Fujitsu Legacy Modernization

CoolCat Migration from Microsoft Visual Basic 4, 5 and 6 to Visual Basic .NET Capabilities
Challenges

With the advent of the Microsoft .NET development framework, Microsoft released a new version of the popular Visual Basic programming language – Visual Basic .NET. However, the extensive differences between previous versions of the language and Visual Basic .NET meant that many organisations have delayed migrating to the new framework. While Microsoft released a migration wizard to assist in the move, unfortunately it stopped short of a 100 per cent conversion. This left a large part of the code to be migrated by hand, with all the associated risks.

Visual Basic 6.0 has been out of standard support since March 2005 and will be out of extended support from March 2008. Specialist support from Microsoft will become progressively more expensive as fewer sites use this outdated version. In addition, the Visual Basic 6.0 runtime will not be guaranteed after 2011. All these factors mean organisations running versions of Visual Basic 6.0 or earlier need to seriously consider upgrading to Visual Basic .NET 2005.

(Source: Gartner "Visual Basic 6: Setting End-of-Life Migration Priorities" Mark Driver, 14 December 2007)

Organisations that have not yet migrated to Visual Basic .NET 2005 may suffer from the following issues, each of which can severely affect organisational viability.

Issue/risk

- Risk of complete, simultaneous failure of all Visual Basic systems
- Increases in cost of ownership as support costs rise and resources become scarce
- Complexity of IT portfolio
- Language longevity
- Manual migration risks and costs

The options available to organisations with Visual Basic 4.0, 5.0 and 6.0 have traditionally been:

- Stay with Visual Basic 4.0, 5.0 or 6.0
- Re-write the system manually in Visual Basic .NET or Java to meet current and future functionality requirements
- Convert the code using the Microsoft wizard and manual intervention
- Find a package to replace the systems and undertake the required systems integration
- Decommission the applications
However, many of the issues with Visual Basic 4.0, 5.0 and 6.0 will become increasingly acute over time, eventually making the framework impossible or impractical to run. Re-writing the system yourself is a high-risk, expensive and time-consuming undertaking. While using the Microsoft wizard to convert some code is an option, you will still have to convert the remainder manually.

Benefits
The major benefits of the Fujitsu Legacy Modernization program for Visual Basic are:

- Removing your organization’s reliance on unsupported versions of Visual Basic and avoiding the possibility of total language failure
- Reducing support costs
- Reducing the complexity of your technical portfolio with fewer versions to support
- Increasing access to cheaper technical resources by moving to Visual Basic .NET
- Creating code in Visual Basic .NET that is recognizable to Visual Basic 6.0 developers
- Streamlining the migration as, unlike other options, only the legacy system needs to be updated during the process, not both systems
- Reducing risk through industrialized testing
- Increasing the speed and accuracy of application development and maintenance by taking advantage of the Microsoft Visual Studio development environment
- Increasing access to leading-edge technology
- Avoiding confusion as the format of the applications remains the same
- Reducing end-user training as all screens have the same topography and navigation creating a more secure technical roadmap for the future
- From our previous experience we believe our Legacy Modernization option to cost roughly half as much as the Microsoft Wizard/Manual Fix option.
Fujitsu’s Legacy Modernization Approach

Fujitsu, with Legacy Modernization partner Shiga Fujitsu Limited®, has created a smarter approach to moving your organisation to Visual Basic .NET 2005.

To begin with, we conduct an application value assessment workshop to learn about your environment and desired outcomes. From this workshop we agree on a suitable application to migrate as a pilot project and give reasonably close estimates of the cost, timeframe and resource requirements for undertaking the entire migration.

Fujitsu conducts the initial code migration in a similar manner to the Microsoft wizard. However, we also include CoolCat Classes to replace the parts of Visual Basic that have no Visual Basic .NET equivalent and alter any reserved words to conform to Visual Basic .NET standards. We use CoolCat Comments to enable alterations between the old and new versions of the application, such as colours and version names.

Fujitsu also leverage our Type Library, a database of alterations requested during current and previous projects, to help CoolCat learn different migration requirements.

