

Auditing Y2K Issues

An Honors Thesis (HONRS 499)

By

Brent M. Yagelski

Thesis Advisor  
William T. Wrege

*William T. Wrege*

Ball State University

Muncie, Indiana

May 1999

Graduation: May 8, 1999

Sp. Col.  
THRU  
LD  
2489  
.24  
1999  
.Y34

**Abstract**

When examining the issues involved with auditing Y2K issues, it is important to understand the unique relationship between auditing and the Y2K problem. First, it is important to achieve a basic understanding of the year 2000 problem. This includes knowing the facts on monetary values affected, systems which are vulnerable, and why the problem exists. Next, it is important to understand the possibilities that the Y2K problem can have on business. Once the major consequences are understood, the major role of the auditor can finally be examined. The auditor has select responsibilities to uphold regarding material misstatement and going concern issues. These issues exist in every auditing engagement but must be applied appropriately when Y2K issues are present. In addition, Y2K issues require select disclosures that act as risk management measures for the company and the auditor. Due to the tremendous risks involved with the Y2K problem, it is important to know other useful risk management techniques. Once these objectives have been fulfilled, an examination of the unique relationship between auditing and the Y2K problem will be complete.

<b>Introduction.....</b>	<b>1</b>
<b>Defining the problem.....</b>	<b>1</b>
<b>Y2K in numbers.....</b>	<b>2</b>
<b>With simple foresight, could this problem have been prevented?.....</b>	<b>3</b>
<b>What does this mean to business.....</b>	<b>4</b>
<b>The role of the auditor.....</b>	<b>6</b>
<b>Risks introduced by Y2K.....</b>	<b>6</b>
<b>Communication considerations for risk management.....</b>	<b>8</b>
<b>The auditors role – material misstatement.....</b>	<b>10</b>
<b>The auditors role – going concern.....</b>	<b>11</b>
<b>Disclosure considerations.....</b>	<b>14</b>
<b>Accounting firms formulate their plan of action.....</b>	<b>16</b>
<b>Proactive steps.....</b>	<b>17</b>
<b>The audit does not guarantee compliance.....</b>	<b>20</b>
<b>Conclusion.....</b>	<b>20</b>
<b>Works sited.....</b>	<b>21</b>
<b>Appendix</b>	
<b>AICPA’s Management Assessment Form.....</b>	<b>A-1</b>

## **Introduction**

During the summer of 1998, the world finally became aware of what some have known for years. Society finally learned about the Year 2000 problem. News broke May of 1998 and everyone became worried about a millenium disaster due to a computer system breakdown. However, many computer specialists had diagnosed the problem much earlier. In fact, books on the subject can be found from years as early as 1996. The knowledge was late breaking news. The potential problems related to the Year 2000 bug are tremendous. Luckily, computer specialists caught it early and have been working on the problem since. People should not feel secure yet. The problem is very complex and has many repercussions. There is still a potential for disaster. The problem will affect many people in all occupations. This problem is global. In the years surrounding New Year's Eve of 1999, one particular industry will have a critical and unique role. This industry is auditing. This paper will attempt to clarify the Year 2000 problem and investigate the role of auditors.

## **Defining the problem**

The problem is relatively simple. When computers were first developed, programmers and designers decided to use dates in six digits as opposed to eight digits. This is expressed as: MM/DD/YY (12/31/99) as opposed to MM/DD/YYYY (12/31/1999). This format is a common practice worldwide. It carried over in the computer industry because of that reason. Technicians saw the ability to save space in a computer's memory. Memory was extremely expensive in the early years of computers. By using less memory to store virtually the same data, computers and software were

more affordable to businesses and individuals. This practice was intended to help facilitate the computer boom into our society (Murray).

