

Year 2000
VBA's Plan for Compliance

1. Overview

This plan outlines the direction, strategy, and milestones VBA will pursue to ensure that all ADP applications, operating systems, third party products, hardware, utilities, etc., are year 2000 compliant. The payment of benefits to veterans and their beneficiaries must not be interrupted or compromised in any manner.

2. Scope

This effort includes all ADP applications, operating system software, hardware platforms, compilers, firmware, third party products, and communications that support VBA operations to ensure they are year 2000 compliant and that leap year calculations are correct (the year 2000 is a leap year). This includes applications and products residing on the Honeywell and IBM mainframes, Wang, personal computer and LAN environment (Stage I and Stage II). It also includes items such as hand-held scanners and like devices.

3. Project Organization

a. The Year 2000 Project Charter defines the project management organization. The VBA CIO has overall responsibility for ensuring year 2000 compliance. Sally Wallace, 20S34, is the Year 2000 Project Manager and is responsible for execution of this plan. A contractor-led Project Oversight Team, with representatives from VBA and the Office of Management, provides Oversight support.

b. The year 2000 effort will be centrally coordinated by the Year 2000 Project Office with tasks broken into manageable sub projects for execution by project teams at VACO, Hines, Philadelphia and Austin.

4. Project History

a. Long before the year 2000 problem received the publicity that it has today, VBA computer specialists have realized that there was a unique problem associated with the change of century indicator. In the 1982 time frame, programmers at the Hines System Development Team (SDT) recognized that a person born in 1982 would turn 18 in the year 2000. Eighteen is a key age for determining ending dependency, and thus changes were made within VBA's systems. Additional changes were made in the late 1980's to accommodate a ten-year delimiting date for educational benefits. In the 1992 time frame, programmers supporting the Centralized Accounts Receivable System (CARS) system began a project plan to do an assessment of their system. At the Philadelphia SDT, programmers supporting Insurance have been working problems since the early 1980's, when commuted value first began being paid in the year 2000.

b. Aware of the year 2000 problem, VBA completed an initial analysis in 1991 of existing application systems to determine the extent of the problem. We learned that most benefit applications would require substantial modifications to handle the century change. At that time, it was felt that the redesign of the payment system would be completed, eliminating many of the problems. No further action was taken at that time in the areas slated for redesign.

c. In 1993, a project plan for fixing the CARS system was prepared and Austin SDT analysts, working with the Debt Management Center, began making CARS year 2000 compliant.

d. In 1995, a reassessment of the Insurance application for year 2000 compliancy was done. down to the subsystem level.

e. In late 1995, the initial analysis of 1991 was revalidated and the cost to make all VBA applications year 2000 compliant was calculated. This cost was estimated at over \$27 million.

f. In April 1996, VBA determined that a dedicated project team was needed to manage the year 2000 effort. A project manager was appointed, a team was chartered, and the first draft of this plan was prepared. In addition, plans were developed for Insurance, and the Contingency plan for the Compensation, Pension and Education systems.

g. In the March-April 1997 timeframe, discussions between the VBA and the Department resulted in some new strategies for VBA. Specifically, in many cases application redesign (ie VETSNET) is not considered part of the VBA Year 2000 strategy. Primary emphasis is on fixing the legacy applications in their current state. The former "Contingency plan" has become the plan. Finally, a Year 2000 Project Oversight Team is being formed to advise the CIO and the Year 2000 Project Management Office and to keep the effort on track.

5. Strategy

a. The primary strategy for VBA is to make applications compliant in their current environment. The Compensation, Pension and Education and Vocational rehabilitation systems are being made compliant on their Honeywell platforms. Insurance is being made compliant on the IBM platform.

b. VBA is using application redesign in a few instances to solve the year 2000 problem. Chapter 1606 and the Wang Migration efforts are examples of applications that are being redesigned to operate in the new environment and being made compliant at the same time.

