400 | 10400 |  |
| NCI (End) |  |  |  |  | 102200 | 102,400 |
| Retained earnings (above) | 1,145,400 | 684,000 | 0 | 0 |  | 1,145,400 |
| Total liabilities \& equity | 4,251,400 | 1,404,000 | 1101400 | 1101400 |  | 4,833,600 |

## Elimination Entries XXX2

| BottomShelf Common | 240000 |  |
| :---: | :---: | :---: |
| BottomShelf Retained Earnings (Beg) | 692000 |  |
| Investment BottomShelf |  | 838800 |
| NCI |  | 93200 |
| Land | 40000 |  |
| Buildings | 54000 |  |
| Goodwill | 10000 |  |
| Investment BottomShelf |  | 93600 |
| NCI |  | 10400 |
| Equity Income BottomShelf | 23400 |  |
| Investment BottomShelf |  | 23400 |
| Investment BottomShelf | 36000 |  |
| Dividends |  | 36000 |
| Other operation expenses | 6000 |  |
| Buildings (net) |  | 6000 |


| Proceedings of DVAAA 2013 |  | TopDrawer |  | BottomShelf |  | Vol. 4, No. 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1A. |  | Debit | Credit | Debit | Credit |  |
|  | Accounts Receivables | 600000 |  | 210000 |  |  |
|  | Revenues |  | 600000 |  | 210000 |  |
| 1B. | COGS | 280000 |  | 108000 |  |  |
|  | Inventory |  | 280000 |  | 108000 |  |
| 2. | Cash | 264000 |  | 190000 |  |  |
|  | Accounts Receivables |  | 264000 |  | 190000 |  |
| 3. | Other operation expenses | 96000 |  | 26000 |  |  |
|  | Cash |  | 50000 |  | 16000 |  |
|  | Buildings (net) |  | 32000 |  | 4000 |  |
|  | Equipment (net) |  | 14000 |  | 6000 |  |
| 3 B . | Other operation expenses |  |  | 6000 |  |  |
|  | Equipment (net) |  |  |  | 6000 |  |
| 4. | Inventory | 400000 |  | 100000 |  |  |
|  | Cash |  | 400000 |  | 100000 |  |
| 5. | Dividend | 100000 |  |  |  |  |
|  | Cash |  | 100000 |  |  |  |
| 6. | Cash |  |  | 40000 |  |  |
|  | Revenue |  |  |  | 40000 |  |
| 6. | COGS |  |  | 24000 |  |  |
|  | Inventory |  |  |  | 24000 |  |
|  | In XXX3, BottomShelf sold goo | for 40,000 | TopDraw | cost 24,0 |  |  |
|  | 10,000 of gross profit remains at | ar end. |  |  |  |  |
| 7A. | Cash | 60000 |  |  |  |  |
|  | Equipment (net) |  | 38000 |  |  |  |
|  | Gain on Equip Sale |  | 22000 |  |  |  |
| 7B. | Equipment (net) |  |  | 60000 |  |  |
|  | Cash |  |  |  | 60000 |  |
|  | TopDrawer sold equipment (net) | 38,000 for | 60,000 to B | elf at 1/1/X | XX3. |  |
|  | Equipment had a 19 years life at | /XXX3. B | ttomShelf | quipment | e to be 10 |  |
| 8. | Investment in BottomShelf | 41000 |  |  |  |  |
|  | Equity Income BottomShelf |  | 41000 |  |  |  |
| 9A. | Dividend |  |  | 40000 |  |  |
|  | Cash |  |  |  | 40000 |  |
| 9B. | Cash | 36000 |  |  |  |  |
|  | Investment in BottomShelf |  | 36000 |  |  |  |
|  | Defer unrealized gain |  |  |  |  |  |
| 10A | Equity Income BottomShelf | 22000 |  |  |  |  |
|  | Investment in BottomShelf |  | 22000 |  |  |  |
|  | Reverse year xxx3 deferred gain |  |  |  |  |  |
| 10B | Investment in BottomShelf | 2200 |  |  |  |  |
|  | Equity Income BottomShelf |  | 2200 |  |  |  |

