IQUEST

Media
Case study

Global co-operation for multimedia application development

Client: Pinnacle Systems, Inc.

Based in California, USA, Pinnacle Systems, a consumer division of Avid, is renowned for innovative, easy-to-use solutions in the area of digital multimedia. With over 10 million unique registered customers Pinnacle gives consumers the functionality and the freedom they need to enjoy their growing digital media collections. Pinnacle products include video editing solutions, TV tuners for the PC, mobile media, home music making, and digital media adapters.

Pinnacle products depend fundamentally on technology that enables the transition of video from traditional to computer-based devices. These products deliver cost-effective solutions for consumer, business and broadcast applications.

Project overview: global team effort

iQuest was commissioned to develop the software for Pinnacle TV receiver cards.
This included design, implementation and testing of a desktop multimedia application for analogue and digital TV handling, recording and EPG integration, video (DVD, VCD, SVCD and stored on hard disk), music (CD/locally stored) and photo slideshows.

A team based in different locations in three countries – Germany, the USA and Romania – was coordinated by a project manager sited in Germany. This global team effort was progressed through regular site visits for delivery and project meetings.

The Solution

The iQuest team developed the main desktop application, integrating low-level components; TV card driver, PVR library, music/video playback component, skinned custom controls as well as the user interface library needed to fulfil the specific skinning requirements. In addition, iQuest undertook the requirements gathering phase, configuration and change management, including the supporting infrastructure, requirements management, architecture, class-design, testing and associated project management, as well.

The resulting application functionalities offer:

- TV viewing and recording
- Extended TV-related functionality: teletext, electronic programming guide EPG
- Multimedia player for video-audio from digital media.

Supporting infrastructure

The infrastructure comprised several servers distributed at the different locations, connected through VPN, and testing facilities providing the necessary TV signal types (analogue PAL, NTSC and digital DVB-T, DVB-S, ATSC).

A specific testing infrastructure was set up to facilitate software testing for each type of receiver card. In order for this to be possible, iQuest installed satellite receiver antennas, modulator devices and a distribution network for analogue and digital signals at its offices in Brasov, Romania.
As a result of these installations, signal can be received independently from over 1500 unencrypted TV-satellite channels. The PAL analogue signal is accessed from a local provider in Romania, while analogue NTSC, and digital DVB-T and ATSC signals are obtained through modulator devices.

Technologies

C++, COM, DirectShow, C#/.NET

Results: ongoing enhancement

The project commenced in March 2003. In the intervening four years numerous software releases and updates have been issued for the end-user. Accordingly, the project duration was over 380 person-months.

The software developed by iQuest can now be found on the shelves of computer stores worldwide.
It was one of the best selling TV PV products in the US.

About iQuest

Headquartered in Germany and having two development centres in Romania, iQuest is an IT solution provider delivering customised solutions in financial services, telecommunications, life sciences, logistics, media and IT. With over 12 years of experience and more than 320 employees in its 7 European locations, iQuest delivers best-in-class services for long-term clients in Germany, the United Kingdom, Switzerland and Sweden.