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Title: Status of FDT toolsdevelopment on the document ISO/IEC JTC1/SGFS N1331

Source : Korea (Mr. Heang-SukOh^(*), Byoung-Moon Chin^(**))

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Title: Status of FDTtools development on the document ISO/IEC JTC1/SGFSN1331

Source : ETRI

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We have reviewed the document ISO/IEC JTC1/SGFS N1331, Recommended from JTC1 for Action Plans and Information from Scs and SGFS on Implementation of JTC1 Policy on Conformity Assessment and JTC1 Policy on Interoperability (JTC1 N3826). We surveyed the status of protocol development tools. Based on this survey, we provide the following reports about N1331 Clause 3.1.

- e) What methodologies and tools (including formal techniques) already exist and are in use for assessment of conformity and interoperability?

Table 1-3 summarizes the Estelle, LOTOS, and SDL tools. The functions of these tools are limited to the following classification (using classification scheme presented by our contribution).

specification tools : syntax oriented editors with some support to check static semantics

validation and verification : checking of syntactic properties of the protocol only, very few tools check for semantic properties

implementation tool : most are translators that generate C code to run under UNIX

test tool : most of them are restricted test case generation tools

<Table 1> Estelle Tool

Tool	Spec		V & V		Implem tation		Test	
	B	F	Sy	Se	C	S	A	P
Contest-Estl					*		*	
EC compiler					*			
Echidna proj					*			
EDB						*		
EDS	*		*		*			*
ESTIM						*		
EVA	*	*			*	*		
EWS	*	*			*	*		
GROPE						*		
NIST tool	*	*			*	*		
PEDs	*				*	*		
PEW					*	*		
PIPN			*		*	*		
TVEDA							*	
UBC compiler					*	*		
VEDA		*				*		
Xesar				*				

<Tbale 2> LOTOS Tool

Tool	Spec		V & V		Implem tation		Test	
	B	F	Sy	Se	C	S	A	P
Aldebaran				*				
ASDE	*				*			
Auto				*				
Caesar					*			
CENTAUR	*	*			*	*		
COOPER							*	
Data Type					*			
Complier					*			
KDD	*	*				*		
LCRIS						*		
LISP-based env					*			*
LOLA							*	
LOTTEST					*			
Parlog Translator						*		
Simulator in OBJ		*				*		
LOTTE		*			*			
PIL	*	*			*	*		
SEDOS tool						*		

Smile						*		
SPIDER								
Squiggles			*	*				*
TETRA						*		
Times LOTOS	*	*			*			
Interpreter	*				*	*		*
Topo						*		
UO-GLOTOS								
UO-LOTOS toolkit								

<Table 3> SDL Tool

Tool	Spec		V & V		Implem tation		Test	
	B	F	Sy	Se	C	S	A	P
AT&T SDL tools	*		*		*	*		
ATC-SEN	*				*	*		
Danish SDL tool	*	*			*			
DASON	*	*			*			
ELVIS	*	*		*			*	
ESCORT	*		*		*			
FOREST							*	
GEODE	*	*			*	*		
ISET	*	*			*			
MELBA+	*	*			*			
SDL based SW dev.	*	*			*	*		
SDL-chill					*			
Transformer	*				*			
SDL tools from	*	*						
LSU	*	*				*		
SDL Tower		*	*		*	*		
SDT-2							*	
SSI								
TA-2			*					
TESDL	*	*			*			
TSDL-Tool								
YAST								

Where Spec : specification of bookkeeping, front-end

V & V : validation and verification of syntactic, semantic

Implementation : compiler, simulator

test : active, passive