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Material Import Service

The Material Import service is used to import and register MSD / Non MSD parts and materials using the csv file format. Once the parts / materials are imported, their details are saved in the MC database. When the MC application is installed, the Material Import service starts running. The service allows operator to import parts / materials via csv file format.

The Material Import service supports template based imports. There are three templates currently supported by Material Import service.

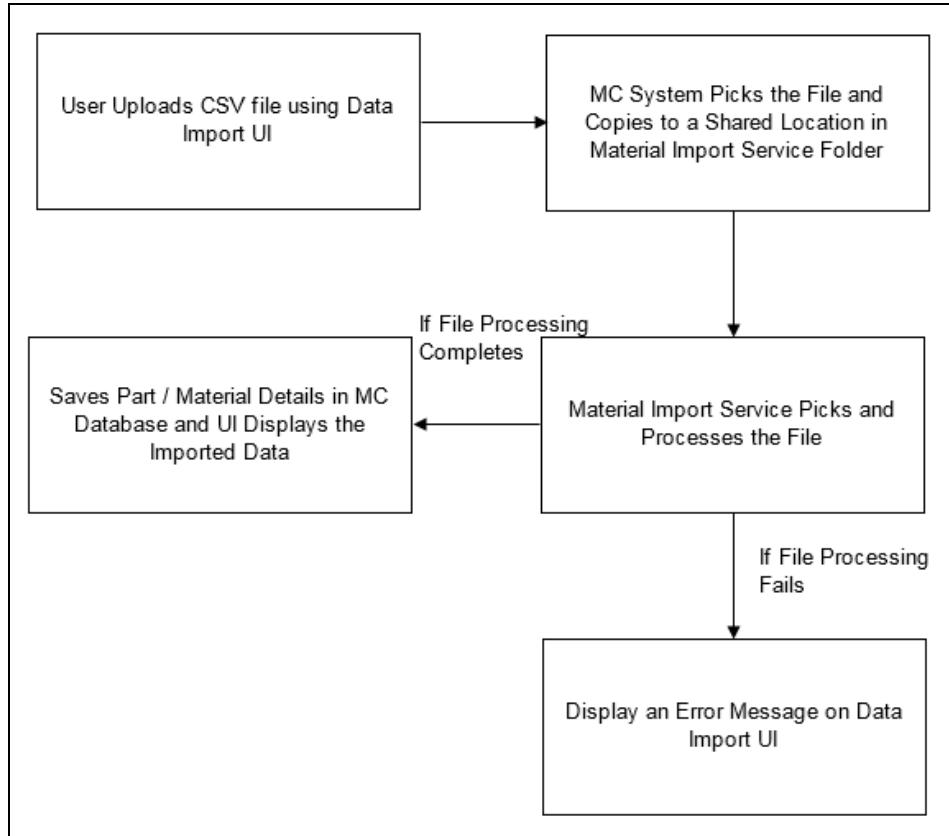
Template Name	Description
Part with Standard Template	<p>The user can use this template to import csv file as part with standard template import type.</p> <p>When import is triggered, the system internally copies the file to the below path under the PanaCIM MC installation directory.</p> <p>~\MaterialImportService\Monitor\PartWithTemplate\</p>
Material Import	<p>The template is used to import MSD / Non MSD material in MC system.</p> <p>When import is triggered, the system internally copies the file to the below path under the PanaCIM MC installation directory.</p> <p>~\MaterialImportService\Monitor\</p>
Part Data from DGS	<p>This template is used to import part in DGS csv file format. (DGS provides csv export option for each part library.) The user can use this template to import part data in DGS csv file format. When import is triggered, the system internally copies the file to the below path under the PanaCIM MC installation directory.</p> <p>~\MaterialImportService\Monitor\DGSPart\</p>

Note: The new templates added to the Data Import UI. The user can download templates and use them to import parts / materials in the MC system.

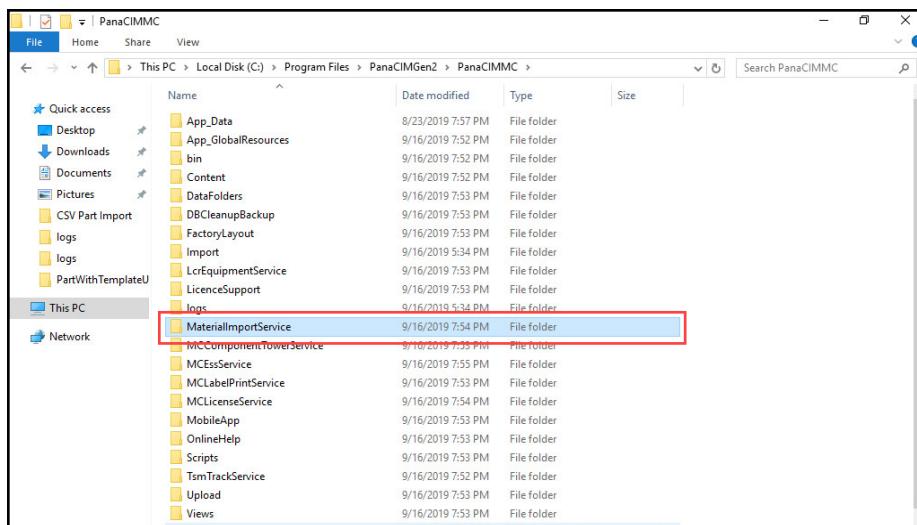
To import parts / materials, the user needs to select a template and upload csv file in the particular format. The system uploads the csv file to a shared location under the Material Import service folder based on the selected template and file format. The Material Import service monitors the shared locations, as soon as a file is uploaded to a location, the file is processed by the service and data is saved in the MC database.

If the file processing fails, an error message is displayed on the Data Import screen. The user can view the error details in the MI Service log file available in the **~\PanaCIMGen2\PanaCIMMC\logs** folder of PanaCIM MC installation directory.

The following diagram demonstrates the flow of importing parts / materials using csv files.



The Material Import Service folder is available inside the PanaCIM MC installation directory. The MC service is installed by the PanaCIM EE Gen 2 installer. The service starts automatically after successful installation of MC application.



