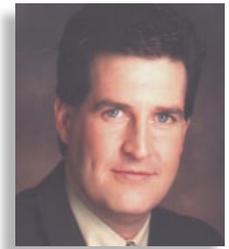


Y2K Analysis Tools for PowerBuilder

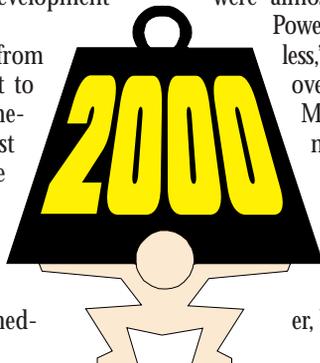


John Olson

Remediate Your PowerBuilder Code in time for "Doomsday"

In the August 1998 issue of *PBDJ* (Vol. 3, Issue 8) we published a review of ServerLogic's PB/2000 Y2K analysis and remediation tool. Though this article will repeat some information on PB/2000, it will also fill in some details not previously included. In the review we referred to, but did not list, other products that can be used to help remediate PowerBuilder code. This article is dedicated to giving you as much information as possible on Y2K tools available to the PowerBuilder development community.

We're still 10 months away from "doomsday," but I don't expect to see any new Y2K analysis or remediation products released. Most Y2K remediation projects were targeted for completion at the end of 1998, with testing going into mid-1999. Though many of the remediation efforts are far behind sched-



ule, most companies have already purchased the tools they need to get the job done. It's too late for product development companies to expect profits from analysis and remediation tools released in 1999.

The products listed in Table 1 were found in advertisements, product listings and Internet searches. Many products advertised support for PowerBuilder (as well as nearly every other language), but upon closer scrutiny I found they were almost worthless when used with PowerBuilder. (When I say "worthless," I mean they provide no benefit over using the PowerBuilder Migration Assistant, yet they cost money.) Therefore, I've narrowed the list down to those products that might be of some assistance. I did include one of the basic text-scanning tools, Year 2000+ Software Analyzer, but only because it's freeware.

I didn't test all products, but I did research them to verify that they have some value. Again, this is not a review of ServerLogic's PB/2000 product, but I will refer to it often because, quite frankly, it is heads above all other Y2K analysis and remediation products that support PowerBuilder.

Types of Analysis Tools

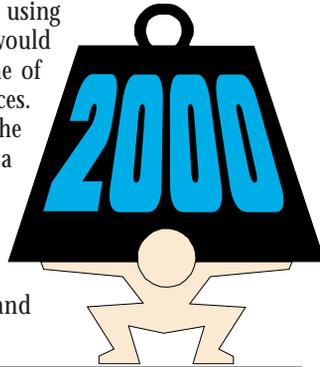
Most of the analysis and remediation products were developed to work with a variety of development tools. This means they don't have analysis and remediation features designed for the specific syntax and nuances of a specific language. Rather, they are generalized to work with source code exported to text files, and then scan for date-related keywords that are common to many languages. In our case we want tools that know PowerBuilder intimately, rather than tools that just parse text and look for the words "date" and "string." This very important distinction splits the products into two categories: those that know PowerBuilder and those that don't. Unfortunately, few products are built with PowerBuilder in mind.

Tool	Code Analysis	PB Savvy	Support for Multiple Languages	Code Remediation from Within the Tool	Data Analysis	Data Remediation from Within the Tool	Database Analysis (i.e., stored procedures)	PB Code Remediation from Within the Tool	Remediation Status Tracking	Enhance or Perform Y2K Testing	Notes
File-AID/CS by CompuWare	Y		Text Based	Text Based	Y	Y				Y	
HotDate 2000/MP PowerBuilder by Softworks	Y		Text Based						Y		In beta. Feature set unknown
OnMark2000 by Viasoft	Y		Text Based				Y		Y		
PB/2000 by ServerLogic	Y	Y		Y					Y		
PowerBuilder Migration Assistant	Y										Free with PB Install
SP/2000 by ServerLogic							Y		Y		
The Date Detective by NuMillennia	Y		Text Based								
Tracer2000 by Fidelity	Y		Text Based								
Utility2000 by Advanced Technology Transfer Group	Y	Y	Y	Y					Y		
Year2000+ Software Analyzer by Bozeman Legg, Inc.	Y		Text Based								Freeware

Table 1: Feature matrix for Y2K analysis and remediation tools

Those products that don't have PowerBuilder in mind tend to provide raw listings of risk areas in the code. They don't often provide valuable information about what the problem is or how to fix it. For the developers using these tools, a lot of time is saved that would normally be spent reviewing every line of source code looking for date references. However, pouring over and analyzing the unfiltered reams of output still takes a very long time.