✓ c. Applications have been prioritized as Level I (mission critical), Level II (administrative), and Level III (to be retired). All Level I applications must be made compliant, and have a fix date scheduled.

d. To satisfy oversight concerns, in July 1996 VBA prepared a contingency plan for the Compensation, Pension and Education systems to ensure their continued operation past the year 2000, in the event on-going redesign projects are unsuccessful in meeting their functional goals or delivery dates. As mentioned above, this contingency plan has become the plan. The original contingency plan exists as a separate document. (See Section 8, Related VBA Year 2000 Documents).

e. The Department's goal having all operating systems, applications and third party products, etc. compliant by 1 December 1998. This will allow one year for operations and to monitor the applications' execution. This also allows for testing for year-end processing in December 1998.

f. VBA is aware that year 2000 problems can appear well before January 1, 2000. We have determined "fail dates" to insure we know when an application could fail. Our Insurance application, and our Education systems have early "fail dates".

g. VBA will treat the year 2000 problem as a "virus" problem. A virus may not make itself apparent and cause problems. Once a virus appears, the entire processing environment must be cleaned. Year 2000 compliancy needs to be treated in the same manner. Non-compliant data must not be allowed to affect compliant data.

h. Maximum use will be made of contractor support.

i. VBA's strategy is to put heavy emphasis on the extraordinary project management/coordination efforts involved with this project. We realize that making operating systems, applications, third party products, etc. year 2000 compliant is not a technical challenge, but a project management one.

j. VBA will limit unnecessary studies of the year 2000 problem; rather, the focus is on fixing the problem.

k. VBA has initiated "vendor" management. Contract language is included in every Statement of Work (SOW), procurement request, or contract vehicle to insure every future ADP procurement or service is year 2000 compliant. These efforts are nearing completion.

l. Due to VBA's reliance on third party products (COTS), and the predictions from industry that many vendors will go out of business rather than make their products compliant, special attention will be focused on this problem.

m. VBA will maintain a close liaison with the overall VA point of contact for year 2000 within VA IRM. This office provides VA's representative to the Year 2000 Interagency Committee. We will share best practices with other agencies and other parts of VA. We will obtain and share resources available from the Internet. We have our own Web site as a part of VBA's Internal Intranet that we will keep current for VBA personnel to obtain information on our year 2000 activities. This site can be accessed at 152.125.94.12/projects/y2k/.

6. **Approach.** Detailed project milestones are in the current version of the Microsoft Project plan. A project plan exists for VACO, Austin, Hines, and Philadelphia activities.

a. VBA has completed and reviewed a comprehensive application inventory, by hardware platform. This inventory includes the hardware platform, the application name, whether or not it is compliant, the number of modules and lines of code, the programming language, the "fail date", the planned and actual fix dates, and a point of contact. This inventory will be continually updated throughout the life of this project.

b. VBA has compiled a comprehensive third party product inventory, by hardware platform. This inventory includes information for all of the operating systems, communications, compilers, utilities and third party products that reside on that platform. Data elements for this inventory include the vendor and product name, whether or not it is compliant, the "fail date", what the fix/solution is, the planned and actual fix dates, and a point of contact. This inventory will also be continually updated throughout the life of this project.

c. With the information obtained in steps a and b, we can determine, by applicable platform component, how long it would take and how much it will cost to make each platform year 2000 compliant.

d. We will test for compliancy. Compliancy standards have been developed that applications must meet before the application will be certified as compliant. We will establish a process to ensure a thorough review is made and platform components are certified compliant if they are. We are using GSA's contract language for compliancy to require this from vendor products and services.

e. VBA is developing and maintaining a list of system interfaces, i.e., data exchanges received from or sent to other agencies. We will examine these for year 2000 compliancy. To the maximum extent possible, VBA desires not to make significant modifications to systems that will eventually be redesigned. We will emphasize the use of workarounds where practical.

f. VBA will examine archived data for year 2000 compliancy. If changes are made in the application that created the data, the archived data may have to be changed.

g. VBA will continually monitor project progress for making individual application systems compliant. Each system/application/etc. will have a plan for a fix, and these plans will be tracked until completion.

h. Third party application packages will be examined for year 2000 compliancy. For products VBA has procured that did not require year 2000 compliancy, we are sending letters to the vendors asking whether or not the product is compliant, and, if it is not, what their plans are for making it compliant. If the vendor indicates there is a compliancy problem, we will perform a risk assessment on this product to determine whether this product has a high probability of being fixed, and the probability of the vendor being in business to make the fix.

i. VBA is a diverse organization with different applications, programming languages, skill sets and expertise at various sites. VBA will evaluate the best options for each application for making them compliant. These options include:

(1) Procure software packages to flag problem code. VBA procured Microfocus' Resolve and the Hines SDT has been using it to analyze code. VBA will likely investigate products that would "age" applications for testing purposes. This would allow VBA to make fixes to applications, then "age" the application and the data files past the year 2000 to test for compliancy.

