

Ver.	Date	Page	Who	Revision History
1.0.0			Steven Lin	Creat
1.0.1	2018/7/23		Kevin Wei	修正SPEC
1.0.2	2018/12/5		Kevin Wei	1.增加ID_31、ID_131 ActiveType的種類。Override、CSTRename、MTLHome、MoveToMTL、SystemOut、SystemIn 2.修改ID_132 CmpStatus的種類。 3.更新ID_33、ID_133 ControlType的對應編碼。修改前:Block =4;HID =5;。修改後:Block =1;HID = 2; 4.修改ID_134 的上報資料。取消HasCST、LeftGuideLockStatus、RightGuideLockStatus的欄位。 5.修改ID_136 的上報資料。取消HasCST的欄位。 6.修改ID_143 的回復資料。增加上報Earthquake_Pause_Status、Safety_Pause_Status、HasCST、Cmd_ID、CST_ID 的欄位。 7.修改ID_144 的上報資料。增加上報Earthquake_Pause_Status、Safety_Pause_Status、HasCST、Cmd_ID、CST_ID 的欄位。
1.0.4	2019/2/25		Kevin Wei	1.刪除ID_31，CSTRENAME的功能。 2.加入ID 35 CARRIER RENAME REQUEST、ID 135 CARRIER RENAME RESPONSE
1.0.5	2019/6/6		Kevin Wei	1.增加ID:136-Event:BCRRead = 13，並加入欄位BCRReadResult。 2.修改ID:137-CMDCancelType:CMD_Cancel = 0->CMD_Cancel = 20、CMD_Abort = 1->CMD_Abort = 21並增加 CMD Cancel ID Mismatch = 23、CMD Cancel ID Read Failed = 24

欄位	型別	說明
ID_31_TRANS_REQUEST		
Cmd_ID	string	由OHT/C產制的命令編碼
ActiveType	ActiveType	MOVE = 0; LOAD = 1; UNLOAD = 2; LOADUNLOAD = 3; HOME = 4; OVERRIDE = 5; MTLHOME = 7; MOVETOMTL = 10; SYSTEMOUT = 11; SYSTEMIN = 12; ROUND=99;
LoadAdr	string	LOAD Address的位址只會使用於LOAD or LOADUNLOAD二種命令
ToAdr	string	在UNLOAD or LOADUNLOAD中指的是UNLOAD位址，如果是在MOVE or TEACHING or ROUND中單純指目的地
Sec_Distance	int	如果不是要停至Address上時，則會指定此欄位
CST_ID	string	如果是LOAD or LOADUNLOAD時，要載的貨物條碼
Guide_Sections	List<string>	指引走行整段路徑使用
Guide_Segments	List<string>	暫不使用
Cycle_Sections	List<string>	如果是ROUND時，則需參考此欄位
ID_131_TRANS_RESPONSE		
Cmd_ID	string	由OHT/C產制的命令編碼

ActiveType	ActiveType	MOVE = 0; LOAD = 1; UNLOAD = 2; LOADUNLOAD = 3; HOME = 4; OVERRIDE = 5; MTLHOME = 7; MOVETOMTL = 10; SYSTEMOUT = 11; SYSTEMIN = 12; ROUND=99;
ReplyCode	int32	[0 : OK , 1 : NG]
ngReason	string	無法接受派送命令時的原因
ID_132_TRANS_COMPLETE_REPORT		
Cmd_ID	string	由OHT/C產制的命令編碼
CST_ID	string	載到貨物時所讀到的條碼
CmpStatus	CompleteStatus	完成狀態 [0:Move 1:Load 2:Unload 3:Load/Unload 4:Home 5:Override 6:Rename 7:MTL Home 10:MoveToMTL 11:SystemOut 12:System In 20:Cancel 21:Abort 22:Vehicle Abort 23:ID Mismatch 24:ID Read Failed 64:InterlockError]
CurrentAdrID	string	*Arrivals時表現在所在位址，AdrPass時帶入剛通過的Node Address.
CurrentSecID	string	現在處於那一段Section上
Sec_Distance	int32	在AdrPass時，距離這個Section的起點多遠，在*Arrivals時則是此段Section的總長
Cmd_Distance	int32	本次命令的走行距離
ID_32_TRANS_COMPLETE_RESPONSE		
ReplyCode	int32	[0 : OK , 1 : NG]
ID_33_CONTROL_ZONE_REQUEST_CANCEL_REQUEST		
ControlType	ControlType	Block =1; HID = 2;

