

## **Case Study: Caving Simulation Application**

### **Client**

The Client, a South African formed agency, provides computer based mining consultancy services in the areas of geology and mining engineering.

### **Situation**

The Client developed a basic simulation system with a local mining company. The system was designed to facilitate the modeling of production grade values from the mixing and movement of geological blocks. However, it was rather limited in functionality and was programmed in a primitive language. The Client had the desire to advance the application to a new technology platform to improve the performance of the application in addition to adding new functionality.

### **Solution**

ISHIR did a complete coding review of the application and after evaluating offshore companies that had previous experience with migration applications, the Client selected ISHIR, a highly experienced offshore programming company, to work as their new product development team. ISHIR's responsibilities were to design and develop a new release of the application. Subsequently, a process map was framed for a smooth transition of the application from VB to VC++. The client chose the offshore development model to reduce product development costs, improve time-to-market delivery and augment its IT skill-base. Furthermore, ISHIR worked on a design to make the interface windows more intuitive and user-friendly. To effectively market the application as a product, key modules to enhance the simulation engine were added using several components like ActiveX controls and ATL-COM.

### **Results**

With ISHIR's assistance, the client delivered a new version of the application in record time. ISHIR's team moved the product R&D and followed the product development process defined by the client. The client reduced development costs by approximately 40% and released a high-quality product according to their plan.

### **Technology**

The product was developed using C++ Open GL, 3D Solids Modeling, in addition to C++/VB interfacing through traditional C++ DLL's.

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