

## Frequently Asked Questions

### 1. On which platforms does Appgen run?

Appgen products are currently available for Linux (RedHat, SuSe, Linspire and others), Microsoft Windows NT/95/98/XP/2K, Mac OSX, AIX, SCO Unix and Unixware. There are three basic configurations: Single-user (all platforms), Client/Server, and Peer-to-Peer (Windows only).

The client/server configuration supports mixed environments where the application server can be running any of the supported OS platforms. The clients can be any device running the supported client platforms: Java client for Linux/Unix and others, Windows client, or Mac client; and/or character-based terminals connected via serial lines. Desktop client users can take advantage of value-adds that exploit the capabilities of desktop computers and software, or the client/server configuration can be implemented with only a server and character-based terminals resulting in a purely utilitarian system in which all the features of the applications are still available to the users.

The complete Appgen client/server system can be configured into any LAN or WAN running TCP/IP. The client/server model used is the thin-client/server centric model which provides the highest degree of performance, reliability, security, and centralized control.

### 2. How do I modify Appgen applications on my customers' systems?

While the Appgen Development System is required to make modifications, this work may be done on your in-house development machine and then transferred to your customers' computers. For better customer service, developers may obtain limited license Development Systems for your support needs at your customer sites, at a nominal charge. This license gives you all the abilities of the fully licensed Development System, and only restricts use by the customers themselves. With this license, you may perform any development, maintenance, or support directly on your customers' machines, whether on site or at your own location.

### 3. What is the design philosophy of the Appgen Development System (4GL)?

Developing an application with Appgen is simple and straightforward. After a cursory analysis, you begin prototyping. From there, you just keep building on top of the prototype until the project is completed, regardless of any discoveries involving changes in data structures. This is possible because of the variable-length data base which is tightly integrated into development work done with Appgen. There is never any need to pre-determine and structure any Appgen data base with regards to the number of tables, rows, or columns.

At the core of Appgen is a Run Time engine that handles all the basic functions of a business application: menus, file maintenance and data entry screens, reports, batch updates, and their corresponding selection screens. These programs are already compiled and only require developer defined parameters to be complete and unique for each task of a specific application. The compiled programs ensure the best performance. The parameters that determine the exact actions to be taken by the engine are organized into files which are referred to as the application programs. These parameter files are reusable objects that can easily be connected in a myriad of ways to form truly user-friendly low maintenance applications.

The majority of the coding is a matter of filling in blanks which become the parameters of the program. Even the coding of high level 4GL functions and macros is just the filling in of parameters that are accessed at the different points of the program's execution. Once the parameters are complete, the programs may run-there is no compiling of programs. The Development System is the application that guides you through the building of the parameter files.

Most of the development of screen oriented programs is accomplished with an intuitive visually-oriented Appgen screen painter. Reports are designed in a similar manner using the Appgen report painter.

Client specific activities are also programmed into the applications on the server side. Whether the program needs concern the graphical look of the application (e.g., colors, 3D windows, message and text boxes, etc.) or the interface to Windows-based applications, high level 4GL functions are supplied to determine the way the application looks on the PC, and to perform DDE calls to manipulate client-side programs. High level functions also allow the display of images and the playing of sound and video files on the client PC.

## **4. How do Appgen development cycles compare with those of standard third generation languages such as COBOL?**

Compared with COBOL, programmers develop typically twenty times faster, and maintain, debug, and enhance existing programs up to fifty times faster. This is due to many factors, including the use of parameters and high level functions in Appgen that eliminate tremendous amounts of code, and the data base structure that frees programmers from concerns of anticipating, or adjusting to, changes in the data files and fields. Another contributing factor is that no compiling of programs is necessary in Appgen.

## **5. What if I have legacy programs and sub-routines written in 'C' that I want to utilize in an Appgen-created application?**

The Appgen 'C' Toolkit (which is included in each Appgen Development System and Run Time) provides libraries that contain all the Appgen data base access functions, object files, and

makefiles necessary to link up your sub-routines to any Appgen program. The accompanying manual contains step-by-step instructions for writing and linking the routines. Linked routines may be called just like any Appgen 4GL function.

## **6. What type of client/server architecture does Appgen deploy?**

Appgen deploys a two-tier client/server scheme. However, unlike most two-tier systems, Appgen's is server centric, with thin clients connected to a central application server. This scheme eliminates a tremendous amount of network traffic as compared to other two-tiered systems, and allows a single powerful application server to accommodate many clients with no need to upgrade individual client hardware for more performance. A centralized application provides for a single code base and greatly reduces the time required for program updates, maintenance, and general support.

## **7. What kind of PC programming skills must I have to create and maintain Appgen-based client/server applications?**

None. All Appgen application development can be done on the Unix server. Appgen programs address both the character-based and GUI clients simultaneously while allowing the programmer to test if the user is a client so that PC features may be utilized within the same program. While no PC programming is required, Appgen's open architecture allows programmers to develop routines in Visual Basic, and attach them to Appgen applications.

