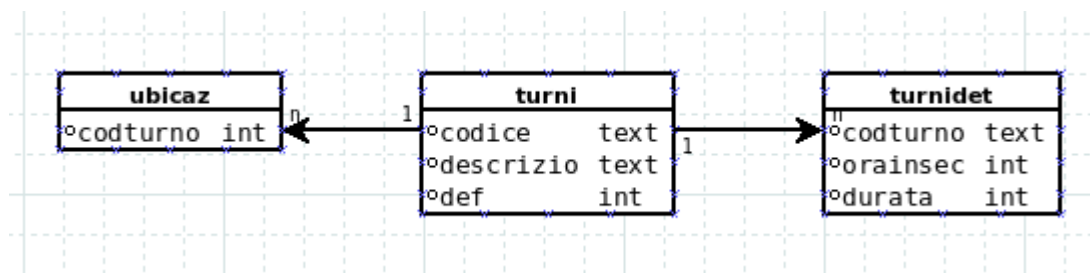


Visual Management and touch panels view - through Agents

AgentVisual is an AgentBase that implements an ask for answering "Visual Management" requirements.

Shift Definition

We should define before the "Shift definition" tables. Following tables schema



For identifying the shift we should use the tables **TURNI** and **TURNIDEF**. Each production line / machine should be mapped to shift code; table TURNIDEF defines details of each shift.

Following an example of table TURNI

codice	descrizio	def
normale	Normale 7:30-16:30	1
t12	2 Turni 6-14	0
t123	3 Turni 6-14-22	0

Following an example of table TURNIDEF

codturno	orainsec	durata
☞ normale	27000	32400
☞ t12	21600	28800
☞ t12	50400	28800
☞ t123	21600	28800
☞ t123	50400	28800
☞ t123	79200	28800

- TURNI.DEF=1 identifies the code of shift automatically assigned to each line that is not mapped explicitly to a shift;
- TURNIDET.ORAINSEC is the number of seconds from mind-night from which the shift begins
- TURNIDET.DURATA is the duration in seconds of the shift

Ask

Following a general schema for data required by a single line:

Field Name	Field Description
codart	Product code
descrizio	Product description
codop	Work order
tm	Takt Time
npp	Number of pieces expected from the begin of the shift or from the begin of WO
np	Number of pieces produced from the begin of the shift or from the begin of WO
npt	Total of pieces produced for work-order
s	Number of scrap items in the shift
oee	OEE in the shift
rf	RF, RV, RQ in the shift
rv	RF, RV, RQ in the shift
rq	RF, RV, RQ in the shift
state	State of line/machine (1=running/0=stop)
causafm	Cause of current stop
caudesc	Description of current stop
tmfm	TM of beginning stop
tpfm	Class of current stop machine F=generic stop,S=Setup,O=Organizational,P=Pause
npwo	Number of items required from WO

