

# electronic SYSTEM INFORMATION PARTNER

User Interface Design & Model walkthrough



**FORD PTME**  
Global Powertrain  
Manufacturing Engineering

# Use Case List

## **Masters:**

- *User Registration*
- *Role Maintenance*
- *OEM Device Type Maintenance*
- *DSID Maintenance*
- *Asset Maintenance*
- *Fault – Warning Maintenance*

## **Transactions:**

- *Instant Notification*
- *Fault Diagnosis*

## **Reports:**

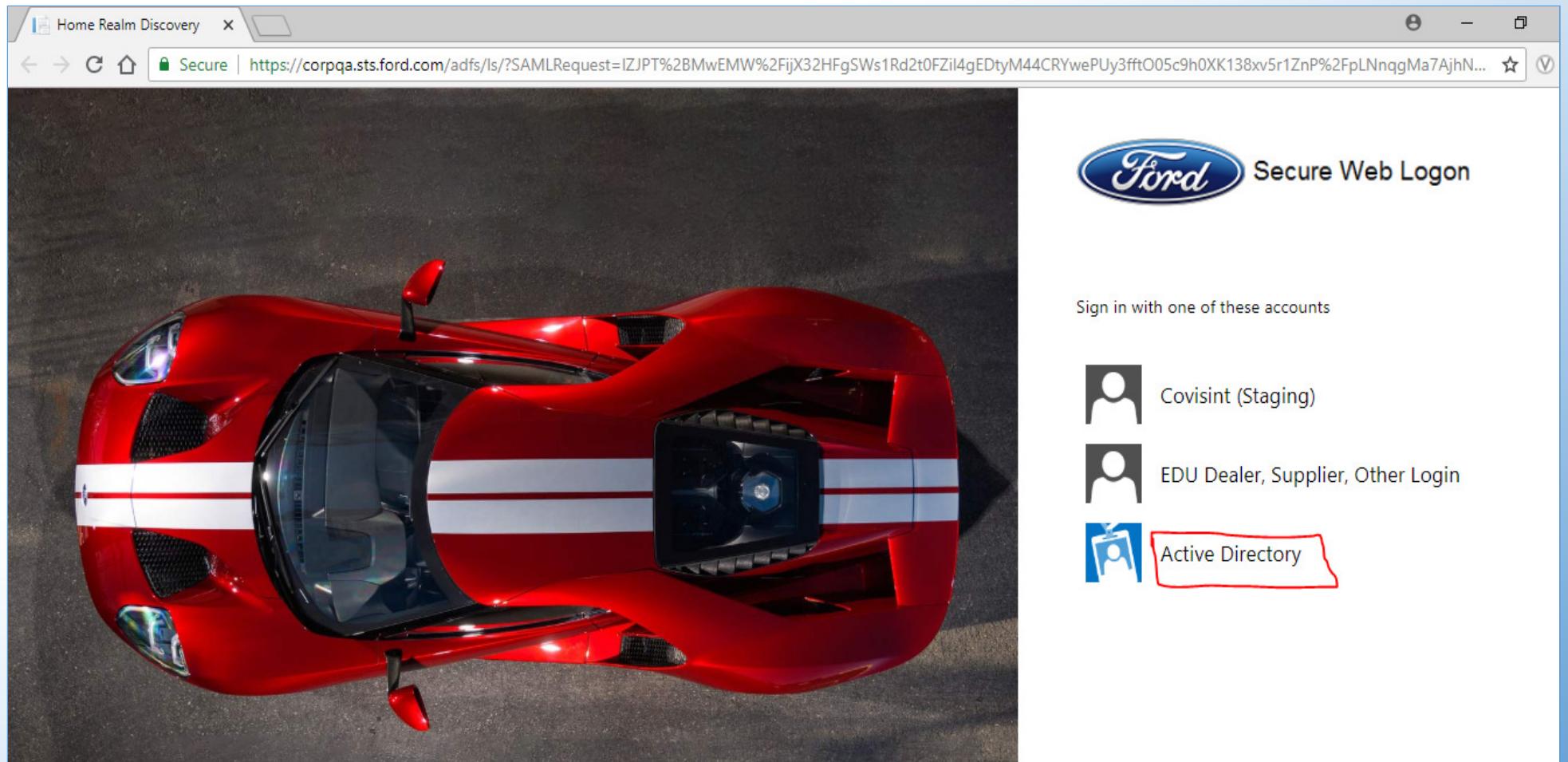
- *Fault Warning History Report*
- *Downtime Report*
- *MTTR and MTBF Reports*



**FORD PTME**  
Global Powertrain  
Manufacturing Engineering

## Main Menu / Home Page

ADFS login feature to get access only for Ford users. User not having Valid Ford CDSID could not login, eSIP would restrict the user access.



