

# CIM Project For BMDT-标杆线

Project Name	CIM Project For BMDT-标杆线
File Name	BMDT EIS Test Check List(ASSY)_V1.0
Equipment	ASSY
Facility	BMDT-Module

	Name	Company	Version	Date
Preparation	Wang WenJie	BOE	1.0	2015.10.13
Update	Hou Mingxian	BOE	2.0	2018.5.28

1. Message Formats						
No	S/F	Dir	Data Format	Change	Result	Description
1	SnF0	H↔E	Header Only			
2	S1F1	H→E	Header Only			Are You There Req.
3	S1F1	H←E	Header Only			Are You There Req.
4	S1F2	H←E	L, 2 1. < A[6] MDLN> 2. < A[6] SOFTREV>			with MDLN & SOFTREV
5	S1F2	H→E	L, 0			without MDLN & SOFTREV
6	S1F15	H→E	Header Only			Host Offline Req.
7	S1F16	H←E	<A[01] OFLACK>			Offline Reply.
8	S1F17	H→E	<A[01] CRST>			Host ON-LINE Req. (CRST - 1: Remote, 2: Local)
9	S1F18	H←E	<A[01] ONLACK>			ON-LINE Reply.
10	S2F17	H↔E	Header only			Time Req.
11	S2F18	H↔E	<A[14] TIME>			Time Reply.
12	S2F31	H→E	<A[14] TIME>			Date and Time Set Request.
13	S2F32	H←E	<A[01] TIACK>			Reply.
14	S2F111	H→E	<A[20]UNITID>	Add.		Current Recipe Data Request .
15	S2F112	H←E	<A,1 '0' [ACKC2]>.	Add.		Reply.
16	S2F113	H→E	<A[20]UNITID>	Add.		Current EQP Data Request .
17	S2F114	H←E	<A,1 '0' [ACKC2]>.	Add.		Reply.

## 1. Message Formats

No	S/F	Dir	Data Format	Change	Result	Description
18	S5F1	H←E	L, 5 1. <A[01] ALST> 2. <A[01] ALCD> 3. <A[05] ALID> 4. <A[40] ALT<X> 5. <A[20] UNITID>			Alarm Report.
19	S5F2	H→E	<A[01] ACKC5>			Reply.
20	S6F111	H←E	L, 3 1. <A[20]UNITID> 2. <A[20] PPID> 3. L, n 1, L, 2 1. <A[15]DVNAME> 2. <A[20] DV>	Add.		Current Recipe Data Report.
21	S6F112	H→E	<A[01] ACKC6>	Add.		Reply.
22	S6F113	H←E	L, 2 1. <A[20]UNITID> 2. L, n 1, L, 2 1. <A[15]DVNAME> 2. <A[20] DV>	Add.		Current EQP Data Report.
23	S6F114	H→E	<A[01] ACKC6 >	Add.		Reply.
24	S6F151	H←E	L, 7 1. <A[20]UNITID> 2. <A[16] STATIME> 3. <A[16] ENDTIME> 4. <A[10] SAMCOUNT> 5. <A[20] AVETRACKVALUE> 6. <A[20] MAXTRACKVALUE> 7. <A[20] MINTRACKVALUE>	Add.		Tack Time Report.
25	S6F152	H→E	<A[01] ACKC6>	Add.		Reply.
26	S6F11	H←E	[CEID = 111-114] Control State Change & Equipment Status Change. L, 2 1. <A[03] CEID> 2. L, 1 1. L, 2 1. <A[03] RPTID> /* fix RPTID=100 */ 2. L, 3 1. <A[01] CRST> 2. <A[01] EQST> 3. <A[20]UNITID>	Modify.		Remark : 111: Control State Change (Off-line) 112: Control State Change (Local) 114: Equipment Status Change