Year XXX3 Financials
Accounts
Revenues
Cost of goods sold
Other op. expenses
Gain on equip sale
Equity income BottomShelf
Consolidated Net income
NCI income
Net income to controlling interest

| Retained earnings (Beg) | $1,145,400$ |
| :--- | ---: |
| Net income (above) | 289,200 |
| Dividends distributed | 100,000 |
| Retained earnings (End) | $1,334,600$ |
| Assets |  |
| Cash | 293,600 |
| Receivables | $\mathbf{1 , 4 8 6 , 0 0 0}$ |
| Inventory | 354,000 |
| Land | 400,000 |
| Buildings | 744,000 |
| Equipment (net) | 236,000 |
| Investment in BottomShelf | 927,000 |

Goodwill
Total assets
Liabilities \& Equity
Accounts Payable
Long-term Liabilities

## Common stock

Additional paid-in capital
NCI (Beg)

NCI (End)
Retained earnings
Total liab. \& equity
TopDrawer
Company
$\mathbf{6 0 0 , 0 0 0}$
280,000
96,000
22,000
43,200
289,200

BottomShelf
Company
250,000
132,000
32,000

86,000


684,000

| $\begin{aligned} & 86,000 \\ & 40,000 \end{aligned}$ | 0 | 0 |  | 291,000 |
| :---: | :---: | :---: | :---: | :---: |
|  | 0 | 36000 | 4000 | 100,000 |
| 730,000 | 0 | 0 |  | 1,336,400 |
|  |  |  |  |  |
| 90,000 | 0 | 0 |  | 383,600 |
| 376,000 | 0 | 0 |  | 1,862,000 |
| 60,000 | 0 | 10000 |  | 404,000 |
| 360,000 | 40000 |  |  | 800,000 |
| 428,000 | 48000 | 6000 |  | 1,214,000 |
| 136,000 | 4000 | 22000 |  | 354,000 |
| 0 | 36000 | 831600 |  | 0 |
|  |  | 88200 |  |  |
|  |  | 43200 |  |  |
|  | 10000 |  |  | 10,000 |
| 1,450,500 |  |  |  | 5,027,600 |
|  |  |  |  |  |
| 80,000 | 0 | 0 |  | 380,000 |
| 400,000 | 0 | 0 |  | 1,660,000 |
| 240,000 | 240000 | 0 |  | 240,000 |
| 0 | 0 | 0 |  | 1,306,000 |
|  |  | 92400 | 92400 |  |
|  |  | 9800 | 9800 |  |
|  |  |  | 105200 | 105,200 |
| 730,000 | 0 | 0 |  | 1,336,400 |
| 1,450,000 | 1183200 | 1183200 |  | 5,027,600 |

## Elimination Entries XXX3

| BottomShelf Common | 240000 |  |
| :---: | :---: | :---: |
| BottomShelf Retained Earnings (Beg) | 684000 |  |
| Investment BottomShelf |  | 831600 |
| NCI |  | 92400 |
| Land | 40000 |  |
| Buildings | 48000 |  |
| Goodwill | 10000 |  |
| Investment BottomShelf |  | 88200 |
| NCI |  | 9800 |
| Equity Income BottomShelf | 43200 |  |
| Investment BottomShelf |  | 43200 |
| Investment BottomShelf | 36000 |  |
| Dividends |  | 36000 |
| Other operation expenses | 6000 |  |
| Buildings (net) |  | 6000 |
| Cost of goods sold | 10000 |  |
| Inventory |  | 10000 |
| Gain on Equipment | 22000 |  |
| Equipment |  | 22000 |
| Equipment (net) | 4000 |  |
| Other operation expenses |  | 4000 |