Installation Path: ~\PanaCIMGen2\PanaCIMMC\MaterialImportService

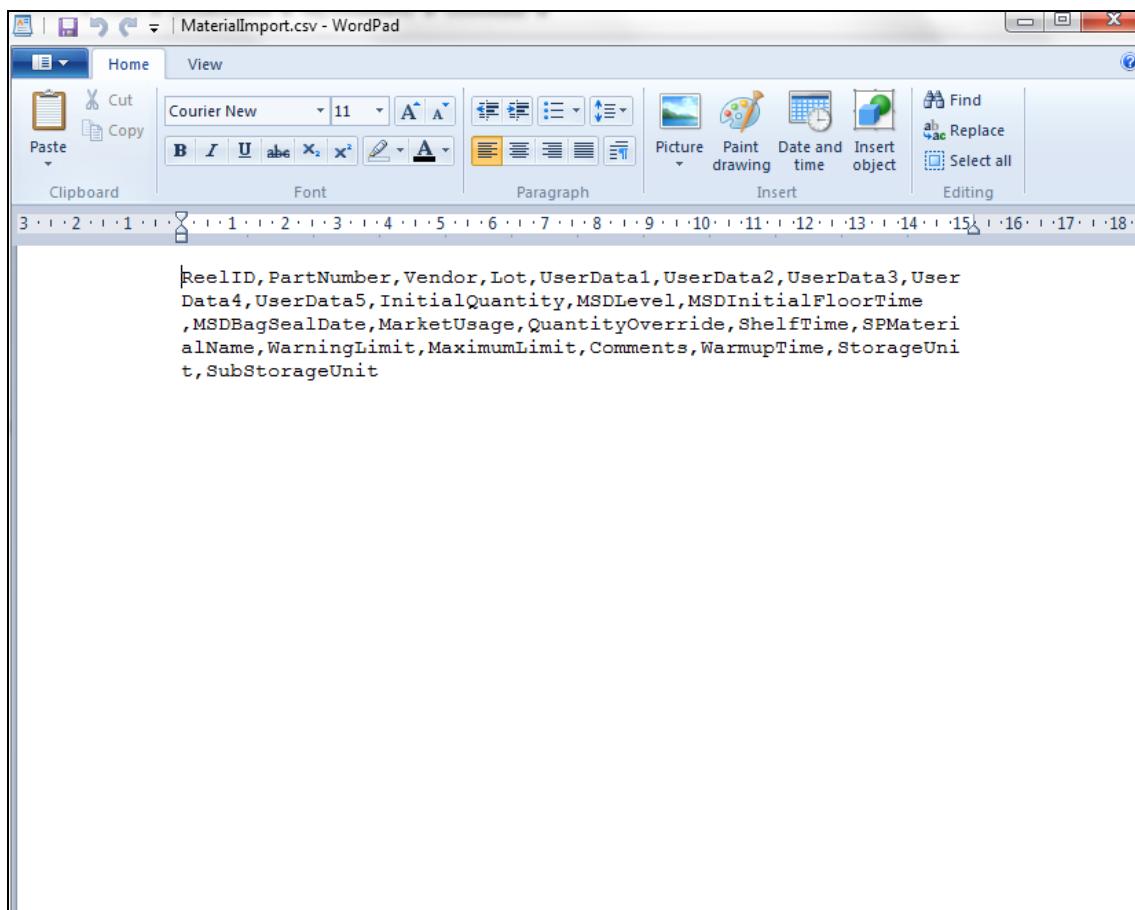
Part with Standard Template Import

A **Standard Part Template** has been added under **MC Config > System Configuration > Import Data** to allow operators to import parts with LCR attributes. However, the template also works for non LCR parts. In case of non LCR parts, the LCR fields should be empty in the file. The imported part details are displayed on the Part dashboard.

Using a single csv file, the user can import multiple parts with LCR attributes.

Part with Standard Template – CSV Format

The below figure shows the format of standard part template.



The screenshot shows a Microsoft WordPad window titled "MaterialImport.csv - WordPad". The window displays a CSV header for a standard part template. The header consists of 18 columns, numbered 1 through 18. The first column contains the field names, which are:

```
ReelID,PartNumber,Vendor,Lot,UserData1,UserData2,UserData3,UserData4,UserData5,InitialQuantity,MSDLevel,MSDInitialFloorTime,MSDBagSealDate,MarketUsage,QuantityOverride,ShelfTime,SPMaterialName,WarningLimit,MaximumLimit,Comments,WarmupTime,StorageUnit,SubStorageUnit
```

The below table describes fields of part with standard template.

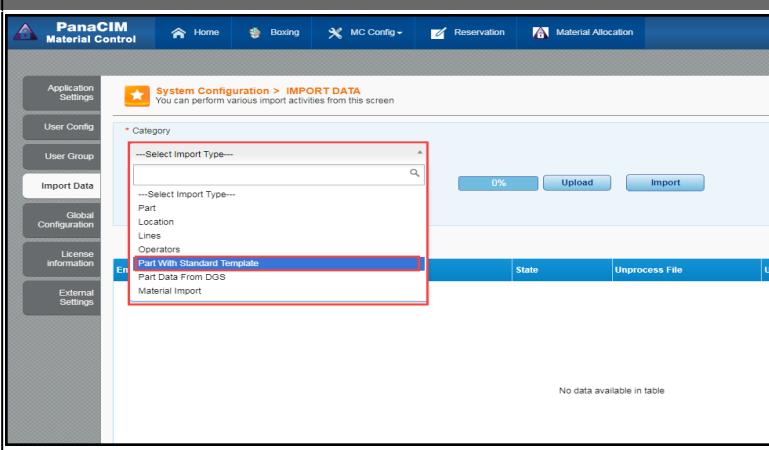
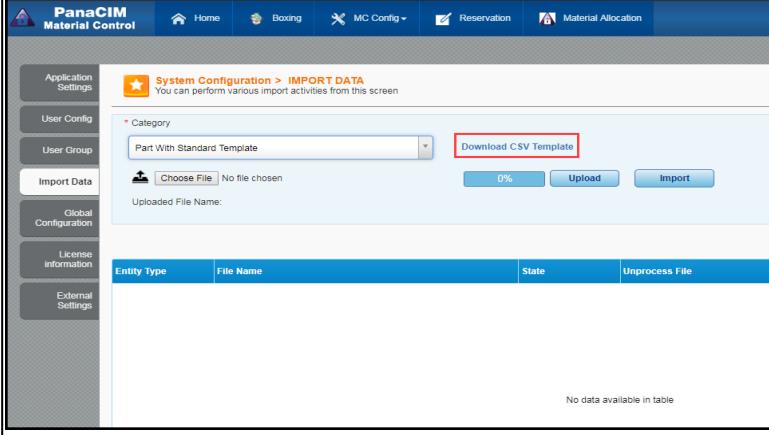
Field	Description	Mandatory (Yes / No)
PartNumber	The field refers the part number of the part being imported. If a part with the specified part number already exists in MC system, the part's attributes are	Yes

