

**Borland's C++Builder  
Essay Responses**

**C++Builder 3**  
**The Faster and Most Advanced C++ compiler**  
**and**  
**Development Environment**

# **Advanced Project Management and Powerful Debugging for Delivering Robust Applications**

## **Robot master control center**

*Preston Porter*

I built a 35 moving programmable robot using DOS turbo C 2.0 and it has been sitting still for years. But I keep on improving the control system (hardware) and now have the Robot Master Data Control Center system finished. With Builder I was able to make the operating interface software user friendly to allow college students and entrepreneurs be able to make their dreams come true! I used many of Builders power features to make this happen in record time and two university's grad Eng. Students have selected my product to make their projects with both being for under water robots. With Robot Master Data Control Center software the user is able to control up to 48 servos or 8 high speed analog to digital interfaces and 18 input/output data lines for turning on or off anything they can think of in the world of robotics. The software allows the user to build script files that repeat every movement or byte of data feed back at a given time and date as the real time data is being fed via the serial port to the screen for every move your robot makes and you can edit the script on the fly. I used the wav feature to call sound file so it can talk with pre recorded speech after it moves. If you would like to look at the app it is on the web at my site <http://www.robotnet.com> it does to many things for me to explain in 100 words. Once again thanks for the builder and keep up the improvements !!!!!

## **Air-cooled heat exchange modeling**

*Rodger Castle*

For a Thermal Design class at Tenn., Tech Univ. this semester I developed an application to model optimization of an air-cooled heat exchanger. We had five design variables in the system, represented by five scrollbars, and dynamic graphs of the two object functions (first cost and payback period) that changed with changes in the scrollbars. The app would also find the best configuration for lowest cost and payback period.

## **Extensible case tool**

*Jason Smith*

Extensible CASE tool (various notations, UML supplied) that performs analysis on designs (using various extensible rule-bases), reverse engineers various languages (and defines an API for adding languages to its reverse engineering capabilities).

## **Flight simulators test instruments**

*Walton Ussery - Simtek*

All of our applications are simple and straight forward. We manufacture instruments for flight simulators. The applications we develop are designed to test these instruments and ensure the instruments meet the customer's specifications. Many of the instruments use RS232 and/or RS485. Some new customers are wanting instruments that interface to the InterBus. InterBus is primarily European and primarily used for factory automation. That pretty much sums it up. The applications are not very fancy, but do have to operate properly every time they are started.

## **Advanced Project Management and Debugging**

### **Quake map editor**

*Michael Thacker - Burnt Software*

My application is an object oriented editor of Quake.MAP files that allows people to easily create robust levels. I use the STL to create and maintain huge list of various properties a .MAP file contains, which can be a daunting task at times. C++ Builder aids in this task by providing the best STL support of any of the development tools I have used, allowing for increased productivity by decreasing debugging time (for, of course, problem in the libraries of other compilers).

### **Software development management system**

*Bob Wallace - Univ. of South Florida*

Software development management system: Analyzes a collection of code modules and generates metrics that can measure developer productivity and the schedule estimation accuracy of a team of developers. Usable as a tool to measure, and therefore plan and control, the software development process.

### **Manufacturing machinery diagnosis and calibrations**

*Robert Krueger - RAC Software*

My application centers around a communication module that accesses manufacturing machinery for diagnosis and calibrations. It is product specific, designed to access MAN Roland Geoman presses made in Germany. It has (will have) a large help file to assist the technician(s) in making these calibrations.

### **Automobile headlamp adjustment system**

*David Novak - Hopkins Mfg.*

An interface to an automobile headlamp adjustment system. The application communicates to the adjustment system through the serial port. It receives information about the lamp beam pattern and calculates the correct alignment from that data.

### **Development environment for data-logger boards**

*Jim Dodd - Onset Computer Corp.*

We are updating our development environment for our line of data-logger boards. Edit boxes allow the customer to write a program (our dialect of compiled BASIC), dialog boxes to select how the data-logger will be configured and a terminal window so the customer can monitor output from the data-logger before it is disconnected and deployed in the environment. Our data-loggers have been to the bottom of the ocean, to Antarctica, in racing cars, on airplanes and on the Space Shuttle. Borland has helped program them all. This Builder version will be much easier to use than our previous versions.

### **Monitoring a Cable television plant**

*Thomas Johnson*

I am writing an application to monitor a cable television plant. It will make sure the that the proper scrambling and descrambling authorizations are going to the correct Set-Top-Box and verify the overall cable plant configuration.

## **Advanced Project Management and Debugging**

### **Quick inventory entry system**

*Carl Masters - Dodecahedron, Inc.*

By using C++ Builder we were able to create a quick inventory Entry system for the client that is about as rock solid as you can get. The system allows them to enter inventory items in a way they are accustomed to and creates export files and reports which are then imported into the Dynamics Inventory module with a companion program. Because Borland's tool handled so much of the validation work the dynamics program needed very little programming to make the system work reliably. The system is now finished ahead of schedule and has just finished its beta cycle. All this in under 3 weeks. We could not have delivered this solution in such a short time using any other tool. We couldn't have completed this project and maintain our good standing with our client if it wasn't for C++ Builder. Thank you for creating such a marvelous, time saving tools.

## **Scalable Database Development for Scalable Client Server Applications**

### **Research tool for wetland ecology**

*Ting Dai - VIMS*

My application is a scientific research tool for wetland ecology, called SPARTINA. I developed it in DOS using Borland C++ 3.0. I have recently converted it to a windows application in about one week. The application uses animated graphics to simulate the production processes of a salt marsh in Southeastern US under different environmental conditions. The vivid graphics revealed many details that were otherwise very difficult to be noticed in a field experiment. I have published the SPARTINA model in a peer-reviewed scientific journal, and C++ Builder made this model accessible to many.

