

SEMI E40.1-0705

SECS-II SUPPORT FOR PROCESSING MANAGEMENT STANDARD

This standard was technically approved by the global Information & Control Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on April 7, 2005. It was available at www.semi.org in June 2005 and on CD-ROM in July 2005. Originally published in 1995; last published in 2004.

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.

NOTICE: 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 or other limitations prior to use.

3 Referenced Standards and Documents

3.1 SEMI Standards

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

SEMI E40 — Standard for Processing Management

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

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
PRJobCreateEnh	S16F11/F12	PRJobCreateEnh
PRJobMultiCreate	S16F15/F16	PRJobMultiCreate

<i>Service Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
PRJobDequeue	S16F17/F18	PRJobDequeue
PRGetAllJobs	S16F19/F20	PRGetAllJobs
PRGetSpace	S16F21/F22	PRGetSpace
PRJobSetRecipeVariable	S16F23/F24	PRJobSetRecipeVariable
PRJobSetStartMethod	S16F25/F26	PRJobSetStartMethod

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	PRSTATE
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 Variable Data Item Mapping

7.1 This section shows the specific SECS-II data classes, and formats needed for SECS-II implementations of SEMI E40 variable data. According to SEMI E40 §11, all ProcessJob object attributes are to be available as variables for Process Job state transition events. These variables will be of SEMI E5 data item DVVAL.