Microsoft® Jet 2.0/
Visual Basic® 3.0 Compatibility Layer

Background information

Visual Basic 3.0, released in May of 1993, includes support for the Microsoft Access® 1.1 database engine, Microsoft Jet Database Engine ("Jet"). This provides Visual Basic developers the ability to create and distribute royalty-free applications with Jet as the underlying database. Microsoft Access 2.0 contains a new Jet file format that Visual Basic 3.0 can not access. To provide this capability Microsoft created the Microsoft Jet 2.0/Visual Basic 3.0 Compatibility Layer ("Compatibility Layer"). Use of the Compatibility Layer is OPTIONAL -- Microsoft Access 2.0 reads and writes Jet 1.1 so Visual Basic/Jet 1.1 applications do not need to be converted even if users upgrade to Microsoft Access 2.0. There are some major benefits to upgrading, though, and these are described below.

What the Compatibility Layer includes

The complete Compatibility Layer consists of the following pieces:
- The new Jet 2.0 database engine file
- An updated version of the Visual Basic file which interfaces to Jet
- A new file that maps the previously listed two files to each other
- A file that modifies the Visual Basic Crystal Report files to work with Jet 2.0
- Updated versions of the Jet supported ISAM drivers (Paradox®, FoxPro®, Btrieve®)
- A setup file that installs the layer and updates appropriate system files

The setup file does not remove the Jet 1.1 *files*, but Visual Basic will be using the Jet 2.0 *files*, once setup is run. Visual Basic-based applications that use Jet 1.1 format *databases* will continue to operate since Jet 2.0 reads and writes Jet 1.1 format databases. Visual Basic-based applications that *create* Jet 1.1 format *databases* can continue to do so through the Jet 2.0 *files* simply by changing a setting.

Benefits of upgrading to Jet 2.0

Microsoft Access 2.0, via Jet 2.0, provides a host of powerful new features that will be available in Visual Basic-based applications once the Compatibility Layer is installed.
- Cascading updates and deletes allow the user to delete or update a record and have all dependent records reflect the change
- Table level validation provides greatly increased data integrity and security
- Rushmore™ query optimization greatly speeds execution of many common queries
- Virtually any view can be updated
- Support for the Paradox 4.x file format
- Support for the Btrieve 6.x file format
- Improved SQL Pass-through for non-standard SQL that needs to be sent to servers to execute, for example, stored procedures
- Improved SQL support such as UNION, Subqueries and the new Top N query

Limitations of upgrading to Jet 2.0

The Compatibility Layer gives Visual Basic developers complete access to Jet 2.0 and all its new features, but there are a few limitations. These result primarily because the Visual Basic language has not changed and so the Visual Basic developer does not gain programmatic access to some of the new features. In many cases, Access 2.0 can be used to access features that are not directly available through Visual Basic.

- Cascading updates and deletes are supported but must be specified using Microsoft Access 2.0
- Table level validation is supported but settings must be specified using Microsoft Access 2.0
- Jet 2.0 now supports zero-length strings so some updates may fail if validation rules require zero-length strings, which Visual Basic can not use
- Jet 2.0 databases using any of the eight new language sort sequences will be read-only in Visual Basic
- Jet 1.0 format databases can not be created by Jet 2.0 files

Distribution issues

After purchasing the first Compatibility Layer, from either of the two options listed below, Microsoft allows propagation of that layer free-of-charge to other eligible Visual Basic licensees within the same organization. Applications created with Visual Basic and the new Jet 2.0 database engine are, as before with Jet 1.1, fully distributable royalty-free to application end users.

Purchase information

The Compatibility Layer is available in two ways:

- *Microsoft Access Developer's Toolkit (ADT) 2.0*. Microsoft Access Developer's Toolkit 2.0 is scheduled to be available through resellers or direct from Microsoft in the early spring of 1994. Suggested retail price will be $495 for new users. Until August 31, 1994, current Microsoft Access Distribution Kit 1.1 and Visual Basic 3.0 licensees will receive $100 off the suggested retail price via a rebate. All files needed for usage, propagation and application distribution are included.
- *Microsoft Office Developer's Kit (ODK) and Microsoft Access 2.0.* Both products are scheduled to be available through resellers or direct from Microsoft in the early spring of 1994. Suggested retail price for the ODK is $99.95. A special offer for Visual Basic 3.0 Professional users is available direct from Microsoft at $49.95. It will also be available as a standard component in all new packages of Visual Basic 3.0 Professional Edition. The ODK comes on CD-ROM only.

   The ODK includes all files in the Compatibility Layer except the main Jet 2.0 database engine file, which is available in Microsoft Access 2.0. Therefore to use the ODK edition of the Compatibility Layer you need to purchase Microsoft Access 2.0. The license in the ODK permits distribution of this file with Visual Basic 3.0-based applications. Suggested retail price for Microsoft Access 2.0 is $495. Until August 31, 1994, current Microsoft Access 1.x users can upgrade for $99. Competitive and Microsoft Office Standard upgraders can purchase for $129.