### **Rewriting a Clipper based database**

*Michael Thorn - Micro Data Systems, Inc.*

We are in the process of rewriting a Clipper based database mail order, order Entry and processing system in Builder. We have begun writing utilities to get a feel for the product. We will be using Extended Systems, Advantage Database Server for our new system (We currently use this for our Clipper application)

### **Smart search engine**

*Abdiel Quezada*

The creation of a smart search engine capable of using several kinds of database format to successfully find information requested

### **Oracle database front-end**

*Len Wolfenstein - Pacific Bell*

My latest is a front end to an Oracle database that allows high level managers to view order level detail for circuit provisioning for 125 different results scenarios. The app constructs SQL selection statements based on the combo box values.

### **Multiple platform integration**

*Tom Bruinsma - Lockheed Martin*

My program integrates multiple platforms. I have developed an application that interfaces to a primary database and syncs information to three other dB's. The three other dB's are as follows. MS Access, Informix, and SQL; these platforms are HP UNIX, Windows95, Windows98 Windows NT, and QNX UNIX.

### **Revolutionary compression component**

*Sebastian Deorowicz - LODEO Spolka z o.o.*

I use my copy of C++ Builder to write database applications. It is now, but I am going to use Builder with some Genetic Algorithm Libraries to write some optimizations programs. Also I have wrote new "revolutionary, fantastic, the only one." compression component. Now I am still optimizing it to get the best performance, but I hope it will be the best in the universe. ;-).

## **Scalable Database Development**

### **Collecting statistical information about phone calls**

*Oliver Bailey - Timelines Industries inc.*

CallTrax work with special hardware in collecting statistical information about phone calls. We collect caller's name, number, date, and time as provided by the Telephone Company switch. We also keep track of duration, line errors, phone line used, and any touch tone digits dialed. On outbound calls we also collect the caller (through use of a PIN code), number dialed, and duration of call. This information is then sent to a printer, internet Email accounts, or fax machine at regular intervals. CallTrax works on Windows 95 and NT version 4.0 or later.

### **Distributed facilities/time management**

*Dan Skadra - Hawken School*

Distributed facilities/time management for schools/businesses. An application that would allow one person to maintain a database of all the events and facilities of the organization. Examples would be meetings, group activities, sporting events, etc. Clients would be able to request facilities at particular times for their event as well as request special services for that event (I.e. food, beverage, etc.) Requests would be made via the local Intranet. The facilities/time manager would then be able to approve or deny the request. Hard copies of the calendar could then be printed out or posted to a web site for general viewing.

### **Point of sales system**

*Dean Pickett - SHONAC*

The current C++ Builder application I am working deals with revamping our stores Point of Sales System communicating with our home office through dedicated lines into a oracle database for real time merchandising solutions

### **Digital weather sensor**

*Janice Stone - SAIC*

Developed a client/server architecture which reads data from digital weather sensors, process the data, and provides up-to-date weather reports to multiple network terminals. There are over 35 possible screens which show the operator a variety of data and formats, depending on their individual wants and needs. Each weather sensor has its own service program, which controls the schedule for polling and testing the sensor. Constant feedback is provided on not only the sensor's data but also the health and status of the sensor's hardware.

### **Event scheduler**

*Jay Rubenstein - Bikes & Boards Software*

Software that lets organizations schedules, tracks, and put on events. Events such as bike, motorcycle, running and sailboat races. The major pieces are registration, scoring, results, and series results. The results and registrations would be available locally or through web pages.

## **Scalable Database Development**

### **Data mining**

*Eric Cahoon*

My application uses the natural force of evolution for mining of data for information that will give organizations the competitive edge that they require. The application will work through databases to identify rules that codify this information - a process referred to as Data Mining.

### **Applicant's personnel data database**

*Paul Majchrowicz*

My application is a simple database that uses a many to many intermediate tables between a table of skills and a table of applicants. To select applicants based on selected job skills and add and/or modify the job skills assigned to an applicant, the applicant's personnel data (address, phone numbers, etc.) and add new skills and new applicants as required.

### **Purchase acquisitions tracking**

*Zachariah Simmons - USAF*

I am an Organization Computer Manager. I am responsible for purchasing, acquisitions, tracking over a quarter of a million in equipment, computer security, system maintenance and repair, and integration. My application combines all of the above subjects into one manageable, cross-referencing database and reporting system. It is called "The OCM's Toolbox". The most important function of this application is compatibility and updatability. Processes and procedures change, and my software MUST be able to change with them. Since I have began using the application, I have been able to spend a lot more of my time on what is most important, my customers. With the compatibility of my application, I am able to retrieve information any way I see fit. I believe one application can not "do it all," so the ability to work hand-in-hand with other applications is a must.

### **Project planner**

*Richard Warg - Gayle Mfg Co*

It's a little project planner that links a database and a spreadsheet. BCB made it a lot simpler that it should have been. Anybody could have done it.

### **Hospital billing application**

*Mark Wise Carver - Solomon Technologies*

A local 'Not for Profit' Hospital needed an application to load patient names and phone numbers, and compare them against the Cell phone calls that are made each month by it's employees, for billing purposes. We created one in no time flat. They use the application, and love it.

### **Microwave circuit analysis**

*Raymond Pickles Pickles - U.S. Naval Research Laboratory*

Program to parse a microwave circuit analysis data files and produce a geometrical representation of the data. Program reads variables, evaluates user entered equations to get more variables, then applies data from variable list to produce geometrical representation. Output is in the form of a plot to screen, plot to LaserJet Printer, and AutoCAD DXF file.

