Trusted Experts in the World of SAS® Technology

AMADEUS SOFTWARE

Amadeus delivers global, business-critical training programme to Novartis

CHALLENGES

- SAS-based clinical data analysis applications critical to Novartis business
- Quality of application development scrutinised by industry regulators
- Ensure in-house programmers have the required skills and competency

SOLUTION

- Amadeus bespoke SAS training programme and curriculum
- Global training delivered by Amadeus SAS experts in US, Europe and Far East

BENEFITS

- Improves the quality and efficiency of programming for clinical-trial data analysis
- Reduces programming errors, speeds up delivery of analysis tools and services
- Improves ability to meet strict pharmaceuticals industry regulations
- Business users see Amadeus as "the best-in-class SAS training available"
- Delivers a cost effective, global training solution
- Increases programmer value, skills and job satisfaction

"The Amadeus SAS training is really vital to Novartis because our core business - developing world-class medicines and bringing much-needed therapies to patients in need - relies on having sound and robust systems to analyse clinical data. It also means Novartis can meet regulatory standards."

Stefan Gross, Associate Director, Learning & Development, Novartis Oncology

NOVARTIS
ONCOLOGY

Challenges

Novartis Oncology is a Business Unit within Novartis Pharma and has been a global leader in oncology for over a decade. Over the last few years Novartis Oncology medicines have helped millions people with cancer. Novartis globally employs more than 120,000 people and its products are available in 180 countries. Novartis Oncology has over 10,000 employees in 85 countries dedicated to cancer research and development.

One of the business critical areas of operations is analysis of clinical research and data. To support this, Novartis develops a range of applications and programmes based on the use

of SAS software. While the business has a number of highly experienced SAS experts, the majority of its programmer workforce - drawn predominantly from universities - lacked some of the business experience and skills needed to develop first-class, clinical applications. As a leading pharmaceuticals business, Novartis is highly regulated and this includes business systems used for clinical research and analysis.

Stefan Gross, Associate Director – Learning & Development at Novartis Oncology, says, "These applications are core to our business so it is critical that we ensure we get the best level of programming. If anything is incorrect with our data analysis

> **"One of the impressive things about Amadeus is flexibility. We aim to make training as cost effective as possible. Amadeus has been extremely helpful in scheduling and was open to accommodate changing requirements, often at the last minute. Amadeus is highly flexible in tailoring courses to customer needs and it has simplified administrative processes, which makes collaboration easy. Amadeus really cares about its clients and trainees."**
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> Stefan Gross, Associate Director, Learning & Development, Novartis Oncology

systems, then it has the potential to harm the reputation of the business."

To put in place a new SAS training programme, Novartis looked at a number of training providers, but decided to work with Amadeus Software. Gross says, "We'd got a lot of good feedback from other organisations about the high quality of Amadeus training. We felt that its curriculum and supporting materials were state-of-the-art. They are like text-books which work well in the classroom, but are also straight-forward and self-evident so they can also be used as an ongoing learning resource."

Solution

Amadeus has developed a global training programme for Novartis covering the entire Amadeus SAS curriculum, from the fundamentals of SAS language through to the application of highly complex data visualisation and business analytics techniques. Amadeus has customised the course curriculum to include Novartis-specific content and case studies.

The bespoke training programme is delivered by Amadeus' trusted SAS experts at various Novartis locations around the world including the US, Switzerland, France and India. The training programme comprises up to 23 one and two-day classroom courses each year. So far around 380 Novartis staff have attended at least one of the training courses.

For the next phase of the training programme Novartis is looking to complement classroom sessions with Amadeus on-demand, e-learning courses as this also allows high-quality training to be delivered to smaller business locations.

Novartis has already tested the quality of the Amadeus e-learning courses with experienced programmers and has had "spectacular" feedback. One programming group manager says, "The Amadeus On-Demand SAS Macro is near perfection - tempo, depth of detail covering the different topics, visualisation aids are all very good for non-experienced or low-experienced programmers and yet still remain interesting for knowledgeable programmers."

As well as programmers, the training has recently been extended to include data analysts and statisticians, who oversee the development of new analysis programmes and need to check the quality of programming.

Benefits

The Amadeus SAS training programme has improved the level of skills and the quality of programming at Novartis. Feedback from managers responsible for developing and using applications has been very positive. For example, there are fewer errors and programmers are able to produce more complex and valuable application elements, such as SAS macros libraries. Programmers who have been on the Amadeus courses are also able to work faster and improve or provide new clinical-trial reporting tools and services to the business sooner. One manager reported back that he found the Amadeus training "the best-in-class SAS training available".

The Amadeus courses have also benefited Novartis staff and the company's reputation for employee development. The training programme has increased the skills, confidence and job satisfaction for programmes. It increases their value to the business by providing them with a foundation for gaining additional skills and qualifications, such as other SAS Institute certifications.

Novartis conducted a survey of 154 staff who attended the Amadeus training. The survey found that, when asked to rate 'overall value of this learning experience to your role and/or career development', over 70 percent scored 5 or 6 out of 6. One of the trainees said, "A brilliant teacher who was able to explain complex matters easily. He gave a lot of tips and tricks to apply in my daily work. One of the best training courses I have attended."

About Amadeus – Trusted SAS Experts

Amadeus Software founded in 1989 is a SAS Consultancy, Managed Services and Training company. We are dedicated to the delivery of efficient and effective SAS services to meet the needs of businesses in the UK and across the globe. We recommend the appropriate SAS Software solutions as well as supporting organisations to optimise the use of SAS software and maximise the return on your software investment.