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## Functional specifications for data exchange between HMI and a host via OPC

Machine model: BB4  
Serial No: xxxxxxxx

### MODIFICATIONS TABLE

Revision	Modification Request N.	Modified by	Date	Description of Modification
1.1		Tabanelli Alberto	03 nov 2015	Added the following tags: <ul style="list-style-type: none"><li>- ExpirationDateToBeSet</li><li>- ManufacturingDateToBeSet</li><li>- CurrentExpirationDate</li><li>- CurrentManufacturingDate</li></ul>
1.2		Tabanelli Alberto	04 dec 2015	Modifications on tags received by HMI
1.3		Tabanelli Alberto	29 mar 2016	Added the following tags: <ul style="list-style-type: none"><li>- CartonCodeToBeSet</li><li>- BookletCodeToBeSet</li><li>- CurrentCartonCode</li><li>- CurrentBookletCode</li></ul>

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## 1. INTRODUCTION

This document is the software functional specification of IMA Industria Macchine Automatiche S.p.A. for the connection of the HMI to a host via OPC protocol.

This document has been prepared in conformity with the IMA S.p.A. Standard operating procedure for the issuance of functional specifications.

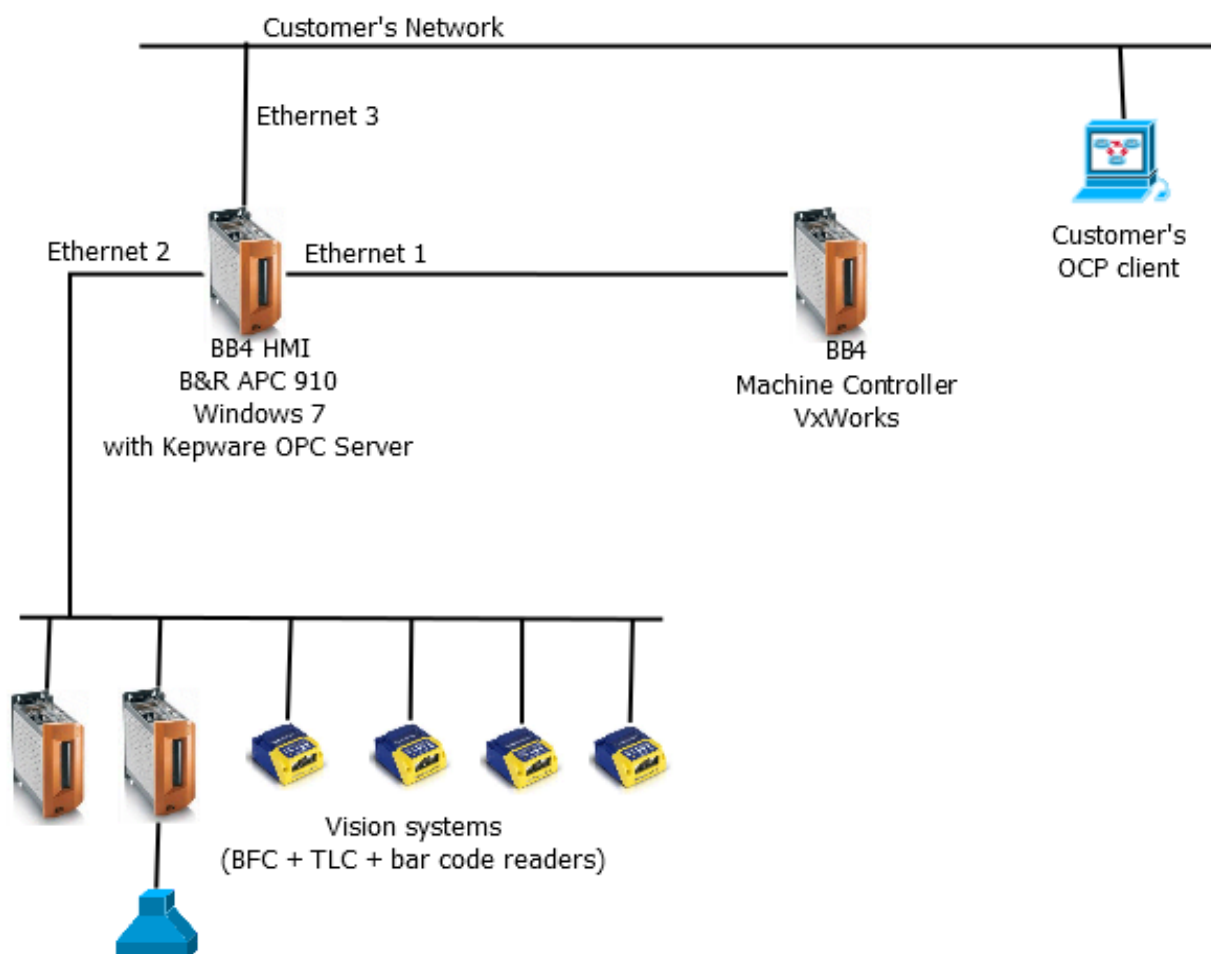
## 2. GLOSSARY

### HMI

Human machine interface (user interface).

## 3. SYSTEM DESCRIPTION

This document outlines the data that the HMI makes available by means of a OPC connection.



IP addresses on Ethernet 1:

192.168.201.119	HMI
192.168.201.46	Machine controller

IP addresses on Ethernet 2:

192.168.214.1	HMI
192.168.214.2	TLC (Total Layout Control)
192.168.214.4	BFC (Blister Filling Control)
192.168.214.62	Bar code reader: carton code
192.168.214.66	Bar code reader: booklet code

Ethernet 3:

To be defined	HMI (OCP Server);
To be defined	Customer's OPC Client

## 4. OPC DATA

### 4.1. Table of registers that the HMI makes available

name	type	description
PriorityAlarmCode	word	Priority alarm code
CurrentProductName	string	Product name
CurrentBatchCode	string	Batch code
CurrentExpirationDate	string	Expiration date sent to Hapa and Antares
