
Measurements for Materials Systems (MMS) Adhesion and Adhesives IAG Meeting

**TWI, Cambridge
Wed 30 April 2003**



Agenda

- **10.30 - Introduction and Welcome**
- **MMS7 Towards an Adhesives Design Toolkit**
- **12.30 - Lunch + Demonstration of Smart Manual**
- **MMS8 Interfacial Adhesion Strength**
- **MMS11 Design for Creep and Fatigue of Joined Systems**
- **New DTI Programme - Briefing**
- **15.30 - AOB and Close**



Towards an Adhesives Design Toolkit MMS7

**Third IAG Meeting
Ewen Kellar**

**TWI, Cambridge
Wed 30 April 2003**



Agenda

- **Minutes of previous IAG meeting**
- **Progress on Toolkit Modules and Tasks**
- **Live demonstration of Toolkit and modules**
- **Adhesive Selector Module - IAG discussion**
- **Adhesive Material Properties - IAG discussion**



Financial

- **Currently slightly ahead of budget according to a linear spend HOWEVER project is ahead on deliverables and it is anticipated that the project will be completed ahead of schedule**



Planned Activities - IAG2

- **Module development**
 - Expand and refine links selector
 - Define and develop adhesives selector
 - Refine and integrate stress analysis
 - Define failure criterion module
 - Develop case history database
 - Develop data handling
- **Site content**
 - addition of text based info and reports
 - forum feedback and initiation of discussion topics
- **Interim reporting etc.**
- **Continued dissemination**



Case History Database Module

- **Five different search options**
 - **substrate 1**
 - **substrate 2**
 - **adhesive type**
 - **industry sector**
 - **application type**
- **'Graded' search and results are based on number of matches**
- **Supplier details linked to Links selector**



Case History Database Module

- **Final phase of beta test**
- **Requires more content**
 - **RTO and IAG input**
- **Additional search options?**
- **IAG input and comments**