Data required from Visual TV

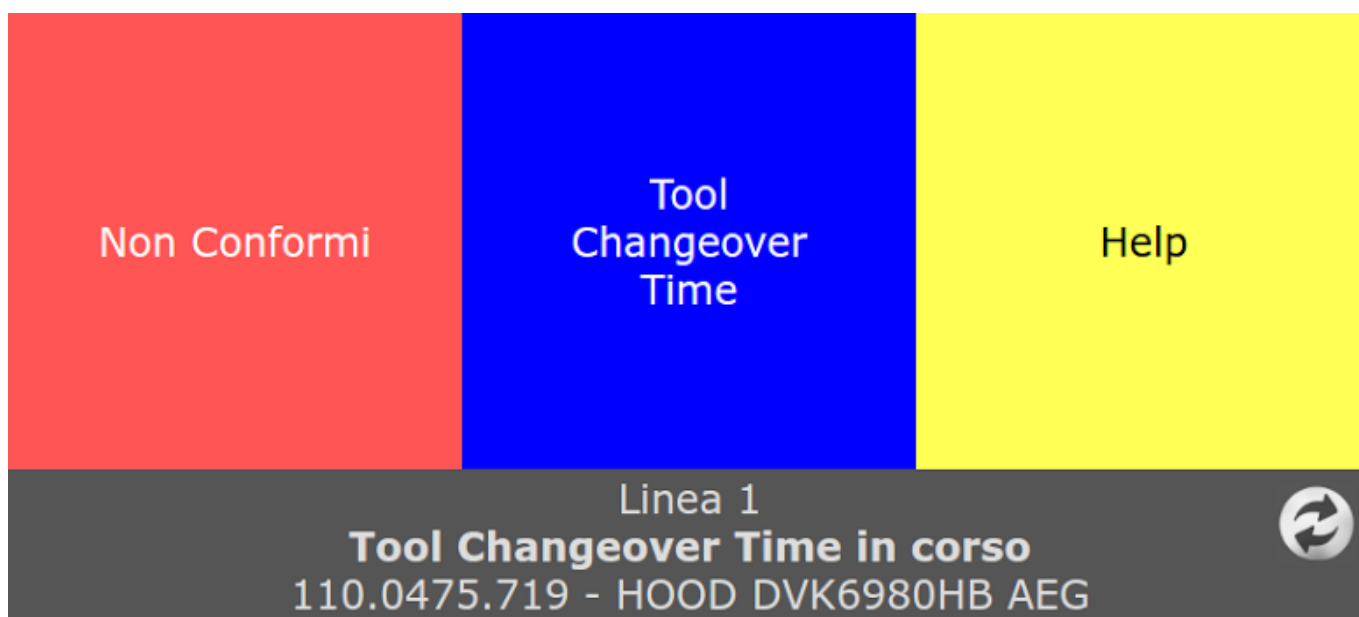


The following data refers to a specific production line / machine

Field Name	Field Description
codart	Product code
descrizio	Product description
codop	Work order
tm	Takt Time
npp	Number of pieces expected from the begin of the shift or from the begin of WO
np	Number of pieces produced from the begin of the shift or from the begin of WO
npt	Total of pieces produced for work-order
s	Number of scrap items in the shift
oee	OEE in the shift
rf	RF, RV, RQ in the shift

Field Name	Field Description
rv	RF, RV, RQ in the shift
rq	RF, RV, RQ in the shift
state	State of line/machine (1=running/0=stop)
causafm	Cause of current stop
caudesc	Description of current stop
tmfm	TM of beginning stop
tpfm	Class of current stop machine F=generic stop,S=Setup,O=Organizational,P=Pause
npwo	Number of items required from WO

Data required from Visual Touch Panel



The following data refers to a specific production line / machine

Field Name	Field Description
codart	Product code
descrizio	Product description
codop	Work order
state	State of line/machine (1=running/0=stop)
causafm	Cause of current stop
caudesc	Description of current stop
tpfm	Class of current stop machine F=generic stop,S=Setup,O=Organizational,P=Pause
tmfm	TM of beginning stop

Data required from Visual Multi-Line

Linea 11	FERMO MANUTENZIONE (15m)
OP: 3837914	18-15=3pz (9m)
110.0437.391 HOOD FMA 905 BK FRK CHIMNEY	
Takt	3m
Pz. Previsti	16
Pz. Prodotti	15
Pz. B1C	15

In this case we should have a row for each production line

Field Name	Field Description
codart	Product code
descrizio	Product description
codop	Work order
tm	Takt Time
npp	Number of pieces expected from the begin of the shift or from the begin of WO
np	Number of pieces produced from the begin of the shift or from the begin of WO
npt	Total of pieces produced for work-order
s	Number of scrap items in the shift
oeo	OEE in the shift
rf	RF, RV, RQ in the shift
rv	RF, RV, RQ in the shift
rq	RF, RV, RQ in the shift
state	State of line/machine (1=running/0=stop)
causafm	Cause of current stop
caudesc	Description of current stop
tmfm	TM of beginning stop
tpfm	Class of current stop machine F=generic stop,S=Setup,O=Organizational,P=Pause
npwo	Number of items required from WO

Other requirements

1. Each production order should be changed and reworked in different time but in the same shift
2. How we will manage multi-WO production ? We could use a JSON field containing information about WO
(`{'wo':'xxx','codart':'yyy','descrizio':'kkk','npwo':'999'}`)

AgentVisualMng

AgentVisualMng has the aim to answer Visual Devices asks; it could have two type of asks:

- for giving information about a specific production line
- for giving information about a sub-set of production line (based on **codubib**)

- for giving information about all production line

In all cases the return value of the agent will be a IREC completed by all information required that are described in [ask](#).

Request	andonrt	
Data	Rec(codubi,codubib)	if codubi is not empty it queries a specific line, if codubib is not empty it queries specific department, if both are empty it queries all lines

Following IREC information returned by AgentVisualMng for each request

Field Name	Field Description
produbi	JSON: [{codop:'XXX',codart:'XXX',descrizio:'XXX',npwo:'999'},...]
tm	Takt Time
npp	Number of pieces expected from the begin of the shift or from the begin of PRODUBI
np	Number of pieces produced from the begin of the shift or from the begin of PRODUBI
npt	Total of pieces produced for PRODUBI
s	Number of scrap items in the shift
oe	OEE in the shift
rf	RF, RV, RQ in the shift
rv	RF, RV, RQ in the shift
rq	RF, RV, RQ in the shift
state	State of line/machine (1=running/0=stop)
causafm	Cause of current stop
caudesc	Description of current stop
tmfm	TM of beginning stop
tpfm	Class of current stop machine F=generic stop,S=Setup,O=Organizational,P=Pause
npwo	Number of items required from PRODUBI