CurrentManufacturingDate	string	Manufacturing date sent to Hapa and Antares
CurrentCartonCode	string	Carton code
CurrentBookletCode	string	Booklet code
TotalBlisterProduced	dword	Blisters produced
TotalCartonProduced	dword	Cartons produced
TotalBlisterRejected	dword	Blisters rejected
TotalCartonRejected	dword	Cartons rejected
MachineRunning	boolean	Machine running
MachineStoppedWithErrors	boolean	Is machine stopped with errors
SealingRoller_Value	word	Sealing pressure value
SealingRoller_SetPoint	word	Sealing pressure set-point
ThermoregulatorValues	word[20]	All thermoregulators values
TRdxxx_Value	word	xxx is the identifier of thermoregulator (from 1 to 20)
ThermoregulatorSetpoints	word[20]	All thermoregulators setpoints
TRdxxx_Setpoint	word	xxx is the identifier of thermoregulator (from 1 to 20)
SecondaryAlarms	word[200]	All secondary alarms values
ALdxxx	word	xxx is the identifier of alarm (from 0 to 3199) note: the words array is used as a bits array
RejectionCauses	long[800]	All rejection causes values
RJdxxx	long	xxx is the identifier of rejection cause (from 1 to 800)

#### 4.1. Table of registers that the HMI receives

name	type	Description
RecipeIDToBeSet	dword	Product ID to be set during next batch change
BatchCodeToBeSet	string	Batch code to be set during next batch change and to be sent to Hapa printer and Antares TLC
ExpirationDateToBeSet	string	Expiration date to be sent to Hapa printer and Antares TLC
ManufacturingDateToBeSet	string	Manufacturing date to be sent to Hapa printer and Antares TLC
SAPNumberToBeSet	string	Used to select recipe con vision system. By means of a configurable table on HMI, the Hapa template will be automatically selected
CartonCodeToBeSet	string	Carton code to be sent to Hapa printer and Antares TLC
BookletCodeToBeSet	string	Booklet code to be sent to Hapa printer and Antares TLC

At batch open time, in “remote mode” the operator will simply confirm information provided by AZ’s ABC.

In “local mode” (only authorized operator can select the “local mode”) the operator can manually insert the above mentioned info.