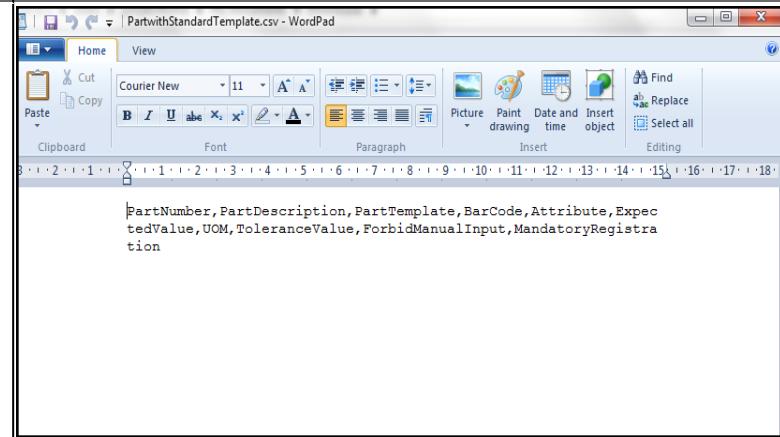
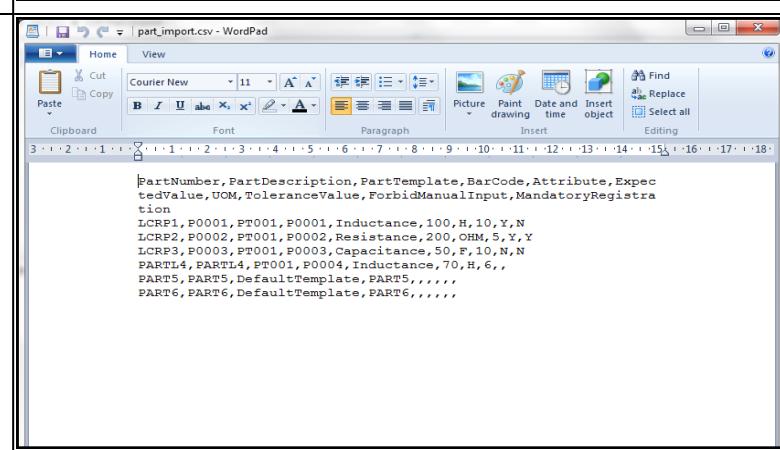
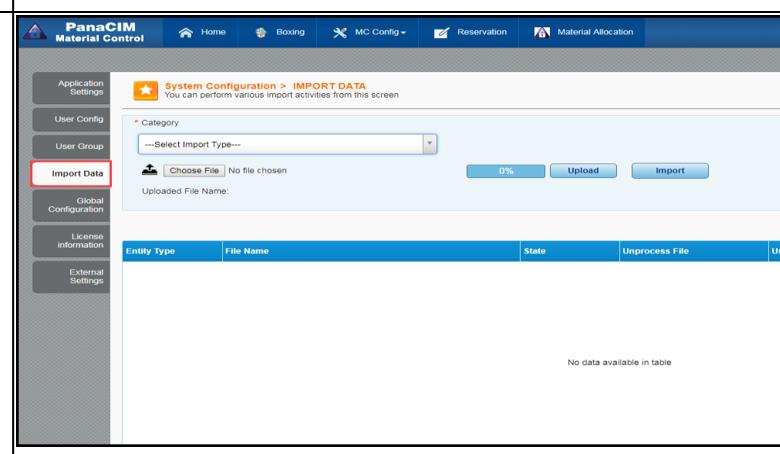
	updated based on the provided data in the file.	
PartDescription	The field refers the part description.	No
PartTemplate	This field refer the part template for the part being imported. The attributes' values defined in the part template are inherited by the part, such as part type, default receiving location, and part specific data. The template must exist in the system, otherwise import fails.	Yes
Barcode	This field refers the barcode of the part being imported.	Yes
Attribute	<p>This field refers the LCR attribute of part. Possible values are:</p> <ul style="list-style-type: none"> • Inductance • Capacitance • Resistance <p>For non LCR parts, this field is not applicable and should be empty</p>	No
ExpectedValue	This field refer the expected value of LCR attributes. For non LCR parts, this field should be empty.	No
UOM	This field refer the Unit of Measurement for LCR attributes. For non LCR parts, this field should be empty.	No
ToleranceValue	This is field refer the tolerance value in percent for LCR attributes. This field should be empty for non LCR parts.	No
ForbidManualInput	<p>Possible values are:</p> <ul style="list-style-type: none"> • Y: This represents yes (enabled). If enabled, the user can not directly enter the value of an LCR attribute while receiving material. However, an override option is available to the user based on the user's privilege. • N: This represents no (disabled). If disabled, the user can directly enter value of an LCR attribute while receiving material. <p>Apart from Y, all other values are considered as N or disabled.</p>	No
MandatoryRegistration	<p>Possible values are:</p> <ul style="list-style-type: none"> • Y: This represents yes (enabled). If enabled, then LCR material cannot be received without 	No