## **Scalable Database Development**

### **Manage fleet of aircraft**

*Paul Corbett - PSC*

Gantt chart style client/server application showing aircraft as the resources and flights and other information in a time line. Used by schedulers to manager the Company's fleet of aircraft. Multiple views of the data, dialogs and printed reports.



## **Integrated Internet Development for Building High Performance Web Based Applications**

### **Automated FTP**

*Douglas Allen - Quantronix, Inc*

Our customers need reliable and solid data now. I have written an automated FTP program to transfer data to where they want it when they want it. Bomb proof and simple!

### **Netscape browser companion**

*Shawn Halpenny*

A Netscape web browser companion product that, using DDE communicates with a currently running browser and maintains a tree-like graph of your browsing session.

### **Internet resume extractor**

*Douglas Strickland - DSRI*

Internet Resume Extractor for Employment firms from the internet.

### **Timesheets application connected to the internet**

*Jim O'Brien - Visionquest Systems*

It is a timesheets app that can connect to internet databases to track employee time anywhere in the world.

### **Web-based database for managing clients**

*John Heuerman*

Database for managing clients. Each month, the app generates needed.html and database files for a web-based lookup service.

### **Online web catalogue**

*Roderic Leon - Computer Sciences Corp.*

It is a package for an online web catalogue for a small business. An interface to a Visa/MC and accounting and billing and shipping program would accompany an online catalogue with graphics and prices.

### **Collection of digitized real-time inspection**

*Art Dederick - Future Software*

Using Intranet/Internet software, provide the ability for the collection of digitized sound/pictures/data for real-time or near real-time inspection by a central agency in construction of roads, buildings, etc. The two-way communication of modified sound/picture data via voice, Intranet/Internet etc. to convey the solutions to the field personnel. The archiving of all data collected, date and time stamped for later use in project review or legal use. Multi-indexes used for data retrieval based on keyword or phrase. The statistical analysis of all data collected based on

### **Real-time quotes**

*Dwight McPeak*

I am currently writing a program that uses OLE to talk to Netscape and connect to my secure online brokerage firm. The program will get real-time quotes then place buy and sell orders while I'm at work. I obviously don't want to describe my buy and sell logic as I expect it to be highly profitable. ;)

## **Integrated Internet Development**

### **Real time production monitoring system**

*Walter Spurgiasz - Concise Technologies*

A real time production monitoring system that allows you to see what every machine on the factory floor is producing. It exports the data real time in to HTML so management can check status from anywhere in the world at any time. The system is a mix of hardware and software. A small embedded computer is installed at every machine or process and a program written with Borland C++/Builder scans, displays and exports the live data. It is very easy to use and affordable.

### **Resume database program**

*Thomas Ridenour*

I built a Resume database program using CGI in C++ Builder for an intranet. I used the BDE and components which were easy to use, test, and debug.

### **Filtering email spam**

*Dave Newman - D&N Software*

I am working on an application to assist users in filtering their internet Email of Spam. The input data is filtered via any number of lists that the user controls, and the output may be automatically files under any number of user definable folders. The biggest part of the program requires that the user set up the input filter lists (some are provided, including the users own directory of Email addresses). The user can easily delete spam without ever looking at it.

### **HTML editor**

*Jeff Linwood*

I developed an HTML editor with C++ Builder in two months in my spare time over the summer with little formal programming experience. It is extremely professional, and people are impressed by the short time needed to develop

### **Stock market prediction program**

*Wade Ziegler - FutureSoft*

I'm 60% finished with a stock market prediction program. It uses the Internet HTML component that comes with C++ Builder to retrieve specific stocks based on rules. The rule system was created in Borland C++ 5.0. The rules can be edited through the interface which was created with C++ Builder. The program will simulate buys and sells based on the rules and display/print reports of the results.

### **HTML generator**

*Jim Craig - Compaq computer corp.*

HTML Generator for publishing template based HTML from a SQL Server database. Template Designer for seamlessly integrating SQL with HTML, Java and scripting. CD Build and Web Deployment applications. Multi tier database and version control tools.. and more! From prototype to release -- C++Builder and Delphi helped make a Compaq Computer Corp. Internet and CD based software distribution project not only possible, but wildly successful.

## **Integrated Internet Development**

### **Databases to HTML conversion**

*David Saunders - The Chase Data Group*

The main use for builder I have is converting database files to HTML pages and perl Scripting tables. The builder is the faster way to create a data Entry screen to run in windows.

### **Corporate information management**

*Eric Bewley - Arizona Instrument, Inc.*

When finished, my application will manage about 95% of the information that is shared in multiple formats throughout the entire corporation. It will provide an intelligent interface to the public through customer service, testing and documentation for the repair facility, graphic demonstration and documentation for the manufacturing facility, database support and management for the engineering department, as well as intranet and internet messaging. This application will bring the corporation closer together through the sharing of carefully managed information sources while, at the same time, open up the opportunity for each person within the corporation to improve the Company by discovering new methods to train the system to increase productivity continually. Only through the use of a RAD environment like C++Builder, can such an application exist.

### **Real-time Chat**

*Cory Hickman*

I am using C++ Builder to develop a multi-purpose Internet program. This program allows you to chat real-time with an unlimited number of other users, have private chats with any number of other user, transfer files between users, and play IPX or TCP network games over the internet without having to log on to a server or have a static IP address.

## **Productivity of Rapid Application Development**

### **Library information system**

*Leopoldo Uribe*

My latest application was a library information system. C++ Builder lets me concentrate on the problem and forget about the details of the application. Information gathering, data base connectivity, etc., was trivial. I could devote more time to design and analysis and get a more robust system. At the same time, details like splash screens, images in the background and so on really impressed my client. I had never been as satisfied with a development tool as I have been with C++ Builder.