Home Realm Discovery ✖

Secure | https://corpqa.sts.ford.com/adfs/ls/?SAMLRequest=IZJPT%2BMwEMW%2FjX32HFgSWs1Rd2t0FZl4gEDtyM44CRYwePUy3fftO05c9h0XK138xv5r1ZnP%2FpLNnqgMa7AjhN... ☆ (V)



**Ford** Secure Web Logon

Sign in with one of these accounts

-  Covisint (Staging)
-  EDU Dealer, Supplier, Other Login
-  Active Directory

Note: Given screen is taken from test environment, may not have appropriate data or image

## User Registration

New user registration to get access in eSIP. User should have valid CDSID, preferred Role and Area code could be chosen.

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[Home](#) / [User Registration](#)

CDSID

First Name

Last Name

Email Id

Work Phone

Address 1

Address 2

City\*

State

Postal Code

Country\*

Preferred Language\*

Area Code\*

Values Selected

Submit For Approval

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Main Menu / Home Page

Menu

---

-  [Home page](#)
-  [Dashboard](#)
-  [User/Role Maintenance](#) 
-  [OEM/Device Type Maintenance](#)
-  [DSID Maintenance](#)
-  [Configure Asset Detail](#)
-  [Fault/Warning Summary](#)
-  [Fault/Warning Maintenance](#)
-  [Reports](#) 

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## Manage User Profile

Preferences to update the registered user 's profile, change in Role, working Area code, language and Country could be updated.

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[Home](#) / [Manage Users](#) / [Update User](#)

CDSID	First Name	Last Name	Email Id
Duke	Duke	Daniel	dduke5@ford.com
Work Phone	Address 1	Address 2	City*
044-2507	RMZ	Perungudi	Chennai
State	Postal Code	Country*	Preferred Language*
Tamil Nadu	600089	India	English
Role*	Area Code*	Disable User	
Admin	Values Selected	<input type="checkbox"/>	

✓ Update
← Back

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Role Maintenance

Users role could be defined here as Master, based on which the menu access would be given


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[Home](#) / [Role Maintenance](#)

Add Role
 Map Role

Line No.	Role Code	Role Name	Status	Created Date	Last Updated Date
1	ENG	Engineer	Active	31/05/2018	31/05/2018
2	MGR	Manager	Active	31/05/2018	31/05/2018
3	OPR	Operator	Active	31/05/2018	31/05/2018
4	ADM	Admin	Active	31/05/2018	31/05/2018

Total No of Records : 4

+ Add Row
 Save
 Refresh
 Export To Excel

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Role Mapping

Mapping the eSIP screens with the Roles created, Admin could restrict the access to menus like Read/Write/Edit based on Role the users play in eSIP


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[Home](#) / [Role Maintenance](#)

Add Role
 Map Role

Screen Name
Function
Role

Please Select
Please Select
Please Select

Search

Line No.	Screen Name	Function	Role
1	Dashboard	Home	Admin
2	Update Profile	Values Selected	Admin
3	Image Upload	Values Selected	Admin

First
<
1
of 3
>
Last

Total No of Records : 24

+ Add Row
 Save
 Refresh
 Export To Excel
 Remove Mapping

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Data Source ID Maintenance

DSID is the code that eSIP receive from PLC, eSIP server could match the machine codes with DSID received from OPC


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[Home](#) / [DSID Maintenance](#)

DSID	Operation	Status
Please Select		Please Select

Search
 Refresh

#	Line No.	DSID	Operation	Status	Created Date	Last Updated Date
1	1	678	Cutting Operation	Active	31/05/2018	01/06/2018
2	2	3	Interior Assembly Operation	Active	31/05/2018	01/06/2018
3	3	2	Fabrication Operation	Active	31/05/2018	01/06/2018
4	4	567	Painting Operation	Active	31/05/2018	01/06/2018
5	5	78	Assembly Operation	Active	31/05/2018	01/06/2018
6	6	789	Pressing Operation	Active	31/05/2018	01/06/2018
7	7	1	Stamping Operation	Active	31/05/2018	01/06/2018

Total No of Records : 7

Add Row
 Save
 Export To Excel
 Import Excel
 Download Template

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Device OEM Maintenance

Device OEM maintenance screen used to maintain the OEM manufacturer's identification against Device Type


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Home / Device OEM/Device Type Maintenance

Device OEM
 Device Type Code

---

Device OEM Code

Manufacturer Name

Status

 Search
 Refresh

#	Line No.	Device OEM Code	Manufacturer Name	Comments	Status	Created Date	Last Updated Date
<input type="checkbox"/>	1	089	Rockwell	Sample	Active	31/05/2018	02/06/2018
<input type="checkbox"/>	2	123	Honeywell	Sample	Active	31/05/2018	02/06/2018

Total No of Records : 2

 Export To Excel
 Add Row
 Save
 Import Excel
 Download Template

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## Asset Maintenance – Plant Code

Asset maintenance is to create new Plant, Area, Line, Machine and Devices. This menu could be used to maintain Machine images and Manuals as well.


