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**Maximo – OPC Integration Services on Maximo Side**

**USER ACCEPTANCE TEST**

* For STE Consulting-

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# Asset Configuration

## Create New Asset Meter

|  |  |  |  |
| --- | --- | --- | --- |
| **UPDATE DATA ASSET** | | | |
| Procedure: Create New Asset Meter | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login to Maximo, **Go to** Module **Assets > Assets**   A picture containing graphical user interface  Description automatically generated | | |
|  | 1. Select the Asset to be changed data | | |
|  | 1. Go to Meter Tab | | |
|  | 1. Next go to Meter Tab click New Row Text     Description automatically generated to Create new Asset Meter and fill out the Column on the Meter Table. 2. Meter 3. Meter Type 4. Unit of Measure | | |
|  | 1. Then Click Save | | |
| Expected Results:  Asset Meter data saved successfully | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

## Create New Condition Monitoring

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| **CREATE NEW OPC CONFIGURATION** | | | |
| Procedure: Create New Condition Monitoring | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login to Maximo, Click **Go to** Module **Assets > Condition Monitoring** | | |
|  | 1. Click icon  to Create new Measurement Point and fill out the Column on the Condition Monitoring. 2. Point 3. Description 4. Asset 5. Meter 6. Upper Warning Limit 7. Upper Action Limit 8. Upper Limit PM (select one PM or JP) 9. Upper Limit JP (select one PM or JP) 10. Lower Warning Limit 11. Lower Action Limit 12. Lower Limit PM (select one PM or JP) 13. Lower Limit JP (select one PM or JP) | | |
|  | 1. Then Click Save | | |
| Expected Results:  Condition Monitoring data saved successfully | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

## Create New OPC Configuration

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| **CREATE NEW OPC CONFIGURATION** | | | |
| Procedure: Create New OPC Configuration | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login to Maximo, Click **Go to** Module **Assets > OPC Configuration**   Graphical user interface, text  Description automatically generated | | |
|  | 1. Click icon  to Create new Configuration and fill out the Column on the OPC Configuration. 2. Server Name 3. Server URL 4. Monitor URL 5. Monitor Token 6. Type 7. User 8. Password 9. Interval | | |
|  | 1. Then Click Save | | |
|  | 1. Next go to Tag List Tab click New Row Text     Description automatically generated to Create new OPC Tag 2. Fill in the tag column with the OPC tag you want      1. Select the Asset you want to associate with the Tag above      1. Select the Meter Name that is already connected to the Asset | | |
|  | 1. Then Click Save | | |
| Expected Results:  OPC Configuration data saved successfully | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

# OPC Adapter Configuration

## Set Config File

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| **SET OPC SERVER CONFIGURATION FILE** | | | |
| Procedure: Set Configuration File on Python Adapter Script | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login to IP **(Your Server IP)** at Remote Desktop Connection | | |
|  | 1. Open Folder Integration **Computer>FOLDER PATH > tal-opc-ua** | | |
|  | 1. Open config.json File with Text Editor | | |
|  | 1. Make sure this configuration file is in accordance with the configuration of your server 2. opc\_server name is the server’s name that we created earlier in the OPC Configuration application in Maximo 3. maximo\_url is the address of maximo server 4. headers\_maximo is the configuration used in the process of sending data to the maximo server 5. enable\_maximo and local\_taglist is a Boolean value   Text  Description automatically generated | | |
|  | 1. After editing the value then save the config.json file | | |
| Expected Results : | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

# OPC Adapter Integration Test

## Run OPC Adapter Script

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| **RUN OPC ADAPTER INTEGRATION SCRIPT** | | | |
| Procedure: Run OPC Adapter script | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login to IP **(Your Server IP)** at Remote Desktop Connection | | |
|  | 1. Open CMD / Terminal change directory to **Computer>FOLDER PATH > tal-opc-ua**   Text  Description automatically generated | | |
|  | 1. Run the pyhton scrip   Text  Description automatically generated | | |
|  | 1. There are 3 stages in this integration process    1. The first stage is the python adapter will retrieve data and a list of tags that are on the Maximo server using the OSLC API that has been configured in the Maximo Object Structure.    2. The second stage of the python adapter will process the data taken from Maximo and then make a connection to the OPC-UA server as a client, after the connection is successfully made the next stage the python adapter will take the value from the tag list that have been processed previously.    3. And the third stage is to process the data that we got from the OPC-UA server and then send it to the Maximo server via the OSLC API that we have created in the Object Structure.   Text  Description automatically generated | | |
|  | 1. The next stage after the Python Adapter has successfully performed its function, which is to repeat the 3 stages above according to the intervals that have been specified in the OPC Configuration application in Maximo, we can determine in how many seconds or minutes the script will run repeatedly. | | |
|  | 1. After the script runs successfully, go to Maximo to see the result of the integration. | | |
|  | 1. In Maximo, Check the Integration, go to **Asset > OPC Data Read**   Text  Description automatically generated | | |
|  | 1. In this application we can see the data sent by the OPC Adapter   Table  Description automatically generated | | |
| Expected Results:  Data that has been successfully sent by the OPC Adapter is entered into the maximo application | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

## Check Data Processing in Asset Meter

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| **CHECK DATA DATA PROCESSING IN ASSET METER** | | | |
| Procedure: Check Data Processing in Asset Meter | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login Maximo Check the Data Processing, go to **Asset > Asset**   A picture containing graphical user interface  Description automatically generated | | |
|  | 1. Select the Asset | | |
|  | 1. Go to Meter Tab > More Action > Select Manage Meter Reading History | | |
|  | 1. In this table we can see the data that was previously stored in OPCDATA has been sent to the Asset Meter using the Automation Script | | |
| Expected Results:  Data that has been successfully sent by the OPC DATA Application is entered into Asset Meter Application | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

## Check WO Generation on Condition Monitoring

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| **CHECK WO GENERATION ON CONDITION MONITORING** | | | |
| Procedure: Check Data Processing in Condition Monitoring | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login Maximo Check the Data Processing, go to **Asset > Condition Monitoring** | | |
|  | 1. Select the Condition Monitoring | | |
|  | 1. Scroll down to the measurement table | | |
|  | 1. If there is data that passes the action of the upper limit or the action of the lower limit, then the WO will be generated automatically through the Cron Task | | |
| Expected Results:  Data that passes the lower action limit or the upper action limit will create a WO automatically | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |

# Run Report

## Run Asset Measurement History Report

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| **RUN ASSET MEASUREMENT HISTORY REPORT** | | | |
| Procedure: Run Asset Report | | | |
| **ROLE** | **PROCEDURE** | | |
|  | 1. Login Maximo Check the Data Processing, go to **Asset > Asset**   A picture containing graphical user interface  Description automatically generated | | |
|  | 1. Go to More Action select Run Reports | | |
|  | 1. **Select Asset Measurement History**   Graphical user interface, text, application  Description automatically generated | | |
|  | 1. Select the Asset Number / Location and Site   Graphical user interface, application  Description automatically generated | | |
|  | 1. Click Submit | | |
| Expected Results:  Asset report will appear on a new page | |  | Note: |
| Result:  Passed | | Failed | DATE: |
| NAME: |
| SIGNATURE: |