CancelSecID	string	要取消要求的Block Zone ID或者是HID Zone ID
ID_133_CONTROL_ZONE_REPUEST_CANCEL_RESPONSE		
ControlType	ControlType	Block =1; HID = 2;
CancelSecID	string	要取消要求的Block Zone ID或者是HID Zone ID
ReplyCode	int32	[0：OK，1：NG]
ID_134_TRANS_EVENT_REP		
EventType	EventType	AdrArrivals =4; AdrPass = 5;
CurrentAdrID	string	*Arrivals時表示現在所在位址，AdrPass時帶入剛通過的Node
CurrentSecID	string	現在處於那一段Section上
LeftGuideLockStatus	VhGuideStatus	Unlock = 0; Lock = 1;
RightGuideLockStatus	VhGuideStatus	Unlock = 0; Lock = 1;
Sec_Distance	int32	在AdrPass時，距離這個Section的起點多遠，在報Arrivals時則是此段Section的總長
ID_34		
不會回應		
ID_35_CARRIER_RENAME_REQUEST		
Old_Carrier_ID	string	原本在OHT上的CARRIER ID
New_Carrier_ID	string	要求要修改成新的CARRIER ID
ID_135_CARRIER_RENAME_RESPONSE		
ReplyCode	int32	[0：OK，1：NG]
ID_136_TRANS_EVENT_REP		

EventType	EventType	LoadArrivals = 0; LoadComplete = 1; UnloadArrivals = 2; UnloadComplete = 3; MoveArrivals = 4; BlockReq = 8; HIDReq = 9; Block & HID Request = 10; Loading = 11; Unloading = 12; BCR Read = 13; Block Release = 21; HID Release = 22; Block & HID Release = 23;
Request_Block_ID	string	當EventType = 8或10，填入所要求Block的ID
Request_HID_ID	string	當EventType = 9或10，填入所要求HID的ID
CST_ID	string	當有BCR Read時，則此欄位要填入(除ReadFail外)
Release_Block_AdrID	string	當EventType = 21或23，填入所釋放Block的ID
Release_HID_AdrID	string	當EventType = 22或23，填入所釋放HID的ID
CurrentAdrID	string	*Arrivals時表現在所在位址，AdrPass時帶入剛通過的Node Address.
CurrentSecID	string	現在處於那一段Section上
Sec_Distance	int32	在AdrPass時，距離這個Section的起點多遠，在*Arrivals時則是此段Section的總長
BCRReadResult	BCRReadResult	當EventType = 13，填入該次BCR讀取得結果 BCR_Normal = 0; BCR_ReadFail = 1; BCR_MissMatch = 2;
ID_36_TRANS_EVENT_RESPONSE		
Is_Block_Pass	int32	[0 : PASS, 1 : BLOCK]
Is_HID_Pass	int32	[0 : PASS, 1 : BLOCK]
ReplyCode	int32	[0 : OK, 1 : NG]

ID_37_TRANS_CANCEL_REQUEST		
Cmd_ID	string	由OHT/C產制的命令編碼
ActiveType	CMDCancelType	CMD_Cancel = 20 CMD_Abort = 21 CMD_Cancel_ID_Mismatch = 23 CMD_Cancel_ID_Read_Failed = 24
ID_137_TRANS_CANCEL_RESPONSE		
Cmd_ID	string	由OHT/C產制的命令編碼
ActiveType	CMDCancelType	CMD_Cancel = 20 CMD_Abort = 21 CMD_Cancel_ID_Mismatch = 23 CMD_Cancel_ID_Read_Failed = 24
ReplyCode	int32	[0 : OK , 1 : NG]
ID_39_PAUSE_REQUEST		
EventType	PauseEvent	Pause = 0; Continue = 1
PauseType	PauseType	Nornal = 1; Block = 2; HID = 3; Earthquake = 4; Safe = 5; ALL = 9;
ID_139_PAUSE_RESPONSE		
EventType	PauseEvent	Pause = 0; Restart = 1
ReplyCode	int32	[0 : OK , 1 : NG]
ID_41_MODE_CHANGE_REQ		
OperatingVHMode	OperatingVHMode	0:Auto 1:Manual
ID_141_MODE_CHANGE_RESPONSE		
ReplyCode	int32	[0 : OK , 1 : NG]

