Rational Software

Payroll System Describe the Run-time Architecture Solution

Version 2004

Revision History

Date	Issue	Description	Author
09/01/2000	2000	Generation for beta	Shawn Siemers
10/02/2000	2000	Final release	Shawn Siemers
01/14/2003	2003	Final Release	Alex Kutsick
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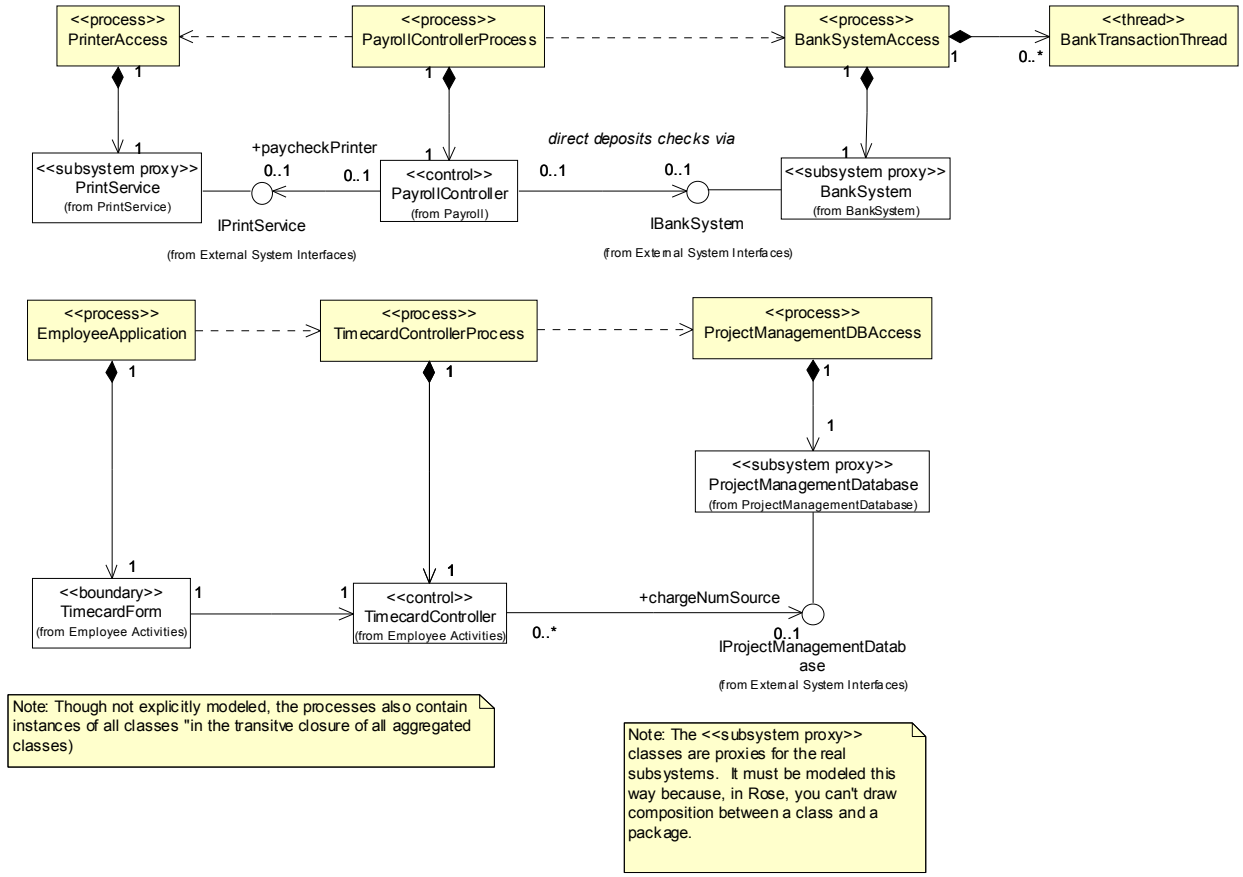
Payroll System Describe Concurrency Solution

1. Exercise: Describe Concurrency

1.1 Process Model

Main



1.1.1 Process Element Descriptions

EmployeeApplication Process: Controls the interface of the Employee application. Controls the family of forms that the employee uses.

PayrollControllerProcess Process: Manages execution of the core payroll processing for a specific run of the payroll application.
There is one instance of this process each time the payroll processing is executed.

ProjectManagementDBAccess Process: Manages access to the Project Management Database. Such access may be slow, so this allows other functionality to continue while this process waits on the Project Management Database. This process also synchronizes access to the Project Management Database from the other system processes.
There is one instance of the ProjectManagementDBAccess process.

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BankSystemAccess Process: Manages access to all external Bank Systems. Such access may be slow, so this allows other functionality to continue while this process waits on the Bank Systems. This process also synchronizes access to the Bank Systems from the other system processes.
There is one instance of the BankSystemAccess process.

PrinterAccess Process: Manages access to the external printers. Such access may be slow, so this allows other functionality to continue while this process waits on the printers. This process also synchronizes access to the printers from the other system processes.
There is one instance of the PrinterAccess process.

BankTransactionThread Thread: Encapsulates a single transaction to a bank

TimecardControllerProcess Process: Manages execution of the timecard processing for a specific employee and the timecard he/she is maintaining.
There is one instance of this process each time an employee edits a timecard.

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