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[Home](#) / Asset Detail Maintenance

**FKARE** 

- AssemblyAreal 
- MachiningAreal 

### Plant Maintenance

Plant Code*	Plant Description*	Status*
FKARE	SANAND PLANT	Active
Created Date (DD/MM/YYYY)	Last Updated Date (DD/MM/YYYY)	
31/05/2018	31/05/2018	

 Save  Refresh

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## **Asset Maintenance – Area Code**



Area code maintenance, to maintain a new Area code against the selected Plant code.



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Home / Asset Detail Maintenance

### Area Maintenance

<b>FKARE</b>	<b>Area Code*</b>	<b>Area Description*</b>	<b>Plant-Description</b>
 	<input type="text" value="AssemblyAreal"/>	<input type="text" value="Assembly Areal"/>	<input type="text" value="FKARE-SANAND PLANT"/>
<b>AssemblyAreal</b>	<b>Status*</b>	<b>Created Date (DD/MM/YYYY)</b>	<b>Last Updated Date (DD/MM/YYYY)</b>
 	<input type="text" value="Active"/>	<input type="text" value="31/05/2018"/>	<input type="text" value="02/06/2018"/>
<b>Line1</b>			
10			
<b>1055_1A</b>		 Save	 Refresh
1055_1B		 Download Template	 Import Excel
<b>MachiningAreal</b>			

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Asset Maintenance – Line Code

Line code maintenance, to maintain a new Line code against the selected Plant code and Area Code.

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[Home](#) / Asset Detail Maintenance

Q Search

▼ FKARE

▶ AssemblyAreal

▼ MachiningAreal

▼ **12**

▶ testing

MachiningArea2

### Line Maintenance

<span style="color: red;">*</span> Line Code* <input type="text" value="12"/>	<span style="color: red;">*</span> Line Description* <input type="text" value="testing"/>	Plant-Description <input type="text" value="FKARE-SANAND PLANT"/>
Area-Description <input type="text" value="MachiningAreal-Machi"/>	Status* <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">Active</div>	Created Date (DD/MM/YYYY) <input type="text" value="31/05/2018"/>
Last Updated Date (DD/MM/YYYY) <input type="text" value="02/06/2018"/>		

Save
Refresh
Download Template
Import Excel

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Asset Maintenance – Machine Code

Machine code maintenance, to maintain a new Machine code against the selected Plant code, Area Code and Line Code. User could upload Images and Manuals against the Machines.


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Home
/ Asset Detail Maintenance

 Search

FKARE
+ (button)

AssemblyAreal
+ (button)

Line1
+ (button)

10
+ (button)

▶ 1055\_1A
+ (button)

1055\_1B
+ (button)

▶ MachiningAreal
+ (button)

Machine Code\*

Machine Description\*

DSID\*
i (info)

Plant-Description

Area-Description

Line-Description

Status\*

Created Date (DD/MM/YYYY)

Last Updated Date (DD/MM/YYYY)