|  | Year XXX4 Transactions | TopDrawer |  | BottomShelf |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Debit | Credit | Debit | Credit |
| 1A. | Accounts Receivables | 620000 |  | 222000 |  |
|  | Revenues |  | 620000 |  | 222000 |
| 1B. | COGS | 290000 |  | 118000 |  |
|  | Inventory |  | 290000 |  | 118000 |
| 2. | Cash | 282000 |  | 198000 |  |
|  | Accounts Receivables |  | 282000 |  | 198000 |
| 3. | Other operation expenses | 102000 |  | 38000 |  |
|  | Cash |  | 56000 |  | 22000 |
|  | Buildings (net) |  | 32000 |  | 4000 |
|  | Equipment (net) |  | 14000 |  | 12000 |
| 4. | Inventory | 300000 |  | 114000 |  |
|  | Cash |  | 300000 |  | 114000 |
| 5. | Dividend | 100000 |  |  |  |
|  | Cash |  | 100000 |  |  |
|  | In an exchange of debt on 1/1/XXX4, BottomShelf issued 100000 in 10 year bonds with $9 \%$ cash interest. |  |  |  |  |
|  | Because of market conditions BottomShelf sold the debt for 93854 for a $10 \%$ effective yield. |  |  |  |  |
|  | Rates almost immediately rapidly fall and BottomShelf decides to retire the debt and refinance. |  |  |  |  |
|  | To do the deal, TopDrawer buys the bonds for 106710 based on an 8 annual percent yield. |  |  |  |  |
| 6. | Cash 1/1/XXX4 |  |  | 93854 |  |
|  | BottomShelf Bonds |  |  |  | 93854 |
|  | Other operation expenses/Interest expens |  |  |  |  |
| 7. | BottomShelf 12/31/XXX4 |  |  | 9000 |  |
|  | Cash |  |  |  | 9000 |
| 8. | Other operation expenses/Interest expense at BottomShelf 12/31 |  |  | 386 |  |
|  | BottomShelf Bonds |  |  |  | 386 |
| 9. | Invest in BottomShelf Bonds 7/1/XXX4 Cash | 106710 |  |  |  |
|  |  |  | 106710 |  |  |
| 10. | Cash 12/31/XXX4 | 9000 |  |  |  |
|  | Interest income |  | 9000 |  |  |
| 11. | Interest income 12/31/XXX4 <br> Investment in BottomShelf Bonds | 464 |  |  |  |
|  |  |  | 464 |  |  |
| 12A. | Dividend |  |  | 40000 |  |
|  | Cash |  |  |  | 40000 |
| 12B. | Cash | 36000 |  |  |  |
|  | Investment in BottomShelf |  | 36000 |  |  |


| BottomShelf Bonds | 94240 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest income | 8536 |  |  |  |  |
| Loss on retirement of bond | 12856 |  |  |  |  |
| Investment in BottomShelf bonds |  | 106246 |  |  |  |
| Interest Expense |  | 9386 |  |  |  |
| Consolidation Memo |  |  |  |  |  |
|  | Book beg | Eff. Int | Cash | Amort | Book end |
| Investment | 106710 | 8536 | 9000 | 464 | 106246 |
| Bond | 93854 | 9386 | 9000 | 386 | 94240 |

TopDrawer sells Inventory from BottomShelf of Year XXX3 end to outsider purchaser.

At the end of Year XXX4, TopDrawer still owes BottomShelf 13,000 from interfiliate sales that occurred in Year XXX3.
13. Investment in BottomShelf
Equity Income BottomShelf
54553
Reverse year xxx4 deferred gain
14. Investment in BottomShelf
2200
Equity Income BottomShelf
2200

## $\underline{\text { Year XXX4 Financials }}$

## Accounts

Revenues
Cost of goods sold
Other operation expense (revenue)
Equity income BottomShelf
Bond extinguishment
Consolidated Net income
NCI income
Net income to controlling interest

Retained earnings (Beg)
Net income (above)
Dividends distributed
Retained earnings (End)

Assets

## Cash

Receivables
Inventory
Land
Buildings (net)
Equipment (net)
Bond investment BottomShelf
Investment in BottomShelf

## Goodwill

Total assets

## Liabilities \& Equity

Accounts Payable
Long-term Liabilities
BottomShelf Bonds
Common stock
Additional paid-in capital
NCI (Beg)

