

CAIS

Condition Assessment Information System

Year 2000 Compliance Review

February 1999

Version 1.1
DRAFT



U. S. DEPARTMENT OF ENERGY

CAIS Year 2000 Compliance Review

Document Name: CAIS Year 2000 Compliance Review
Version: 1.1
Publication Date: February 1999
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Project Number: 4418
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U.S. DEPARTMENT OF ENERGY

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MANAGEMENT SUMMARY

1. GENERAL INFORMATION

Nationwide, there has been a slant toward postponing maintenance of facilities because the emphasis has been on short-term demands. This results in the growth of unmanageable, and often unrecorded, deferred maintenance requirements. Deferred maintenance then begins to grow disproportionately because of the advance deterioration and early failure of facility systems and components. Facility managers throughout the industry are seeking ways to preserve their capital assets, restore their infrastructure and continue to operate effectively and efficiently from their current facilities with ever decreasing budgets. To find their answers, managers must first determine what assets they have and what their current condition is. The Condition Assessment Information System (CAIS) provides the means to solving this problem.

2. SYSTEM SUMMARY

2.1 Overview

CAIS is used by architects, engineers and facility managers to gather facility condition assessment data. This data consists of architectural, civil, structural, electrical and mechanical systems and components that are part of the inspected facility. Data is collected using a hand-held computer that is programmed with detailed inventories of individual facility components. The program is deficiency based for collecting data for repair and replacement observations. Observations are recorded on checklists preformatted to individual site needs allowing for comments on unusual conditions to be documented on site. Data is transferred to a central database where it can be reviewed, costed and reported on using different scenarios. Information can be transferred to the DOE operations offices as well as to the DOE FIMS database for each site.

CAIS System Schedule:

Application / System	Scheduled Deployment Date	Scheduled Retirement Date	Notes
CAIS 3.5	June, 1998	November, 1999	Is replaced by CAIS 2000
CAIS 2000	November, 1999		Replaces CAIS 3.X

2.2 CAIS Task WBS

The CAIS Task WBS and Gantt Schedule are listed in Appendix A.

2.3 System Environment

Application / System	Development Software	Operation Environment
CAIS Database	Personal Oracle 7.X	Windows 95 Windows NT
CAIS 3.X	PowerBuilder 4.0	Windows 3.11 Windows 95 Windows NT
CAIS 2000	PowerBuilder 6.5	Windows 3.11 Windows 95 Windows NT
CAIS 2000 DB	Personal Oracle 8	Windows 95 Windows NT

3. RISK AND DATA VULNERABILITY ASSESSMENTS

3.1 Risk Assessment

Database Use of DATE Fields:

Oracle’s RDBMS is used for data storage and management for the CAIS project. Data attributes (fields) that contain DATE information are stored in native Oracle DATE format (utilizing YYYY year value storage).

Application Use of DATE Fields:

CAIS applications are primary authored using Sybase’s PowerBuilder development tools. Views, Windows, and internal calculations that utilize DATE values are performed using PowerBuilder’s native date calculations, which are Year 2000 compliant.

System Environment / Development Tools Year 2000 Compliance List:

The following System Environment and Development Tools are utilized in the CAIS project. CAIS client application release notes will include information on applying OS and other patches to insure that Year 2000 compliance is addressed.

OS / Tools	Year 2000 Compliant	Citation
Oracle RDBMS	V 7.X Yes V 8.0 Yes	Applications that use the Oracle RDBMS (Personal Oracle 7 and Personal Oracle 8) and exploit the DATE data type (for date and/or data with time values) should not be concerns about their stored data when the year 2000 approaches. The Oracle 7 and Oracle 8 DATE datatype stores data and time data to a precision that includes a 4 digit year and a time component down to seconds (YYYY:MM:DD:HH24:MI:SS). (Ref: http://www.oracle.com/support/html/2000.pdf)
MS Windows	V 3.11 Yes (w/patch) V 95 Yes (w/patch) V NT Yes (w/patch)	MS Operating Systems may (specifically those who utilize DOS) require service release patches to conform with Year 2000 compliance. In several cases, proper configuration of the OS would specify YYYY date formats as defaults. MS has a reference Y2000 web page that lists their products and contains links to OS patches. (Ref: http://www.microsoft.com/ithome/topics/year2k/product/product.htm)
Power Builder	V 4.0 Yes V 5.0 Yes V 6.5 Yes (to 3000)	PowerBuilder 3.0 and subsequent releases of PowerBuilder support data into the 21 st century. Data of type "DATE" or "DATETIME" are supported in any format for data input and display and data addition correctly manipulates and displays data for the year 2000 and beyond. (Ref: http://www.sybase.com/success/inc/corpinfo/year2000_matrix.html#part1)

3.2 Data Vulnerability Assessment

CAIS receives data from two external systems:

- RS Means Cost Updates– RS Means currently supplies annual data using date information in a MMDDYYYY format. CAIS imports RS Means data and will perform date quality verification and automatically correct data to insure that Y2K compliance
- The Facility Information Management System (FIMS) can exchange data with the CAIS database. It is not known at this time if FIMS is Y2K compliant.

4. TEST PLAN

Attached to this document, as Appendix B, is the CAIS Year 2000 Test Plan. The CAIS Software Development team has tested the leap year vulnerability of CAIS3.5. We have found that the software correctly processes year 2000+ and leap year dates.

5. CONTINGENCY PLAN

CAIS is expected to be fully Year 2000 compliant by March 1999. As such, we are not required to define a contingency plan.