## 1. Message Formats

No	S/F	Dir	Data Format	Change	Result	Description
26	S6F11	H←E	[CEID = 361~362] Process State(Module Line) L, 2 1. <A[03] CEID> 2. L,2 1. L,2 1. <A[03] RPTID=100> 2. L, 4 1. <A[01] CRST> 2. <A[01] EQST> 3. <A[01] STAGEID> 4. <A[20] UNITID> 2. L,2 1. <A[03] RPTID =360> 2. L,3 1. <A[20] PNLID> 2. <A[50] BLUID> 3. <A[05] PNLJUDGE> G: Good,	Modify.		Remark : CEID: 361: Panel Process Start 362: Panel Process End  <b>STAGEID: 平台 ID</b>  BLUID:来料背光码  有码必须上传，没有码按需上传 BLUID
27	S6F12	H→E	<A[01] ACKC6>	Modify.		
28	S6F3	H←E	L, 2 1. <A[03] CEID> /* CEID=500*/ 2. L, 4 1. <A[20] UNITID> 2. <A[20]PNLID > 3. <A[20] PPID> 4. L, n 1, L, 2 1. <A[15]DVNAME> 2. <A[20] DV>			过程监控数据，如果有必须上传，没有可以选择不上传
29	S6F4	H→E	<A[01] ACKC6>			
30	S2F41	H→E	[RCMD = 6] /*Operator Call*/ L, 2 1. <A[01] RCMD> 2. L, 1 1. L, 2 1.<A [6] "OPCALL"> 2.<A[40][MESSAGE]>  [RCMD = 7] /*EQP DOWN*/ L, 2 1. <A[01] RCMD> 2. L, 2 1. L, 2 1. <A[06] "UNITID"> 2. <A[20] UNITID > 2. L, 2 1.<A [6] "OPCALL"> 2.<A[40][MESSAGE]>	Modify.		Host Command Send.
31	S2F42	H→E	<A[01] ACKC2>			Host Command Acknowledge.

1. Message Formats						
No	S/F	Dir	Data Format	Change	Result	Description
32	S9F1	H←E	< MHEAD>			
33	S9F3	H←E	< MHEAD>			
34	S9F5	H←E	< MHEAD>			
35	S9F7	H←E	< MHEAD>			
36	S9F9	H←E	< SHEAD>			
37	S9F11	H←E	< MHEAD>			
38	S9F13	H←E	L, 2 1. <A[6] MEXP> “SxFyyy” 2. <A[6] EDID>			

2. CONTROL STATE		
Sequence	Description	Judge
<p>2-1. Host Initiated (for Online identification)</p> <p><b>EIS</b> <span style="float:right"><b>EQP</b></span></p> <div><div>Control state is On-line (Local)</div><div><div>Are You There Req.</div><div>S1F1</div><div></div></div><div><div></div><div>S1F2</div><div>with MDLN &amp; SOFTREV</div></div></div>		
<p>2-2. Equipment denies On-line</p> <p><b>EIS</b> <span style="float:right"><b>EQP</b></span></p> <div><div></div><div><div>S1F1</div><div></div></div><div><div></div><div>S1F0</div><div></div></div></div>		
<p>2-3. Operator Sets Off-Line</p> <p><b>EIS</b> <span style="float:right"><b>EQP</b></span></p> <div><div>Control state is On-line (Local)</div><div><div>CEID=111, CRST = 0</div><div>S6F11</div><div>Operator actuates Offline switch</div></div><div><div></div><div>S6F12</div><div></div></div></div>		
<p>2-4. Operator Initiated (to Online Local Mode)</p> <p><b>EIS</b> <span style="float:right"><b>EQP</b></span></p> <div><div></div><div><div>S1F1</div><div></div></div><div><div></div><div>S1F2</div><div></div></div><div><div>CEID=112, CRST=2</div><div>S6F11</div><div>Online mode change report</div></div><div><div></div><div>S6F12</div><div></div></div><div><div></div><div>S2F17</div><div>Time Req.</div></div><div><div></div><div>S2F18</div><div></div></div><div><div></div><div>S6F111</div><div>Current RECIPE Data Report</div></div><div><div></div><div>S6F112</div><div>Ack</div></div><div><div></div><div>S6F113</div><div>Current EQP Data Report</div></div></div>	<p>Recipe Date: Data which is related to Recipe.</p> <p>EQP Date: Data which is not related to Recipe.</p>	

2. CONTROL STATE		
Sequence	Description	Judge
<p>2-5. Host sets Offline (Abort Transaction)</p> <p>EIS</p> <p>Control State is Offline mode.</p> <p>Offline Req. S1F15</p> <p>S1F0</p> <p>EQP</p>		
<p>2-6. Host Sets Offline</p> <p>EIS</p> <p>Control state is On-line Local mode</p> <p>Offline Req. S1F15</p> <p>S1F16</p> <p>CEID=111, CRST = 0 S6F11</p> <p>EQP</p>		
<p>2-7. Host sets equipment to Online Local mode</p> <p>EIS</p> <p>Control state is Offline Mode</p> <p>CRST=2 S1F17 online Req.</p> <p>ONLACK=0 S1F18</p> <p>CEID=112, CRST=2 S6F11 Online mode change report</p> <p>S6F12</p> <p>S2F17 Time Req.</p> <p>S2F18</p> <p>S6F111 Current Recipe Data Report</p> <p>S6F112 Ack</p> <p>S6F113 Current EQP Data Report</p> <p>EQP</p>	<p>Recipe Date: Data which is related to Recipe.</p> <p>EQP Date: Data which is not related to Recipe.</p>	