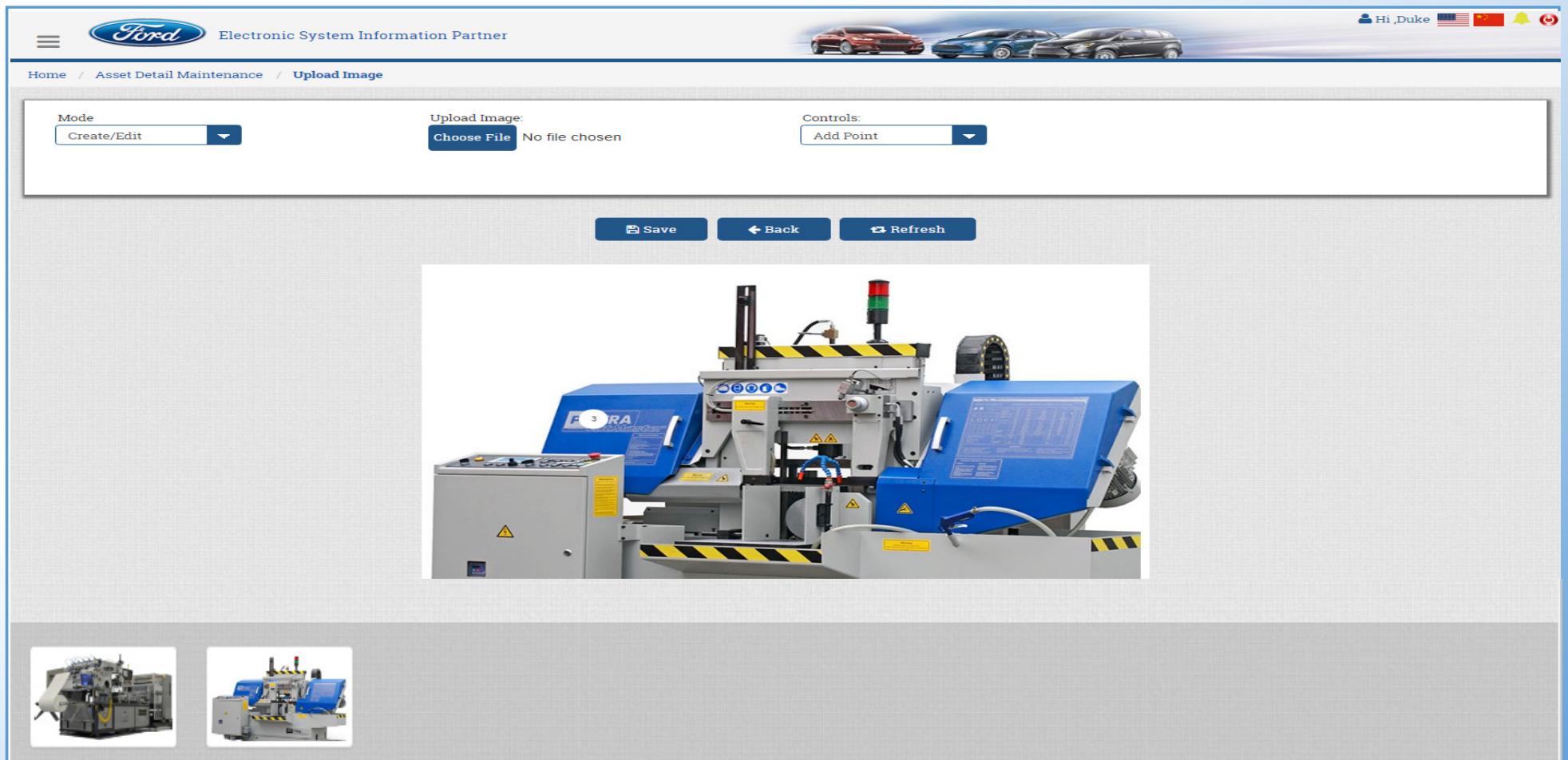
 Save
 Refresh
 Download Template
 Import Excel
 Upload Manual
 Upload Image

✖ [Fault Maintenance](#)
⚠ [Warning Maintenance](#)

Note: Given screen is taken from test environment, may not have appropriate data or image

## Asset Maintenance – Machine Code and Image upload

Machine images could be uploaded, add and edit fault points could be done in this screen.



Mode: Create/Edit

Upload Image: Choose File No file chosen

Controls: Add Point

Save Back Refresh



Note: Given screen is taken from test environment, may not have appropriate data or image

## Asset Maintenance – Machine Code and User Manual upload

Machine user Manuals could be uploaded and select primary document to view against Machine faults.



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Home / Asset Detail Maintenance

🔍

Machine Maintenance

FKARE	<span>+ FKARE</span>	<span>+ AssemblyAreal</span>	<span>+ Line1</span>	<span>+ 10</span>	<span>+ 1055_1A</span>	<span>+ 1055_1B</span>	<span>+ MachiningArea1</span>	<span>+ MachiningArea2</span>
-------	--------------------------	----------------------------------	--------------------------	-----------------------	----------------------------	----------------------------	-----------------------------------	-----------------------------------

Machine Code\*

Plant-ID

Status

Machine Description\*

DSID\* i

Line-Description

Last Updated Date (DD/MM/YYYY)

File Upload

Robot Opera...evK\_en.pdf

Line No.	Primary Document *	File Name	Delete File	Download File
1	<input checked="" type="radio"/>	Sect 7 Description of Modules....	<span style="color: red;">×</span>	<span style="color: green;">▼</span>
2	<input type="radio"/>	Robot Operating manual_Trouble...	<span style="color: red;">×</span>	<span style="color: green;">▼</span>

✖ [Fault Maintenance](#) ⚠ [Warning Maintenance](#)

Note: Given screen is taken from test environment, may not have appropriate data or image

## Asset Maintenance – Device Code

Device code maintenance, to maintain a new Device code against the selected Plant code, Area Code, Line Code and Machine code. User has to choose appropriate Device type and OEM Code.

