



Project Aims

MONET will bring the MBS & QR community together and then by forging links with industry will take MBS and QR techniques to the point of commercial exploitation. In achieving this we will strengthen European expertise in this area and as a result strengthen the joint economies of Europe.

Stated Objectives

- To demonstrate that the application of MBS & QR methods can enhance the capacity of European industry to innovate and compete effectively and how this will be achieved.
- To transfer MBS & QR methods into industry and public sectors on a targeted basis.
- To demonstrate that the success in applying MBS & QR technologies in one sector is transferable to others.

Future Directions and Uses of MBS and QR

- Reusability of models.
- Reusability of software.
- Efficient generation of models.
- Much faster / earlier new system verification and testing.
- Much faster new system design.
- Insightful explanations (of solutions).
- Robustness / completeness.
- Facilitates the capture, exploitation and sharing of knowledge.
- Ability to produce solutions from incomplete information and knowledge.
- Revealing new insights by facilitating knowledge discovery.
- Faster and easier formalisation of knowledge.
- Simplifies dealing with complex systems.

Membership

There are two types of membership:

European Member

Membership is welcomed from any Institution or Organisation with an interest in MBS & QR Techniques. Members will have full access to a range of information modalities offered by the Network. If a Member becomes active in a Task Group, the project will cover expenses associated with attending Task Group meetings.

Global Member

Members from outside the European Union are also welcome to participate in the Network. They will have full access to the Network information resources but will not be able claim any expenses.

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Monet is a European Network of Excellence in Model Based Systems and Qualitative Reasoning (MBS & QR). The Project will bring together experts in these fields from Academia and Industry in order to realise the potential of this area. The primary aim being to bring these technologies to the point where they are of use to Industry and therefore forward the competitiveness of the European economy.

In order to achieve this success the MONET Network has a narrowly focused remit. Four fields have been chosen for representation within the Project Scope, these areas are; 'Automotive', 'Bio-Medical', 'Education and Training' and 'Fault Detection and Diagnosis'. These areas of expertise have become the four dedicated Task Groups that form the core of the MONET work programme.

Bio-Medical Task Group

The focus of biomedical model-based systems range from molecular biology to large scale physiological and medical systems relevant to health care. This Task Group will therefore facilitate communication amongst researchers and industrialists with an interest in the application of Model Based Reasoning to biomedical problems.

Automotive Task Group

This Task Group will promote and disseminate knowledge about the advantages of MBS & QR throughout the European automotive sector. By the conclusion of this phase of the Network this Task Group will ensure that every major European automotive player has a full understanding of the advantages of MBS & QR.

Education and Training Task Group

The Education and Training Task Group will establish a forum of active users and researchers that develops an overview of MBS & QR technologies and their usefulness (applicability) for teaching and training artefacts, particularly for industrial requirements.

Fault Detection and Diagnosis (Bridge) Task Group

This Task Group will support the transfer of model-based diagnosis technology into industry related disciplines. Through industrial participation, they will help identify (for participants from different backgrounds) the requirements of diagnostic processes in industry and to relate the existing theories, methods, techniques and systems to these requirements.

Co-ordinating Node

In this Network the management is centred on the Co-ordinating Node, located in the Department of Computer Science at The University of Wales, Aberystwyth. The Co-ordinating Node will provide a central contact point for the Project. They will ensure a good communication infrastructure that constantly offers access to several information modalities and co-ordinate the administration of MONET.

MONET Summer School

The principal objective of the MONET Summer School is to inspire and prepare the next generation of researchers in the fields of MBS & QR. The programme will also convey to young industrialists the potential of MBS & QR technology for solving problems which arise from interactions with complex systems.