AN OVERVIEW OF A TEMPUS PROJECT

ERIK DAGLESS[*]

1. Introduction

This meeting in the mountains of Poland is sponsored by the TEMPUS programme, a scheme funded by the CEC to promote interchange of staff and students between East and West Europe and promote developments to improve education and facilities. The projects are supported under two actions; action 1 is a joint education project, JEP, and action two a mobility programme. Some projects include only mobility activities but most contain both actions. JEP 0449, ACEP, is an Advanced Computing Education Project and is the subject of the papers in today's proceedings of the ACEP workshop.

2. Membership

A requirement of the project is for there to be at least two partners, one from the eligible countries, the East European states recognised at the time, and one from the European community. Other G24 members are acceptable but these get no funding under the programme. It was expected that more than one EC country would be involved. Industrial partners could be involved to provide locations for industrial placement. This project started with six Institutions initially, two each from Poland, the UK, and Portugal. Since then it has been expanded and new members proposed. (These were subsequently accepted by the Commission). Thus the institutions involved at the present time are :

University of Bristol, (UK)
Wroclaw Technical University, (PL)
The Higher College of Engineering in Zielona Gora, (PL)
UMIST, Manchester, (UK)
University of Aveiro, (P)
University of Minho, Braga, (P)
SGS-THOMSON Microelectronics (Bristol), (UK)
Fraunhofer Institute, Erlangen, (D)

  *   Department of Electrical and Electronic Engineering, University of Bristol, University Walk, Bristol BS8 1TR, UK

and the proposed new members are :

University College of North Wales
Technical University of Brno

3. Activities of JEP - Action 1

As the rest of today's programme will deal in detail with aspects of the project only a brief outline of the activities will be given here. The subject of the programme is advanced computing and related subjects. The plan was to address advanced computer architecture, CAD and ASIC design, and image processing and computer vision. Within these subject areas the key tasks of the programme are to carry out curriculum development, improve teaching facilities through equipment provision, and enhance the expertise of staff in the eligible countries, and finally to properly manage and administer the programme and the related mobility activities. The motivation for the work was the recognition that IC design methods have advanced significantly in the recent past and this has led to new, high performance computer architectures. These computing structures are offering new challenges in applications in the areas of image processing and computer vision. These developments have occurred predominantly in the West and the impact of the changes required in education need the stimulus of these programmes to enable the East European countries to catch up.

4. Mechanisms Used - Action 1

The project is overseen by a management committee which meets about twice a year. The task of the management committee is to plan the programme, allocate the budget to the various activities, review progress of the curriculum development work, plan the meetings, and agree the staff and student mobility. Minutes of the meetings are recorded and supplied to all the attendees. At most of the meetings all Institutions are represented and the chairmen of the working parties are present.

To carry out the curriculum development and equipment purchase four working parties were created. They are :

WP1 - ASIC design and CAD tools and methodologies
WP2 - Advanced computer architecture
WP3 - Image processing and computer vision
WP4 - Equipment purchase

The chairmen of working parties 1, 2 and 4 will report at this meeting. Due to funding restrictions and export difficulties WP3 has not had any meetings but there is some informal activity on this topic and it is the subject of one of the research sessions at this workshop.

The other activities under the JEP are the equipment purchase for the Polish institutions, which is co-ordinated by WP4. There have been some difficulties in getting

approval and dealing with the financial transactions but matters are improving. There is substantial language training provision within the programme and this entails visits to Poland for assessment of students and staff and language training courses in English provided at Bristol. This will be more fully described in a talk later today.

5. Activities of the Mobility Programme - Action 2

The purpose of the mobility programme is to support staff and students from the eligible countries in attending Institutions in the West and to provide for staff visits from the West to the East. Students attend degree courses as part of their programme of education in their host institution. Short visits by young staff are used to give a more advanced training in research and courses. Staff from Poland assist on teaching courses, pursue their own research and work with teaching and research staff. Industrial placements of 6 month duration permit visitors from the East to work on state-of-the-art projects in the company. SGS Thomson offer advanced IC design work and the use of high level digital design tools.

6. Mechanisms Used - Action 2 - Mobility

The mechanisms used for the mobility programme are summarised below.

Teaching and study assignments by Polish Staff of duration of 3 months to 1 year
Young postgraduates and experienced lecturers visit UK and Portugal
Industrial Placement at SGS Thomson/Fraunhofer in Silicon Design by young postgraduates and experienced lecturers.
Direct Retraining and language training
Lecturers visiting Poland
Students attending courses in UK including a full course in language training

To provide the opportunity for wider participation in the work of the team a MICROCOMPUTER School and a workshop have been sponsored by the programme. Both Polish and Czechoslovakian academics attended these events which included nearly ten experts from the West. The Mobility funds were used to bring the UK staff to these meetings.

7. Funding 1990-92

The funding for the programme has been good but not sufficient for all the planned activities to be undertaken. The expectation of the Commission is that most of the expenditure must benefit the eligible countries directly or indirectly. The tables below show the funding position. It is clear from these that the administration has been poorly funded.

Table 1. 1990-91.

Expenditure heads	Budget ECU's	Actual ECU's
Equipment	35000	35318
JEP Action 1	20000	18780
Mobility Action 2	28000	29284
Interest	3000	
Totals	**86000**	**83382**

Table 2. 1991-92.

Cost Head	Total Requested	TEMPUS Request	Grant Allocated	% of Request
JEP	59500	59500	42000	max. 71%
Equipment	41300	32300	40000	min 124%
Mobility	64500	64500	63600	99%
Total	**165300**	**156300**	**145600**	**93%**

Table 3. JEP funding 1991-92.

Cost Head	Request ECU's	Budget ECU's
Staff curriculum work	9000	4000
Administrative staff	19500	14000
Language training	7800	3000
Travel/subsistence for JEP	15200	15000
Overheads	8000	6000
Totals	59500	42000

Table 4. JEP activities 1990-91.

Date	Activity
February 1991	First Management Meeting - Bristol
Late May 1991	Ray Satchell visited Wr & ZG to interview students
Late May 1991	WP 1 meeting in Manchester
Early July 1991	WP 2 meeting in London
September 1991	WP 1 meeting in Rokosowo
September 1991	WP 2 meeting in Wroclaw
September 1991	Second Management Meeting in Szklarska Poreba
September 1991	MICROCOMPUTER 91 School in Szklarska Poreba
September 1991	Language training for 5 students in Bristol

Table 5. JEP travel plans 1991-92.

2 administrative staff from UK
5 speakers and chairmen of WP to Poland
WP meetings in Summer

Table 6. Mobility flows 1990-91.

4 staff Teaching/Research assignments to UK
2 staff Teaching/Research assignments to Poland
6 staff for MICROCOMPUTER 91 from UK
2 staff for MICROCOMPUTER 91 from Poland

Table 7. Mobility flows 1991-92.

5 students (3 Wr, 2 ZG) to UK
3 staff Industrial Placements at Inmos
3 staff Teaching/Research assignments to UK
3 staff Teaching/Research assignments to Poland
3 staff Teaching or Workshop from UK
2 staff Teaching or Workshop from Poland

8. Conclusions

The JEP 0449 project has been successful so far and has been able to support substantial interaction between Poland and the West. The rest of the programme of this meeting will provide the opportunity to see the full details of the work going on. the topics include technical reports on curriculum development, the experiences of people on visits and the work in language training and assessment. The plans to expand the programme will allow this valuable effort to be more widely used.