# NORTHGATE IS CASE STUDY

## SUMMARY

- Automation of a complex visualisation application

- 9 Days Manual Testing effort executed in 2 Hours

- 8 out of 15 Application Modules Automated

## THE CHALLENGE OF TESTING A COMPLEX VISUALISATION APPLICATION

As a leading supplier of IT solutions to the UK Police Market, Northgate Information Solutions need to ensure the highest quality of testing and speed of delivery of releases. Regression testing was a mainly manual process, and Northgate were keen to develop an automated solution to speed up the testing process.

Northgate had developed a sophisticated tool which allowed geographical representation of crime as well as leading edge analytical capabilities. The developed application "xd" empowers a multitude of users; intelligence analysts, performance analysts, crime and disorder reduction analysts and contingency planners to perform complex analysis.

As with all complex applications, requirements and testing become more complex and the need to regression test each component is critical. The regression testing of the package was lengthy in that to follow the required test processes large amounts of point and click activities were required. This application area was a perfect choice to use as the pilot for their chosen solution.

### Test Automation Solution

- Odin Technology Axe (New Breed Automation Tool)

- A leading GUI Automation Tool

- t-Plan - t-Plan Professional (Test Management)

In basing the test automation solution on Axe, Northgate could choose "best fit" technologies for each component of their test approach. Tests were executed using a GUI automation tool from one vendor and results seamlessly posted to a test management solution from another vendor.

All test scenario flows designed in Microsoft Excel® Test documentation and automation code generated by Axe Custom image validation added by Northgate Information Solutions.

## AXE SELECTED TO SIMPLIFY THE TASK OF AUTOMATION

Northgate had previously purchased other automation tools but found without expert knowledge of the tool set they proved difficult to maintain and use, particularly with rapidly changing application requirements. Something else was required to make "real-life" use of the automation tool set.

Northgate selected Axe from Odin Technology to help automate this repetitive task. Axe proved invaluable in providing a complete testing solution. From its spreadsheet driven approach, Axe is able to produce detailed manual documentation to ensure the test cases are accurate prior to attempting automation, and its ability to report coverage proves to be a "fantastic" addition to the testing effort. Axe proved "its worth" simply through the ability to quickly iterate around getting the test cases clearly defined and then being able to rapidly produce and execute the required test against the xd application.

## AXE EASILY EXTENDED TO MEET COMPLEX REQUIREMENTS

In addition because of its flexible construction, Northgate were able to easily extend the Axe action set by producing extra functions to do complex bitmap comparisons and to isolate at the pixel level any unexpected changes.

*"Odin have focused Axe on delivering what a tester needs from automation, delivering a real-life test tool rather than delivering gimmicks! The ability to work in a dynamic environment creating manual test case documentation, coverage statistics and producing automated scripts as a by-product is fantastic"* - RUSSELL BALL, PRINCIPAL QA CONSULTANT - NORTHGATE IS

# NORTHGATE TESTING SOLUTION

## CUSTOMER SATISFACTION

At the time of writing this case study, the xd Regression Test Suite has in excess of 1,000 test cases covering 15 different modules of the application. So far they have automated 8 modules and are now able to run the equivalent of nine days manual test effort in two hours using Axe, clearly giving Northgate the ability to react to change quickly without the large overhead of manual test effort.

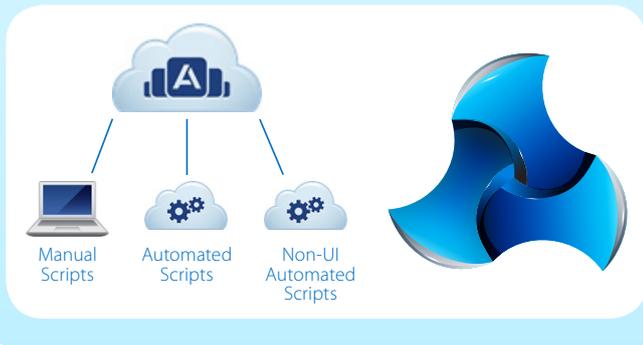### RUSSELL BALL PRINCIPAL QA CONSULTANT - NORTHGATE COMMENTED:

*"We have managed to automate part of a large system which uses data visualisation using Axe. The comparison using Axe against our manual approach is unprecedented in our experience. We can now carry out a lengthy manual testing phase in hours rather than days using Axe, with a reduced level of risk."*

### DAVID TRACEY FROM ODIN TECHNOLOGY COMMENTED:

*"We are delighted with the implementation of Axe at Northgate. It clearly demonstrates the tools ability to adapt to difficult testing environments and to give testers a pragmatic test tool, which delivers not just automated scripts, but also auditable documentation to back up actually what is being tested. Furthermore, Northgate have demonstrated how easy Axe is to extend for those difficult areas of the application."*

## Redefining Test Automation

Axe leads a new generation of automated software testing products. Axe provides a means to rapidly deploy automated testing systems that can be used by all levels of staff with minimal training. This reduces the cost of introducing and maintaining test automation by a factor of four.

Manual Scripts · Automated Scripts · Non-UI Automated Scripts

### Stage 1

Testers design tests in Microsoft® Excel. No code, no scripts, just business logic and data in a simple modular format.

### Stage 2

With one click test scripts and documentation are automatically built by Axe.

### Stage 3

Execute tests in a range of market leading test automation tools. Axe leverages the strengths of the tools without the complexity.