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 Search
 



[Home](#) / Asset Detail Maintenance

▼ FKARE 

▼ AssemblyAreal 

▼ Linel 

▶ 10 

▼ 1055\_1A 

100

101

102

▶ 1055\_1B 

▶ MachiningAreal 

MachiningArea2 

**Device Maintenance**

**Device Code\***

**Device Description\***

**OEM Code\***

**Manufacturer's Name**

**Device Type\***

**Device Type Description**

**Plant-Description**

**Area-Description**

**Line-Description**

**Machine-Description**

**Status\***  

Active

**Created Date (DD/MM/YYYY)**

 Save
 

 Refresh
 

 Download Template
 

 Import Excel

Note: Given screen is taken from test environment, may not have appropriate data or image

# Machine Fault Maintenance

Machine faults could be maintained using this screen, User could browse the stored information.


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Notification icons

[Home](#) / [Fault/Warning Maintenance](#)

Fault  Warning

Plant Code <input type="button" value="Please Select"/>	Area Code <input type="button" value="Please Select"/>	Line Code <input type="button" value="Please Select"/>	Machine Code <input type="button" value="Please Select"/>
Fault Code <input type="button" value="Please Select"/>	Fault Description <input type="text"/>	Status <input type="button" value="Please Select"/>	

Search
Refresh

#	Line No.	Fault Code	Fault Description	Plant Code	Machine Code	Status	Created Date	Last Updated Date
1	1	012015	Siemens error	FKARE	1M15	Active	2018-06-01	2018-06-01
2	2	F01001	Driver-2	FKARE	1055_1A	Active	2018-06-01	2018-06-01
3	3	F01000	Driver fault	FKARE	1055_1A	Active	2018-06-01	2018-06-01

Export To Excel
Add Row
Save
Import Excel
Download Template

Note: Given screen is taken from test environment, may not have appropriate data or image

## Machine Warning Maintenance

Machine warning could be maintained using this screen, user could browse the stored information.


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Fault  Warning

Plant Code	Area Code	Line Code	Machine Code
Please Select	Please Select	Please Select	Values Selected
Warning Code	Warning Description	Status	
10		Please Select	

 Search  Refresh

#	Line No.	Warning Type	Warning Code	Warning Description	Plant Code	Machine Code	Status	Created Date	Last Updated Date
<input type="checkbox"/>	1	CW1	10	Chip Container Full Pre-Warning	FKARD	MBIn0100n5	Active	07/09/2018	07/09/2018
<input type="checkbox"/>	2	SW	10	Tool Life Nearly Expired	FKARD	MBIn0100n1G	Active	07/09/2018	07/09/2018
<input type="checkbox"/>	3	SW	10	Tool Life Nearly Expired	FKARD	MBIn0100n5	Active	07/09/2018	07/09/2018
Total No of Records : 3									

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Fault/Warning Summary

Instant notification in mobile or tablets would lead here to Fault/Warning summary screen, from here user could choose the fault they are going to troubleshoot. Status and priority would be given to user based on current activity performed in eSIP.


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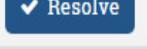






[Home](#) / [Fault-Warning Summary](#)

Fault  Warning

Line No.	Machine Code-Desc.	OEM Code-Desc.	Device Type-Desc.	Device Code-Desc.	Fault Code-Desc.	Status	Start Date & Time	Fault Timer	Priority	CDSID	
1	1MI5-CNC	001-	D11-Drive	1-Drive Motor	1000	In Progress	05/31/2018 16:52:18:087	06/01/2018 14:35:39:700	Medium	esipuser	
2	1MI5-CNC	001-	D11-Drive	3-Robotic Arm	301	In Progress	05/31/2018 16:52:18:087	06/02/2018 16:20:16:077	Medium	esipuser	
3	1MI5-CNC	001-	D11-Drive	150-Nut Runner	1501	Yet to Start	05/31/2018 18:03:14:357		Medium		

Refresh

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Fault/Warning Navigation

Faults/Warning points marked would be displayed here against the faults triggered from PLCs. User could navigate and faults by seeing the fault points marked in the machines. By clicking on the fault points, user would be directed towards respective diagnosis screen instantly.