NCI (End)
Retained earnings (above)
Total liabilities \& equity

TopDrawer
Company
620,000
290,000
93,464

56,753

293,289
1,334,600
293,289
100,000
1,527,889

57,890
1,824,000
364,000
400,000
712,000
222,000
106,246
947,753

4,633,889

300,000
$1,260,000$

240,000
1,306,000

1,527,889
4,633,889

BottomShelf
Company

| pany | $\underline{\text { Debit }}$ | Credit |  | Totals |
| :---: | :---: | :---: | :---: | :---: |
| 222,000 | 0 | 0 |  | 842,000 |
| 118,000 | 0 | 10000 |  | 398,000 |
| 47,386 | 6000 | 4000 |  | 142,000 |
|  | 8536 | 9386 |  |  |
|  | 56753 | 0 |  | 0 |
|  | 12856 |  |  | 12,856 |
| 56,614 | 0 | 0 |  | 289,144 |
|  | 0 | 0 | 6061 | 6,061 |
|  |  |  |  | 283,083 |
|  |  |  |  |  |
| 730,000 | 720000 | 0 |  | 1,334,600 |
|  | 10000 |  |  |  |
| 56,614 | 0 | 0 |  | 283,083 |
| 40,000 | 0 | 36000 | 4000 | 100,000 |
| 746,614 | 0 | 0 |  | 1,517,683 |
|  |  |  |  |  |
|  |  |  |  |  |
| 196,854 | 0 | 0 |  | 254,744 |
| 400,000 | 0 | 13000 |  | 2,211,000 |
| 56,000 | 0 | 0 |  | 420,000 |
| 360,000 | 40000 |  |  | 800,000 |
| 424,000 | 42000 | 6000 |  | 1,172,000 |
| 124,000 | 4000 | 19800 |  | 330,200 |
|  |  | 106246 |  |  |
| 0 | 36000 | 864000 |  | 0 |
|  | 19800 | 82800 |  |  |
|  |  | 56753 |  |  |
|  | 10000 |  |  | 10,000 |
| 1,560,854 | 0 | 0 |  | 5,197,944 |
|  |  |  |  |  |
|  | 0 | 0 |  | 0 |
| 80,000 | 13000 | 0 |  | 367,000 |
| 400,000 | 0 | 0 |  | 1,660,000 |
| 94,240 | 94240 |  |  |  |
| 240,000 | 240000 | 0 |  | 240,000 |
| 0 | 0 | 0 |  | 1,306,000 |
|  |  | 96000 | 96000 |  |
|  |  | 9200 | 9200 |  |
|  |  |  | 107261 | 107,261 |
| 746,614 | 0 | 0 |  | 1,517,683 |
| 1,560,854 | 1313185 | 1313185 |  | 5,197,944 |

## Elimination Entries XXX4

| BottomShelf Retained Earnings (Beg) | 10000 |  |
| :---: | :---: | :---: |
| COGS |  | 10000 |
| BottomShelf Common | 240000 |  |
| BottomShelf Retained Earnings (Beg) | 720000 |  |
| Investment BottomShelf |  | 864000 |
| NCI |  | 96000 |
| Land | 40000 |  |
| Buildings | 42000 |  |
| Goodwill | 10000 |  |
| Investment BottomShelf |  | 82800 |
| NCI |  | 9200 |
| Investment BottomShelf | 19800 |  |
| Equipment (net) |  | 19800 |
| Equity income BottomShelf | 56753 |  |
| Investment BottomShelf |  | 56753 |
| Investment BottomShelf | 36000 |  |
| Dividends |  | 36000 |
| Other operation expenses | 6000 |  |
| Buildings (net) |  | 6000 |
| Equipment (net) | 4000 |  |
| Other operation expenses |  | 4000 |
| Other operation expenses | 8536 |  |
| Bond extinguishment | 12856 |  |
| BottomShelf Bonds | 94240 |  |
| Other operation expenses |  | 9386 |
| Bond Investment BottomShelf |  | 106246 |
| Accounts Payable | 13000 |  |
| Accounts Receivable |  | 13000 |

## Appendix III ERP Management Reporter Reports

System: 9/30/2012 4:10:46 PM User Date: 9/30/2012

Page: 1
JOURNAL INQUIRY REPORT
General Ledger
Journal Entry: 1 Batch ID: YR0TOP

| Transaction Date: | 1/2/2012 | Reference: | YR0Top |
| :--- | :---: | :---: | :--- |
| Source Document: | GJ | Currency ID: | Z-US\$ | Audit Trail Code: GLQJE00000001 Orig Journal: Orig Audit Trail Code: GLQJE00000001


| Account | Description | Debit Cr | Credit |
| :---: | :---: | :---: | :---: |
| Distribution Reference |  |  |  |
| 1100-000-000 | Cash-Checking | \$36,000.00 | \$0.00 |
| 1160-000-000 | Accounts Receivable | \$540,000.00 | 00 \$0.00 |
| 1270-000-000 | Investments | \$1,030,000.00 | \$0.00 |
| 1400-000-000 | Equipment | \$320,000.00 | \$0.00 |
| 1460-000-000 | Buildings | \$840,000.00 | \$0.00 |
| 1500-000-000 | Land | \$400,000.00 | \$0.00 |
| 2100-000-000 | Accounts Payable | \$0.00 | \$300,000.00 |
| 2140-000-000 | Notes Payable | \$0.00 \$1, | \$1,260,000.00 |
| 3000-000-000 | Retained Earnings | \$0.00 | \$780,000.00 |
| 3100-000-000 | Common Stock | \$0.00 | \$240,000.00 |
| 3110-000-000 | Additional Paid in Capital - Common |  | \$0.00 \$1,306,000.00 |
| 1200-000-000 | Inventory | \$720,000.00 | \$0.00 |
|  | Difference: $\quad \$ 0.00$ Totals: | \$3,886,000.00 \$3, | \$3,886,000.00 |