## **8. What if my vertical application solution, which is written in another language, is only character-based, and I wish to use the Appgen Applications alongside it?**

Oftentimes, VARs with character-based vertical solutions are concerned that their prospects and customers will have a false impression that the accompanying GUI-based Appgen accounting applications are superior to their main offering. To remedy this situation, the Appgen PowerWindows Toolkit allows you to turn your character-based software into true client/server software. Just as with Appgen applications, yours will appear and operate in the manner of a GUI application on the client PCs. This toolkit allows you to retain your investment of past development efforts and requires some additional programming to fully exploit the GUI environment.

## **9. What kind of database does Appgen utilize?**

Appgen's is an ODBC compliant, hash-keyed variable-length relational database. The variable length feature provides for higher productivity in software development, enhancement, and

maintenance by freeing the programmer from concerns about the number of fields a file may contain, the size of any field, the size of any record, or the size of any file. All these constraints are handled automatically by the data base management system.

Appgen also includes a powerful feature not found in most of today's popular data bases. This feature, called the 'multi-valued attribute', allows any data field to contain an indefinite number of elements, or values. For example, a single sales order data record may contain any number of line items. This simplifies data structures and eliminates a tremendous amount of programming time. The Appgen data base management system is an integral part of the Appgen Run Time and Development System, and is not purchased separately.

## **10. What about ODBC?**

ODBC (Open Data Base Connectivity) is the standard, put forth by Microsoft, that allows applications to easily communicate with each other and their data. It is basically a filter on top of SQL. Appgen is now supplying an ODBC driver in the PowerWindows version of its applications products. (This is available on limited platforms. Please call for current availability.) The Appgen ODBC makes the Appgen Database 'open' in the truest sense. This 'openness' provides the kind of connectivity with which Appgen VARs and users are able to take advantage of the technologies available in most of today's Windows-based applications, without having to custom build all needs from scratch.

For example, when controllers have ever changing needs in financial reporting and projecting, they can easily bring their data from the Appgen General Ledger system into a popular spreadsheet for the ultimate in flexibility.

## **11. How is system performance affected by large data files?**

It has been proven in the field that retrieving records by key from a file with one million records or one record is virtually instantaneous. The biggest factor here is the number of levels of indirection invoked by the Unix file system buffers, but users with files as large as 4.5 gigabytes have perceived no degradation in performance. (In addition, the Appgen database is seemingly incorruptable. Virtually all structural problems reported in the last two releases of Appgen were a result of hardware failure.) According to in-house tests, and users' experiences, Appgen's sequential read process performs on par with, or faster than, most of today's data base systems.

## **12. Do you have a product that will allow my customers to make ad hoc inquiries into their data?**

Yes. The Appgen query engine is called AQL (Appgen Query Language). With AQL, users can type English-like sentences to retrieve, format, and output data. AQL is included with every

Appgen Run Time and Development System. Appgen Easy Query is available for those who prefer its more user-friendly point-and-click type user interface to AQL. Both AQL and Easy Query perform consistently on character terminals and Windows PCs. Power users can take advantage of any of today's popular PC-based query products, from Microsoft Query<sup>®</sup> to IQ's Intelligent Query<sup>®</sup>--actually, any ODBC-compliant Windows-based product.

### **13. How do I convert my existing customers' data from their legacy system to Appgen? (What import and export capabilities does Appgen have?)**

The Appgen Development System includes both import and export facilities. The import facility allows you to read ASCII data (e.g., from legacy applications) and convert it to Appgen data files while assigning keys and manipulating it as necessary. The export facility allows you to take gathered data from Appgen files and produce ASCII files in fixed length or delimited field formats, as Unix and/or DOS files.

### **14. What is involved in upgrading existing installations?**

As new versions of Appgen are released, there are two considerations for upgrading customer installations: upgrading the Run Time only, and upgrading both the Run Time and the applications.

While each new release of the applications will obviously bring more features and benefits, each new release of the Appgen Run Time itself always includes new features that bring more power and user-friendliness to any Appgen Application installation. Upgrading the Run Time never requires re-writing of any application code, and usually requires between 30 minutes and two hours depending on the size and complexity of the applications.

To upgrade applications that have not been modified, the process is always very simple, usually requiring just the typing of a name of a special update program or script.

To upgrade the applications at installations in which the applications have been modified, Appgen supplies documentation and tools required to migrate prior modifications to new release applications. Sometimes, installed software becomes so highly modified and specialized to its users' needs, that no application upgrade is desired. In such cases, users can still benefit from an upgrade to the Run Time software, which usually results in higher performance, a friendlier interface, and more possibilities for customization with the release of a new Development System.

### **15. How often are the products upgraded?**

All the Appgen products are in a constant state of R&D. New versions of all the products are released as often as once a year, and up to once every two years.