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2

Home / Fault-Warning Summary / Fault Diagnosis

Machine Code-Description  
AE2855n1-under\_2160 A

Device OEM Code-Description  
001-SIEMENS

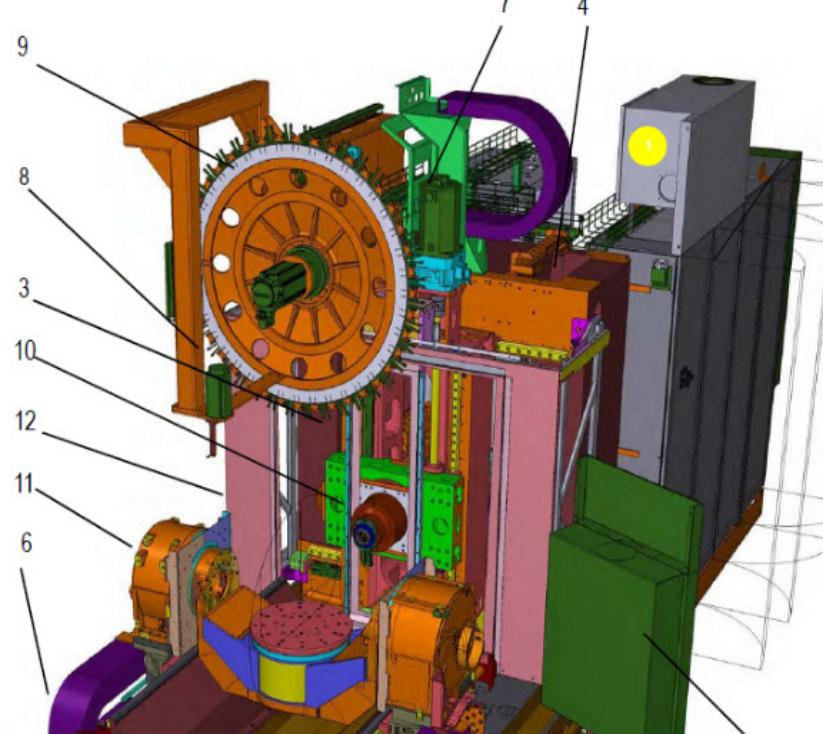
Device Type-Description  
001-S120 Drive

Device Code-Description  
5-RFID RF170C

Fault/Warning Code-Description  
F01040

Fault/Warning Point  
1

Smart Suggestions:  
No Suggestions to display !



 Back

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## Fault Diagnosis

eSIP would compute internally and locate the corresponding suggestions and manuals based on the fault point clicked by user. From here the troubleshooting starts and monitored.


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[Home](#) / [Fault-Warning Summary](#) / [Fault Diagnosis](#) / [Fault Feedback](#)

Machine Code-Description  
IMI5-CNC

Device Code-Description  
150-Nut Runner

Start Time

Device OEM Code-Description  
001-

Fault/Warning Code-Description  
1501

Device Type-Description  
D11-Drive

Active Faults/Warnings on the Machine  
1000

**Start Troubleshooting**

▼ Suggestions

▼ Manuals

▼ Feedback

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Fault Diagnosis - Suggestions

User would be provided with suggestions and feedback performed while troubleshooting the same instance, user could search using keywords to narrow down solutions.


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[Home](#) / [Fault-Warning Summary](#) / [Fault Diagnosis](#) / **Fault Feedback**

Machine Code-Description 1M15-CNC	Device OEM Code-Description 001	Device Type-Description D11-Drive
Device Code-Description 1-Drive Motor	Fault/Warning Code-Description 1000	Active Faults/Warnings on the Machine 1000
Start Time 06/01/2018 14:35:39:700		

**Start Troubleshooting**

**Suggestions**

Fault Code	Keywords	Root Cause	Solution	Updated on	Updated by	Documents

**Manuals**

**Feedback**

Save    Save Draft    Back

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Fault Diagnosis – User Manuals



User would be provided with User manuals uploaded against the faults. eSIP would perceptively search fault codes and fetch exact pages, help the users to fetch required info swiftly. Generic manuals with no specific faults code identification could be browse here to guide and act quickly.

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Fault Diagnosis - Feedback

After troubleshooting, user could register the suggestions and feedback. More information here would help the users in future to get the MTTR in minimum duration and efforts. Users could give Suggestions, feedback, upload documents and checklist. Draft save would help the users to make changes if required, till he confirms.


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[Home](#) / [Fault-Warning Summary](#) / [Fault Diagnosis](#) / **Fault Feedback**

Machine Code-Description

Device OEM Code-Description

Device Type-Description

Device Code-Description

Fault/Warning Code-Description

Active Faults/Warnings on the Machine

Start Time

Start Troubleshooting

- Suggestions**
- Manuals**
- Feedback**

Keyword

If Others

Uploaded Documents



Solution

Root Cause

Upload

Save

Save Draft

**Note:** Given screen is taken from test environment, may not have appropriate data or image

## Downtime Report

User could fetch details about the Faults and Warnings against the machines. Downtime, number of faults/warnings occurred, Last occurred date and time could be tracked using this report.


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[Home](#) / [DownTime Report](#)



Area Code Please Select	Line Code Please Select	Machine Code Please Select	Machine Description
From Date * 05/01/2018	To Date * 06/02/2018		

Line No.	Area Code	Line Code	MachineCode & Desc	Machine Downtime	No of faults Occured	Last Occured Date & Time
1	AssemblyAreal	Line1	1055_1A-1055_1A Machining Operation	24:00:00	1	2018-05-17 00:00:00.0
Total No of Records : 1						

**Note:** Given screen is taken from test environment, may not have appropriate data or image

# Fault /Warning History Report

Fault and Warning history report would help the users to get entire details about the faults/warnings. Solutions, Feedbacks and documents uploaded against the faults could be viewed here.



