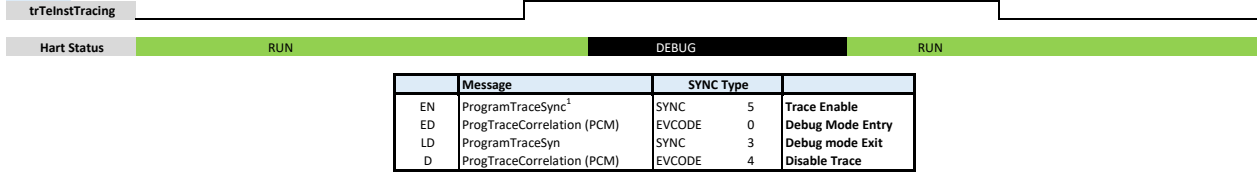


N-Trace message generation examples v 0.1:

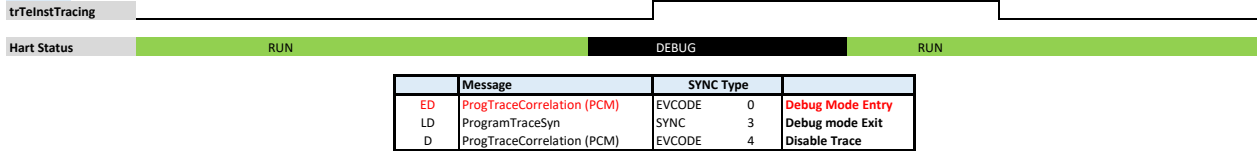
The following cases are created to help illustrate the type of N-trace message generated for different scenarios using the RISCV N-trace Specification Version 1.0

Acronyms	Description
EN	Enable of trace
ED	Enter debug mode
LD	Exit/Leave Debug mode
D	Disable Trace
P	Periodic Event
T	Trigger Event
RED	Optional Message (maybe omitted by encoder)

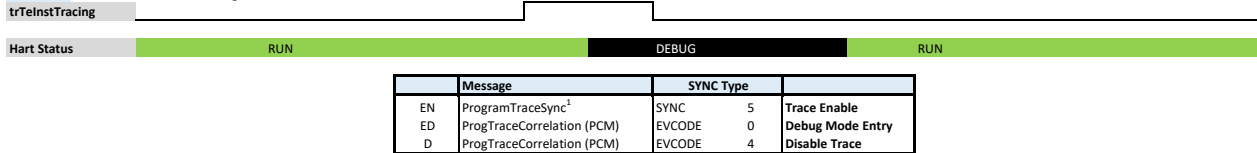
Case 1: Enable and Disable debug while tracing



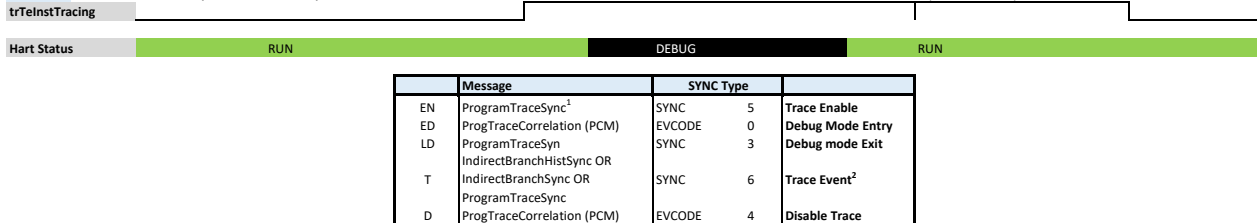
Case 2: Enable trace while in debug



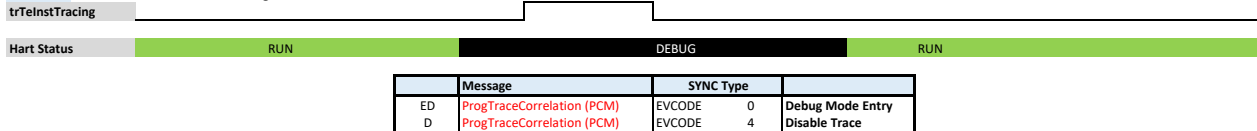
Case 3: Disable Trace while in debug



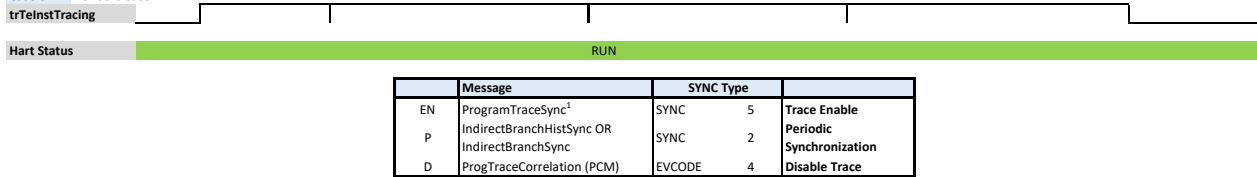
Case 4: SYNC TRIGGER EVENT (External or Internal)



Case 5: Enable and disable while in debug mode



Case 6: Periodic Case



OR

	Message	SYNC Type	
EN	ProgramTraceSync ¹	SYNC 5	Trace Enable
After P	DirectBranchSync OR IndirectBranchHistSync OR IndirectBranchSync	SYNC 2	Periodic Synchronization ³
D	ProgTraceCorrelation (PCM)	EVCODE 4	Disable Trace

Superscript notes:

¹ ProgramTraceSync message may be replaced with DirectBranchSync, IndirectBranchHistSync, IndirectBranchHistSync

² ProgramTraceSync message may be generated for a SYNC trigger event, however, ICNT or history information will be lost. It is recommended to use the IndirectBranchHistSync or IndirectBranchSync message with SYNC=6 (Trace Event) to ensure no trace data is lost.

³ Next available Branch message upgraded to Branch with SYNC