Sichuan Rural Credit Union

Sichuan Rural Credit Union accelerates new product launches with Micro Focus® Application Lifecycle Management.

Overview
Sichuan Rural Credit Union (SCRCU) was founded in 1951. It is now the leading financial institution in Sichuan Province with nearly 6,000 branches and more than 60 million customers. Its trading system handles around 4.5 million transactions per day.

Challenge
To stay ahead of the competition, SCRCU is committed to business transformation and service innovation. To support this, the business needs a robust testing methodology to ensure the effectiveness of IT systems. Zhang Lei, manager, Division of New Products & Services, SCRCU Information Technology Centre, says previous software development projects were mostly outsourced, with testing dominated by an outsourced service provider. This meant the bank was only responsible for simple user-acceptance testing work, making it difficult to ensure the highest level of quality because they were often required to go-live with time sensitive projects. In order to enhance quality, the bank has taken control of its testing management.

Software testing is now an important component of software development, with an independent testing team performing R&D within the Division of New Products & Services. The size of the testing team has expanded from 12 people at the time of its inception to 61. Yet it continues to operate in a 'mixed' state, with an internal-to-outsourced staff ratio of 1:3. Inhouse staff will manage projects, but the bank recognized it could not guarantee process uniformity across all testing. It wanted to enable internal and outsourced staff to better work together, to speed up the testing process and improve the accuracy and integrity of tests. In addition, testing assets have not been effectively managed in a unified manner.

Solution
SCRCU wanted a comprehensive solution, not just covering product launches and the establishment of standardized testing processes. Ideally, it wanted to transform its software testing philosophy, making it better able to cope with future developments.

“At terms of functionality and performance verification, Micro Focus ALM is highly compatible.”

ZHANG LEI
Manager, Division of New Products & Services
SCRCU Information Technology Centre

At a Glance

- **Industry**: Financial Services
- **Location**: Chengdu, China
- **Challenge**: Improve the speed and accuracy of its new product testing process, and reduce business risk.

**Products and Services**
Application Lifecycle Management
Sprinter

**Results**
- Ensured clear and transparent testing, with improved monitoring enabling test personnel to detect anomalies and develop appropriate counter-measures.
- Enhanced testing efficiency, accelerating the deployment of high-quality applications and maximizing costs.
- Established a highly efficient collaboration platform for testing
When choosing the necessary testing tools, SCRCU paid attention to the overall strength of its suppliers. In addition to ease of use, maintainability and scalability, it considered the cutting-edge testing technology, process management philosophy, and evidence of successful deployments. The solutions offered by Micro Focus fully meet its demands.

Micro Focus Application Lifecycle Management (ALM) effectively bridges the gap between members of the testing team and the various decentralized workflows. When it came to the choice of products for testing, Zhang Lei was somewhat worried about the product ease of use and customization, and whether it was compatible with other management tools deployed at SCRCU. In the project implementation process, the ALM product demonstrated superior functionality:

■ **Testing process visualization:** ALM monitoring of the execution of the tests (test case execution, defect tracking processing, etc.) is clear and transparent and allows for the visualization of each step in the business processes. This enables the operator to understand the project progress in real-time, detect anomalies, and develop appropriate counter-measures in a timely manner.

■ **Testing requirements, testing cases and automatic defect association:** These three components form a closed loop, which makes it possible to locate the other two associated components via one of the components, whereby reflecting the quality as well as the weaknesses of the project in a more intuitive manner. By looking at demand, we can find out whether there are testing cases covering this demand, and whether associated defects exist.

■ **Test report customization:** Testing personnel can easily collect and analyze the data of the various projects, and design fully customizable report templates to generate test reports that show the data of the project that can be exported from ALM to multiple output file types. These templates can be shared among the testing personnel.

■ **Ease of accumulating testing assets:** At the end of each test execution, test engineers will review and evaluate the overall testing process, and accumulate all previous deliverables and documentation at the same time. From pre-test requirements analysis, to test design and strategy, to test cases, a wealth of test assets can be accumulated after rounds of testing.

