Test Automation Has A New Jet Engine.

Abstract

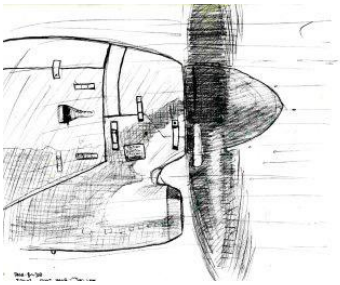
Seen through the eyes of the transport manager, this article uses the analogy of air and road transportation to highlight how traditional test automation tools may well have lost their original objectives. It describes a new vision of automation that could be as ground breaking as the arrival of Sir Frank Whittle's new jet engine.

By Mark Murray and Robbie McConnell

It is 1936 and I am looking out the window of our office at the propellers slowly turning on our transport plane wondering when the four man crew will be finished going through their check lists and the complex process of setting the aerodynamic trim. Setting this trim before and during the flight means that when it finally gets airborne it can reach speeds of nearly 285 mph.

I have been told it is quite a complicated framework to both set the aerodynamic trim and even more difficult to modify it as you fly. They also need the same trim crew members each time as the pilot and co- pilot cannot easily understand the instructions of any other trim specialists.

Given it took such an effort to get the same group together and get the aircraft ready to fly, I often wonder if it would be not be easier to send by road as we used to do. Although it takes so much longer, at least you don't have all this set up, don't need any specialist people and you can set off once you are loaded.



I am not sure that the introduction of the trim team has really helped either, although we have increased the planes speed in the air from 215 to 285 mph it now takes even longer to get the team working together and to get airborne.

I sigh heavily as the minutes tick away, and my mind begins to wander thinking of what would really solve this for me. If we could have a plane which any pilot could fly, didn't need a specialist trim team and it could go faster than the current one. We would save time in the air and we wouldn't have all the additional wasted time setting up on the ground.

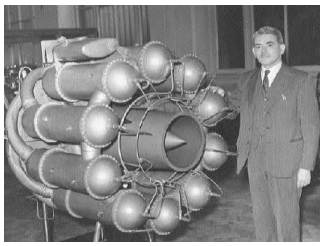
I wonder if this guy Whittle coming up tomorrow with his new plane will have any answers.

Next morning I am looking out my window and can't believe this strange looking plane that has arrived on the runway. While it looks like a plane, it doesn't appear to have any propellers and has large cigar shaped cones under each wing. It also looks very dumpy and not very

aerodynamic. When it comes to rest, I wait for the crew to get out and am totally amazed when only one person gets out.

The four man crew from the prop plane head out to the runway to have a look at the new plane on the runway and when they came back into the office, I asked them 'What do you think of that'?. They where all laughing and said "look at all the size of the flaps on the wings; they are too small to trim so how would we use our skill to make it go faster in mid air". Another said "how would you fit us all on board" Another chimes in with "Can you believe it only has two engines". Amongst the general merriment we all agree that this cannot possible be the future. I have even to engage in a great deal of arm twisting to persuade them to listen to what Whittle has to say when he comes up later that day.

When Frank arrives and heads to the front of the hall to begin his presentation, I can see that the original crews assessment has been transmitted to the other crews there and there is a general air of 'who does this guy think he is' with a lot of folded arms.



Frank only appears to have one page on his flip chart and I am now starting to feel a bit embarrassed for him. Without even waiting for everyone to be quiet, he flips over the one sheet and it reads:

Same Payload as Current Planes
Top Speed – 525 mph
Time to get airborne – 7 minutes
Number of crew required to fly – 1 Pilot

Although I am impressed, I am not sure I quite believe him and await the questions from the other crews. The head of the trim crews gives him a particular hard time and wants to know what trim controls it has, what is the area of wing relative to the trim flap area and how the trim crew would be able to work if there was so little cockpit space. Other crew members voice similar thoughts and poor Franks' new design is not particularly well received. Everyone heads to the mess and again there is a general agreement that our way of working is much more sophisticated and that this is not really for us.

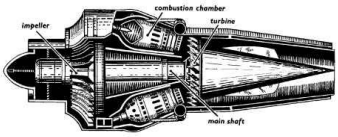
Later that week one of the aerodynamic trim crew gets seconded to another squadron and we get a new trim specialist. It turns out he had a different way of doing things and not only does he not understand the trim notes from our last crew member but nor can he understand what the pilot and co pilot are asking him to do. It is a total fiasco and we cannot fly for a week until the new trim guy is brought up to speed with our procedures. Meantime I go back to the old reliable method of sending by road.

As the weeks go on, we encounter several more of these technical issues. It would appear that the crews are at their happiest when we have these issues and it doesn't appear to worry them in the slightest that we are not actually in the air. It is nearly as if people coming to them to solve

these technical issues makes them somehow feel more important and wanted. Somehow the simple goal of needing to quickly transport something from one place to another is getting lost on them.

For me the bottom line is we make fewer flights and I still need to pay the wages for all members of the crews and some of the technical specialists are particularly highly paid.

As the weeks progress I start to think more and more about Franks jet plane. While it still all seems far too simple, what if it could travel at those speeds and what if any pilot could fly without the need for the involvement of technical people.



The next week I was at a depot supply manager's conference and start to hear the first feedback from people who have tried using these jet planes. The results are amazing, not only have they massively increased their efficiency but they have also eliminated the need for the technical trim crew. On the way home from the conference I decide to put in a request for one of these new jet planes.

To spend more time in the air and less time on the ground get yourself a jet engine for your automation.

About the Authors

Mark Murray and Robbie McConnell have been involved in developing automation tools for over 25 years. They where the original authors of Compuware's QARun tool and have worked on many other commercial successful automation tools including ProcessTester and Scriptmap. They have also spoken and presented at testing conferences worldwide and have several published articles on testing and test automation.
They believe that End2EndTester from Raltus software finally solves the problem of manual testers being able to truly use a test automation tool.
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