### **Spelling Tutor**

*Marc Hochler, MD*

"Speller" lets my daughter record and then test herself on her spelling words. The computer has infinite patience and is always available – giving us more time to read together.

### **Configurable automotive network tool**

*Gary Kempen - Pierce Mfg.*

Our challenge was to build a tool to allow the average Windows user to program "relay" logic and circuits in a totally configurable automotive network, without a programmers' assistance. A visual interface that was simple to use and understand was CRUCIAL to the success of the project. Yet, we also needed a highly sophisticated underlying structure to handle the complex configuration and monitoring data for interfacing with the embedded network controller. Borland C++ Builder was the tool for the job, with both rapid visual development and powerful code capability.

### **Compiler for embedded environment**

*Errol Lisonbee*

I am creating a compiler system for use in an embedded environment. It will include an emulator with debugger and the debugger will have hooks into the hardware for debugging. I am using the Borland IDE example and dropped in the Turbo Power Orpheus TOVC Text File Editor for an instant editor. Added a few events and got some syntax highlighting. Added some more keystroke definitions and you can switch to a brief style editor. Breakpoints for the debugger are supplied Borland style. Using C++ Builder has allowed me to have much of this work done in a few weeks instead of a year. I will use the Turbo Power Async Professional to talk to the hardware from the debugger. Aah yes. Drop APD on the form and voila, serial communications.

### **Modem/uart diagnostic utility**

*Hank Volpe - WBAL*

I'm the developer/author of Modem Doctor, recognized by many sources as the premier modem/uart diagnostic utility. Implementing "bug-free" upgrades requires a robust code library and freedom from the tiresome process of creating and using resources. C++ builder gives me this level of control and freedom, cutting my development time in half.

## **Rapid Application Development**

### **OpenGL component library**

*William Lacey - Sea Breeze Software*

I am currently developing an OpenGL component library which will be consistent with the RAD focus of C++Builder. Users will be able to rapidly incorporate 3D graphics into their applications, facilitating the development of CAD engineering and architectural applications, VRML, and game engines. Components currently under development are a drawing canvas component, a camera component, and a lighting component. Additional components, such as an animation component, will be added next.

### **Locomotives multimedia experience**

*Douglas Bailey - Sunshine Software, Inc*

The Steam Guide is a multimedia experience for fans of the old, great steam locomotives. Driven from a database containing information on every steam locomotive remaining in North America it presents over 2000 photos, video clips, oral history, and rich text as the user browses the database geographically, or by locomotive type.

### **Hospital bed testing**

*Kenneth Galer - Vivax Medical Corp.*

My current application is for use on a laptop by electronic technicians to test and maintain systems in the field. My Company designs and manufactures hospital beds that have an embedded PC (ZF) and from two to ten microcontrollers (microchip) used to run motors, read switches, or control the 1/4 VGA LCD panel with a touch screen. All of the individual sections communicate via a RS-485 bus at 56Kb. The laptop can be connected to the bed and emulate any section such as mattress control, motor control, or the embedded PC itself. Also, the internal application can be upgraded from a file on the laptop. This app had to be easy to use with little formal training.

### **Ultrasound imaging**

*Frank Froelich - Eastman Kodak Company*

My current C++ application is used for viewing and management of ultrasound images. Although initially available for cardiac ultrasound images it will also display general radiology ultrasound images. The images are retrieved from floppy disk, MO disks, network, or through a modem. They can then be viewed as a single image on the screen, up to four images, or up to sixteen images together on the screen. The multi-image viewing allows a cardiologist to view images of the heart taken over a period of time. The images can then be stored on a hard disk, floppy, MO, network, or our ultrasound imaging network. They can also be transferred to other sites for remote viewing.

### **Monitoring of equipment**

*Stuart Johnson - Southern Natural Gas Company*

I converted a command line C++ program supplied as source by an equipment vendor into a GUI application in a day, while working mostly on other projects. This let me monitor the status of the new equipment without having to stop what I was doing and run the other program in a cmd window and provided a continuous confidence check that the equipment was functioning properly.

## **Rapid Application Development**

### **Real-time diesel engine simulation**

*Ed Sutton - Cummins Engine Co.*

I used C++Builder to develop an NT application to control and monitor a real-time diesel engine simulation. My coworkers were very impressed. My diesel engine model runs at a 5ms rate using the multimedia timer. The engine model inputs and outputs are written to a memory mapped file which is shared with my cool application which I developed using C++Builder. I started out trying to do the same application using MSVC 5.0 and MFC. I gave up after an hour when I realized it was going to take me all day using MFC and it might still not work the way I intended. Using C++Builder it was a piece of cake!

### **Cost Model for nuclear power plant**

*Wilkinson - Tetra Tech, Inc.*

My C++Builder application, WasteWORKS Wet, is a cost model for determining the current cost of liquid RAD waste processing from a nuclear power plant. WasteWORKS Wet helps power companies save money by modeling current liquid systems with new components or by changing one of the process variables and comparing cost results. By using C++Builder, I have taken advantage of form inheritance, custom components, OXCs, and the STL. In my application, the VCL has proven itself to be absolutely rock solid, the make times are breathtaking, and my productivity has improved. Thanks for an impressive product, Borland.

### **Timesheet acquisition**

*John Johnson - John Johnson Software*

We have a team of service engineers across the country who will use my Builder application to submit their weekly time sheets. The application interfaces to cc:Mail using MAPI to create a message with the time file attached. It also checks for receiving updates to its database via cc:Mail and loads them. It is currently in final beta.