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Home / Fault/Warning History

Type	Fault/Warning Codes	Area Code	Line Code
Both	Please Select	AssemblyAreal	Please Select
Machine Code	Device Code	Device OEM Code	Device Type Code
Please Select	Please Select	Please Select	Please Select
From date	To date		
mm/dd/yyyy	mm/dd/yyyy		

Search Refresh

Line No.	Type	Fault/Warning Codes	Area Code	Line Code	Machine Code	Device Code	Device OEM Code	Device Type Code	Start Date & Time	End Date & Time	Time Taken	Root Cause	Solution	Documents
1	F	FAULT1	AssemblyAreal	Line1	1055_1A	001	001	D11	2018-05-16 00:00:00.0	2018-05-17 00:00:00.0	86400		<span>Manage</span>	<span>Manage</span>

Export To Excel

Note: Given screen is taken from test environment, may not have appropriate data or image

# MTTR and MTBF Report

MTTR and MTBF report would provide pictorial representation of the history data available between a fixed period of time.

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Home / MTTR and MTBF Report

Area Code	Line Code	Machine Code	Machine Description
<input type="text"/>	<input type="text"/>	1055_1A	<input type="text"/>
From Date *	To Date *	Exclude	Shifts Per Day *
05/03/2018	06/02/2018	Please Select	1 Shift Per Day
Hours	Minutes		
8	0		

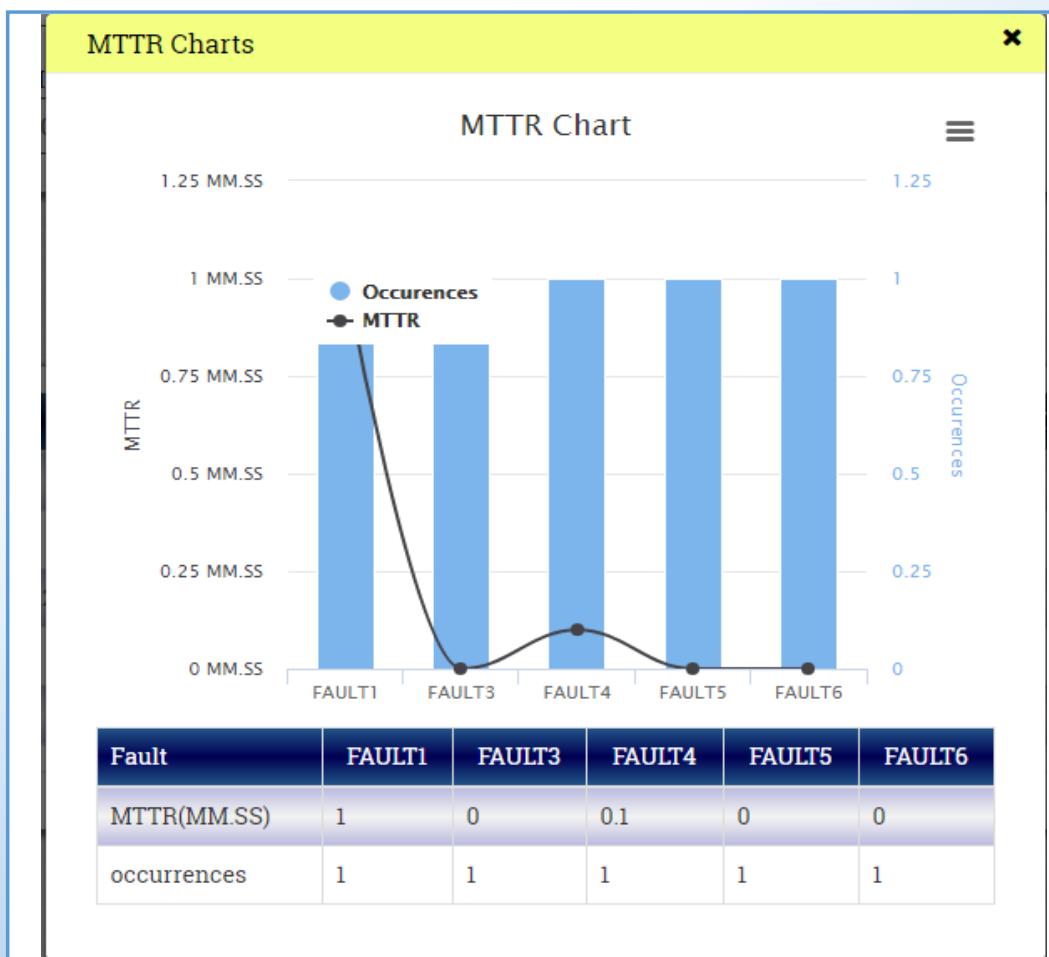
Search Refresh

Line No.	Area Code	Line Code	Machine Code	Machine Description	Mean Time	Total Mean Time	Average Time Taken	MTBF
1	Line1	AssemblyAreal	1055_1A	1055_1A Machining Operation	0	168:00	0	0