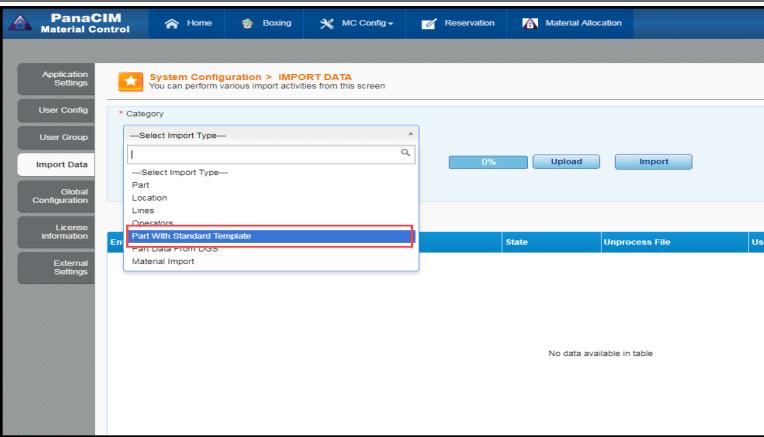
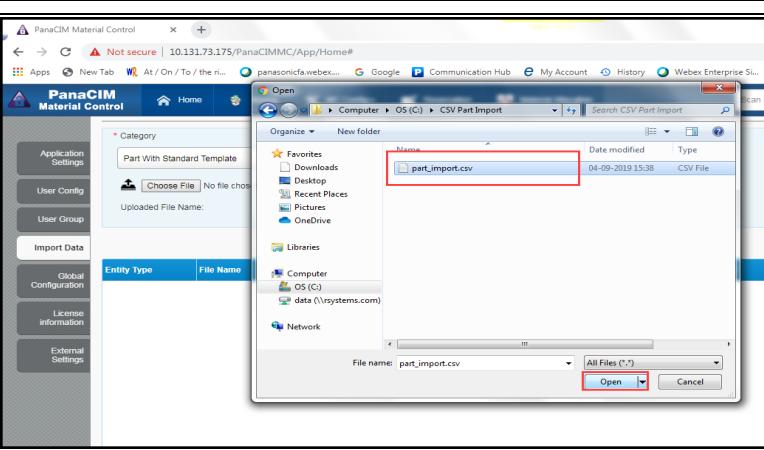
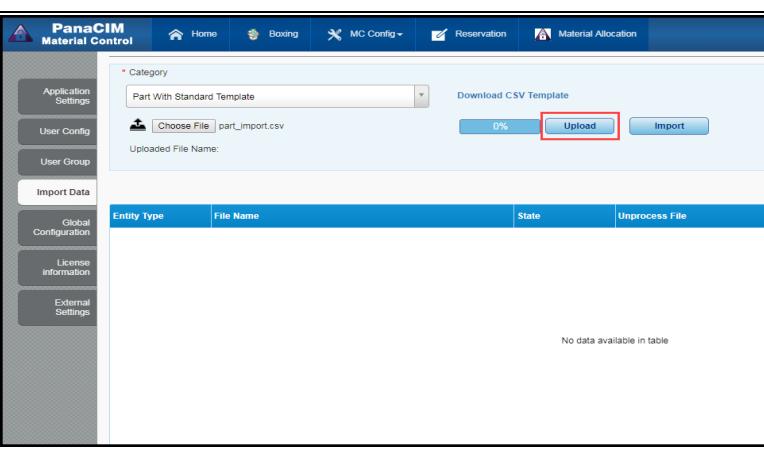
	<p>providing attribute's value.</p> <ul style="list-style-type: none"> • N: This represents no (disabled). If disabled, LCR material can be received without providing attribute's value. <p>Apart from Y, all other values are considered as N or disabled.</p>	
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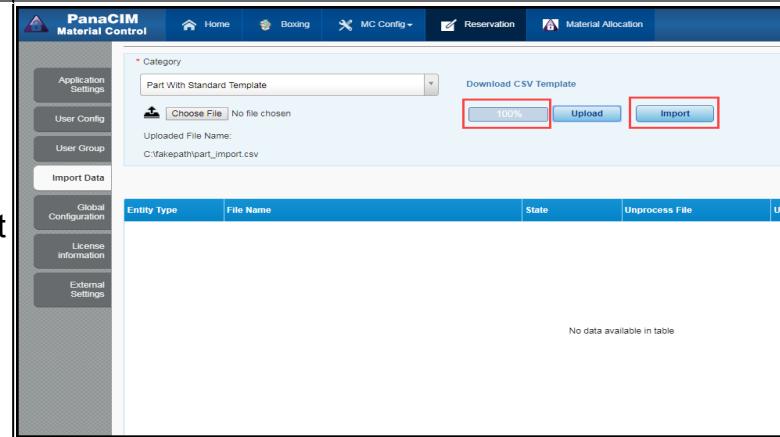
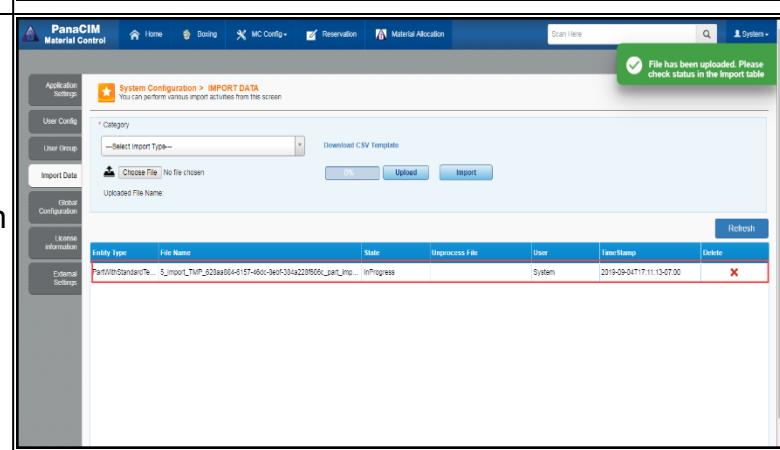
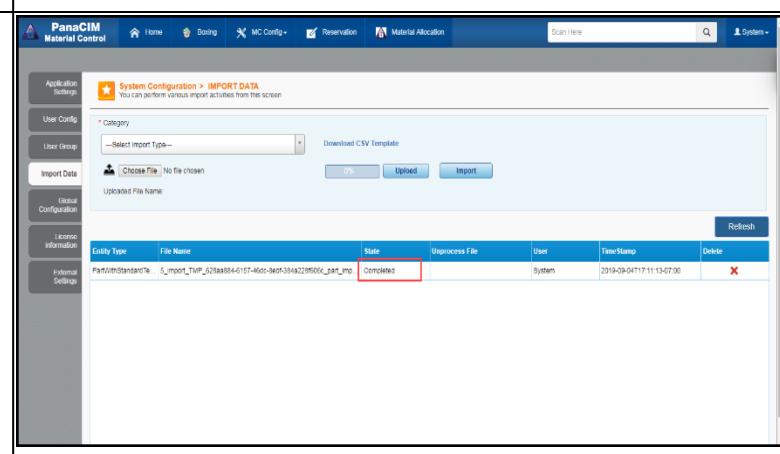
Part with Standard Template – Importing Parts

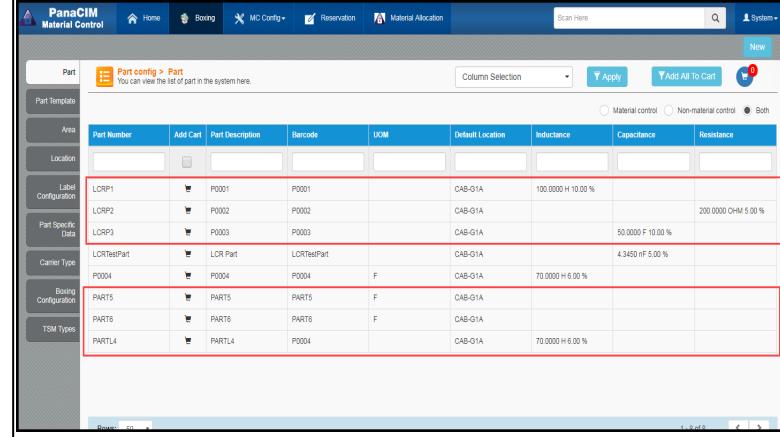
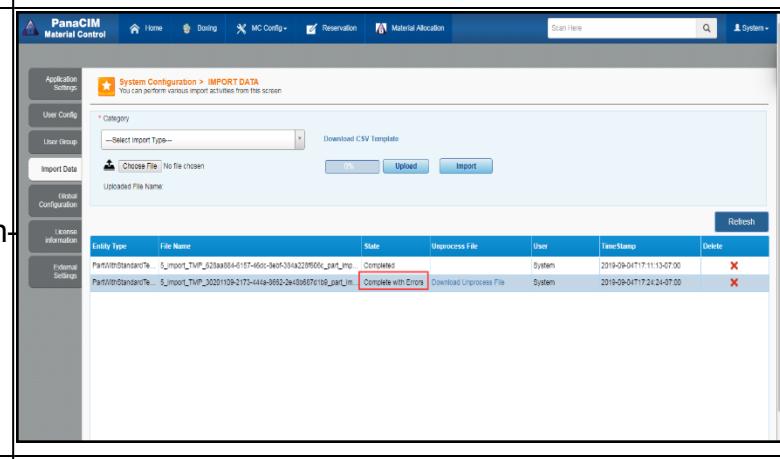
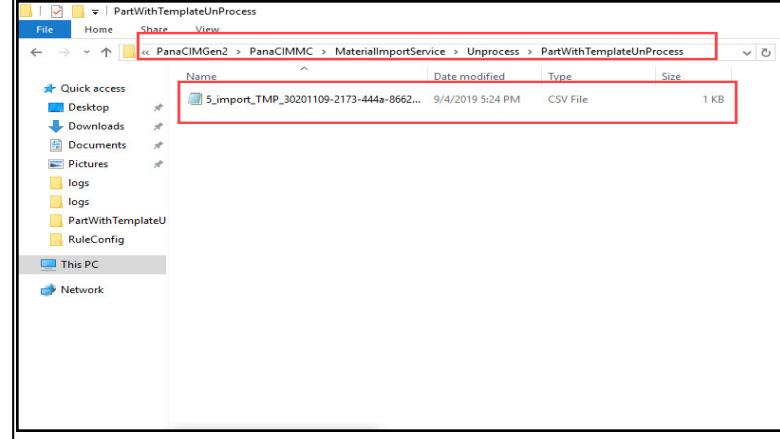
Refer the below steps to import parts using part with standard template.