| Account | Description |  | Debit | Credit |
| :---: | :---: | :---: | :---: | :---: |
| Distribution Reference |  |  |  |  |
| 3000-001-000 | Retained Earnings |  | \$0.00 | \$680,000.00 |
| 1100-001-000 | Cash |  | \$40,000.00 | \$0.00 |
| 1160-001-000 | Accounts Receivable |  | \$180,000.00 | - \$0.00 |
| 1200-001-000 | Inventory |  | \$280,000.00 | \$0.00 |
| 1500-001-000 | Land |  | \$360,000.00 | \$0.00 |
| 1460-001-000 | Building |  | \$440,000.00 | \$0.00 |
| 1400-001-000 | Equipment |  | \$100,000.00 | \$0.00 |
| 2100-001-000 | Accounts Payable |  | \$0.00 | \$80,000.00 |
| 2140-001-000 | Notes Payable |  | \$0.00 | \$400,000.00 |
| 3100-001-000 | Common Stock |  | \$0.00 | \$240,000.00 |
|  | Difference: $\quad \$ 0.00$ | Totals: | \$1,400,000.00 | \$1,400,000.00 |


| System: $9 / 30 / 2012$ | 4:25:41 PM | Page: 1 |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| User Date: $9 / 30 / 2012$ | JOURNAL INQUIRY REPORT |  | User ID: |
| General Ledger |  |  |  |

Journal Entry: 3 Batch ID: 3
Transaction Date: 1/2/2012 Reference: Inital Elimination
Source Document: GJ Currency ID: Z-US\$

Audit Trail Code: GLQJE00000003 Orig Journal:
Orig Audit Trail Code: GLQJE00000003
Account Description


## Management Reporter Row Definition

|  | $\begin{gathered} \text { A } \\ \text { Row } \\ \text { Code } \end{gathered}$ | $\begin{gathered} \text { B } \\ \text { Description } \end{gathered}$ | C <br> Format Code | Related Formulas / Rows / Units | $\begin{gathered} \text { E } \\ \text { Format Override } \end{gathered}$ | F Normal Balance | G Print Contro | Column | $\begin{gathered} \text { I } \\ \text { Row } \\ \text { Modifier } \end{gathered}$ | $\begin{aligned} & \mathrm{J} \\ & \text { Link to Financial } \\ & \text { Dimensions } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30 |  | DES |  |  |  |  |  |  |  |
|  | 60 |  | DES |  |  |  |  |  |  |  |
|  | 90 |  | DES |  |  |  |  |  |  |  |
|  | 120 | Assets |  |  |  |  |  |  |  |  |
|  | 150 | Cash-Checking |  |  |  |  |  |  |  | +Segment $1=$ [1100] |
|  | 180 | Accounts Receivable |  |  |  |  |  |  |  | +Segment $1=[1160]$ |
|  | 210 | Inventory |  |  |  |  |  |  |  | +Segment $1=$ [1200] |
|  | 240 | Land |  |  |  |  |  |  |  | +Segment $1=$ [1500] |
|  | 270 | Buildings |  |  |  |  |  |  |  | +Segment1 $=$ [1460] |
|  | 300 | Equipment |  |  |  |  |  |  |  | +Segment $1=[1400]$ |
|  | 330 | Investments |  |  |  |  |  |  |  | +Segment $1=$ [1270] |
|  | 332 | Goodwill |  |  |  |  |  |  |  | +Segment $1=$ [1730] |
|  | 334 |  | -- |  |  |  |  |  |  |  |
|  | 338 | Total Assets | тот | 150:332 |  |  |  |  |  |  |
|  | 342 |  |  |  |  |  |  |  |  |  |
|  | 345 | Liabilities and Equity |  |  |  |  |  |  |  |  |
|  | 360 | Accounts Payable |  |  |  |  |  |  |  | +Segment $1=[2100]$ |
|  | 390 | Notes Payable |  |  |  |  |  |  |  | +Segment $1=$ [2140] |
|  | 420 | Common Stock |  |  |  |  |  |  |  | +Segment1 $=$ [3100] |
|  | 450 | Additional Paid in Capital - C... |  |  |  |  |  |  |  | +Segment $1=$ [3110] |
|  | 480 | Retained Earnings |  |  |  |  |  |  |  | +Segment1 $=$ [3000] |
|  | 510 |  | -- |  |  |  |  |  |  |  |
|  | 575 | Total Liabilities / Eq... | тот | 360:480 |  |  |  |  |  |  |
|  | 600 |  | DES |  |  |  |  |  |  |  |
|  | 660 |  | == $=$ |  |  |  |  |  |  |  |
| - | 690 |  | DES |  |  |  |  |  |  |  |
|  | 750 |  | DES |  |  |  |  |  |  |  |