### **Locomotive tracking**

*Jon Fiedler - ALK Associates*

Our application provides the front end to a system that keeps track of all locomotives for Union Pacific RR. It allows UP to dynamically see where all of their trains and locomotives are currently located and where they are going. They can display it geographically on a map of the US or in detailed displays for yards, branchlines, and mainlines. The next version will allow them to manipulate trains and locomotives.

### **Mission deck editor for aircraft design program**

*Steve Williams - USAF*

I created a Mission Deck Editor for our aircraft design program. My BCB application allows easy editing of a ASCII file containing a bunch of cryptic numbers that are inputs to our FORTRAN mission performance module. Creating a user-friendly interface using BCB VCL was a snap. Now even novices can create a mission deck!

## **Rapid Application Development**

### **Missile simulation**

*Curt Campbell - Lockheed Martin*

C++ Builder was used to make a tool which is used in the simulation of a Tactical Ballistic Missile system. This program allows an analyst to look at various aspects of the simulation. It presents the data in a visual form and automatically links all of the files the comprise the model's input. This program uses a point and click methodology made possible by using C++ builder. Since my Company is not a software Company RAD development was very helpful in producing a prototype to show my manager.

### **Beam propagation modeling**

*Maxim Bolshtyansky - CREOL/Univ. of Central Florida*

It is scientific modeling of beam propagation in nonlinear medium (liquid crystal). If you have a good interface than all debugging, all calculations are much faster. C++Builder offers unique opportunity to combine power of standard C++ (which I need at first place) with windows programming (which I do not need very much, but when it is that easy, I can use it to simplify my input/output and even make it very nice). Now my programs have a professional view and are easy to use. That accelerates scientific output of the program A LOT!!!

### **Virtual reality glove user interface**

*Olaf Meding - Orbitec*

Orbital Technologies Corporation used BCB to develop the user interface to an innovative glove equipped with 12 vibrating stimulators that stimulate the human skin. This glove enables an operator to interface to a robot in an intuitive way. Orbitec also envisions this glove to be used in virtual reality applications and in PC games enhancing the user experience. Our hope is that this glove will find its way onto every desk similar to the success of the mouse. BCB was just the right RAD tool to develop a top notch user interface and to get the job done on time. I much enjoyed working with BCB on this fun project.

### **Engineering number crunching application**

*Leslie Thompson - U. of Tulsa*

I primarily develop number crunching engineering applications in C++, and I am not particularly interested in unraveling the mysteries of the Windows API. In an effort to make my applications more easily accessible to users, I have tried for years (with the minimal extra time that I have) to learn enough about Windows programming to create a decent user interface. I have tried every product known to man from Visual C++, IBM's VisualAge C++, Powersoft's Optima++, etc.; I found nothing that compares with the ease of use of Builder C++. In the 3 months that I have been using the product, I have already developed a sophisticated front end for one of my engineering applications that includes user-friendly input as well as graphical and textual output. I intend to apply Builder C++'s power with a vengeance to all my projects.

## **Rapid Application Development**

### **Data analysis tools**

*Stephen Anderson - Solutia, Inc.*

At my Company, we have many utility programs that were designed during the late 80's. My application is simply an integrated Windows 95 / NT application that presents a unified integrated front end to these legacy data analysis tools. There is nothing special in what my applications do. What's special is how I was able to do it. With another C++ product it would have taken my a month at least to assemble a fragmented test version of my application. The amazing thing is that with Borland's C++ Builder, I was able to have a fully functioning release version completed in four days. That's why I love this product.

### **Wizard style application**

*Thomas Anth - Citrix Systems*

I've been using it to do user level applications for my Company's products. These applications consist of wizard style setup applications and configuration utilities for both servers and clients.

### **Drag and drop warehouse configuration tool**

*George Tomek - McHugh Software International*

My last was a graphical drag and drop Warehouse configuration tool. It had a classical tool bar with warehouse components that got populated from a database and could be dropped on the form. Then they could be configured and interconnected. The database tables it maintains underneath are used by our Warehouse control system. VB could not do dynamic control creation, MFC was too clumsy, but subclassing from and using VCL was fun and intuitive. I love both Delphi and C++Builder, keep the great work Borland and lets make the CORBA the next step. (I could have skipped the DB)

### **Visual search engine for books**

*Omid Farhangi*

A visual search engine for books and documents allowing complex searches and report generation.

### **Library menuing system**

*Peter Morris - Fairfield University Library*

I work in an academic library where we have a CD-ROM database network for common index and abstract products (I.e. ERIC, MLA bibliography, Newspaper Abstracts etc.). Because some of these products use DOS interfaces, and others provide Windows interfaces, we had to find a menuing system to launch them. We purchased SaberTools and gave up after weeks with technical support. Under the gun to get the network up before the semester, I created a tabbed application with buttons to trigger batch files to launch the products (spawn in the event trigger). Under Windows 95, it works like a charm, and was really easy with Builder. I added a statistical function where each button click would log to a local database. This way we have some idea of which databases are being used, and when.

### **Ray-tracing of optical systems**

*Carl Brooks*

This project will involve ray-tracing of Optical Systems and am looking forward to trying to figure out how to best represent the graphical aspects I'd like to incorporate into the



first version programming effort. I'm totally self-taught with the exception of one 'intro to C' course which I attended more than 5 years ago.

## **Rapid Application Development**

### **Simple grep program**

*Buddy Carpenter*

The only app I have designed so far has been a phone directory search at my Company. I used to run a simple grep program in DOS but found it cumbersome to keep switching to a dos window and adding a command line. Simple but the first time I have been able to create a Windows program due to the ease of C++Builder. I tried using Visual C++ for months and got nowhere. You would think it would be illegal for them to put Visual in their name when C++Builder is the only true Visual IDE.