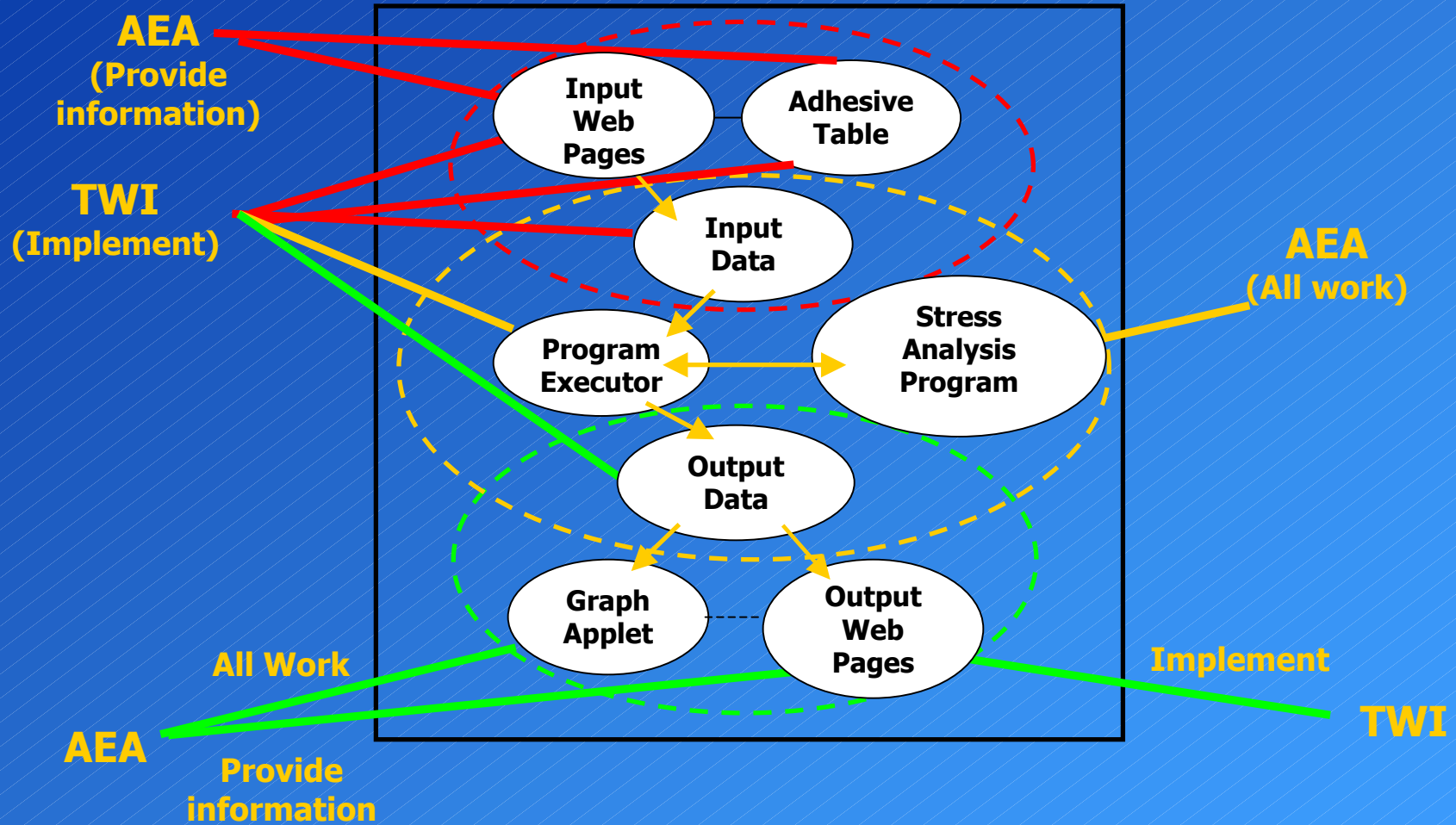


Stress Analysis Module

- **Coaxial joint to be first joint available**
 - lap shear joint planned later
- **Preliminary planning complete**
- **Division of labour defined**
- **Programming phase now started**



Stress Analysis - Work Plan



Design Guidance Module

- **Complementary to stress analysis module**
- **To cater from novice to expert**
- **Include FEA guidance**
- **Include failure criterion**
- **Initial planning started**



DTI Report Dissemination

- **Programme overview**
 - **Project Description**
 - **Report summary**
 - **Full report**
- **Material available through Toolkit and JoinIT**
- **More material being 'extracted' including best practice guides, FAQs etc**
- **Access to more recent PAJ reports planned**



Toolkit Progress

- **Dissemination**
 - **Materials World Article - April 2000**
 - **JoinIT and other TWI publications**
 - **AEA, MERL and NPL web sites and articles**
- **Increased visibility**
 - **Google**
 - **Site useage statistics**



Google Search

- **Adhesive - not in first 10**
- **Adhesives - not in first 10**
- **Adhesive toolkit -3** (www.twi.co.uk/j32k/getFile/c1218a.html)
- **Adhesives toolkit - 1** (www.aeat.com/ndt/mms7/mms7flyer.pdf),
2 (www.aeat.com/ndt/mms7/mms7.htm), **3** (www.twi.co.uk/j32k/getFile/c1218a.html)
- **Adhesive design - not in first 10**
- **Adhesives design - 1, 2 and 3**

- **So we are getting there!**



Server Statistics

- Analysed requests from Tue-31-Dec-2002 06:54 to Mon-28-Apr-2003
- Figures in parentheses refer to the 7-day period ending 29-Apr-2003).

Successful requests:

30,688 (2,614)

Average successful requests per day:

258 (373)

Successful requests for pages:

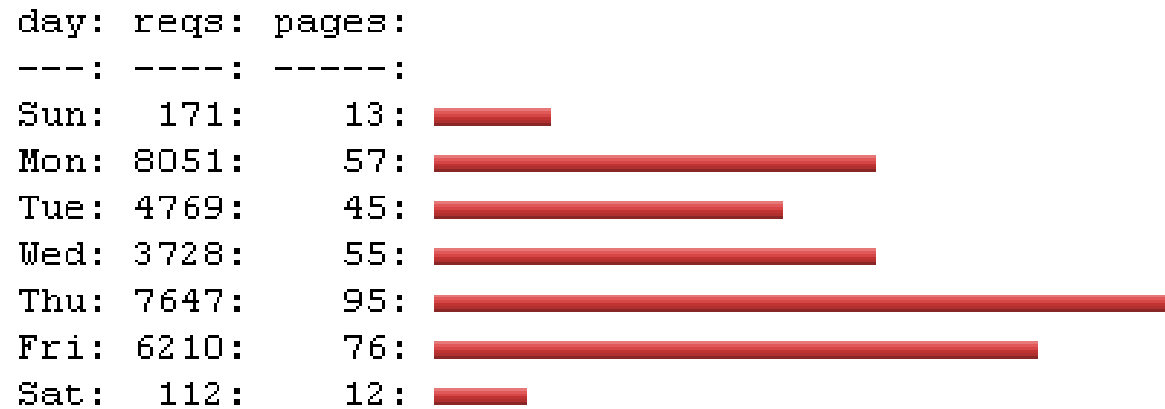
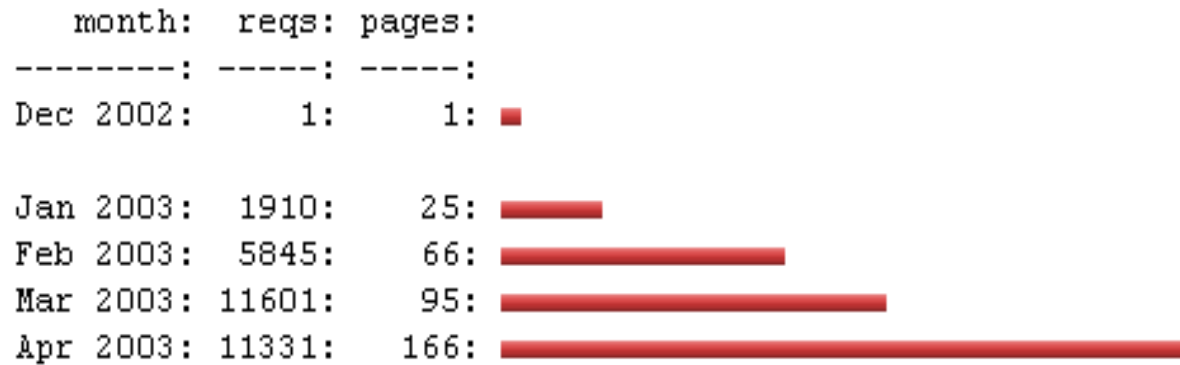
353 (31)

Average successful requests for pages per day:

2 (4)

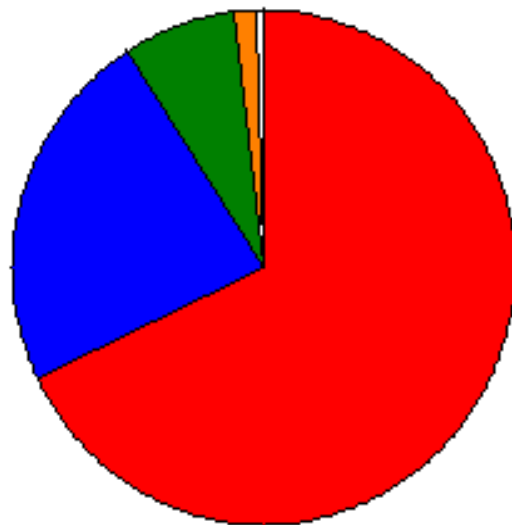


Server Statistics



Server Statistics

This report lists the countries of the computers which requested files.



- .uk (United Kingdom)
- .net (Networks)
- [unresolved numerical addresses]
- .de (Germany)

The wedges are plotted by the amount of traffic.

reqs:	%bytes:	domain
-----	-----	-----
22146:	67.78%:	.uk (United Kingdom)
1119:	23.10%:	.net (Networks)
6319:	7.34%:	[unresolved numerical addresses]
174:	1.31%:	.de (Germany)
661:	0.33%:	.com (Commercial)
10:	0.05%:	.cz (Czech Republic)
34:	0.02%:	.za (South Africa)
41:	0.02%:	.se (Sweden)
16:	0.01%:	.fr (France)
68:	0.01%:	.ca (Canada)
23:	0.01%:	.ie (Ireland)
9:	:	.biz (Businesses)
11:	:	.it (Italy)
17:	:	.be (Belgium)
9:	:	.mx (Mexico)
9:	:	.ua (Ukraine)
9:	:	.no (Norway)
9:	:	.edu (USA Higher Education)
4:	:	.sc (Seychelles)



Adhesive Selector Module

- **Outline defined**
- **Definition of structural!**
- **Adhesives vs sealants!**
- **Details circulated**
- **IAG input and comments - start today**
- **Proceed to define logic statements**
- **Start module design**



Adhesive Material Properties

- **First draft of key properties has been defined**
- **Presentation - Greg Dean**
- **IAG discussion and input**