The products built with knowledge of PowerBuilder syntax and nuances greatly reduce the amount of time required to perform full analysis and



Tool	Company	Web Site	Phone
File-AID/CS	CompuWare, Inc.	www.compuware.com	248 737-7300
HotDate 2000/MP	Softworks, Inc.	www.softworks.com	800 727-4422
PowerBuilder OnMark2000	Viasoft, Inc.	www.viasoft.com	888 viasoft
PB/2000	ServerLogic, Inc.	www.serverlogic.com	425 803-0378
SP/2000			
The Date Detective	NuMillennia	www.numillennia.com	770 516-0704
Tracer2000	Fidelity Technology	Tracer2000.fidelity.com	800 756-5168
Utility2000	Advanced Technology Transfer Group	www.attg.com	416 929-2211
Year 2000+ Software Analyzer	Bozeman Legg, Inc.	www.bozemanlegg.com	

Table 2: Company contact information

remediation of applications. With varying levels of intelligence, the tools can rank date manipulation code from high risk to no risk and filter out the no-risk date references. The output generated is much shorter and contains more detailed information than those provided by the generic tools. This allows analysts to focus on the real problems rather than wade through thousands of lines of irrelevant code. The end result of having shorter and smarter reports is quicker, more accurate and less costly Y2K analysis.

Seats	Total Cost
1	\$10,000
2	\$20,000
Each Additional	+5,000
Site License (one geographic location)	\$50,000
Corporate License (multiple locations)	\$75,000

Table 3: PB/2000 price sheet

Types of Remediation Features

Just as with the analysis tools, most remediation features are primitive. Actually, most tools don't perform remediation but only give advice on how to manually analyze and fix each listed date reference. Those tools created specifically for PowerBuilder are the ones that provide built-in remediation features by using PowerBuilder's ORCA API. PB/2000 and Utility2000 allow you to make code changes without forcing you to use PowerBuilder to access the code.

Regardless of which tool is used, the analyst must review a large amount of code. The scanners simply provide a listing of code that meets certain high-risk criteria. The smart analysis tools analyze the date references and filter out those they determine to be no risk.

A trickier problem that isn't handled by any of the tools is indi-

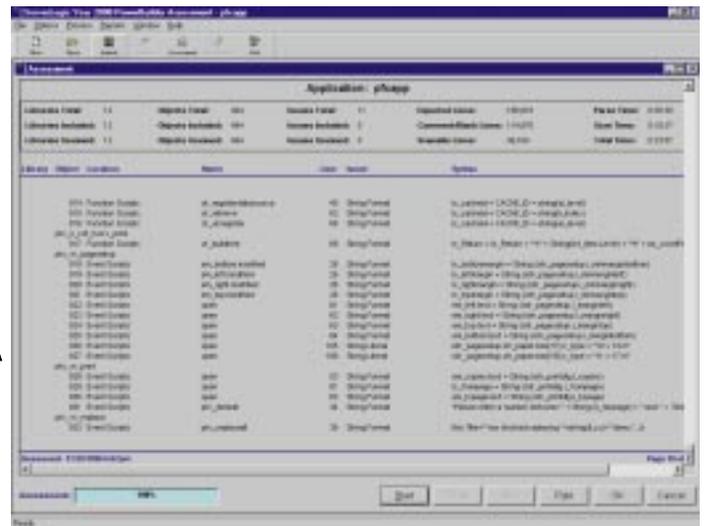


Figure 1: PB/2000's sophisticated Assessment feature scans source code for matches on customizable string patterns.