Generate MTTR Chart Generate MTBF Chart

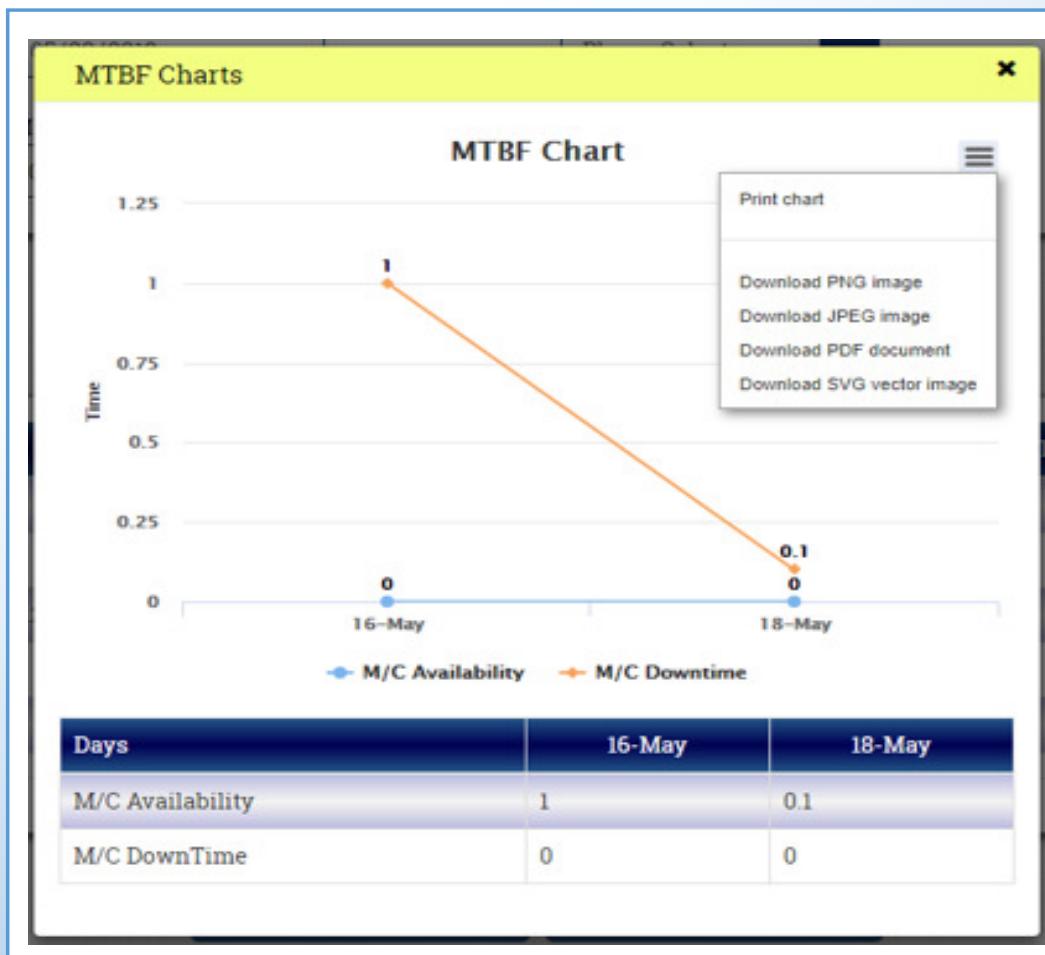
Note: Given screen is taken from test environment, may not have appropriate data or image

## MTTR Chart



Note: Given screen is taken from test environment, may not have appropriate data or image

## MTBF Chart



Note: Given screen is taken from test environment, may not have appropriate data or image

## Device OEM Maintenance – Titles with Chinese Translation

Device OEM maintenance screen used to maintain the OEM manufacturer's identification


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[Home](#) / Device OEM/Device Type Maintenance

设备OEM  设备类型

设备OEM代码

生产商名称

状态

 搜索
 刷新

■	线路号码.	设备OEM代码	生产商名称	注释	状态	创建日期	上次更新日期
<input type="checkbox"/>	1	089	Rockwell	Sample	Active	31/05/2018	02/06/2018
<input type="checkbox"/>	2	123	Honeywell	Sample	Active	31/05/2018	02/06/2018

Total No of Records : 2

 导出到Excel
 添加行
 保存
 导入Excel
 下载模板

Note: Given screen is taken from test environment, may not have appropriate data or image

**END**