

Tips and Tricks

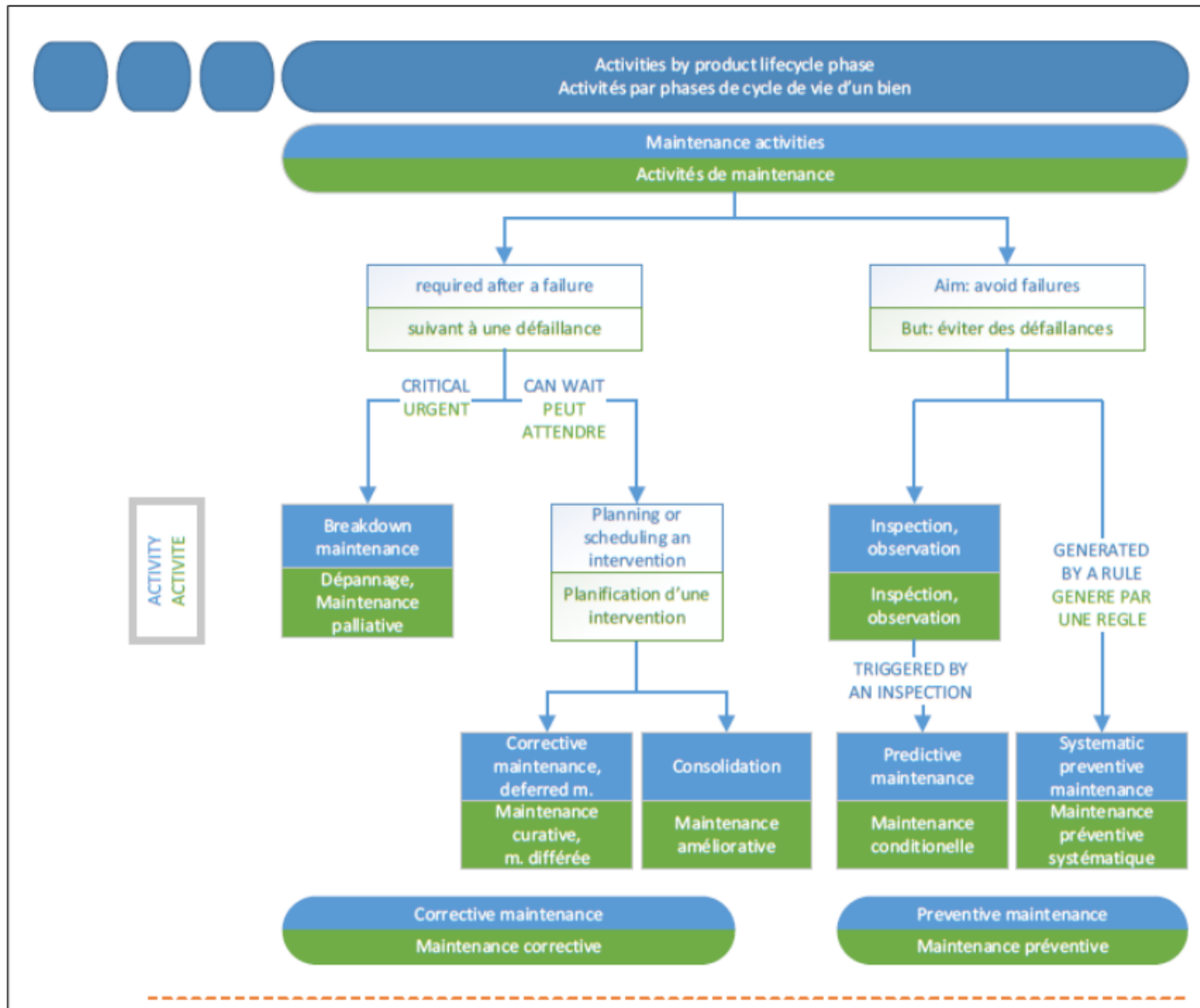
Good asset management practices

- Reasons for bringing this up
- Work-order types
- Closing codes
 - Problem, Failure, Cause, Action

Background

- Predictive maintenance:
 - We started during 2021 to look closer at predictive maintenance for equipment in infor EAM (collaboration with the Infor company)
 - First attempt based purely on work-order history (for lifts and compressors) takes into account
 - “P” type work-orders = preventive
 - “C” type work-orders = corrective/failure
 - We realised that
 - Very few ‘C’ type work-order corresponded to ‘real’ failures requiring repair
 - No (consistent) closing codes were found allowing to filter
 - Forced to implement additional screening of work-orders (equipment specific algorithms)
- EN maintenance cost working-group (S. Deleval)
 - Pin-point area where a lot of effort (and money) is spent

Work-order types (P and C)



- P<X> = Preventive
 - PM = preventive maintenance
 - PS = preventive systematic
- C<X> = Corrective (fault / error)
 - CD = Corrective Depannage (repair)
 - CA = Corrective Amelioration (improvement)
- System WO types:
 - MTF
 - INSP
 - EX
 - ..

Work-order authorisations (per user-group)

User Group LHC LHC group (Ext.)

Record View Menus x Screen Permissions x Users x WO Authorizations x KPI x Inbox x Store Security x Windows Mobile Menus x Charts x

All WO Authorizations Edit

WO Type	WO Status	Insert	Update	Delete
CA - Correctif Amelioration	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CD - Correctif Depannage	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CR - Correctif Reparation ou depannage > 2 heures	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EDH - EDH Document Generation	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EX - Exploitation	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ICF - Installation and Commissioning	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
INSP - Inspection	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MEC - Multiple Equipment Child	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MTF - Manufacturing	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OB - Observation	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PS - Preventif svstematique	All Statuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Closing codes

- Documentation:

[https://edms.cern.ch/ui/file/1309527/11.3/Infor EAM Closing Codes.pdf](https://edms.cern.ch/ui/file/1309527/11.3/Infor_EAM_Closing_Codes.pdf)

[https://edms.cern.ch/ui/file/1151891/3.1/Guideline Closing Codes Infor EAM 20180308 v31 docx cpdf.pdf](https://edms.cern.ch/ui/file/1151891/3.1/Guideline_Closing_Codes_Infor_EAM_20180308_v31_docx_cpdf.pdf)

Code	Explanation	Examples
Problem code	What is observed (top level)	Computer not working
Failure code	Technical reason (person intervening)	No power on socket
Cause code	Root cause	Excessive vibration
Action code	What was done	Fuse replaced

Closing code panel in EAM Light (work-order):

CLOSING CODES ^

Problem Code v

Failure Code v

Cause Code v

Action Code v

Final comments

- Get in touch with us if you
 - Have any questions about WO types or closing codes
 - Have candidates for predictive maintenance

cmms.support@cern.ch