### **Internal applications**

*Glenn LaVigne - Sandia Labs*

My application is being developed simultaneously in VB and BC++B (for different internal customers). The VB version has been under development for 3 months. The BC++B version my team has been working on has achieved the same level of functionality in five weeks since it could not only exploit the same ease of GUI design via visual components inherent in VB, but also had available the OOP power of C++. As a result, the next major application will likely be BC++B only instead of the VC++/MFC & VB mixed programming originally planned.

### **Experimental physics models**

*Jeff Nicholson - Los Alamos National Laboratory*

As a graduate student in experimental physics, I wrote a number of computer programs in C++. These numerical models typically solved a system of differential equations that predicted how my experiment, an atomic iodine photo-dissociation laser, would behave under various conditions of interest. The problem was, although the numerics worked fine, the interface could be understood only by myself; so the program was impossible for other graduate students to use. Borland C++ Builder changed that. With Builder, I was able to use the existing C++ code I had already written, and add an attractive user interface with only a couple of days of effort. This was important since, a) I am not a professional programmer, and b) I was in the midst of writing my Ph.D. dissertation and didn't have time to learn a new language. The new version, written in Builder, could then be passed on to future generations of graduate students who would continue the work I had started.

### **Interactive learning**

*Kevin Berry*

EduSoft Course Authoring Software helps students and employees learn more productively. It easily converts instructor course notes into interactive multimedia study notes for interactive learning and easy distribution in or out of the classroom. Colleges and Universities have shown high interest in the software, and will be using it this spring. This software's technical challenge was making course authoring as easy for the user as producing a letter is to a friend, while still retaining the sophistication of conventional course authoring software. C++Builder made this possible.

## **Rapid Application Development**

### **Demo interface**

*David Koeberle - Lucent Technologies*

My present app was a demo interface for an imbedded product. It was to show the purchaser of our products what we could do if they needed it. We manufacture battery plants which tend to be pretty boring. This is to make it look like they are rocket scientists.

### **Live surgical front-end to medical database**

*Greg Jorgensen - Radix Consulting*

Front-end to medical records database, for live use during surgery. Includes video/still picture capture, voice recording & dictation, and wireless voice command.

### **Patient interview simulation**

*Martin Sanchez - The University of Iowa*

My application simulates an interview with a patient. It allows professors to define a hierarchy of words that must be matched when a particular question is asked, in order to give an answer. I choose C++Builder because it allows me to quickly build an user interface and use the power of C++ for the internal engine of the program.

### **Software engineering course**

*Allan Miller - Golden Gate University*

A Golden Gate University, we have an innovative and popular MS program in Software Engineering. Most of the students who have taken our course, CIS 394I "Visual, Object-Oriented Programming Using C++ Builder" consider it the best class they've taken in the program. They love C++ Builder! By learning C++ Builder, they learn about C++, learn a well-designed class library, a RAD/visual programming environment, and learn the mechanics of event-based programming -- and what may be most important-- they have lots of fun!

### **Game utilities**

*Cliff Shak - VLSI Technology*

In the un-noticed world of freeware game utilities, one often has to put up with primitive command line programs or cheesy looking Visual Basic applications. But now, due to the capabilities of C++ Builder, a sophisticated, professional looking Win95 utility is available to the gameplayer. Rapid visual development allowed this programmer to put together a multi-windowed utility that presents the gamer with more data than other utilities, all modifiable via an easy to use point and click interface. And behind this, a sophisticated C++ class library to handle different format game files through a common interface.

### **Dos Text mode application**

*Jack Romanowicz - Bold Eagle Development*

C++ Builder let me to bring a fairly large DOS, text-mode application into the world of Windows 95 with minimal pain. I could reuse all of the non-interface code, and the visual development environment allowed a W95 newbie to get my forms designed and running in much less time than I ever thought possible! The PME paradigm makes a lot of sense, and playing with properties in the IDE expedited learning about the possibilities of the GUI. Thanks guys!

## **Rapid Application Development**

### **Musicians interactive practice tool**

Allen Heidorn

*Company: Coda Music Technology*

Vivace Practice Studio for Windows is an interactive practice tool for beginner and professional musicians and vocalists. Vivace provides piano or full orchestral accompaniment for a wide range of repertoire listens to the performer through a microphone and follows their tempo changes much like a human accompanist or conductor. The application also allows a soloist to customize their accompaniment in a wide variety of ways. Vivace also provides an interactive, visual tuner, on-line tutorial, practice-session reports, vocal warm-up tool, and a host of other useful practice aids. We were able to port our Mac version to Windows very quickly using C++Builder and our common code library. It reduced our time-to-market by months!

### **Photediting with 3D**

*Bob Russell - ROBERTS DRYWALL*

This is a program similar to many other programs, such as Adobe Photosuite, MGI PhotoShop, etc., but mine can also handle 3-D objects that move. There is also an option for the images on the screen to be compiled into a screen saver, allowing the user to create his/her own personalized screen savers.

Indexing, Image Processing, etc..)

### **Genealogy**

*Carson White*

My project utilizes the most current state of the art software, Borland C++ Builder Professional, 1st edition, BDE, VCL, and RAD Bridge the gap between the increasingly complex human interactions of today and societies need to document and communicate history.

## **High Performance Most Advanced C++ Compiler**

### **Telephone and lighting control system**

*Kenneth Wilson - KRW*

The application integrates the computer with a popular key system Telephone system and lighting control system to control a smart home/business light system within each room alone or the whole house/building. The Telephones in each room have an LCD display and softkeys, which are used for menu display and simple menu navigation. The lights in a room may be controlled individually or together to create scenes. The C++ Builder application is used for database management and as an interface controller between the light system and the Telephone system.

