Osram ICC Communication Flow Proposal

R0 20240809

Architecture

OsramICC will be a host software installed and running on NSW Machine to manage the communication with internal Osram networked devices required to the feedback process operation.

OsramICC will host local mahine software using a local IP address 127.0.0.1 using Port 1118.

The SCC command cannot be implemented for ICC communication is simplified for efficient operation.

List of Commands

Process	Process Description	Command	Parameters	Direction	Examples
Lot Information					
Start New Lot	Operator Start Lot from OsramICC.	SNL	LotID = LotID of the current lot. 11Series = 11Series number DAStart = DA Number EmpID = Operator Employee ID RecipeName = Name of recipe to load.	OsramICC > NSW	Format: SNL;{LotID};{11Series};{DAStart};{EmpID};{Recipe} Example: SNL;A12345678;11123456789;DA123;1234;Recipe1
			Response Code Response Description 0 – Success >0 – Error Code and Description	NSW > OsramICC	SNL;{Response Code},{Description} SNL;1;Invalid Lot ID
End Of Lot	Operator End Lot from NSW.	EOL	None	NSW > OsramICC	Format: EOL
			Response Code Response Description 0 – Success >0 – Error Code and Description	OsramICC > NSW	Format: EOL;{Response Code},{Description} Example 1: EOL;0

					Example 2: EOL;1;Invalid Lot Number
Panel Information					
Register Panel Parameter	Machine load frame to process station and read panel 2D Code, prepare for dispensing.	RPP	PanelID – 2D Code of the current panel. DW1 - Current dispensing weight of Pump 1. DW2 - Current dispensing weight of Pump 2.	NSW > OsramICC	Format: RPP;{PanelID};{DW1};{DW2} Example: RRP;A12345678;0.501;0.502
			Response Code Response Description 0 – Success >0 – Error Code and Description	OsramICC > NSW	Format: RRP;{Response Code},{Description}
Update Panel Parameters	Response from OsramICC on the new parameters to use for the current panel.	UPP	PanelID – 2D Code of the current panel. RunNo – The sequence of the run. NDW1 - Current dispensing weight of Pump 1. NDW2 - Current dispensing weight of Pump 2.	OsramICC > NSW	UPP;{PanelID};{1};{NDW1};{NDW2} UPP;A12345678;1;0.500;0.502 First run, no volume adjustment, run using **Map 1**. UPP;A12345678;2;0.510;0.522 Second run, run with new not volume using **Map 2**.
			Response Code Response Description 0 – Success >0 – Error Code and Description	NSW > OsramICC	Format: UPP;{Response Code},{Description} Example: UPP,0

Conditions:

1. **SNL** cannot be started until the current lot is ended by **EOL**.
2. **UPP** command is expected after **RPP**. If no response is received after a specified timeout, machine will prompt to retry.

References

List of known SCC Commands

//Lot

```csharp
public const string VC_NEW_LOT = "DMNL";//DMNL;LotID;11Series;DAStart;EmpID;Recipe_1

public const string VC_CHANGE_RECIPE = "DMNR";//DMNR;Recipe


public const string DM_ACK = "DMACK";

public const string VC_ACK = "DMACK";

public const string DM_REQ_RECIPE = "DMREQR";

public const string DM_ERROR = "DMERR";//DMERR;0;Error;1 (ErrCode;ErrDesc)

public const string DM_LAuNCH_PROG = "DMLPRG";

public const string DM_END_LOT = "DMEND";

public const string VC_END_LOT_ACK = "DMVCACK";


//Disp Para
public const string VC_REQ_PARA_INFO = "DMRVP";//DMRVP;1;1 (ParaOpt 1=FlowRate(mg),2=Press(psi),3=OpenTime(ms); StationNo)

public const string DM_RESP_PARA = "DMDVP";//DMDVP;3.0;3.0;1; (Para_0..Para_n; StationNo)

public const string DM_REQ_CHANGE_PARA = "DMSVP";//DMSVP;3.0;3.0;1; (NewPara_0..NewPara_n; StationNo)


//Alert
public const string VC_ALERT_ON = "DMALRT";//DMALRT;1 0=OFF,1=ON

public const string DM_ALERT_ACK = "DMALRTC";
```

```csharp
//Machine Status - uniDirection

public const string DM_RUN = "DMRUN";//DMRUN;1 machine no

public const string DM_STOP = "DMSTOP";//DMSTOP;1 machine no

public const string DM_MC_ERROR = "DMMERR";//DMERR;0;Error;1 (ErrCode;ErrDesc;StationNo)

public const string DM_MC_WARNING = "DMMWRN";//DMMWRN;0;Error;1 (WarnCode;WarnDesc;StationNo)


public const string DM_PANEL_COMPLETE = "DMDISC";//DMDISC;1;0 (StationNo; PanelID)

public const string VC_PANEL_COMPLETE_ACK = "DMVDISC";//DMVDISC;1 (StationNo)

public const string DM_PANEL_REACH = "DMRCH";//DMRCH;1;0 (StationNo; PanelNo)

public const string VC_PANEL_REACH_ACK = "DMVCRCH";//DMVCRCH;1 (StationNo)


//Disp Setting

public const string VC_REQ_SETTING = "DMRDP";

public const string DM_RESP_SETTING = "DMDP";//DMDP;3.0;3.0 (Para_0..Para_n, return all head in machine)

public const string VC_NEW_SETTING = "DMSDP";//DMSDP;3.1;3.1;1 (Para_0..Para_n;StationNo)

public const string DM_SETTING_DONE = "DMPSC";//DMPSC;1 (Para_0..Para_n;StationNo)
```

Glossary

SCC – Sampling Color Correction.

ICC – Inline Color Correction.

NSW – Represent NSW equipment.

OsramICC – Osram user interface installed to NSW Equipment PC.

Revision History

Revision	Name	Descriptions
0	KN	First draft for ICC Communication Protocol

End of Document.