

Link 16 Message Processing Based on Transaction

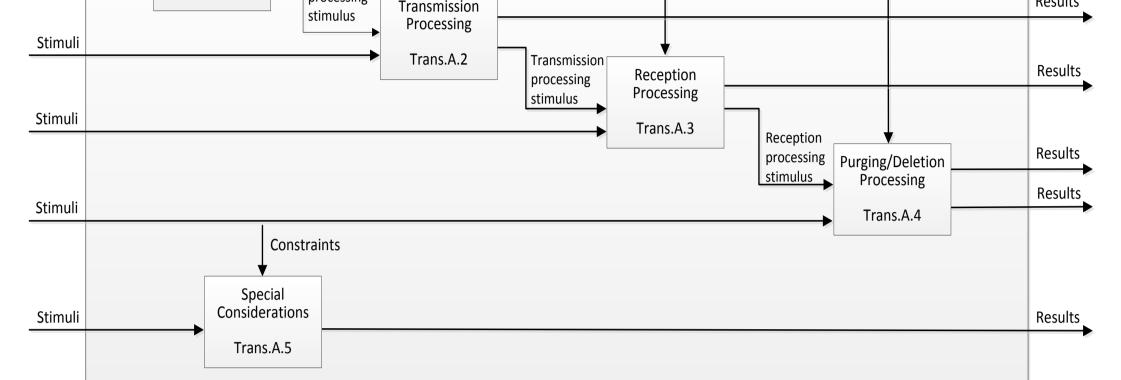
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	INTRODUCTION					
Data link is an information system	reception mechanisms and					
to achieve interoperability	processing rules be implemented	Constraints	Constraints	Constraints	Constraints	
between sensors, command and	by data link units.	Preparation Processing				Results
		Trans.A.1 Preparation processing	Transmission			Results

- control (C2) systems and weapon
 platforms employed in joint
 ➤
 tactical operations.
- Message standard is one of the most important factors of data link, which specifies tactical data format and transmission and

Transaction processing:
 Preparation
 Transmission
 Reception
 Purging/deletion

Special considerations



MESSAGE PROCESSING MECHANISM

Implementation steps
 Step 1: Determine data element requirements.
 Step 2: Determine message requirements.

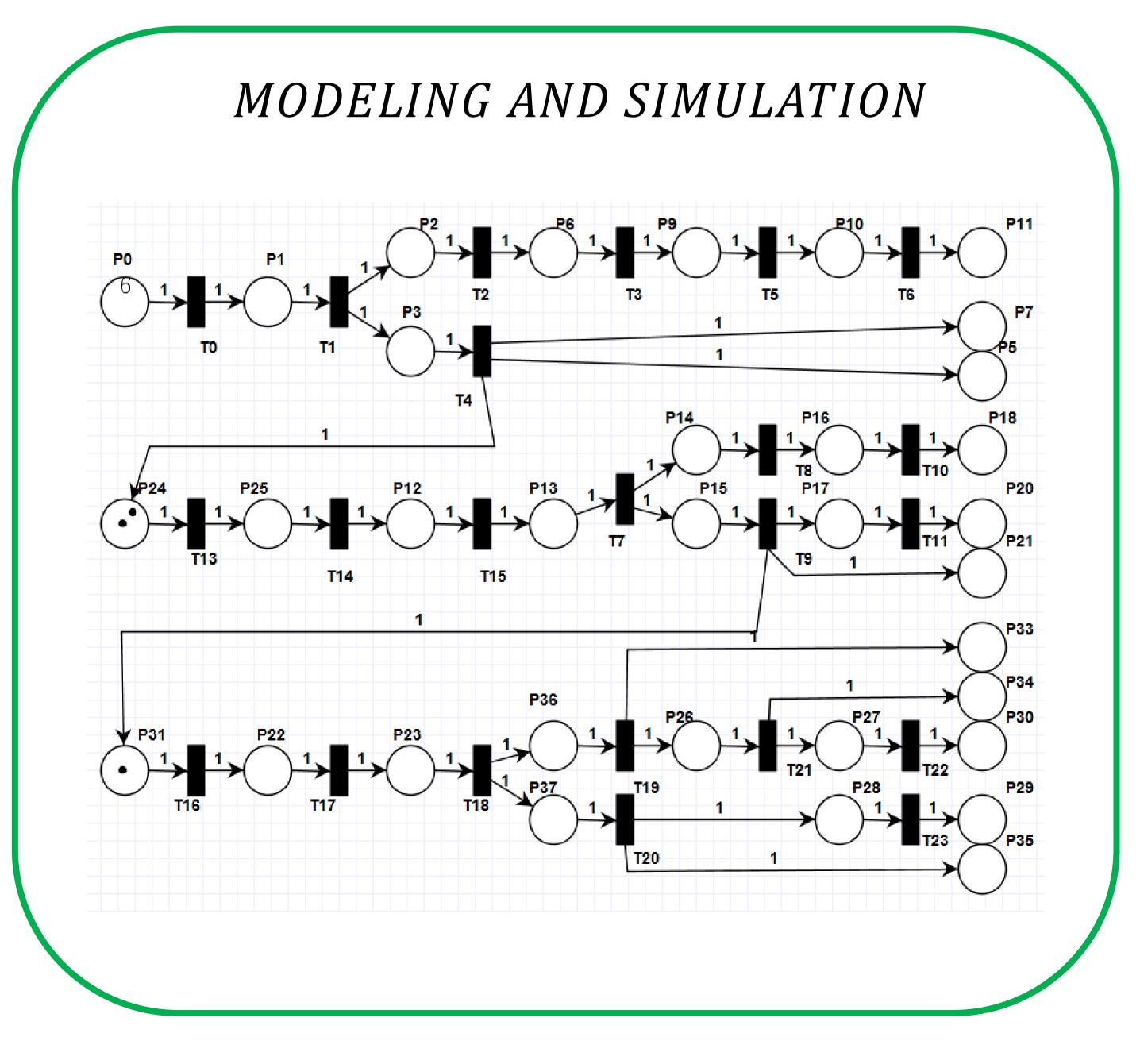
Air Track Processing

			No local tracks in database	No local tracks in database	
Operator input		h			
System event	Remote Track	Reference point msg.			>
Track management mag					

Step 3: Determine transaction requirements.
Step 4: Determine transaction package requirements.

Step 5: Design implementation process.

lack management msg.	Processing	Track management: co	orrelation request, tr	ack termination/drop, force te	ell status and emergenc	y status changed
Air track msg. PPLI msg.		A new local track o				
		following processi	ng 🚽	Track management: da	ta difference, correla [.]	tion request,
		Local Track		force tell status and emergency status		
	Local track data					
	Track management	msg.	Processing			
						IFF/SIF management:
						IFF/SIF information
				Air track with R2	Track	, special code
					Transmission	Air track msg.
	Data update request	msg.				



CONCLUSION

The proposed method is able to ensure the consistency of the message processing and reduce the

interoperability problems among different platforms.

FUTURE WORK

Modeling more functions in Link 16 and improving the automation of message processing.