■ **Integrated cross-technologies and cross-processes platform:** ALM integrates well with mainstream process management tools, configuration management tools, and web-portals, enabling IT departments to manage the application life cycle.

### Results

SCRCU has developed a rigorous testing process for the functional test and performance test prior to the launch of a new product. A staff member from the Division of New Products & Services familiar with the business acted as the project team leader. In the testing services preparation phase, the leader defined the scope of requirements in the early stage, conducted an analysis of the requirements and risk analysis, and developed a test plan, time points and key performance indicators, among other tasks; in the test implementation phase, specific test cases for the test project were designed and executed, and defect tracking and regression testing were conducted.

The SCRCU software testing platform built by ALM provides for and integrates testing requirements management, testing plans, test schedule control, test execution and error tracking capabilities. With a platform like this that can constantly monitor the status and the test resource at a glance, even the most complex applications can now be easily managed. This has significantly improved the speed and accuracy of the new product testing process of SCRCU, improved the return on investment of software projects, and significantly reduced business risk.

With ALM, SCRCU has now completed the construction of the software testing process, specifications, testing tools and other software systems. In terms of the testing system types, the system started with the functional testing user acceptance tests of core and channel types of software, and was extended to include management systems in the scope of implementation. At the same time, it expanded from user acceptance tests to cross-systems integration testing. Test type is also extended from only the implementation of functional testing to the implementation of both functional and non-functional testing.

Zhang Lei believes that the Testing Department is a typical cost center. Although the department is not directly responsible for making a profit, it measures the return on investment using the defect leakage rate, test efficiency and other indicators: “In terms of functionality and performance verification, ALM is compatible with Micro Focus Unified Functional Testing, Micro Focus LoadRunner, etc. and makes use of their synergies.”

The software has made the tests more independent, streamlined and automated. It helps the testing personnel save time and effort, and they are able to complete their work in a more precise and accurate manner, thereby greatly improving the efficiency of the tests. Meanwhile, automated testing procedures can also improve the coverage of the tests, better reproduce the defects of the products, effectively reduce the risk of failure of the go-live process of new products, and accelerate the deployment of high-quality applications.
Automated testing may bring significant advantages of efficiency for the testing team. Yet to successfully meet the test objectives, manual testing is often inevitable. In order to maximize cost-effectiveness, its approach is to utilize repeatable parts that are not too technically difficult and that do not require a huge amount of input as test cases for automated scripting. A small amount of data tests or tests of logically complex systems will be completed manually, so as to better implement the maximization of resource utilization.

Micro Focus Sprinter, which is fully integrated with ALM, can accelerate application delivery and improve the accuracy of manual software testing by way of automating manual testing (such as data creation and repeated manual testing in multiple environments).

ALM also builds an efficient testing team collaboration platform to facilitate collaboration among business, testing and outsourcing staff in the entire application life cycle, reducing communication time, and accelerating new product introductions. Business process models show the real work process so that testing personnel can create a full suite of application requirements to avoid duplication or omission, allowing team members to collaborate effectively. Customizable templates and workflows enable testing personnel to easily capture application requirements in the unified test platform architecture of SCRCU, thereby avoiding duplication of effort and ensuring consistent, effective and clearly defined requirements for high-quality applications.

The technologically advanced solution has equipped SCRCU with a technically solid and superbly experienced ‘elite force’ to give the Division of New Products and Services a powerful test competency.

At present, SCRCU is concurrently testing over 20 systems and applications. With the expansion of business in the future, the testing workload will increase. They plan to increase the number of ALM online users to 100. Zhang Lei believes that testing process management is a process that involves long-term planning and continuous optimization and improvement.

The introduction of ALM has inspired the testing team to continue regulating the procedures, improve the consistency of the tests, drive the continuous improvement and development of the entire testing system, and achieve non-stop innovation.

“Micro Focus ALM makes our testing more independent, streamlined and automated. It saves test personnel time and effort. Their work is more accurate, which greatly improves the efficiency and effectiveness of our tests.”

ZHANG LEI
Manager, Division of New Products & Services
SCRCU Information Technology Centre