ID_43_STATUS_REQUEST		
ID_143_STATUS_RESPONSE		
CurrentAdrID	string	*Arrivals時表現在所在位址，AdrPass時帶入剛通過的Node Address.
CurrentSecID	string	現在處於那一段Section上
ModeStatus	VHModeStatus	None = 0; Manual = 3; Auto = 4;
ActionStatus	VHActionStatus	No Command = 0; Commnding = 1; Teaching = 5; GripperTeaching = 6; CycleRun = 7;
PowerStatus	VhPowerStatus	Power_Off = 0; Power_On = 1;
ObstacleStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
BlockingStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
HIDStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
PauseStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
ErrorStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
Sec_Distance	uint32	在AdrPass時，距離這個Section的起點多遠，在*Arrivals時則是此段Section的總長
Obst_Distance	int32	如果有障礙物時，離障礙物多遠
Obst_Vehicle_ID	int32	前方障礙物的車號
Stopped_Block_ID	string	當BlockingStatus = StopSingle_On時，要填入該次暫停的Block Zone
Stopped_HID_ID	string	當HIDStatus = StopSingle_On時，要填入該次暫停的HID Zone ID

Earthquake_Pause_Status	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1; 當接收到ID_39，PauseType為Earthquake=4、EventType為Pasus=0時，設置該狀態StopSingle_On = 1
Safety_Pause_Status	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1; 當接收到ID_39，PauseType為Safe=5、EventType為Pasus=0時，設置該狀態StopSingle_On = 1
HasCST	VhLoadCSTStatus	NotExist = 0; Exist = 1;
Cmd_ID	string	當前執行的Command ID
CST_ID	string	當前搬送的CST ID
ID_144_STATUS_CHANGE_REP		
CurrentAdrID	string	*Arrivals時表現在所在位址，AdrPass時帶入剛通過的Node Address.
CurrentSecID	string	現在處於那一段Section上
ModeStatus	VHModeStatus	None = 0; Manual = 3; Auto = 4;
ActionStatus	VHActionStatus	No Command = 0; Commnding = 1; Teaching = 5; GripperTeaching = 6; CycleRun = 7;
PowerStatus	VhPowerStatus	Power_Off = 0; Power_On = 1;
ObstacleStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
BlockingStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
HIDStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;



PauseStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
ErrorStatus	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
Sec_Distance	int32	在AdrPass時，距離這個Section的起點多遠，在*Arrivals時則是此段Section的總長
Obst_Distance	int32	如果有障礙物時，離障礙物多遠
Obst_Vehicle_ID	int32	前方障礙物的車號
Stopped_Block_ID	string	當BlockingStatus = StopSingle_On時，要填入該次暫停的Block Zone
Stopped_HID_ID	string	當HIDStatus = StopSingle_On時，要填入該次暫停的HID Zone ID
Earthquake_Pause_Status	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
Safety_Pause_Status	VhStopSingle	StopSingle_Off = 0; StopSingle_On = 1;
HasCST	VhLoadCSTStatus	NotExist = 0; Exist = 1;
Cmd_ID	string	當前執行的Command ID
CST_ID	string	當前搬送的CST ID
ID 44 STATUS CHANGE RESPONSE		
ReplyCode	int32	[0 : OK , 1 : NG]
ID 45 POWER OPE REQ		
OperatingPowerMode	OperatingPowerMode	Power_Off = 0; Power_On = 1;
ID 145 POWER OPE RESPONSE		
ReplyCode	int32	[0 : OK , 1 : NG]
ID 71 RANGE TEACHING REQUEST		
FromAdr	string	進行Teaching的Section，開頭的Address
ToAdr	string	進行Teaching的Section，尾端的Address
ID 171 RANGE TEACHING RESPONSE		
ReplyCode	int32	[0 : OK , 1 : NG]
ID 172 RANGE TEACHING COMPLETE REPORT		

FromAdr	string	進行Teaching的Section，開頭的Address
ToAdr	string	進行Teaching的Section，尾端的Address
Sec Distance	uint32	
Cmp Code	int32	0：正常，0以外：異常結束
ID 72 RANGE TEACHING COMPLETE RESPONSE		
ReplyCode	int32	[0：OK，1：NG]
ID 174 ADDRESS TEACH REPORT		
Addr	string	要校正的Port 所在的Address
Position	int32	校正後的確定誤差值
ID 74 ADDRESS TEACH RESPONSE		
ReplyCode	int32	[0：OK，1：NG]
ID 91 ALARM RESET REQUEST		
ID 191 ALARM RESET RESPONSE		
ReplyCode	int32	[0：OK，1：NG]
ID 194 ALARM REPORT		
ErrCode	string	異常代碼 [0：全部(Rest才會使用)，0以外：異常代碼]
ErrStatus	ErrorStatus	設定/解除 [0：Reset，1：Set]
ID 94 ALARM RESPONSE		
ReplyCode	int32	[0：OK，1：NG]