However, by using six digit formats for dates, many computer systems will fail to correctly calculate the current date. This miscalculation will cause the corruption of time sensitive data. Two dates are used to calculate time sensitive data. One of the dates used is the current date. However, computers will incorrectly read January 1, 2000 and all subsequent dates. When the final seconds of 1999 tick away, computers will read only two digits for the years. These will be 99 and 00 respectively. They may interpret the date as the year 1900 because the computer does not have a century for the calculation (the 19 and 20 respectively). Thus, when calculating the number of years left on a fifteen-year mortgage financed in 1990, it will be calculated as follows:

<b>Current Year</b>	<b>Year Financed</b>	<b>Years Mortgaged</b>
1900	1990	-90
But should be:		
2000	1990	10

Once the year is "flipped", the data will be incorrectly recalculated by the computer and stored in memory. Having incorrect data causes many problems, which will be covered later in the paper (Murray).

### **Y2K in numbers**

The expected numbers to combat the year 2000 issue are enormous. It is estimated that the problem covers 700 billion lines of computer code and 50 billion

microchips. Worldwide remediation efforts could reach in excess of \$600 billion. Legal expenses could exceed \$1 trillion (C-Span).

On a more domestic level, the government is expected to spend \$3.8 billion. Commercial banks are predicting \$9.3 billion in expenses. These figures show the enormous expense of fighting this problem (Zarowin).

**With simple foresight, could this problem have been prevented?**

One might wonder why such intelligent individuals did not forecast the problem when first designing computers and programs. There is a very simple answer. These computer pioneers never envisioned their creations being used through the year 2000. Technology has always advanced quickly. Many of these machines were constructed around 1980. They did not expect the machines or programs to be utilized twenty years later. Some of the original systems are still being used today (with updates or modifications). Businesses have adopted the practice of simply updating ancient systems as opposed to replacing them. Old and new programs and systems have been integrated to form the current computer system of many major companies. Systems have just recently been created that are Y2K compliant. Y2K compliant is simply a term to express if a system or program will correctly function at 12:00:01 A.M. on January 1, 2000. By correctly functioning, a system must continue to correctly recalculate time sensitive data. Experts provide certification of compliance, which is evidenced by official documentation. This endorsement is not a 100% guarantee, simply a statement that the system has been examined and an attempt at correction has been made. Since new

systems and programs have only recently been created as Y2K compliant, there are an insurmountable number of systems that will need to be serviced (Murray).

### **What does this mean to business?**

First, one must recognize the Y2K problem as a business problem, not a technological problem. The problem is stemming from a malfunction of our technology, but the tremendous repercussions will be felt throughout the world's business sector. All areas of business need to be aware and well informed of this situation. It is crucial to business survival to start the millennium. Alan Greenspan recently was quoted that the Y2K problem carries "inevitable difficulties." The problem is so complex that no one is excluded. In addition, there are no guarantees that any single entity will not be affected (C-Span).

Some experts believe the problem could possibly start a global recession. American experts predict the economy to dramatically decrease throughout 1999. This would foreshadow a possible recession continuing well into the new year. This would stem from the enormous panic of stock market investors and consumers. If people begin pulling their money out of the stock market in the end of 1999, the market will crash. The Federal Reserve is expected to lower interest rates in 1999 to combat this situation. However, this is a very complex situation that cannot be dealt with by simply changing interest rates. The situation involves people's fears and emotions. The uncertainty of the new millennium is daunting. People will feed upon one another's panic. The entire situation could snowball (C-Span).

Despite the dismal predictions for 1999 and 2000, 2001 is predicted as a bull market. Investors will finally sort through all of their Y2K problems and the economy should rebuild itself (C-Span).

In addition to generic economic considerations, the Y2K problem challenges the survival of many businesses. However, this problem is much more complex than people think. Many people foresee Y2K problems as power failures, data contamination, or system lock-up. This is only the beginning of the problem. Major problems stem from these. If the power is out, an entity cannot perform business functions. If the data is contaminated, reports and payments may be made incorrectly. If systems lock-up, just in time inventory systems will not order the items necessary for production. Basically, business will not be able to proceed as usual. If one business is not functioning, there is often a chain of many of businesses experiencing difficulties due to its malfunctions. This creates yet another snowballing effect. This could produce many entities that are not performing business functions at full (or any) capacity. Thus, they are not making a profit or creating value for the investor (C-Span).