2. CONTROL STATE		
Sequence	Description	Judge
<p>2-8. Host sets equipment to Online mode (equipment denies it)</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Control state is Offline Mode     EIS-&gt;&gt;EQP: S1F17 (online Req.) CRST=2     EQP--&gt;&gt;EIS: S1F18 (ONLACK=1) Equipment condition is not good.</pre>		
<p>2-9. Host sets equipment to Online Local mode (equipment is Local mode)</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Control state is Online Local mode     EIS-&gt;&gt;EQP: S1F17 (online Req.) CRST=2     EQP--&gt;&gt;EIS: S1F18 (ONLACK=2, Already Local)</pre>		
<p>2-10. Equipment Status Change</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: EQP status changed from one to another.     EQP--&gt;&gt;EIS: S6F11 (EQP status changed) CEID=114     EIS-&gt;&gt;EQP: S6F12</pre>	<p>EQST</p> <ul style="list-style-type: none"><li>1: Idle</li><li>2: Run</li><li>3: Trouble</li><li>4: Maintenance</li><li>5: 是否增加新的设备状态?</li></ul>	



2. CONTROL STATE		
Sequence	Description	Judge
<div>2-11. Host Send Operator Call Command</div> <div><div><div>EIS</div><div>EQP</div></div><div><div><div>RCMD=6</div><div>S2F41</div><div>Operator Call Command</div></div><div><div>HCACK=0</div><div>S2F42</div></div></div><div><div>Equipment calls Operator (with Buzzer &amp; signal tower).</div></div></div>		
<div>2-12. Host Send Unit Down Command</div> <div><div><div>EIS</div><div>EQP</div></div><div><div><div>RCMD=7</div><div>S2F41</div><div>Unit Down Command</div></div><div><div>HCACK=0</div><div>S2F42</div></div></div><div><div>Equipment /Unit change to down and calls Operator (with Buzzer &amp; signal tower).</div></div><div><div><div>CEID=114</div><div>S6F11</div><div>EQP status change to down</div></div><div><div>S6F12</div></div></div></div>		

3. DATA COLLECTION		
Sequence	Description	Judge
<div>3-1. EQP Current RECIPE Data Report</div> <div><div><div>EIS</div><div>EQP</div></div><div><div>[Current RECIPE Data Report]</div><div>S6F111</div><div>Current RECIPE Data Report</div><div>S6F112</div><div>Ack</div></div></div>	<div>Recipe Date: Data which is related to Recipe.</div>	
<div>3-2. EQP Current EQP Data Report</div> <div><div><div>EIS</div><div>EQP</div></div><div><div>Current EQP Data Report S6F113</div><div>Current EQP Data Report</div><div>S6F114</div><div>Ack</div></div></div>	<div>EQP Date: Data which is not related to Recipe.</div>	

3. DATA COLLECTION		
Sequence	Description	Judge
<div>3-3. HOST Request EQP Current RECIPE Data</div> <div><div><div>EIS</div><div>EQP</div></div><div><div><div>S2F111</div><div>Current RECIPE Data Request</div></div><div><div>S2F112</div><div>Ack</div></div><div><div>[Current RECIPE Data Report]</div></div><div><div>S6F111</div><div>Current RECIPE Data Report</div></div><div><div>S6F112</div><div>Ack</div></div></div></div>		
<div>3-4. HOST Request EQP Current EQP Data</div> <div><div><div>EIS</div><div>EQP</div></div><div><div><div>S2F113</div><div>Current EQP Data Request</div></div><div><div>S2F114</div><div>Ack</div></div><div><div>Current EQP Data Report</div></div><div><div>S6F113</div><div>Current EQP Data Report</div></div><div><div>S6F114</div><div>Ack</div></div></div></div>		

