



Using the interface automation and management features of SyDat, you can deliver your systems earlier, more accurately, and with less effort.

The business case for SyDat

The business case for SyDat rests on two value propositions:

1. that it is more efficient to manage your project's interfaces using SyDat than manually - it's a straightforward argument for automation.
2. that your project will be exposed to fewer risks when you use SyDat.

To understand and evaluate these propositions, consider the following three scenarios, which are far from unusual.

Integrate earlier

Hand your component suppliers a fully functional interface simulation using SyDat and they can build, test and integrate their component that much sooner.

No more contractual wrangles

You can use SyDat to specify to your system builders exactly the behaviour of interfaces, and use SyDat to run acceptance tests based on the automated specifications.

Drive out those hard-to-find bugs

With SyDat you have complete control over the precise timing of messages and data over multiple interfaces, so you can cover a much wider spectrum of operational situations.

No more expensive and error-prone test harnesses

With SyDat you can build a reliable test harness in a fraction of the time.

Shorten the test and correct cycle

Use SyDat wizards to generate large volumes of random and/or pre-determined data for soak testing, stress testing and error handling.

1. You have designed a system-of-systems and now wish to sub-contract the build to a third-party. You need to specify exactly the content and behaviour of the incoming and outgoing interfaces for each sub-system.

Efficiency

Complex interfaces can take some considerable time to define. SyDat enables you to specify interfaces with a drag-and-drop GUI. SyDat's consistency checks ensure that you don't make silly mistakes.

Risk reduction

Ambiguity is the enemy. Sub-contractors often pitch a low price to win work, in the anticipation of making gains on change control - by which time they are in the stronger negotiating position. SyDat cannot detect every defect in your ICD, but it will help you to eliminate most ambiguities.

Cost impact

Supplier cost escalation can be reduced. Savings of 5% of supplier costs would not be unreasonable.

2. You have taken delivery of the sub-systems from suppliers and now want to perform integration tests. Your system-of-systems relies on each sub-system managing critical message-handling tasks in real-time.

Efficiency

Without SyDat you will have to build a test harness to which you will add each sub-system in turn. This is a substantial cost, maybe as much as 10% of the build cost, since it has to emulate a number of sub-systems and capture and record results. With SyDat, you don't need to build the test harness. SyDat does that all for you.

Risk reduction

In real-time systems, it is often the subtle nuances of timing that cause problems in live operation. A fault appears very occasionally and cannot be reproduced. Clients cannot trust the system. With SyDat you can construct test scripts that probe every timing case.

Cost impact

Budget retentions of 10% are not uncommon and clients will be reluctant to release a retention if the system is still prone to failure, however occasional, if the cause is not at least known.

3. You have completed functional testing and now want to complete the system testing by subjecting the system-of-systems to extended soak testing and stress testing.

Efficiency

Generating large volumes of realistic data is costly. SyDat's wizards will generate the data for you in a fraction of the time. When a soak test flags up an error 37 hours into the test, it's easy to miss it, and it can be very hard to reproduce and debug. You can waste days. With SyDat, you can fast-forward the test recording to the problem area and then step through it.

Risk reduction

Hard-to-find errors lurk in small memory leaks and timing overruns that occur late on in soak tests. Systems that operate 24/7 will surely find them. SyDat enables you to find and eliminate them much more easily.

Cost impact

Product recalls are damaging, to reputation as much as to the bottom line. The reduction in risk plus the efficiency gains could well add up to 10% of project budget.

If these scenarios do not exactly match your situation, you are welcome to contact Hawkgrove Technologies for a business case that is tailored to your project.

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