Auditors can aid this situation. Through accounting and auditing procedures, entities can minimize risk and evaluate exposure to the Y2K problem. Investors will also benefit. They will gain access to information pertinent to the Y2K problem of a particular entity (of which they may hold stock or wish to do so) and any entity associated with the current or prospective investment (C-Span).

### **The role of the auditor**

The auditor has a unique role due to the Y2K problem. Many individuals are confused about the duties of the auditor. Recently, the AICPA produced a report that clarifies the role of the auditor in Y2K situations.

First and foremost, the auditor is responsible to plan and perform an audit. The audit is used to produce reasonable assurance that the financial statements are free from material misstatement, which can be caused by error or fraud. In addition, the auditor has the responsibility to evaluate the company's ability to continue for a reasonable amount of time. This concept is termed "Going Concern." (AICPA).

### **Risks introduced by Y2K**

Due to the lack of clarity of the auditor's role with the Y2K problem, many individuals are expecting massive numbers of lawsuits to begin the millennium. These individuals will be seeking compensation for losses resulting from the millennium change. In fact, several lawsuits have already been filed. Most lawsuits will come with the turn of the millennium. This is when most systems will experience system failures, whether major or minor.

Auditors may be sued because they failed to detect the material misstatements created by the Y2K problem. Auditors are not the only individuals at risk. Manufacturers of computer hardware and software that prove unable to handle the millennium may be named. Shareholders may seek compensation from individual managers due to losses in the stock market.

Currently, legal precedents are minimal. Law is often determined by courtroom interpretations. Individuals must wait until the courts begin to sift through the legal issues behind the Y2K problem (McKell).

There are several different risks associated with auditing and the Y2K problem. Such risks can be divided into four areas. These are as follows: financial statement errors, going concern problems, inadequate disclosure or misleading disclosure, and failure to properly manage client expectations.

Financial statement errors include inaccurate data concerning the entity's long term assets, inventory amounts, or depreciation. These could have material effects upon the financial statements, creating a risk for the auditors.

Going concern problems are explored in greater detail later in this paper. One example is a company depending on a few customers. If these customers are not Y2K compliant, they may not be able to meet the entity's needs for an unanticipated amount of time. These needs could include raw materials, supplies, etc. This would result in a disruption of normal business. Such an event would have detrimental effects upon a large portion of the entity's sales.

Inadequate or misleading disclosure is the third area of risk. This risk involves the financial statements not fully disclosing issues regarding the Y2K problem. This type of risk will also be explored later in this paper.

Finally, the auditor must deal with customer expectations. The entity may assume that the audit will cover all Y2K issues. However, audits are not intended to produce an opinion on an entity's Y2K compliance or noncompliance.

## **Communication considerations for risk management**

All auditing situations require frequent, high-quality communication between the auditor and the client. The Y2K problem does not differ from any other situation in this regard. This communication is crucial to a successful audit engagement.

This communication should consist of several documents. All of these documents will also act as risk management tools for the auditor. First, the auditor will issue an engagement letter. This is the formal acceptance of an attestation engagement. In addition, a letter concerning Y2K issues should be provided for the client. Finally, any newsletters, brochures, bulletins, and articles should be forwarded to the client. This simply keeps the client informed on the Y2K problem (Holl 38).

The CPA firm should keep accurate records concerning correspondence with the client. This information should include the form of communication, date, and copies of correspondence or detail of discussion. This will help prove communication should the need arise in the future (Holl 38).