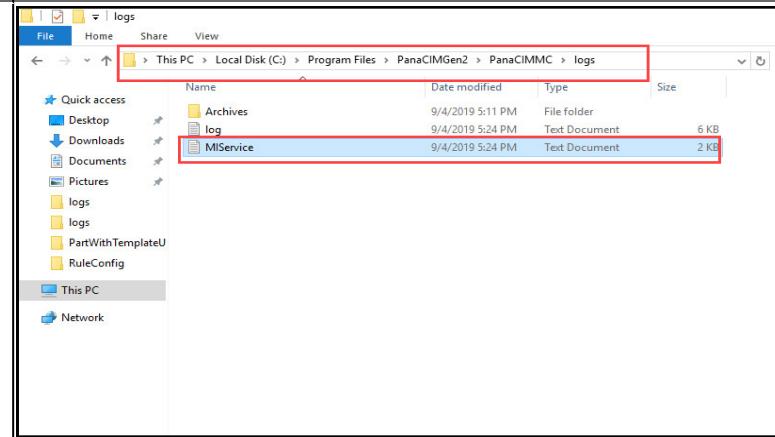
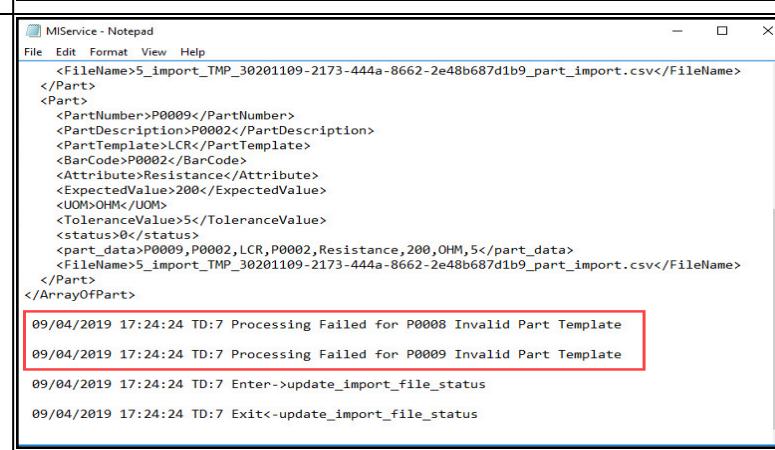
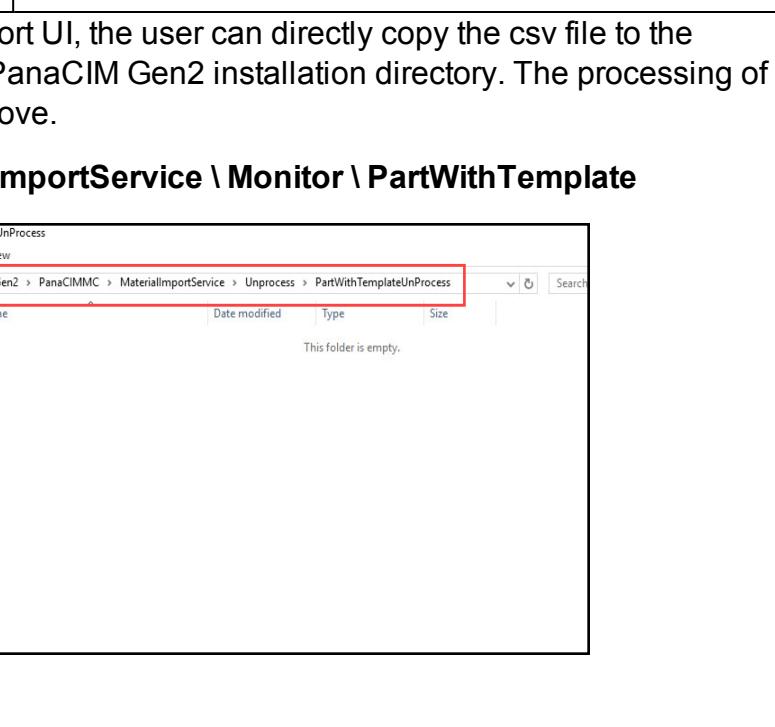
Step	Description	Screenshot
1	<p>To download the csv file format, navigate to MC Config > System Configuration > Import Data.</p> <p>Select the Standard Part Template from the dropdown.</p>	
2	<p>The download link becomes visible. Click the Download CSV Template link.</p>	

Step	Description	Screenshot
3	<p>The csv file is downloaded. Open the file to view template's format.</p>	 <pre>PartNumber,PartDescription,PartTemplate,BarCode,Attribute,ExpectedValue,UOM,ToleranceValue,ForbidManualInput,MandatoryRegistration</pre>
4	<p>Consider that a csv file that has part details in the Standard Part Template format.</p>	 <pre>PartNumber,PartDescription,PartTemplate,BarCode,Attribute,ExpectedValue,UOM,ToleranceValue,ForbidManualInput,MandatoryRegistration LCRP1,P0001,PT001,P0001,Inductance,100,H,10,Y,N LCRP2,P0002,PT001,P0002,Resistance,200,OHM,5,Y,Y LCRP3,P0003,PT001,P0003,Capacitance,50,F,10,N,N PART14,PART14,PT001,P0004,Inductance,70,H,6,,, PARTS,PART5,DefaultTemplate,PARTS,,, PART6,PART6,DefaultTemplate,PART6,,,</pre>
5	<p>Navigate to MC Config > System Configuration > Data Import.</p>	

Step	Description	Screenshot
6	<p>Select Part with Standard Template from the drop-down.</p>	
7	<p>Click the Choose File button. Select the csv file and click the Open button.</p>	
8	<p>Click the Upload button to upload file.</p>	

Step	Description	Screenshot
9	The file is uploaded. Click the Import button to import parts in MC system.	 <p>The screenshot shows the 'Import Data' section of the PanaCIM Material Control interface. A file named 'PartWithStandardTemplate.csv' has been uploaded. The 'Import' button is highlighted with a red box.</p>
10	The import status is shown as in progress.	 <p>The screenshot shows the 'Import Data' section after the file has been uploaded. The status of the imported file is 'In Progress'. A green message at the top right says 'File has been uploaded. Please check status in the Import table'.</p>
11	Click the Refresh button. The status changes to Complete if the file processing completes successfully.	 <p>The screenshot shows the 'Import Data' section after the file has been processed. The status of the imported file is now 'Completed'. The 'Refresh' button is visible at the bottom right.</p>

