# 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

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";

//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.