Next, the CPA firm should make an assessment of management's current Y2K position regarding a compliance plan. First, the auditors should administer a Y2K assessment form. A sample form published by the AICPA is provided in the appendix (A-1). It is an example of a possible assessment form that could be used during an auditing engagement. As indicated by the length of the form, the complete scope of the assessment is beyond the length of this paper. The major points of interest include: existence of a year 2000 compliance project, planning and management of this project, how far along is this project (planning, conversion, assessment, or implementation),

estimated cost of compliance, vendors working on the project for the client, external parties (customers, suppliers, banks, etc.). This information is important to know because it puts the client's situation in perspective. Chrysler is an excellent example. Chrysler has performed extensive research into its own Y2K issues. Since they have worked so hard already, performing an audit is much less risky (to the auditor) since a conversion team has been assembled and is working on the project. However, if Chrysler had taken few or no steps, the auditor would know to allocate a larger amount of time to this audit due to the inherent risk. In fact, the auditors may wish to drop the engagement altogether because it is too risky (C-Span).

In addition to the assessment, the auditor should also obtain a management representation letter. This letter is used regularly in all audits. This situation makes the letter even more important due to the potentially high risks associated with the Y2K problem (Holl 38).

The CPA firm also has the responsibility to consider the impact of the client's compliance plan on the services the CPA firm is providing. This requires the auditors to understand the inner-workings of the business. In the Chrysler example, the auditors must recognize the potential lawsuits. These include automobiles not functioning and loss of production (Holl 38).

A carefully prepared audit program is also essential. The steps performed to evaluate Y2K considerations should be duly noted in all cases. Specific procedures can help minimize risk for the auditors (Holl 39).

From the planning phase to the disclosure and reporting phase, the lines of communication must be kept open. Other forms may be used in addition to the ones

listed in this paper. Audits often require numerous conversations with management or other individuals. However, written material is the best proof of communication and understanding (Holl 39).

During the disclosure and reporting phase, the auditors will provide management with their assessment. This is performed through a management letter and a presentation to any of the following: audit committee, board of directors, or management. This communication should attempt to eliminate any remaining expectation gaps concerning Y2K that may still exist. Auditors should state what they found and what should be done (Holl 39).

#### **The auditors role - material misstatement**

The auditor's opinion according to the material misstatement of financial records has little involvement with the Y2K problem. Only if the Y2K problem has inhibited the company's ability to produce financial statements according to Generally Accepted Accounting Principles will the problem need to be addressed in this section.

As far as planning considerations, the auditor may need to consider the possibility of processing errors (due to the Y2K problem) creating material misstatements in the financial records. After consideration and inspection, the auditor may need to alter the assessed level's of control risk, testing of internal control, and substantive procedures performed in the audit. The extent of the auditor's consideration to the Y2K problem will depend on his or her professional opinion.

If the auditor becomes aware that the computer system is currently processing data, but will not several years down the road due to the Y2K problem, it is not a

reportable condition. The condition is only reportable if it affects the entity's current ability to produce financial statements. However, if the year is 1999 and the condition affects the entity's ability for 2000, it is a reportable condition. Even if a situation is not a reportable condition, the auditor may wish to communicate the problem with management. Such information is of obvious benefit to the entity's management (AICPA).

### **The auditor's role - going concern**

The major concern for auditors is the concept "Going Concern." This is also the most complicated aspect dealing with the Y2K problem. Section 341, The Auditor's consideration of an Entity's Ability to Continue as a Going Concern, paragraph .02 states-

The auditor has a responsibility to evaluate whether there is substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time, not to exceed one year beyond the date of the financial statements being audited (hereinafter referred to as a reasonable period of time).

In making the evaluation, section 341.03a states-

The auditor considers whether the results of his procedures performed in planning, gathering evidential matter relative to the various audit

objectives, and completing the audit identify conditions and events that, when considered in the aggregate, indicate there could be substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time.

The Year 2000 Issue can cause conditions and events as expressed in the auditing standards presented above. The categories are as follows:

- Noncompliant computerized systems
- Actions of others affecting the entity
- Related costs

Noncompliant computerized systems pose obvious threats. If an entity's computer system is not Y2K compliant, it will shut down. If this system happens to run the manufacturing equipment of a business, the entity will be unable to produce inventory. Without production, the business will lose revenue. Such a condition is not positive for the entity. However, the threat is not limited to the entity's own computer. Entities often depend on other computer systems, such as the system of a service provider or another entity that allows electronic interaction. If these other systems fail, they may adversely affect the position of the entity being audited.