Step	Description	Screenshot
12	Navigate to MC Config > Part config > Part. The imported parts are displayed.	 <p>The screenshot shows the 'Part' configuration screen in PanaCIM. The main area displays a table of parts with columns: Part Number, Add Cart, Part Description, Barcode, UOM, Default Location, Inductance, Capacitance, and Resistance. The imported parts from Step 11 are listed: LCRP1, LCRP2, LCRP3, LCRTestPart, P003, PART5, PART6, and PARTL4. These rows are highlighted with a red box.</p>
13	If the file processing fails, the status appears as Completed with Errors.	 <p>The screenshot shows the 'Import Data' screen in System Configuration. It lists two entries: 'PartWithTemplate...' and 'PartWithTemplate...'. The second entry is marked as 'Completed with Errors'. The 'Completed' status is highlighted with a red box.</p>
14	In case of file processing fails, the unprocessed file is moved to ~\PanaCIMGen2 \ PanaCIMMC \ MaterialImportService \ Unprocess \ PartWithTemplateUnProcess folder.	 <p>The screenshot shows a Windows File Explorer window with the path 'PartWithTemplateUnProcess'. Inside, there is a single file named '5 import_TMP_30201109-2173-444a-8662...'. The file path 'PartWithTemplateUnProcess' is highlighted with a red box.</p>

Step	Description	Screenshot
15	<p>To check the error, navigate to PanaCIMGen2 \ PanaCIMMC \ logs folder.</p> <p>The part / material import logs are available in the MIService log file.</p>	
16	<p>Open the MIService log file. The file displays error message due to which the file processing fails.</p>	 <pre> <FileName>5_import_TMP_30201109-2173-444a-8662-2e48b687d1b9_part_import.csv</FileName> </Part> <Part> <PartNumber>P0009</PartNumber> <PartDescription>P0002</PartDescription> <PartTemplate>LCR</PartTemplate> <BarCode>P0002</BarCode> <Attribute>Resistance</Attribute> <ExpectedValue>200</ExpectedValue> <UOM>OHM</UOM> <ToleranceValue>5</ToleranceValue> <status>0</status> <part_data>P0009,P0002,LCR,P0002,Resistance,200,OHM,5</part_data> <FileName>5_import_TMP_30201109-2173-444a-8662-2e48b687d1b9_part_import.csv</FileName> </Part> </ArrayOfPart> 09/04/2019 17:24:24 TD:7 Processing Failed for P0008 Invalid Part Template 09/04/2019 17:24:24 TD:7 Processing Failed for P0009 Invalid Part Template 09/04/2019 17:24:24 TD:7 Enter->update_import_file_status 09/04/2019 17:24:24 TD:7 Exit<-update_import_file_status </pre>
Note:	<p>Apart from using Data Import UI, the user can directly copy the csv file to the below location under the PanaCIM Gen2 installation directory. The processing of file works as explained above.</p> <p>~\PanaCIMMC \ MaterialImportService \ Monitor \ PartWithTemplate</p>	

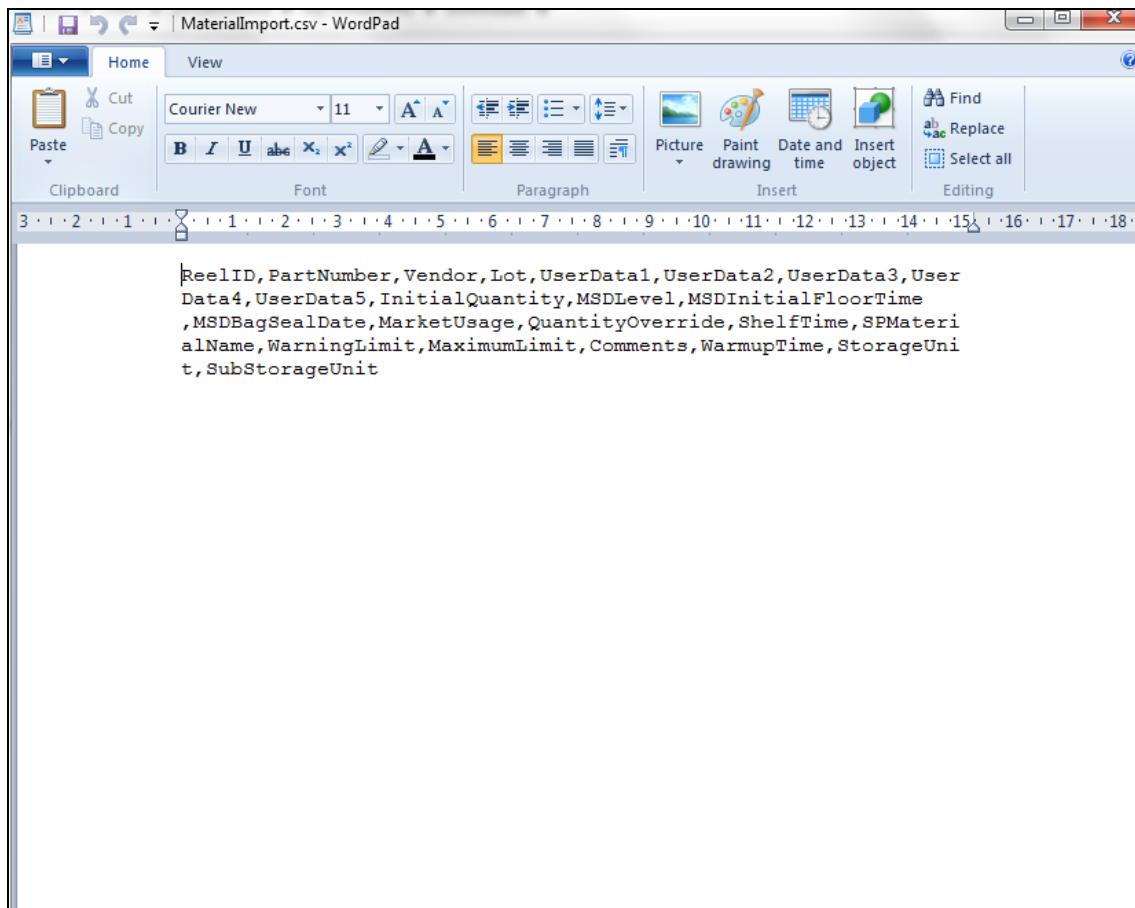
Material Import Template

A **Material Import** template has been added under **MC Config > System Configuration > Import Data** to allow operators to import Non MSD / MSD material. The inventory section of the MC Web application lists the details of imported materials.

If the processing of file fails, the file is moved to the unprocess folder and the operator can view the Material Import service logs to check the error.

Part with Standard Template – CSV Format

The below figure shows the format of standard part template.



The screenshot shows a Microsoft WordPad window titled "MaterialImport.csv - WordPad". The window displays a CSV header for a material import template. The header consists of a single row of text: "ReelID,PartNumber,Vendor,Lot,UserData1,UserData2,UserData3,UserData4,UserData5,InitialQuantity,MSDLevel,MSDInitialFloorTime,MSDBagSealDate,MarketUsage,QuantityOverride,ShelfTime,SPMaterialName,WarningLimit,MaximumLimit,Comments,WarmupTime,StorageUnit,SubStorageUnit". The text is in black font on a white background, and the WordPad interface is visible around the text area.

The below table describes fields of part with standard template.