### **Semiconductor testing application**

*Jim Steenland - ITT Automotive*

Execution speed is most important in semiconductor testing applications. With C++ and Builder I have used the time it takes to close relays, perform D/A and A/D conversions, and motor motion times to perform measurement comparisons and reduce the total cycle time of the test program. Previously, I had developed my own database program to record test data. With the database tools in Builder I have been able to improve the database without losing testing time. As a result the data is much more manageable at the end of the test cycle and anyone can take the data and perform their own data analysis.

### **Alarm monitoring system**

*Travis Parchman - Data Based Security*

We are porting a high-end, industrial card access/alarm monitoring system from SCO UNIX into a client/server implementation. All GUI development is to be done exclusively using Borland RAD tools with both SCO UNIX and NT being used on the backend. The native support for Informix, built-in TCP component support, and comprehensive palette of VCL components have proven ideal to develop the next generation of our flagship product.

### **Commodities trading**

*Tim Altier - Altier Enterprises Inc*

I am working on a financial application which uses artificial intelligence techniques to build technical analysis rules which I will use to trade the commodities markets.

### **Control systems for A/V devices**

*Tarik Hussein - TR Technologies*

We are developing control systems for A/V devices: Laserdisk players, DVD players, CD changers, etc. Our typical customers are restaurants, clubs, and theme restaurants. C++ Builder offers an attractive environment because of the many levels of our applications; The user interface (VCL+custom components), music content selection (DB components), and low level device/communication programming (std. C / libs / DLLs). With C++ Builder, we have all these in one project.

## **High Performance C++ Compiler Development**

### **MOD, S3M, XM player/engine**

*Mark Brown.*

I'm currently Developing a MOD, S3M, XM player/engine. Mods are basically midis with Digital Sound. I heavily believe that algorithms are about 80% of the program, which is why mine may just be the fastest out there, according to friends and musicians. I used Builder for the GUI and class structure, Assembler for the mixing, and DirectSound for the Buffer. This allows Multiple Mods to be played ultra fast under one engine, and the mixing of other sound effects.

### **Phone conversation logger**

*Stephen O'Neil - TCG Telecommunications*

My current C++ Builder Application is a telecommunications product, Voice Print. Voice Print is a call logger. The function of a call logger is to sit on a company's Telephone lines and record all of the conversations for latter playback by a customer service supervisor etc. Voice Print uses hardware made by Lucent Technology which allows us to digitize each conversation and store it to a DAT. Voice Print creates a thread for each phone line which then continuously monitors the line for sound. This allows us to utilize the multiple CPUs under NT. As each conversation ends, a database record is created (for later searching and playback) and the call is then moved to DAT. The application displays a real time status of all phone lines, DAT and hard drive space allocation and usage. VP also allows the user to live monitor conversations for training and compliance purposes. This project has been difficult due to the separation of the development team (Los Angeles San Jose) and the need to support both Windows 95 and NT, but we have been able to work around that. One of the reasons we decided on C++ Builder is that one of our programmers is a Delphi user and he convinced us of the virtues of Borland's programming environment. Now we all agree with him.

### **Development tool for programmable welders**

*Don Buchanan - Lincoln Electric*

I am developing a programming tool to create welding waveforms used in Industrial Programmable Welders. This tool includes serial communication for real time development, a graphical user interface to build welding waveshapes, and a compiler to produce machine code to run on the embedded system. It includes utilities for packaging selectable waveform sets for download to flash eeprom and machine control

### **Year 2000 compliance**

*Nathan Taylor*

I used C++ to write a program that tests the BIOS of PC's for Year 2000 compliance. One test checked for roll over, the other to see if BIOS would hold a date if it were set.

### **Text to speech translator**

*Peter Nelson*

My application is a text to speech translator. It takes a stream of text and feeds it past a neural network. The network outputs a number corresponding to 1 of 52 phonemes in the English language. I use C++Builder so I don't have to concentrate on the visual interface.

## **High Performance C++ Compiler Development**

### **Neuron collected during surgery**

*Behrooz Kousari - St. Joseph Hospital*

It handles neuron activity collected during experiment. it can be used with acute patients during surgery. It collects data and detected changes in brain activity. I have made very easy to use. It has a lot of potential in medical field. Best of all it is all graphical. It can be setup and used by technician in less than 30 minute.

### **IBM host based application**

*Ray Barlow - Alltel Information Services*

I use Borland C++ to build and test IBM host based applications. Programming tools for C on an MVS Platform are not great. I have the pleasure of using an advanced programming tool for the last 6.5 years that just keeps getting better.

### **Photogrammetry**

*Jocompiler! Van Workum - Harris Corporation*

I have created a general, object oriented, C++ class to do least squares adjustment of many technically interesting problems. In one case, I derived the capability to do photogrammetry problems for large image adjustment problems. I was especially pleased when an internationally expert in photogrammetry reviewed my work and was impressed at how "simple" the code looked and at how easy it was to understand.

### **ATAPI DVD RAM drive testing**

*Anh Ngo - Digital Papyrus*

Testing ATAPI DVD RAM drives. Multithreading for smooth operation. Implementing ways to analyze the DVD RAM drive in prototype R&D phase and in production phase.

### **Multithreaded in 95 based multi-communications application**

*Edward dong - Boeing*

Multithreaded Win 95 based multi-communications application. Serves clients via TCP/IP and UDP, and communicates to remote embedded processors via RS-422 in pseudo real time. Response time to remote embedded processors is on the order of 6 milliseconds. Provides a built-in debugging window for TCP/IP networking services and for RS-422 embedded processor communications.

### **Tiff graphics**

*Jim Caldwell - Creative Solutions*

TIFF graphics utility port from Borland C++ v3 to C++Builder, which allows pick and choose of TIFF data Tags and creates an xBase or comparable data file, minus the graphic images.