The actions taken by others will also affect the entity. This concept is commonly referred to as third parties. With all of the chaos surrounding the year 2000 issue, many businesses and individuals are expected to make dramatic decisions that may adversely affect the entity being audited. Such a condition could be performed by a customer not wanting to do business with the entity

any more, a vendor not being able to supply our manufacturing needs, lenders requiring advanced repayment of debt, etc. Such actions may be taken because of the year nearing 2000. People are paranoid and are worried about the economy and the future of their businesses. One example would be that the entity's insurance agency will not renew insurance coverage because the entity cannot prove Y2K compliance. The insurance is required due to a loan agreement. Upon violation of the agreement, the lender proceeds to reacquire the entire debt from the entity. Losing this loan would certainly affect the entity.

Costs that are related to achieving Y2K compliance could become excessive. The monetary strains may impair the entity's ability to repay loans or finance expansion of the entity. The entity's financial position is certainly in jeopardy.

It is the responsibility of the auditor to identify conditions and events that are discovered while performing procedures necessary to accomplish audit objectives. If a condition or event is found, the auditor must explore them in order to assess their relativity. Mission-critical system failure on January 1, 2000 is only significant to going concern issues if the event will happen one year or more after the financial statements being audited.

If the auditor has "substantial doubt" concerning an entity's ability to continue as a going concern, the auditor is required to use professional judgement. It is necessary for the auditor to evaluate management's plans for dealing with a mission-critical system failure. The auditor may also need to enlist the help of a specialist in order to gain expertise on the matter. Upon completion of the

to communicate with distant customers via normal means (teleconferencing), and complicate daily business functions.

- The CPA may want to be involved in decision-making efforts involving procedures and equipment necessary to combat the problem.

Individual entities will probably only see their own year 2000 problems in assessment and correction activities. However, the auditors will probably deal with numerous situations. These experiences should be used to aid the client in dealing with its own issues.

- An initial scope/impact assessment will give the CPA a starting point for the audit.

This gives the auditor a chance to evaluate the entity from the outside before beginning the important processes of the audit. Such an action can give the auditor a unique perspective.

- Financial resources (budgets) may need to be inspected to ensure adequate funding to fix Y2K problems.

Once again, the auditor's experience may be helpful to the client. Auditors may know how much other clients have spent on similar procedures and hardware (if needed). This function may ensure adequate funding to avoid future resource shortages. Such shortages would be a significant problem for a business. It could possibly stop the process of becoming Y2K compliant.

- Assessing the software-related procedures and standards are another must.

commitment, event or uncertainty on the assumption that it will come to fruition. Disclosure is then required unless management determines that a material effect on the company's financial condition or results of operations is not reasonably likely to occur."

#### AICPA Report

Disclosures are important in auditing entities with Y2K issues. The first decision is whether the entity needs to communicate any information regarding Y2K issues. The test listed on the previous page would require disclosure if: its assessment of its Y2K issues is not complete or if management determines that the results of its Year 2000 issues would materially affect the entity, operations, or financial condition with or without any efforts to remedy such problems. This is very important for auditors. A company may have a very extensive Y2K compliance plan in place or finished. However, if the company foresees any material problems resulting from Y2K issues, they must be disclosed. Most companies are believed to meet at least one of the two tests, thus requiring Y2K disclosure.

The SEC requires disclosures of Y2K issues. Of 740 investment companies, the SEC reports that 81% have made Y2K disclosures. However, they found that many businesses were providing generic statements expressing the absence of a guarantee regarding such issues. The SEC was looking for more in-depth information to be divulged through disclosures.

