

The Client



上海创景计算机系统有限公司



LDRA have operated in the Chinese market since 2000 through their distributor Vision Microsystems.

In this time the Chinese aerospace and defense software market has developed at a dramatic rate and this in turn has lead to a high demand for software test tools capable of analysing complex safety-critical applications.

“Easy to configure for coding standard enforcement and the ability to integrate with difficult embedded systems”

Project Requirements

A number of key projects including the China Manned Spacecraft programme and China Moon Exploration programme were looking for software tools. The tools had to meet several strict criteria, including the following:

- C/C++ coding standard enforcement
- Ability to check the Chinese Military Standards - GJB5369-2005K
- Code coverage analysis up to MC/DC for DO-178B Level A
- Assembler level code coverage
- Automated unit testing



Chinas first astronaut - Colonel Yang Liwei

The Benefits

Mr. Zhiqiang Zhang, CEO, Vision Microsystems said:



Zhiqiang Zhang

“Coding standards enforcement has become a widespread requirement in China. LDRA have a large number of rules within the tool suite including MISRA C /MISRA-C:2004, which assists greatly with meeting customer requirements.”

“Being able to identify many deep dataflow defects which can not be detected by other tools is a key distinguishing factor for LDRA.”

“Many software testing standards in China are derived from US or European standards such as DO-178B & DEFSTAN 00-55. The Chinese software testing standards request code coverage verification.”

“For example the China Manned Spacecraft programme has now entered into the second phase, which requires MC/DC coverage analysis for DO-178B Level A software.”

“LDRA takes this one stage further and carries out object verification testing. The LDRA tool suite is the only tool in the market which can provide both C and assembler level coverage analysis.”



SECOND MISSION: China's Shenzhou VI manned space mission carrying two astronauts, the country's secondmanned spaceflight, lifts off from the launch pad at the Jiuquan Satellite Launch Center in Jiuquan, in China's Gansu province.

The Future

The LDRA tool suite provides an open scheme for software instrumentation. This feature continues to allow users to integrate with any platform, especially embedded systems.

Automated and effective unit testing is becoming increasingly important in China.

Zhiqiang Zhang commented:

“The ability to automate the unit testing process and not have to also learn a script based language is very important for Chinese customers. The automation facilities within TBrun make unit testing a seamless and highly productive process.”

For more information contact:

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