(2) Contract out for vendor support to make program changes.

(3) Make changes with in-house programming resources.

j. In certain situations, we will conduct pilot tests on small applications to ensure that the best options and methodologies are chosen, and that experience can be gained. The changes being made to the REPS system have been identified as a pilot for the CP&E systems. Pilots will also allow us to obtain metrics for cost and length of time, and to develop procedures for converting subsequent applications. After the results of a successful pilot, we can adjust our schedules as needed based upon the pilot results.

k. We will prioritize applications for fixes to become year 2000 compliant. Payment systems have priority. Within the payment systems, on-line, special pay, end of day processing, RECERT processing, input preparation, cycle and end of month updating, letter and message runs, accounting, monthly extracts and interfaces, adjustment processing, EVR processing and payment history are the critical areas. There are steps we can take if we are running out of time to correct the problem, such as not making changes to screens and reports, interfaces or data stores. In addition, quarterly, semi-annual and annual extracts do not have to run for the first time until at least March 20, 2000, so these changes can be made after the critical changes are made.

l. In the original Year 2000 project plan, we had planned to develop contingency plans for those applications at risk of not being fixed by a redesign. As oversight groups requested a contingency plan, one was previously developed and is being executed regardless of progress in the redesign efforts. This plan covers all of the Compensation, Pension and Education systems. There are other applications and situations where contingency plans may need to be developed if the application cannot be made compliant before its fail date. As part of this contingency planning, we would determine when the plan would be invoked, and how long it would take to make the fix. Then, we can determine the "drop dead date" for invoking the contingency plan for each application. The preferable method to a contingency plan is to monitor the progress of the year 2000 compliancy fixes so that problems can be identified with enough time to react and resolve.

n. There are instances that an operating system, a database management system, a third party product, or a utility will have to be replaced. In this case, VBA must synchronize and coordinate the

installation of the affected software and application changes. VBA must address these changes urgently, to avoid loss of time and resources performing changes, testing and installations.

o. As applications and platform components are scheduled to be made compliant, heavy testing requirements will need to be satisfied. This includes our normal unit, system, integration and regression testing. We will also plan to conduct "aging" testing. "Aging" testing utilizes software packages that "age" applications and data files well into the year 2000 and beyond to insure that the application is compliant.

p. As it gets closer to December 1999 and January 2000, VBA will need to determine what additional resources and monitoring will be required when the applications are initially used in the new century.

7. Risk Management

Documenting risks and threats is a key component to a strong management process. The Year 2000 Project Manager and team are responsible for identifying, monitoring and reporting on the level of risk and threats to successful completion of the Year 2000 project. A formal risk assessment has been completed. The continual reassessment of the level of risk to the project is also the responsibility of the Year 2000 Project Manager and team. All risks will be documented, tracked and monitored until they are no longer a threat to the project.

8. Related VBA Year 2000 Documents:

Change of Century 1991 analysis

Change of Century 1995 cost analysis

Year 2000 Project Charter, dated June 21, 1996, revised February 1997

Hines Change of Century Parallel Effort Contingency Plan, dated 23 July 1996

Year 2000 Application inventory, current version

Year 2000 Third Party Products inventory, current version

Government Life Insurance Year 2000 ADP Correction Plan

Government Life Insurance ADP Requirements Estimate, 21st Century Calendar Support

Philadelphia SDC Change of Century Strategic Approach, July 19, 1996

Risk Assessment, January 28, 1997

Microsoft Project Plans, current version, for VACO, Austin, Hines and Philadelphia