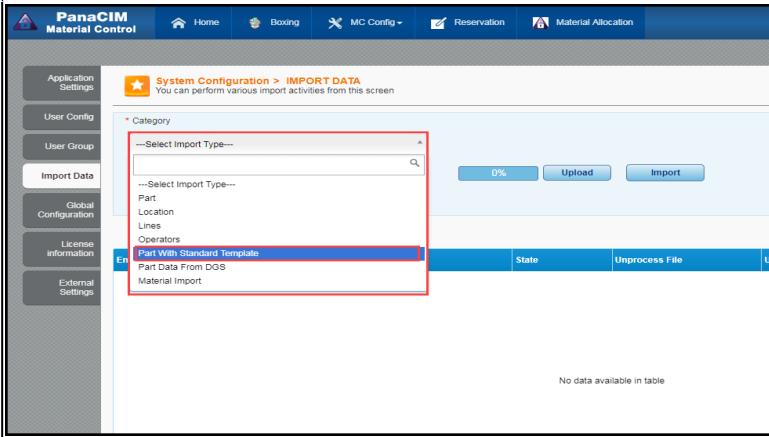
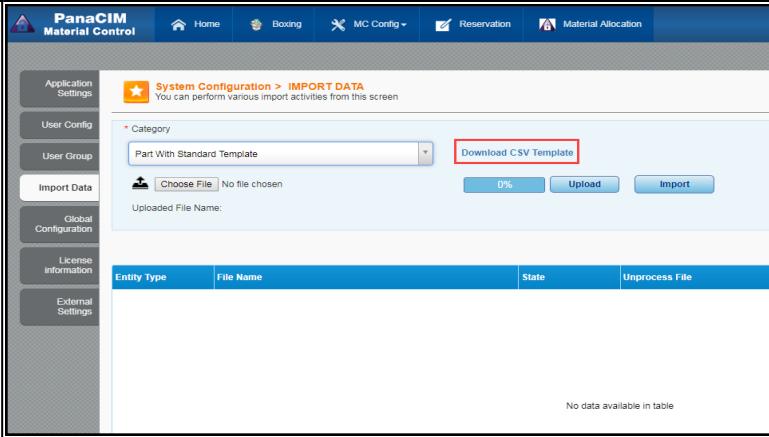
Field	Description	Mandatory (Yes / No)
PartNumber	The field refers the part number of the part being imported. If a part with the specified part number already exists in MC system, the part's attributes are updated based on the provided data in the file.	Yes

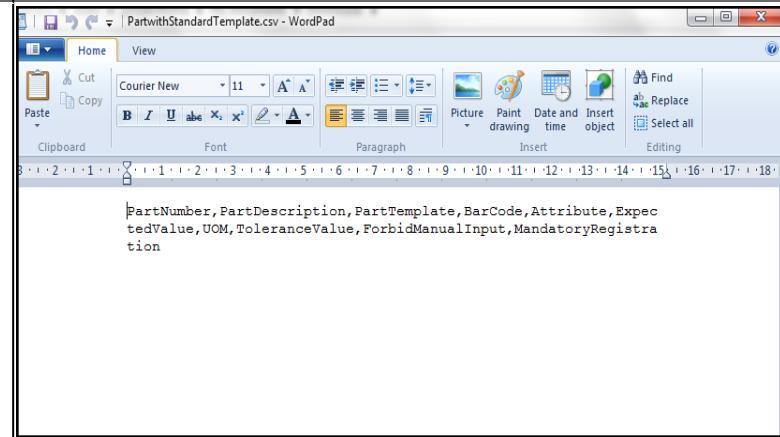
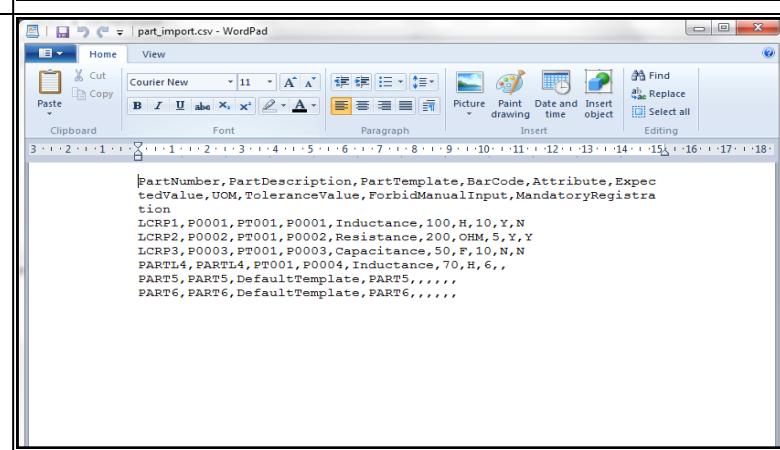
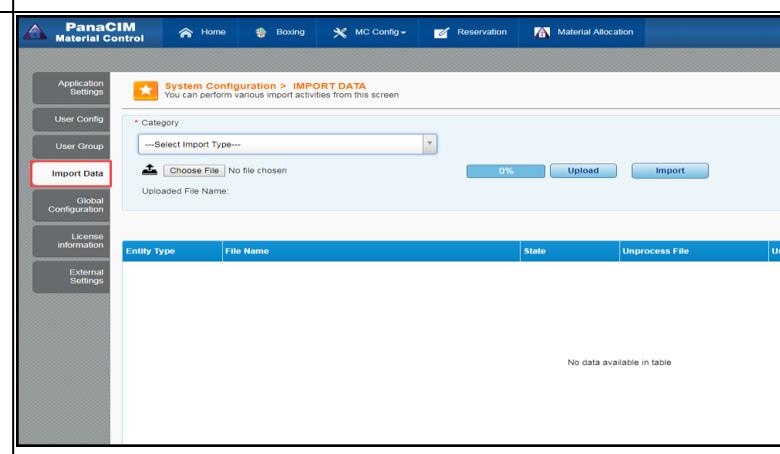
PartDescription	The field refers the part description.	No
PartTemplate	This field refer the part template for the part being imported. The attributes' values defined in the part template are inherited by the part, such as part type, default receiving location, and part specific data. The template must exist in the system, otherwise import fails.	Yes
Barcode	This field refers the barcode of the part being imported.	Yes
Attribute	<p>This field refers the LCR attribute of part. Possible values are:</p> <ul style="list-style-type: none"> • Inductance • Capacitance • Resistance <p>For non LCR parts, this field is not applicable and should be empty</p>	No
ExpectedValue	This field refer the expected value of LCR attributes. For non LCR parts, this field should be empty.	No
UOM	This field refer the Unit of Measurement for LCR attributes. For non LCR parts, this field should be empty.	No
ToleranceValue	This is field refer the tolerance value in percent for LCR attributes. This field should be empty for non LCR parts.	No
ForbidManualInput	<p>Possible values are:</p> <ul style="list-style-type: none"> • Y: This represents yes (enabled). If enabled, the user can not directly enter the value of an LCR attribute while receiving material. However, an override option is available to the user based on the user's privilege. • N: This represents no (disabled). If disabled, the user can directly enter value of an LCR attribute while receiving material. <p>Apart from Y, all other values are considered as N or disabled.</p>	No
MandatoryRegistration	<p>Possible values are:</p> <ul style="list-style-type: none"> • Y: This represents yes (enabled). If enabled, then LCR material cannot be received without providing attribute's value. 	No

