

## Quote

*"Time Machine saves time and reduces our stress. We now cover all of our critical time sensitive functionality in the most efficient way possible. Time Machine helps Together Money to meet its delivery date.*

*Time Machine Sync Server facilitates true test automation for its banking applications which results a big cost reduction on deployment."*

**-Rahul Bhargava**  
Lead Test Manager  
Together Money

## About Solution-Soft

Solution-Soft is the leader in virtual clock, time shift testing software solutions for the ever changing digital world. Our flagship and market proven product, Time Machine, opened up brand new possibilities in the

## Time Machine® Helps Together Money Meet its Delivery Date

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### About Together Money

Together Money is one of the UK's most successful, award winning, specialist lenders, offering short-term finance, auction finance, personal, commercial and buy-to-let mortgages and secured loans.

### Challenge

Together Money has multiple non-production environments to test its critical banking and CRM applications including NIC and debt management. In order to comply with the central bank monetary policy and interest rate change requirements, frequent updates to critical debt management software and other applications are mandated. Other future date functionality they would want to be able to test is, what happens when certain dates are met (e.g. payment date or end of the grace period) and how CRM workflows respond when they meet specific events/dates.

One of the challenges for Together was ensuring all temporal code and logic were tested before each release went to production. Since the servers are all Windows base, changing the system clock in multiple non-production environments running Windows Active Directory is not possible. The authentication would fail the network login if the system clock is even 5 minutes away from the system clock of the domain controller's system clock, as security token could not be generated.

Another big challenge is to deliver results under a tight schedule for each release. The Together team needs to run a large volume of functional test scenarios in a short time window for each iteration of its software testing in order to be able to release the critical application to production on time. Whereby, they had to illustrate what the system capabilities are and what functionality would happen in a future period of time, over the course of the next twelve months. It's almost impossible to run thousands of test cases within a 12 month period to meet the delivery date.

To set up a duplicate non-production test environment for each application is not only extremely costly i.e. buying software and hardware but easily draining IT resources for maintenance and management, as well.

### Time Machine Solution

Following the success of previous Time Machine usage experience for other projects, Together Money's internal users decided to include Solution-Soft's Time Machine as an integral part for testing. Testers continued to use Time Machine software on its current application deployment which intensive and massive functional testing were required.

Time Machine was installed on its test system across an array of virtual Windows SQL Servers and virtual Application Servers across DevOps, Test, and customized Microsoft CRM for critical SIT and UAT testings.

Testers can assign multiple virtual clocks to conduct different test scenarios concurrently with Time Machine. In addition, Time Machine supports time travel programmatically; which is critical for test automation. This resulted in a much less need for manual testing and drove the test automation test cases really high.

A large number of test cases were created and delivered through Time Machine software for on time delivery. Solution-Soft's Sync Server was leveraged to broadcast virtual time across all target nodes simultaneously, empowering test teams with centralized management and speed. Furthermore, the Sync Server's API enables 100% test automation, so test cycles could be scripted for even more efficiency.

As a result, manual test cases were dramatically reduced. Volume test cases were automated with Time Machine and Sync Server API to test date and time sensitive logic. This boosts productivity and saves costs tremendously. Time Machine and Sync Server were and still are the perfect fit for Together's ongoing releases. Agile methodology, bi-weekly sprints, followed by rapid temporal testing, enabled an ultra-efficient delivery model.

The testers could verify time-sensitive logic and triggers on-the-fly, or run scripts for full automation, and this enabled 100% end-to-end test coverage within their debt cycles and payment plans. "Time Machine saves time and reduces our stress. We now cover all of our critical time sensitive functionality in the most efficient way possible." Said, Rahul Bhargava, Lead Test Manager at Together Money.

## Contact

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