Management Reporter Column Definition

|  | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Header 1 |  |  |  |  |  |  |
| Header 2 |  | TopDrawer | BottomShelf | Consolidation | Consolidated |  |
| Header 3 |  |  |  | Entries |  |  |
| - Column Type | DESC | FD | FD | FD | CALC |  |
| Book Code / Attribute Category |  | ACTUAL | ACTUAL | ACTUAL |  |  |
| Fiscal Year |  | 2012 | 2012 | 2012 | 2012 |  |
| Period |  | 1 | 1 | 1 | 1 |  |
| Periods Covered |  | PERIODIC | PERIODIC | PERIODIC |  |  |
| Formula |  |  |  |  | $B+C+D$ |  |
| Column Width | 30 | 13 | 13 | 13 | 14 |  |
| Extra Spaces Before Column |  |  |  |  |  |  |
| Format/Currency Override |  |  |  |  |  |  |
| Print Control | WT | WT | WT | WT | WT |  |
| Column Restrictions |  |  |  |  |  |  |
| Reporting Unit |  |  |  |  |  |  |
| Currency Source |  |  |  |  |  |  |
| Currency Filter |  |  |  |  |  |  |
| XBRL Currency |  |  |  |  |  |  |
| XBRL Dimension |  |  |  |  |  |  |
| Dimension Filter |  | +Segment... | +Segment... | +Segment... |  |  |
| Attribute Filter |  |  |  |  |  |  |
| Start Date |  | 1 | 1 | 1 |  |  |
| End Date |  | 3 | 3 | 3 |  |  |
| Justification |  |  |  |  |  |  |

## Management Reporter Acquisition Report



GPAMP
Balance Sheet Acquisition As of Tuesday, January 31, 2012

| TopDrawer | BottomShelf | Consolidation <br> Entries |
| :--- | :--- | :--- |


| Assets |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cash-Checking | \$36,000 | \$40,000 |  | \$76,000 |
| Accounts Receivable | 540,000 | 180,000 |  | 720,000 |
| Inventory | 720,000 | 280,000 |  | 1,000,000 |
| Land | 400,000 | 360,000 | 40,000 | 800,000 |
| Buildings | 840,000 | 440,000 | 60,000 | 1,340,000 |
| Equipment | 320,000 | 100,000 |  | 420,000 |
| Investments | 1,030,000 |  | $(1,030,000)$ |  |
| Goodwill |  |  | 10,000 | 10,000 |
| Total Assets | 3,886,000 | 1,400,000 | $(920,000)$ | 4,366,000 |
| Liabilities and Equity |  |  |  |  |
| Accounts Payable | $(300,000)$ | $(80,000)$ |  | $(380,000)$ |
| Notes Payable | $(1,260,000)$ | $(400,000)$ |  | $(1,660,000)$ |
| Common Stock | $(240,000)$ | $(240,000)$ | 240,000 | $(240,000)$ |
| Additional Paid in Capital - |  |  |  |  |
| Common | (1,306,000) |  |  | $(1,306,000)$ |
| Retained Earnings | $(780,000)$ | $(680,000)$ | 680,000 | $(780,000)$ |
| Total Liabilities / Equity | $(3,886,000)$ | $\overline{(1,400,000)}$ | 920,000 | $(4,366,000)$ |



Transaction Date: 1/31/2012 Reference: BOTXXX1
Source Document: GJ Currency ID: Z-US\$
Audit Trail Code: GLQJE00000007 Orig Journal:
Orig Audit Trail Code: GLQJE00000007



Management Reporter YRXXX1


- This project benefited from class usage at Emporia State University and University of Central Oklahoma.

