

SEMI E40.1-1000

SECS-II SUPPORT FOR PROCESSING MANAGEMENT STANDARD

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1 Purpose

1.1 This document maps the services and data of SEMI E40 to SECS-II streams and functions and data definitions.

2 Scope

2.1 This is the standard way to implement the Processing Management, which provides remote control of wafer processing, using the SECS-II message protocol.

2.2 This standard does not purport to address safety issues, if any, associated with its use. It is the responsibility of the users of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

3 Referenced Documents

3.1 *SEMI Standards*

SEMI E5 — SEMI Equipment Communications Standard 2 Message Content (SECS-II)

SEMI E40 — Standard for Processing Management

4 Terminology

4.1 None.

5 Mapping of Processing Services

Table 1 Processing Management Messages Mapping

<i>Service Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
PRJobCreate request	S16F3,F4	Process Job Create Request/Acknowledge
PrJobCommand request	S16F5,F6	Process Job Command Request/Acknowledge
PRJobAlert notify	If E30 style events: S6F11,F12 If E40 style alerts: S16F7,F8 If E53 style events: S6F11,F12 S6F13,F14	If E30 style events: Event Report Send/Acknowledge If E40 style alerts: Process Job Alert Notify/Confirm If E53 style events: Event Report Send/Acknowledge Annotated Event Report Send/Ack
PRJobEvent notify	If E30 style events: S6F11,F12 If E40 style events: S16F9,F10 If E53 style events: S6F11,F12 S6F13,F14	If E30 style events: Event Report Send/Acknowledge If E40 style events: Process Job Event Notify/Confirm If E53 style events: Event Report Send/Acknowledge Annotated Event Report Send/Ack
PRSetMtrlOrder request	S16F29,30	Process Job Set Material Order

6 Mapping of Processing Parameter

Table 2 Data Item Mapping

<i>Service Parameter</i>	<i>SECS-II Data Item</i>
PrJobID	PRJOBID
PRMtlType	MF
PRMtlName	MID
PRAck	ACKA
PRRecipeMethod	PRRECIPEMETHOD
RecID	RCPSPEC
RecipeVarName	RCPPARNM
RecipeVarValue	RCPPARVAL
PRProcessStart	PRPROCESSSTART
PRCmdName	PRCMDNAME
PRJobMilestone	If E30 style events: CEID If E40 style alerts: PRJOBMILESTONE If E53 style events: CEID
PRJobState	PRJOBSTATE
Timestamp	TIMESTAMP
PREventID	If E30 style events: CEID If E40 style events: PREVENTID If E53 style events: CEID
CmdParmName	CPNAME
CmdParmVal	CPVAL
PRMtrlOrder	PRMTRLORDER
ErrorCode	ERRCODE
ErrorText	ERRTEXT
PREventData	V (SV, ECV, DVVAL)
PRJobSpace	PRJOBSPACE
PRPauseEvent	PRPAUSEEVENT

7 Implementation Details

7.1 Use of Object Services — Several capabilities of the Processing Management Services are accessed through the Object Services Standard. When a Process Job has been created, (PRJOBID is valid), then its attributes can be read and written using the Object Services GetAttr and SetAttr messages.

7.1.1 E39 Object Services shall be used for access to ProcessJob attributes. The GetAttr service may be used for all ProcessJob attributes and the SetAttr service may be used on only those attributes whose Access is set to RW.

7.2 Multi-Block Messages — Processing Management Services is protocol independent and therefore, makes no mention of SECS-II multi-block access and grant messages. When these Service use the SECS-II protocol, then S16F3,F5 shall be preceded by an S16F1/S16F2 access request/grant message exchange when the message will be multi-block.

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