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Risk recovery method of business process based on formal method

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Recently, injustice and window-dressing by the internal control become problems. The cause of the injustice and window-dressing is risks. The risk means non-social action in the business process. There are "The sales order is lost, and the sales chance is lost" etc. as an example of the risk. Many events have happened because of these risks. The Seibu Railway event and the Livedoor Securities and Exchange Law case of violation, etc. are actual examples of the event. Because the event in the internal control had happened frequently, the law that was called J-SOX method was established. The content of the J-SOX method is a thing that the enterprise is made the control (in-house check) with reliability for the risk, and reported outside. The control means the action that evades or recovers the risk. For example, the control to the risk such as previous "The sales order is lost, and the sales chance is lost" is "The window of the sales order is specified. " This control contacts the client of the lost sales order, and reissues the sales order of the same content again. The risk and the control can write a concrete process above. However, it is not actually written concretely as shown in the example and the criterion to the risk and the control is vague. Then, formalizing the business process in the present study because there is vagueness , and proposes the method of

the risk recovery. More business processes were formalized by using the OTS/CafeOBJ method for the formalization technique. OTS / CafeOBJ algebraic specification language CafeOBJ method is using the language, is a technique to create a mathematical model of the transition state. OTS / CafeOBJ method that can describe the behavior of the model based on the information obtained by observing the state. In this study, OTS / CafeOBJ method is used for, CafeOBJ language is a certificate that can be for equality. This time, formal verification of business processes Risukurikabari have not done formalized, Future, in order to enhance the credibility of formal verification by Risukurikabari OTS / CafeOBJ method is used. And in doing this research focused on formalized documentation of business processes and documents and ledgers. Because most of the work and business process risk is related to the document. You can describe the behavior of the majority of business processes by focusing on the document, considered easier to recover from the nature of risk is also considered. Focusing on business processes of multiple documents based on the above OTS / CafeOBJ method may we formalized. More business processes were formalized in the research. The risk and the control pattern were able to be found according to the formalized business process. It experimented effective also in other business processes. The outcome of an experiment to which the risk was recovered was obtained. An effective result was obtained in this experiment. It will be necessary to experiment to a lot of business processes in the future because it is necessary to improve the accuracy of the technique of the risk recovery.