3. DATA COLLECTION		
Sequence	Description	Judge
<div>3-5. Last period Tack Time Report</div> <div><div><div>EIS</div><div>EQP</div></div><div><div></div><div>[Tack Time Report]</div><div></div></div><div><div></div><div>S6F151</div><div>Last period Tack Time Report</div></div><div><div></div><div>S6F152</div><div>Ack</div></div></div>		

4. Alarm Management		
Sequence	Description	Judge
<div>4-1. Send Alarm Report (Light alarm)</div> <div><div><div>EIS</div><div>EQP</div></div><div><div>Light alarm occur</div><div><div>←ALST=1, ALCD=1S5F1Alarm Set report</div><div>S5F2</div><div>→</div></div><div>Light alarm cleared</div><div><div>←ALST=2, ALCD=1S5F1Alarm Reset report</div><div>S5F2</div><div>→</div></div></div></div>	<div>ALST</div> <div>1: Set</div> <div>2: Clear</div> <div>ALCD</div> <div>1: Light Alarm</div> <div>2: Serious Alarm</div> <div>This alarm does not affect to product.</div>	
<div>4-2. Send Alarm Report (Heavy alarm)</div> <div><div><div>EIS</div><div>EQP</div></div><div><div>Heavy alarm occur</div><div><div>←ALST=1, ALCD=2S5F1Alarm Set report</div><div>S5F2</div><div>→</div></div><div><div>←CEID=114S6F11Equipment status</div><div>EQST=3(Trouble)</div><div>→S6F12Change Report</div></div><div><div>Heavy alarm cleared</div><div><div>←ALST=2, ALCD=2S5F1Alarm Reset report</div><div>S5F2</div><div>→</div></div><div><div>←CEID=114S6F11Equipment status</div><div>EQST=1(IDLE) or 2(RUN)</div><div>→S6F12Change Report</div></div></div></div></div>	<div>EQP must report the Unit state or EQP state according to current alarm state.</div>	

ALST

1: Set

2: Clear

ALCD

1: Light Alarm

2: Serious Alarm

*This alarm does not affect to product.*

6. Clock		
Sequence	Description	Judge
<div>6-1. Host requests Equipment's Current Time Value</div> <div><div>EIS</div><div>EQP</div><div>S2F17</div><div>S2F18</div></div>		
<div>6-2. Host instructs Equipment to Set time.</div> <div><div>EIS</div><div>EQP</div><div>S2F31</div><div>Equipment sets its internal time reference to the value of TIME received from the host and acknowledges completion</div><div>S2F32</div></div>		

7. Error Message		
Sequence	Description	Judge
<p>7-1. Unrecognized Device ID</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Assign invalid Device ID     EIS-&gt;&gt;EQP: Primary Message     EQP--&gt;&gt;EIS: S9F1</pre>		
<p>7-2. Unrecognized Stream Type</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Assign invalid number to Stream Number     EIS-&gt;&gt;EQP: Primary Message (e.g. S128F1)     EQP--&gt;&gt;EIS: S9F3</pre>		
<p>7-3. Unrecognized Function Type</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Assign invalid number to Function Number     EIS-&gt;&gt;EQP: Primary Message (e.g. S1F99) S9F5     EQP--&gt;&gt;EIS:</pre>		
<p>7-4. Illegal Data (Format Error)</p> <pre>sequenceDiagram     participant EIS     participant EQP     EIS-&gt;&gt;EQP: Primary Message (with data format could not be interpreted)     EQP--&gt;&gt;EIS: S9F7</pre>		
<p>7-5. Data Too Long</p> <pre>sequenceDiagram     participant EIS     participant EQP     EIS-&gt;&gt;EQP: Primary Message (with more data than it can be handled) S9F11     EQP--&gt;&gt;EIS:</pre>		