The SEC now offers guidance concerning disclosure content. When a company is disclosing Y2K issues, several items are very important. These items

are: the entity's state of readiness, the costs to address the company's Year 2000 issues, the risks of the company's Year 2000 issues, and the company's contingency plans. These disclosures should be extensive to totally inform the reader of all issues involved with the event or matter. Since Y2K is a very technical problem, the language used should be edited for the audience.

In October of 1998, President Clinton signed the Year 2000 Information and Readiness Disclosure Act. This Act intends to encourage entities to disclose Y2K information. The Act encourages businesses to compare notes about Y2K products and practices. In exchange, the Act offers limited liability protection and limited exemption from anti-trust laws. If a business is making good-faith Y2K statements, the law will also offer protection from consumer suits.

Obviously, disclosures can be very valuable to both the entity and investors. Auditors should take this into consideration during the audit. The benefits could be invaluable.

### **Accounting firms formulate their plan of action**

With the roles and responsibilities concerning Y2K issues clarified, it is important to understand processes for investigation and discovery of such problems. Accounting firms know the significance of the Y2K problem. They have devoted specific areas of their web sites to the topic. The best public accounting firms have strategies formulated and in place. For example, Arthur Andersen has developed their *Seven Critical Success Factors for Year 2000 Planning*:

1. Top management must recognize Year 2000 as a critical issue, rally the organization's aid, be highly visible in communicating the scope of the issue, and keep closely informed on progress.
2. Top management must commit the necessary resources.
3. A special project manager and team must prepare a detailed management plan and ensure the organization has the people and skills in place to implement it.
4. An inventory must be completed of computer systems and computer-controlled devices that potentially could be affected.
5. A realistic assessment must measure potential exposure in case all systems are not ready for Y2K including current contracts, regulatory issues, directors' and officers' liability and potential litigation. Vendor and customer systems also must be assessed.
6. No system or software should be assumed to be Year 2000 compliant, including those recently furnished or installed by the most reputable of firms.
7. A contingency plan must be in place.

### **Proactive Steps**

- It is important to involve all processes when combating the problem. This includes operations, technology, financial, etc.

Auditors must not fail to recognize the importance of each process of an entity. Each process provides new situations and different risks of exposure to Y2K problems. If operations such as manufacturing cannot continue due to year 2000 issues, the company will be unable to produce inventory. Thus, they will be unable to incur sales over their current inventory. If the technology fails due to year 2000 issues, entities may be unable

procedures, if the auditor still believes that a “substantial doubt” exists, the auditor must reflect this in the opinion.

For Chrysler, this is a major issue. Through recent research performed during their Y2K evaluations, a small palm-sized part was analyzed. Despite its minute size, the part was comprised of pieces supplied by thirty-five different vendors. In addition, it was recently revealed that Chrysler is dependent upon 972 direct suppliers. Taking a conservative estimate, one may formulate that 1% of the vendors will experience Y2K failures. This would be nine vendors. These could be vendors that cannot be replaced by others. Thus, Chrysler’s normal operations may be disrupted. Even more, their operations could be halted. The consequences could affect the future capabilities of the company (C-Span).

### **Disclosure considerations**

Material items of information are required to be communicated through disclosures. Disclosures are intended to allow outside parties to look at the company through the eyes of management. In a 1989 interpretive release, the AICPA offered guidance to determine if information should be disclosed. This is possible by two-step test:

- "1. Is the known trend, demand, commitment, event or uncertainty likely to come to fruition? If management determines that it is not reasonably likely to occur, no disclosure is required.
2. If management cannot make that determination, it must evaluate objectively the consequences of the known trend, demand,

Internal control is always of extreme importance to the auditor. By reviewing the internal controls for software updates, the auditor may be better informed as to the entity's Y2K risk. More information and knowledge is of great benefit to the auditor.

- Testing the system is another must.

Tests can be run to provide reasonable assurance as to the results of Y2K corrections. Testing is intended to provide "reasonable assurance" to the auditor. It gives the auditor piece of mind as to whether or not the system is correctly functioning.

