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ANSA Phase III

ANSA MC&TC 0994: progress report slides

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Abstract

Progress report to the ANSA Technical and Management Committees at their meetings on 7 and 8 September 1994.

This report covers the third semester of the ANSA Phase 3 project (the six month period from March 1994 to end August 1994) and includes "project to date figures".

At the last Management Committee meeting (in April 1994) the first year of ANSA Phase 3 was reported on (the period from March 1993 to end February 1994). The last Technical Committee meeting (7 & 8 June 1994) included a report to end April 1994. Technical Committee members may therefore see some repetition of progress data.

APM.1289.01

Approved

12nd September 1994

Project Management (confidential to ANSA consortium for 2 years)

Distribution:

Supersedes:

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Phase III Third Semester Progress Report

March 1994 - August 1994

**to the ANSA Management and Technical Committees
7 & 8 September 1994**

Rob van der Linden

- **Finance**
- **Effort and Staffing**
- **Progress and Plans**



Finance

Spend (Sterling)	previous period (3/93 - 2/94)	this period (3/94 - 8/94)	Project to date (3/93 - 8/94)
Target income	1,136,000	548,000	1,684,000
Actual income	1,122,000	530,500	1,652,500
Actual cost	1,061,972	570,308	1,632,280
under / (over) spend	60,028	(39,808)	20,220



Effort (hours)

Effort	previous period (3/93 - 2/94)			this period (3/94 - 8/94)			Project to date (3/93 - 8/94)		
	APM	Sec's	Total	APM	Sec's	Total	APM	Sec's	Total
Target:	13200	13475	26675	7840	5250	13090	21040	18725	39765
Actual:	15879	8382	24261	8824	4970	13794	24703	13352	38055
Delta:	2679	(5093)	(2414)	984	(280)	704	3663	(5373)	(1710)



Effort (person months)

Activity	Previous period (Year 1: 3/93 - 2/94)			This period (3/94 - 8/94)			Project to date (3/93 - 8/94)		
	Actual	Plan	Delta	Actual	Plan	Delta	Actual	Plan	Delta
DEP	46.3	44.0	2.3	24.1	21.5	2.6	70.4	65.5	4.9
PERF	39.9	37.0	2.9	15.4	15.5	(0.1)	55.3	52.5	2.8
FED/AT	41.6	71.0	(29.4)	26.8	23.0	3.8	68.4	94.0	(25.6)
STDS	9.8	9.0	0.8	3.4	3.5	(0.1)	13.2	12.5	0.7
OH & SCE	11.1	0.0	11.1	8.3	6.0	2.3	19.4	6.0	13.4
TINA Xfer	2.2	0.0	2.2	0.0	7.0	(7.0)	2.2	7.0	(4.8)
TINA DPE	1.1	0.0	1.1	7.4	7.0	0.4	8.5	7.0	1.5
CA	10.1	12.0	(1.9)	7.4	4.2	3.2	17.5	16.2	1.3
PD	14.4	21.0	(6.6)	7.5	7.5	0.0	21.9	28.5	(6.6)
Totals	176.5	194	(17.5)	100.3	95.2	5.1	276.8	289.2	(12.4)



Staff numbers Year 2

PLANNED	M	A	M	J	J	A	S	O	N	D	J	F
APM	9	9	9.5	9.5	9.5	9.5	10.5	9	9	9	9	9
Sec's	6	6	6	7	7	7	6	8	8	8	8	8
Total	15	15	15.5	16.5	16.5	16.5	16.5	17	17	17	17	17

ACTUALS	M	A	M	J	J	A	S	O	N	D	J	F
APM	10.5	9.5	9.5	9.5	9.5	8.5	8	8	10	12	12	13
Sec's	6	6	6	5	5	5	3	2	2	2	2	2
Total	16.5	15.5	15.5	14.5	14.5	13.5	11	10	12	14	14	15

(Actual)

(Expected)



Deliverables

- **Due this period:** all completed on schedule
- **Work in progress:** on schedule



Deliverable Summary (1)

	Result	Scheduled	Status
MD1	D1: Failure model	12/93	delivered 12/93
	P1: Performance manifesto	11/93	delivered 11/93
	F1: Federation manifesto	5/94	delivered 6/94
MD2	D2: Programming guidelines	5/94	documented 5/94
	D2: Dependable workflow framework	6/94	delivered 6/94
	P2: Streams and signals (proposal):	5/94	delivered 5/94
	P2: Binding (proposal):	5/94	delivered 5/94
	F2: federation programming model	1995	cancelled (MC 10/93)
MD3	A1-3&7: Aut. transp. model etc.	8/94	merged with DPE



Deliverable Summary (2)

