

Connections between provenance Systems

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In this document, we include an extract of the study performed as part of the systematic review presented in [1]. In particular, we show a review of cross-citations between the surveyed papers, together with the pursued process to develop it.

This process is made up of 2 stages:

First stage. For each paper tackling a specific provenance system, we have performed a snowball process looking for its citations to papers referring to other systems in our group of 25 provenance systems. As a result, we have created the Table 1 including such relationships.

Second stage. Based on the Table 1, we have designed a graph representing the corresponding connections/relationships among the systems (Figure 1). The graph defines a node per each system which is connected to the nodes of other systems as stated in the table. More specifically, each directed edge between nodes (S_x, S_y) shows that there is at least a paper tackling the system S_x which cites another paper tackling the system S_y .

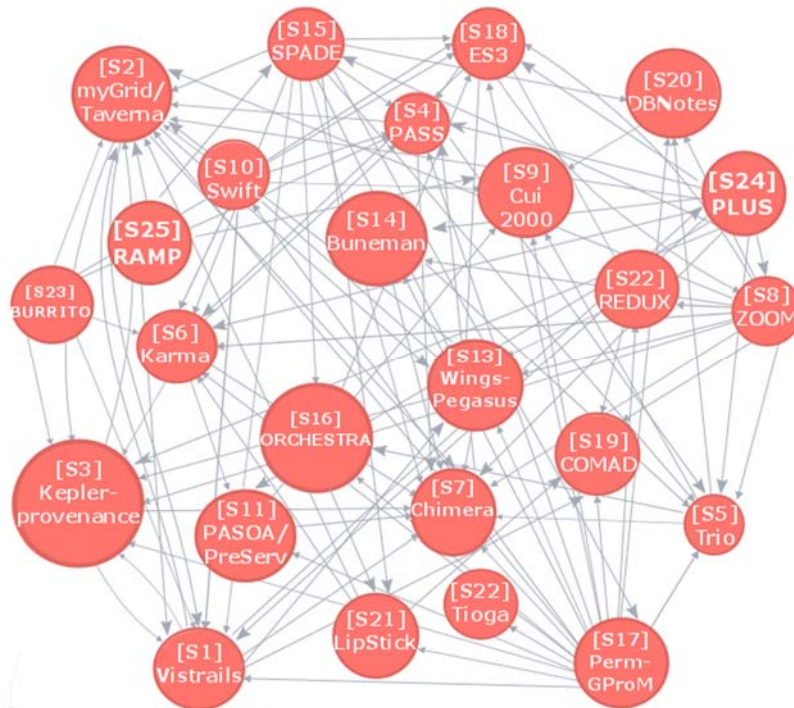


Figure 1

Systems	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25
	Vistrails	myGrid/ Taverna	Kepler- provenance	PASS	Trio	Karma	Chimera	ZOOM	Cui 2000	Swift	PASOA/ PreServ	Tioga	Wings- Pegasus	Buneman	SPADE	ORCHESTRA	Perm- GProM	ES3	COMAD	DBNotes	LipStick	REDUX	BURRITO	PLUS	RAMP
S1	Vistrails	X	X				X						X						X					X	X
S2	myGrid/ taverna	X	X				X						X												
S3	Kepler- provenance	X	X				X																		
S4	PASS		X		X		X																		
S5	Trio						X		X											X					
S6	Karma			X	X		X				X														
S7	Chimera			X																					
S8	ZOOM		X	X		X	X						X	X				X	X	X		X			
S9	Cui 2000																								
S10	Swift	X	X		X	X			X				X					X							
S11	PASOA/ PreServ						X		X																
S12	Tioga																								
S13	Wings- Pegasus		X	X			X																		
S14	Buneman				X		X																		
S15	SPADE	X	X		X	X	X						X			X	X	X		X	X			X	X
S16	ORCHESTRA				X													X			X				
S17	Perm- GProM	X	X	X	X	X	X		X	X	X	X	X	X		X		X	X	X	X	X			
S18	ES3				X			X					X									X			
S19	COMAD																								
S20	DBNotes								X																
S21	LipStick		X			X													X						
S22	REDUX												X						X						
S23	BURRITO	X	X	X	X	X												X							
S24	PLUS	X	X	X	X	X	X	X			X			X	X			X							
S25	RAMP		X						X																

Table 1

References

[1] B. Pérez, C. Sáenz-Adán, J. Rubio, A systematic review of provenance systems, submitted for publication to Knowledge and Information Systems.