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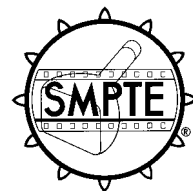
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SMPTE RECOMMENDED PRACTICE

Common Messages for Digital Control Interface



Page 1 of 14 pages

1 Scope

This practice details and defines the control message subset common messages. Common messages are used to perform certain functions common to all equipment types within a general-purpose communications channel of an interface system. This interface system shall transport data and digital control signals between equipment utilized in the production, post-production, and/or transmission of visual and aural information.

2 Notation

This practice describes the coding of keywords and information fields (I/F) in the form as shown below. The coding "NN" represents the assigned keyword or I/F code, in hexadecimal form.

NN	KEYWORD or I/F NAME	Keyword or I/F descriptive text
	Format:	<COMMAND> <PARAMETER NAME 0> [Parameter description; ... Parameter value coding, scale or range; <PARAMETER NAME n> Parameter definitions and explanations.]

In the practices listed in annex B, keywords are listed numerically, in hexadecimal notation. Keyword numbers are reserved as follows:

Keywords 00 _h – 1F _h :	System service subset;
Keywords 20 _h – 3F _h :	Common message subset;
Keywords 40 _h – FF _h :	Virtual machine type-specific subset.

3 Summary of keywords, mnemonics and information field (I/F) names

Hex	Keyword	(Mnemonic)	Hex	I/F name	(Mnemonic)
20	CNOP	(CNOP)	20		
21	CRESET	(CRST)	21	VIRTUAL MACHINE TYPE	(VTYP)
22	READ	(READ)	22	EQUIPMENT TYPE	(ETYP)
23	I/F ITEM RESPONSE	(IFRE)	23	TIME STANDARD	(TIME)
24	TIMELINE SOURCE	(TSCE)	24	TIMELINE TIME	(TTIM)
25	STARTUP RESPONSE	(STRE)	25	HIGH-RES TIMELINE TIME	(HTIM)
26	EXECUTE PROCEDURE	(EXPR)	26	EVENT BUFFER STATUS	(EBST)
27	DEFINE EVENT	(DEEV)	27	VIRTUAL MACHINE STATUS	(VMST)
28	CLEAR EVENT	(CLEV)	28		
29	ERROR	(CERR)	29	FAULT STATUS	(FTST)
2A			2A		
2B			2B		
2C			2C		
2D	FAILURE	(FAIL)	2D		
2E			2E		
2F	TIMELINE STOP	(TSTP)	2F		
30	TIMELINE RUN	(TRUN)	30		
3E	USER DEFINED	(UDEF)	3E	USER DEFINED	(UDND)
3F	EXTENSION	(CEXT)	3F	EXTENSION	(CIEX)

NOTE – The ability to perform command 29_h (ERROR) is mandatory for every virtual machine.

EXTENSION SET

Hex	Keyword	(Mnemonic)
00		
01		
02		
03	FUNCTION POLL	(FNPL)
04	FUNCTION RESPONSE	(FNRE)
05	FIELD POLL	(FDPL)
06	FIELD RESPONSE	(FDRE)
07	UPDATE	(UDAT)
08	CYCLE	(CYCL)
09	MUTE	(MUTE)
0A	SIMULTANEOUS READ	(SIRD)
0B	DEFINE PROCEDURE	(DEPR)
0C	DELETE PROCEDURE	(DLPR)
0D	RECALL PROCEDURE	(REPR)
0E	PROCEDURE RESPONSE	(PRRE)
0F	RECALL EVENT	(REEV)
10	EVENT RESPONSE	(EVRE)
11	SIMULTANEOUS READ RESPONSE	(SRDR)
FF	EXTENSION	(EXEX)

26 EXECUTE PROCEDURE Directs the virtual machine to execute immediately the procedure name.

Format: <EXECUTE PROCEDURE>
<PROCEDURE NAME>

NAME is in the range 01_h to FF_h. 00_h is reserved.

27 DEFINE EVENT Prepares an event; i.e., a function which shall be executed at the instant of coincidence of a specified trigger time with the content of a specified I/F time.

Format: <DEFINE EVENT>
<EVENT NAME>
<I/F NAME OF TRIGGER SOURCE>
<TRIGGER VALUE>
<COMMAND>

8-bits

Specifies the function.

NOTES

- 1 In order to implement a procedure in an event, EXECUTE PROCEDURE shall be used for the COMMAND, and the procedure shall have been predefined.
- 2 The TRIGGER SOURCE I/F NAME is a TIMELINE or a type-specific time information field.
- 3 All functions contained within a procedure defined as an event must be executed by the virtual machine at the trigger time specified by the event.
- 4 The virtual machine shall clear an event on execution.
- 5 The EVENT NAME is unique for each event.
- 6 Where mutually exclusive commands are given inadvertently at the same time through the use of events constructs, such events shall be cleared by the virtual machine and an error message returned.

28 CLEAR EVENT Clears one or all events previously established.

Format: <CLEAR EVENT>
<EVENT NAME>

(<00_h> is all events)

29 ERROR Advises the controlled virtual machine that the previous string has not been understood by or cannot be performed by the controlled virtual machine.

Format: <ERROR>
<EXEC CODE>

8-bits:

- 00 = Parse error.
- 01 = Cannot do by design.
- 02 = Insufficiently equipped.
- 03 = Buffer overflow.
- 04 = Invalid keyword.
- 05 = Invalid keyword argument.
- FE = See FAULT STATUS information field for more information.
- FF = Unspecified

<BYTE COUNT>
<OFFENDING STRING>

8-bits, not including the byte count.
Truncated not to exceed an overall ERROR message length of 256 bytes.