### **Paging terminal emulator**

*Alexis Rios - Advanced Computer Technology*

Direct Beeper 2, enables you to send alphanumerical messages directly from your PC. It's a paging terminal emulator, with many innovative features, using the C++ Builder Power. Sends single and multiple group messages. Message scheduler and queue features and much more.

## **High Performance C++ Compiler Development**

### **Simulating DLX computer architecture**

*Edward Rasalam - Student, Georgia Institute of Technology*

Currently I am simulating the working of DLX computer architecture for my Advanced Computer Architecture course. Next quarter I expect to simulate the functioning of Parallel Computing.

### **Traveling salesman**

*Pavlos Honderich - student*

The only real program I wrote in C++ builder was for a Computer Science Algorithms class. I wrote a really neat windows application for the Traveling Salesman NP-complete algorithm. I used all sorts of features in C++ builder and some freeware components (xygraph 3.0) to create a program that knocked my professor's socks off. He was so impressed that he said he would look into buying either C++ Builder or Delphi for himself. That's my story.

### **Real time mechanical test lung analysis**

*Robert Baldwin* A real time analysis system for data acquired from a mechanical test lung. The test lung instrument is simulated a patient and is used for testing respiratory care equipment. Pressure, volume, and flow data are acquired by the program through the serial port, dozens of respiratory parameters are calculated from the data stream, and presented using real time graph windows, tables, and lists. Reports are generated for printing, and data is archived for calibration and maintenance records.

## **One Step Active X for Reusable Components**

### **Data archive**

*David MacLean - Matrikon Consulting, Inc.*

We have a process control data archive package that my Company interfaces to various DCS's. It has some fancy tools using DDE and Active X to display data for the user, but when it comes to development work, seeing what is actually in the database, point by point was taken care of by a command line interface. Some quick coding in Builder, and I had all the points accessible and updating right on the screen, so I could actually see what data was going into and out of the Data Archive

### **Grid component**

*Yoran Brault - crystalerie*

It's simply a new technology inserted in a dedicated RAD platform (Industrial Synoptics Designer). This control is the first of a big library that will contain a complete ActiveX suit and a Java Client to permit the remote access of Process Synoptics.

### **COM based desktop**

*Michael Gaffney - T. Rowe Price*

We used Borland C++ builder to create a COM based desktop. This desktop launches and manages multiple COM components (In-Proc or Out-of-Proc) through one interface which has seven automated methods. The desktop also provides it's own COM interface (called the component controller) which allows any of the COM components to control another COM component. By implementing this solution, any development team in the Company, using any development environment that supports COM, can be launched from one common toolbar. This allows our user's to have what appears to be only one application. In addition to this, the individual components also can define their own interfaces so that other components can reuse what they have done. We have already achieved a good amount of software reuse, and are gaining even more each day. Just recently, we added an additional common component called the Notification Center. The Notification Center is an observer pattern COM component that allows different components to be notified when an object changes. Again, many of these components are done in different languages. And finally, both the Desktop and the Notification Center used the STL that Borland provided extensively.

### **Research paper assistant**

*JP Bicket*

I'm working on an Object Oriented application that will help college level English Composition and/or Speech Communication students "walk through" the process of writing the Research Paper or Speeches. It begins with the development of the Thesis Statement, then fleshes out the outline and electronically documents the "note cards" and automatically generates appropriate reference notes or foot notes and finally creates the paper and allows for exporting it (via OLE Automation) to Microsoft Word or Corel WordPerfect.



## **One Step Active X Development**

### **Update DOS based control program**

*John Francis - BitWorks*

I had to update an old-DOS based control program. The requirements included adding multiple input "consoles" and still maintain the single serial-interface. The old program had all the lookup tables in code or ASCII files, and there was little or not documentation. C++Builder made building an OLE Server a piece of cake. The database and GUI interface components got me the job because I turned out a "swag" RAD-GUI in two weeks. The others, using somebody elses "visual" tool, said it would takes months to build a GUI. I got the job, and produced the product in 1/4th the time of the next bidder. I delivered it in 6 months (with a few added requirements to boot), 14 months ahead of schedule. I also got more work from the same people and now work within their business-network. I made a bundle on money & it cost me peanuts to do it! Way-Cool Stuff.

### **Real Estate Calculations**

*Welcom Watson - Real Estate Expert Systems Associates*

Reesa handles the calculations related to real estate settlements, escrow accounting and document preparation. It is a DDE server and interfaces with Word and WordPerfect. My main form has 493 user input controls. In OWL I painted the screen in code and used a roving edit box - in BCB I wrote a custom graphical control that creates its own DB control for editing. The result is graphical design while still conserving system resources.

### **Inventory and accounting for Epson Pen Computers**

*John Milam - AppLogix Development Group, Inc.*

We have written an application that runs on 100 Epson Pen Computers running Win95 that allows field inspectors all over the U.S. to check inventory and the condition of that inventory as well as produce billing statements and account reconciliation for remote customers. The information is then sent to the home office Windows NT server through a RAS connection controlled from the application.

The Pen Computer dials the server, creates an instance of a custom DCOM object created with C++ Builder also. The DCOM object grabs the data from the PEN computer that has been zipped, and then updates the MSSQL Database, queries out the new inspection records, zips the data and sends it back to the field. This has allowed us to cut the 10 day delay in getting current information to an overnight process. The customer is very pleased with the application and C++ Builder allowed us to get the job done on time and under budget.

### **OCX's header generator**

*William Alan Ritch - Podkayne Systems, Inc.*

In order to put OCXs in C++Builder, I developed a C++Builder application that reads registered OCXs and generates complete header and C++ files for accessing ALL the data structures defined by the control, so that the user can early bind, instead of late bind the OCX.