

## Commercial Bank Credit Risk Real-Time Value-at-Risk Computing System

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### ABSTRACT

The main business in bank is risk and credit risk is the principal challenge for managers, especially in our country's national commercial banks. VaR is a risk assessing methodology and CreditMetrics is a framework to realize credit risk VaR calculation. They are all the advanced and mature techniques in modern financial risk management. As VaR calculations are highly computational intensive, there is a increasing demand for better computing resource. Distributed computing is one way to realize effective financial computing. After analyzing the principle of VaR and CreditMetrics, combing our national commercial bank hierarchical organization, we design and realize a credit risk real-time VaR computing system and make simulation computation. The main aim of this project is make a usability research, including both the methodology and our financial management system.

**Keywords:** Risk, Credit Risk, Value-at-Risk (VaR), CreditMetrics, Distributed Computing.