	Result	Scheduled	Status
MD4	D3: DIPS prototype and eng. model		
	DIPS report	3/94	delivered 2/94
	infrastructure prototype	6/94	completed 6/94
	links to Internet	9/94	completed 8/94
	CORBA - WWW interworking	12/94	on target
	P3: Engineering model		
	OSF/1 prototype	6/94	delivered 4/94
port to HP/RT	7/94	completed 6/94	
Streams and signals; technical report	9/94	on target for 9/94	
Binding; technical report	9/94	on target for 9/94	
F3: Trading with Orbix and AllBase	8/94	draft delivered 8/94 final on target for 10/94	
MD5	F4: interception prototype		on target



Federation

- **F3: MatchMaker - Trading with AllBase and Orbix - Draft documents:**
 - F3 Overview (Briefing Note) APM.1280
 - Designers' Introduction to Trading: APM.1140
 - Information Model for Federation: APM.1229
 - Specification & Design of a MatchMaker service: APM.1177
 - Prototype implementation of MatchMaker: on show at Poseidon House
- **F4: Interception network**
 - Multi-ORB interceptor prototype (12/94):
 - Gateway technology between ANSAware and Orbix platforms
 - Experiments with passing different kinds of binding information
 - Boundary and interception model (2/95)
- **ICL technical Journal article: APM.1128**



Dependability

- **Programming framework:**
 - **APM.1122 “Programming cheaper dependable systems” (6/94)**

- **Engineering framework**
 - **“Prototyping tools for dependability” (APM.1238)
provides interactive OO distributed processing, with high level GUI support**

- **Web - ORB interconnectivity work is a real systems integration problem**
 - **papers on Distributed Information publishing scenario: APM.1171, 1182**
 - **“MED: A CORBA based management engine for dependability” APM.1203**
 - **papers on commercial information services in ANSA and WWW: APM.1220, 1233**
 - **papers on distributed objects, www and resource naming: APM.1282, 1283, 1286**

- **ICL technical Journal article: APM.1149**



Performance

- **Programming framework**
 - “Streams and signals” Technical Report (9/94)
 - “Binding model” Technical Report (9/94)
- **Engineering framework**
 - Real Time ANSAware Version 1: Programming and System Overview: APM.1207
 - Port to HP/RT completed 6/94
 - substantial re-design of ANSA engineering: accompanied by prototyping
- **Application of the Event Condition Action model to the management of R/T**
- **Publications:**
 - ICL Techn. Journal: “An Open Architecture for Real-Time Processing” (APM. 1270)
 - IEE Workshop on distributed systems support for digital audio and video: “Distributing Real-Time ANSA Objects” (APM.1265)
 - IEEE WORDS '94: “Distributing Real-Time Objects: Some Early Experiences” (APM.1231)



Real Time ANSAware on ALPHA OSF/1 and HP 700 HP/RT

Test Series	ARTS (Sun 3/140)	RAW (HP 700)	RAW (DEC Alpha 3000/300)
R/T Comms latency	35 ms	36 ms	41 ms
R/T Priority queuing	18 KWS	725 KWS	2010 KWS
R/T Protocol pre-emption	(13) 20 tasks	15 tasks	105 tasks
R/T Comms bandwidth	14 tasks	23 tasks	23 tasks
RPC time 200 byte packet 800 byte packet	data not available	4.0 ms 5.8 ms	6.4 ms 7.5

- see [APM.1207](#) for test details or ask Guangxing Li



Other items (1)

- **DPE**
 - Cooperation with TINA ceased
 - AST implementation for C++ completed (8/94); design (APM.1180 being updated)
 - Type inferencing and checking work in progress (11/94)
- **OMG**
 - see separate report
 - “The ORB 2 Task Force: The Story So far” (APM.1202) in FirstClass Jul/Aug 1994
- **ODP**
 - RM-ODP Parts 1 and 4 now stable Committee Drafts (CDs)
 - RM-ODP Parts 2 and 3 at ballot comment drafting stage
 - Trader now (unstable) Committee Draft
 - Liaison with OMG settled
 - NWI: CORBA, interface refs and interoperability, transparency architecture, Multimedia extensions (all fast track) -- are project resources to be allocated?



Other items (2)

- **Dissemination and consulting**
 - Regular MC member updates by post
 - Controlled FTP access with public WWW indexes (<http://www.ansa.co.uk>)
 - ICL Technical Journal submissions completed; to be published in October
 - Feature Interaction Workshop in Amsterdam (May 1994)
 - Specific interactions with Bellcore, BNR, BT, GPT, HP and ICL
 - Presentations to team from Bellcore and BT
- **Plan**
 - TC agreed timetable in June
 - All items completed on time (plans and feedback) up to 4/7
 - MC intervention pre-empted the issue of the agreed text
 - Current draft is: APM.1275: “1994 - 1996 ANSA Workplan”