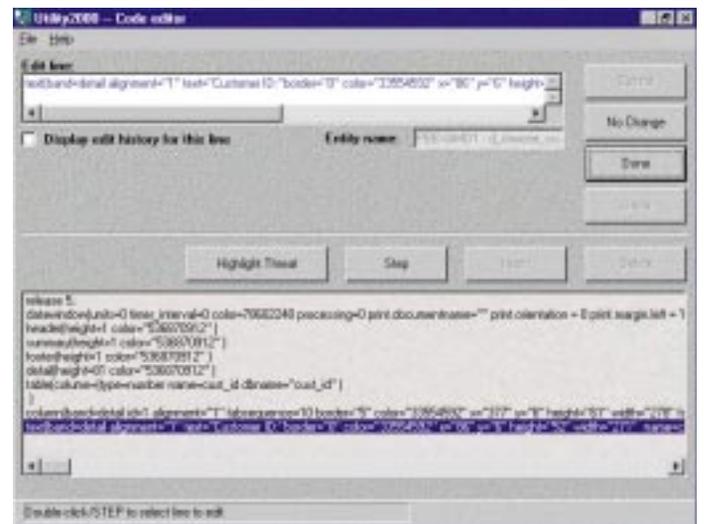


Figure 2: Utility2000 allows you to directly edit PowerBuilder code.

rection. When a scanner finds that a date is converted to a string, it isn't smart enough to trace the use of the string. Yet the uses of those strings represent high-risk areas. The task of tracking the use of those strings must be done by the analyst.

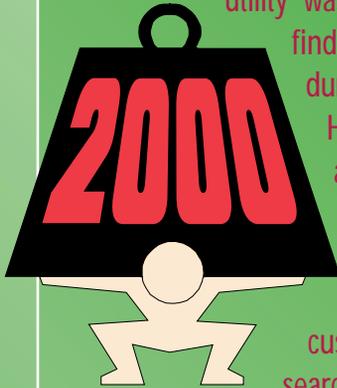
Maturity and Sophistication

Many of these tools were available last year, but they were immature and often buggy. Many have matured dramatically, but at this time last year I wouldn't even have considered using them. Not only are they more mature, but they're also more sophisticated. It appears that the companies are responding well to feedback from their users by adding features that reduce the amount of manual labor required even more.

Seats	Cost	Notes
1-5	\$3,000 each	Includes 1 DBMS vendor
Site License (one geographic location)	\$15,000	Includes all DBMS vendors
Corporate License (multiple locations)	\$25,000	Includes all DBMS vendors

Table 4: SP/2000 price sheet

A tool already at your fingertips is the **PowerBuilder Migration Assistant**. This utility was built to assist in finding obsolete code during PB6 migration.



However, it's not just a migration tool; it's actually a smart string search utility that allows customization of the search strings. Built in

PowerBuilder, the Migration Assistant uses the powerful string-matching functions of PowerScript.

The Migration Assistant is better than the analysis tools that weren't written specifically for PowerBuilder. However, it doesn't have any remediation features, and doesn't help track the status of the remediation effort. PB/2000, as well as some of the other tools, provides the ability not only to track the status of each line identified during scanning, but also to store the assessment information in a database for quick access later.

The Migration Assistant is a poor man's tool. If you don't want to pay the upfront cost for a sophisticated tool, this is a good alternative. Fortunately, you already own it. Of course, it might turn out that you spend more money on labor costs than you save by not purchasing a PB/2000 license. But if you need to get started today on analysis and remediation, then start using Migration Assistant while you decide whether or not to purchase a full-featured product.

Of all the tools, I have most often referred to PB/2000 and Migration Assistant because they represent opposite ends of the cost range. However, there are several other tools you might consider investigating. One that stands out because it provides for remediation of PowerBuilder code is Utility2000 by Advanced Technology Transfer Group. It doesn't provide the same level of sophistication as PB/2000, but its price makes it an attractive alternative.

Summary

Money is a great motivator. Those companies that face losing vast sums of money if their systems go down aren't timid about spending money to make sure that doesn't happen. However, most companies are unaware of their risk, and therefore aren't willing to spend much to test their systems' compliance. Regardless of where you are on the spectrum, use the next 10 months wisely to ensure that your critical systems continue to function after the lights go out.

Whether you purchase the most sophisticated and expensive tool, PB/2000, or rely on a more basic and free tool, Migration Assistant, at least take a few hours to scan your application. Those few hours might open your eyes to problems you didn't think you had. ♦

About the Author

PBDJ editor-in-chief John Olson spends most of his time at client sites helping them architect complex systems and solve their Y2K problems. He is a charter member of Team Powersoft, a CPD Professional, contributing author to the three Secrets of the Masters books and a frequent speaker at conferences, seminars and user groups. To find out more about how John and his associates can help you, or to sign up for a self-empowering Y2K course, call Developpower, Inc., at 801 944-8539 or e-mail him at developpower@bigfoot.com.

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