7. Error Message		
Sequence	Description	Judge
<p>7-6. Transaction Timeout</p> <pre>sequenceDiagram     participant EIS     participant EQP     EQP-&gt;&gt;EIS: Primary Message     Note over EIS: T3 Timeout occur     EQP-&gt;&gt;EIS: S9F9     Note over EIS: 1. Call Operator (Buzzer &amp; Signal Tower) 2. Display the error confirm window on equipment's console in order to clear the timeout by Operator</pre>		
<p>7-7. Transaction Timeout during change to online mode</p> <pre>sequenceDiagram     participant EIS     participant EQP     EQP-&gt;&gt;EIS: S1F1     Note over EIS: T3 Timeout occur     EQP-&gt;&gt;EIS: S9F9     Note over EIS: 1. Call Operator (Buzzer &amp; Signal Tower) 2. Display the error confirm window on equipment's console in order to clear the timeout by Operator 3. The equipment remains OfflineMode</pre>		
<p>7-8. Transaction Timeout during change to offline mode</p> <pre>sequenceDiagram     participant EIS     participant EQP     Note over EIS: Change to offline mode by Operator     EQP-&gt;&gt;EIS: S6F11     Note over EIS: T3 Timeout occur     EQP-&gt;&gt;EIS: S9F9     Note over EIS: 1. Call Operator (Buzzer &amp; Signal Tower) 2. Display the error confirm window on equipment's console in order to clear the timeout by Operator 3. Change to Offline Mode</pre>		



9. Normal Sequence		
Sequence	Description	Judge
9-1. Online Local Mode (Normal)		
<div><div><div>EIS</div><div>EQP</div></div><div><div><div>Panel Process Start Event.</div><div></div></div><div><div>←</div><div>CEID=361</div><div>S6F11</div><div>1<sup>st</sup> Panel data</div><div>→</div></div><div><div></div><div>S6F12</div><div>→</div></div><div><div>Panel Data.</div><div></div></div><div><div>←</div><div>CEID=500</div><div>S6F3</div><div>1<sup>st</sup> Panel data</div><div>→</div></div><div><div></div><div>S6F4</div><div>→</div></div><div><div>Panel Process End Event &amp; Load BLUID.</div><div></div></div><div><div>←</div><div></div><div></div><div></div><div></div><div></div></div><div><div>←</div><div>CEID=362</div><div>S6F11</div><div>1<sup>st</sup> Panel data</div><div>→</div></div><div><div></div><div>S6F12</div><div>→</div></div><div><div>←</div><div></div><div></div><div></div><div></div><div></div></div><div><div>←</div><div>CEID=361</div><div>S6F11</div><div>(n)<sup>th</sup> Panel data</div><div>→</div></div><div><div>←</div><div></div><div>S6F12</div><div>→</div></div><div><div>←</div><div>CEID=500</div><div>S6F3</div><div>(n)<sup>th</sup> Panel data</div><div>→</div></div><div><div>←</div><div></div><div>S6F4</div><div>→</div></div><div><div>←</div><div>CEID=362</div><div>S6F11</div><div>(n)<sup>th</sup> Panel data</div><div>→</div></div><div><div></div><div>S6F12</div><div>→</div></div></div></div>		

**[APPENDIX A] Data Item Dictionary ( NOT DEFINE IN BMDT\_EIS\_HSMS\_SPEC\_V1.00 )**

Item Name	Description	Format	Format Remark
STATIME	the start time of sampling	20	STATIME FORMAT ='YYYYMMDDhhmmsscc' YYYY=Year 0000 to 9999 MM=Month 01 to 12 DD=Day 01 to 31 hh=Hour 00 to 23 mm=Minute 00 to 59 ss=Second 00 to 59 cc=Centisecond 00 to 99 <b><u>Where Used :</u> S2F151</b>
ENDTIME	the end time of sampling	20	ENDTIME FORMAT ='YYYYMMDDhhmmsscc' YYYY=Year 0000 to 9999 MM=Month 01 to 12 DD=Day 01 to 31 hh=Hour 00 to 23 mm=Minute 00 to 59 ss=Second 00 to 59 cc=Centisecond 00 to 99 <b><u>Where Used :</u> S2F151</b>
SAMCOUNT	the total number of samples to be taken	20	The maximum number of samples that this Trace Report will perform. <b><u>Where Used :</u> S2F151</b>
AVETRACKVALUE	the average of Tack Time	20	Time Format : "hhmmsscc" Where "hh" is hours, "mm" is minutes, "ss" is seconds' and "cc" is centi-seconds. <b><u>Where Used :</u> S2F151</b>
MAXTRACKVALUE	the max of Tack Time	20	Time Format : "hhmmsscc" Where "hh" is hours, "mm" is minutes, "ss" is seconds' and "cc" is centi-seconds. <b><u>Where Used :</u> S2F151</b>
MINTRACKVALUE	the min of Tack Time	20	Time Format : "hhmmsscc" Where "hh" is hours, "mm" is minutes, "ss" is seconds' and "cc" is centi-seconds. <b><u>Where Used :</u> S2F151</b>