During the migration, we apply only a very limited freeze period on the source code to eliminate the risk of functional drift, which is where the old and new versions of the application would both need to be altered separately. During the migration, only the legacy Visual Basic code needs to be maintained. We make no functional changes throughout the migration to reduce risk and conduct industrialized testing on the migrated application to ensure that the old and new applications function identically. The final migration requires no manual intervention.
Why Fujitsu?

Fujitsu’s Global Legacy Modernization Offering has three Centres of Excellence; these are based in America, Europe/UK and Australia.

Why Fujitsu?

Fujitsu’s Legacy Modernization services offers:
- The CoolCat capability is part of the Fujitsu Legacy Modernization global offering and so is available from all the Legacy teams around the globe
- Commercial models to suit your business requirements
- End to end solutions with single point accountability
- Extensive experience in planning, designing, migration and implementation of legacy systems and new world technology
- Proven methodologies (Macroscope™)
- Certifications of International standards of excellence (ISO9000®, ITIL®, CMM)
- Experience with automated legacy system conversion and documentation
- Ability to deliver using on-shore or off-shore resources
- Ability to work with your existing IT staff as a combined delivery team
- Access to global resources with experience assisting major corporate and government sector organizations
- Knowledge of legacy system hardware and software for all major vendor systems;
- Unique range of software products that assist in the transformation of legacy environments
- Successful track record in delivering Legacy Modernization projects for world’s leading organizations

The Team

Fujitsu’s Legacy Modernization program for Visual Basic is based on our own intellectual property.
The CoolCat for .NET toolset was created by our partner Shiga Fujitsu Limited in Japan.

The team is responsible for:
- Project management
- Application migration
- CoolCat toolset usage
- .NET architecture
- Industrialized testing
- Total solution architecture

Fujitsu’s global Legacy Modernization teams have undertaken this service in Australia, Japan and the USA.
Our largest Visual Basic migration to date was the successful migration of a portfolio of applications that totalled more than 2.5 million lines of code. We have a selection of case studies which are available upon request.
Fujitsu are a leading service provider of information technology. We partner with our customers to consult, design, build, operate and support business solutions. From strategic consulting to application and infrastructure solutions and services Fujitsu Limited have earned a reputation as the single supplier of choice for leading corporate and government organizations. Fujitsu have been bringing together development and support environments for a wide range of technologies, as well as professional expertise covering a broad array of technical competencies for over 20 years.

Fujitsu are collaborative team players who are flexible and adaptable and can readily fit into any client environment. We work with you, leveraging partnerships with strategic alliances to help tackle your complex business challenges to deliver real business results.

Fujitsu focus on your outcomes and develop an optimal service delivery model and framework of pre-agreed service levels based on your organization’s business and budgetary priorities.

Fujitsu have a strong track record in tackling challenges and realization of tangible and intangible benefits. Many different clients throughout the world have benefited from our techniques to ensure that the desired results are achieved in practice.

Please Tell Me More?
Fujitsu would be pleased to talk to you further about how we can work together to help you leverage the investments your organisation has made in legacy applications. If you answer “Yes” to any of the following questions, please contact Fujitsu for a more in-depth discussion of our Legacy Modernization options for Visual Basic .NET.

Critical Questions

- Are you concerned about the longevity of Visual Basic 4.0, 5.0 or 6.0?
- Do you want to move your portfolio to a supported technology platform?
- Is the availability or cost of support resources causing concern?
- Is Visual Basic 4.0, 5.0 and 6.0 interconnectivity restricting your technical options?
- Is your speed of development or time to market too slow?
- Is your organization highly risk averse yet needing to move on?

If you would like to talk to us in person please send an email to the Legacy Modernization team in your local area. Email addresses are on the final page of this brochure. Or visit our website and take an online survey.
About Fujitsu
Fujitsu is a leading provider of ICT-based business solutions for the global marketplace. With approximately 173,000 employees supporting customers in 70 countries, Fujitsu combines a worldwide corps of systems and services experts with highly reliable computing and communications products and advanced microelectronics to deliver added value to customers. Headquartered in Tokyo, Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.6 trillion yen (US$50 billion) for the fiscal year ended March 31, 2010. For more information, please see www.fujitsu.com.

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