- Ensure all allocated resources for Y2K are being spent on appropriate items.

Items expensed under Y2K remediation efforts need to be properly allocated and spent. This ensures that the amount is not materially misstated in the financial statements.

- The CPA may want to suggest business interruption insurance in case of a mission-critical system failure.

Regular insurance does not cover the year 2000 issue. It may be necessary for the entity to purchase insurance that will provide coverage in this situation. The benefits may help the entity to survive (McKell). Since the Y2K problem can not be 100% solved, such solutions are necessary. Proactive solutions are intended to minimize the risk to firms.

### **The audit does not guarantee compliance**

Popular opinion would have it that the audit would guarantee Y2K compliance. According to a report produced by the SEC in 1997, this is not possible. The report states that the problem is too complex. Successful tactics used against the Y2K problem will simply minimize the significance of any technical failures. The failures that do occur will be expected to be easily and readily corrected due to the management's plan of action, which should be established well in advance (1997 SEC Report).

### **Conclusion**

Due to extensive research, the Y2K problem is becoming much more manageable. However, the business risk remains. Auditors will use some of the techniques and strategies described in this paper, as well as other literature and strategies, to handle Y2K audits accordingly. Several items of importance include the following: *Report to the Congress on the Readiness of the United States Securities Industry and Public Companies to Meet the Information Processing Challenges of the Year 2000 Issue*, *The Year 2000 Computer Crisis* by Jerome T. and Marilyn J. Murrery, 1998's Year 2000 Information and Readiness Disclosure Act, and information posted on the AICPA website (<http://www.aicpa.org>). These sources offer excellent guidance for auditors working with Y2K issues. The area is risky and unclear, but risk management techniques and general knowledge of both auditing and the Y2K problem make Y2K audits a worthwhile business opportunity.

## Works Cited

AICPA Page. 22 February, 1999

<<http://aicpa.org/members/y2000/intro.htm>>

Arthur Andersen Page. 13 January, 1999

<<http://arthurandersen.com>>

C-Span Video "Y2K and it's Affect on American Business (August 18, 1998)"

April 26, 1999 <<http://www.cspan.com>>

Holl, Suzanne M. "Assessing Your Y2K Risk." *The CPA Journal*. November 1998; 35-39.8

Lefkon, Dick. *Year 2000: Best Practices for Y2K Millennium Computing*. Upper Saddle River, NJ: Prentice Hall, 1998.

McKell, Lynn J. and Marshall Romney. "Risks and Liabilities: How CPAs can Protect Themselves." *Journal of Accountancy*. December 1997; 43-44.

Murray, Jerome T. and Marilyn J. Murray. *The Year 2000 Computing Crisis*. New York: McGraw-Hill, 1996.

*Report to the Congress on the Readiness of the United States Securities Industry and Public Companies to Meet the Information Processing Challenges of the Year 2000 Issue*. SEC: 1997.

Vallabhaneni, S. Rao. *Auditing the Maintenance of Software*. Englewood Cliffs, NJ: Prentice Hall, 1987.

Yu, Rosemarie. "Coming Clean on Y2K." *Business 2.0*. January 1999; 33.

Zarowin, Stanley. "The Millenium Muddle." *Journal of Accountancy*. December 1997; 33-35.

**AICPA Client Assessment Form**

To provide client service and to assist in client communications, auditors may wish to be aware of the steps their clients are taking to address the Year 2000 Issue. The following illustrative questions may help auditors obtain an understanding of their client's year 2000 compliance efforts and, at the same time, increase client awareness of the importance of the Year 2000 Issue. The list of questions is not meant to be comprehensive.

These questions ordinarily would be addressed to the person or persons responsible for the year 2000 compliance project within a client's organization, but also may be useful in addressing the Issue with senior-level management.

Does the company have a year 2000 compliance project?

Yes

No

If yes, please provide the following information about the project:

Project Planning and Program Management

Project Start Date \_\_\_\_\_

Where is the entity in the process?

Planning Phase

Conversion Phase

Assessment Phase

Implementation

Does the project address domestic and global compliance?

Yes

No

Does the project address potential information technology (IT) exposure?

Yes

No

Does the project address non-IT exposure (i.e., card key systems, elevators, etc.)

Yes

No

Is the project on schedule?

Yes

No

If no, explain the complications:

\_\_\_\_\_

Does the project have executive sponsorship?

Yes

No

Indicate level: President CFO CIO Controller

Does year 2000 awareness exist throughout the organization (e.g., the IT department, user community, building services)?

Yes  
No

Is the year 2000 budget separate from the information systems (IS) budget?

Yes  
No

Is the year 2000 budget included within the IS budget?

Yes  
No

If included in the IS budget, does a process exist or will one be established to rank year 2000 work according to priority within the context of the total budget?

Yes  
No

What is the estimated cost of compliance? \_\_\_\_\_

What is the anticipated project completion date? \_\_\_\_\_

Do you have a detailed project plan?

Yes  
No

Has a task force or group been created to address the issue?

Yes  
No

Is the task force considering enterprise-level issues as well as the impact on computer systems?

Yes  
No

How many people are included on the task force? \_\_\_\_\_

Does the task force include both internal and external resources?

Yes  
No

Have accountabilities been clearly delineated between external and internal resources?

Yes  
No

Are procedures in place to deal with "offshore" resources?

Yes

No

Have contingency plans been established to mitigate the risks associated with the project not being completed on time?

Yes

No

If yes, please describe:

\_\_\_\_\_

Have a program management office and project plan been created?

Yes

No

Have the right resources and skill sets been identified and assigned?

Yes

No

Have critical milestones been established to indicate that current initiatives are on target?

Yes

No

Approach

Has an application inventory been created?

Yes

No

Have tools been used to determine which code has been executed in the last year?

Yes

No

Has business risk for inventoried systems been defined?

Yes

No

Has a business risk rating been assigned to various suites of applications?

Yes

No

Have global implications been taken into account?

Yes

No

What is the compliance approach being taken by the client as to their computer systems?

Replace many of the systems

Depends on the system

Modify them to be year 2000 compliant

Undecided at this point

How is the problem being dealt with?

Are year fields in data files being expanded?  
Is program code being modified to deal with the problem?

Has the client evaluated the need to convert historical data?

Yes  
No

Does the client have any year 2000 assessment and conversion tools?

Yes  
No

If so, please list:

TOOL	PRIMARY FUNCTION
------	------------------

Testing Procedures

Are there documented enterprise-wide standards for testing?

Yes  
No

What percentage of applications are under standards? \_\_\_\_\_

Do the users currently participate in test data preparation and execution?

Yes  
No

Are the users aware they will be involved in test preparation and execution for the year 2000?

Yes  
No

Are users aware they will be performing year 2000 testing along with their usual tasks?

Yes  
No

Application Status

Indicate how many applications are at each stage of the year 2000 compliance process.

Compliant: \_\_\_\_\_  
In-process: \_\_\_\_\_

Planned: \_\_\_\_\_  
No plans: \_\_\_\_\_  
Do not need to be compliant: \_\_\_\_\_  
Other: \_\_\_\_\_

Is there sufficient hardware available for the year 2000 project, especially for the testing?

Yes  
No

Is another contingency being considered?

Yes  
No

Have negotiations begun?

Yes  
No

#### External Vendors and Agents

Are you working with any of the vendors listed below on year 2000 issues? Include any other types of vendors working on year 2000 issues for your organization.

Hardware vendors  
Operational suppliers  
Application software vendors  
System software vendors  
Other vendors/financial services firms

Identify any of the external parties listed below with whom you are working on the Year 2000 Issue. Include any other types of external parties as well.

Customers  
Counterparties  
Banks and other financial institutions  
Government and regulatory agencies  
Electronic data interchange (EDI)  
Other agents and clearing and executing facilities