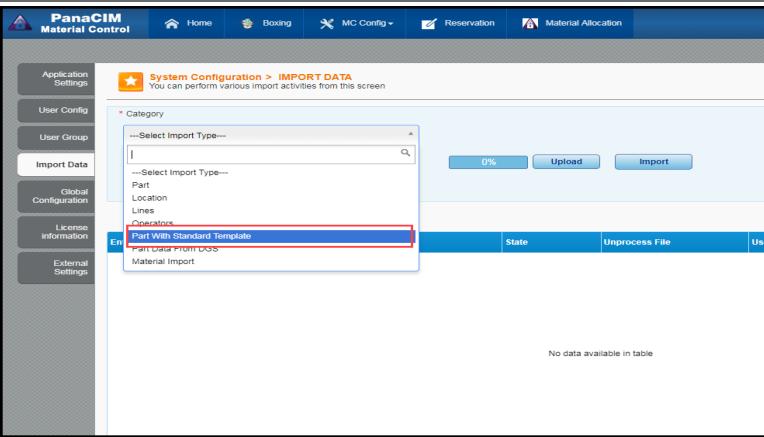
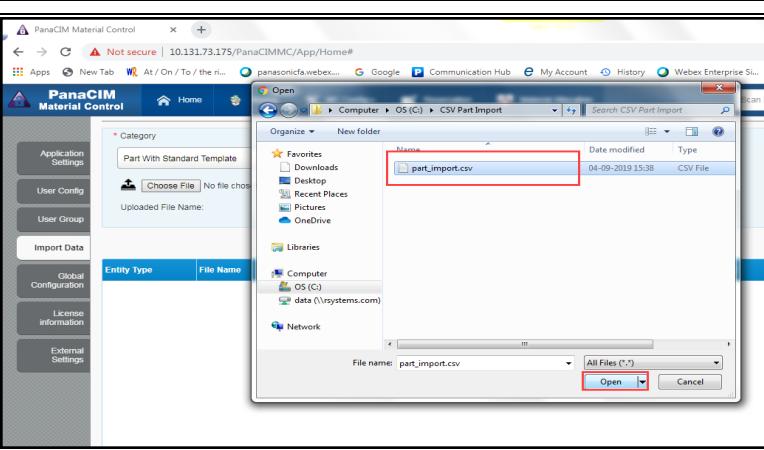
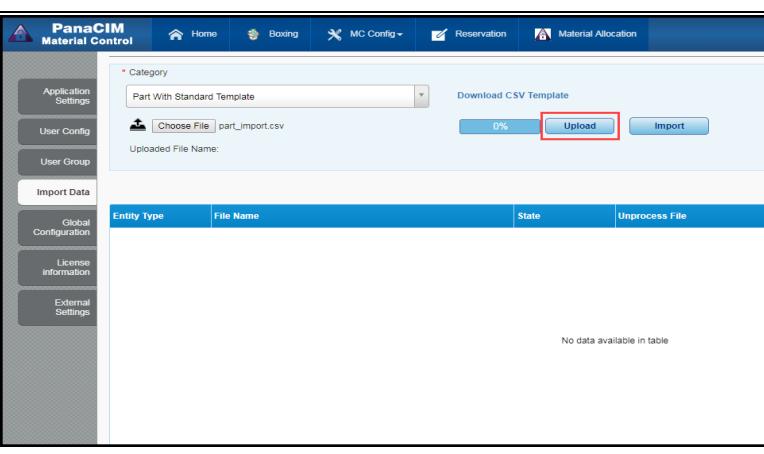
	<ul style="list-style-type: none"> • N: This represents no (disabled). If disabled, LCR material can be received without providing attribute's value. <p>Apart from Y, all other values are considered as N or disabled.</p>	
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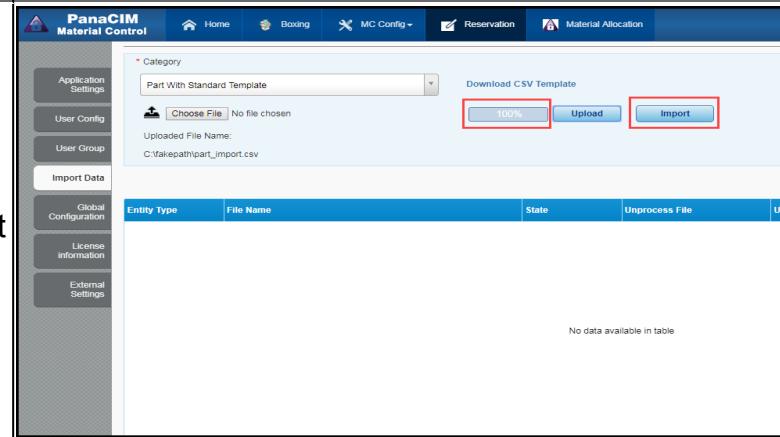
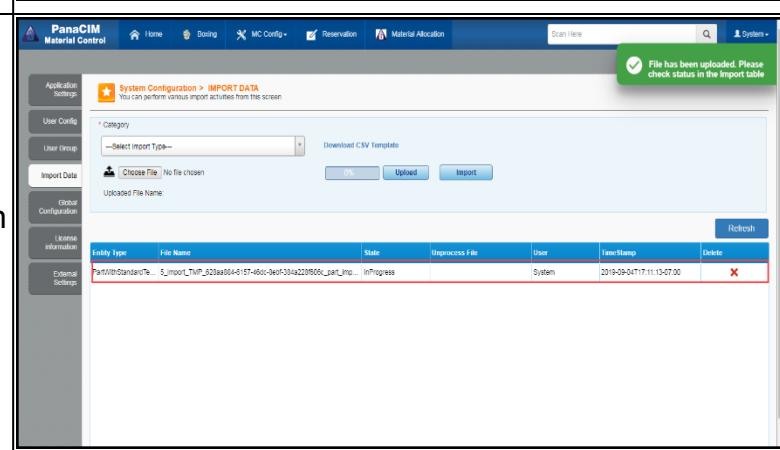
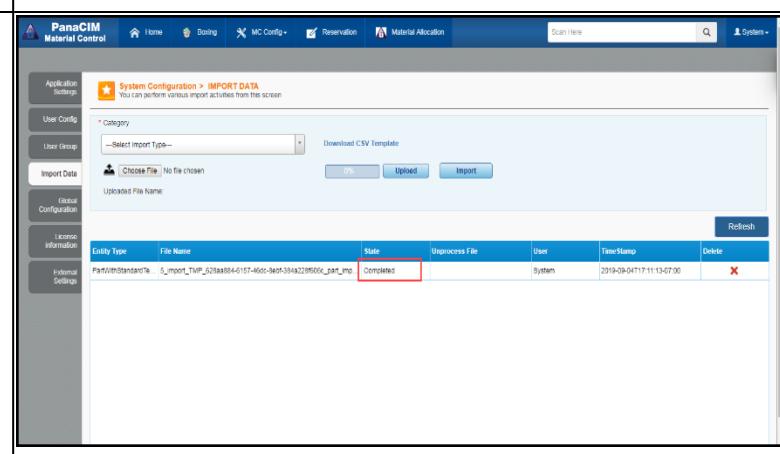
Part with Standard Template – Importing Parts

Refer the below steps to import parts using part with standard template.

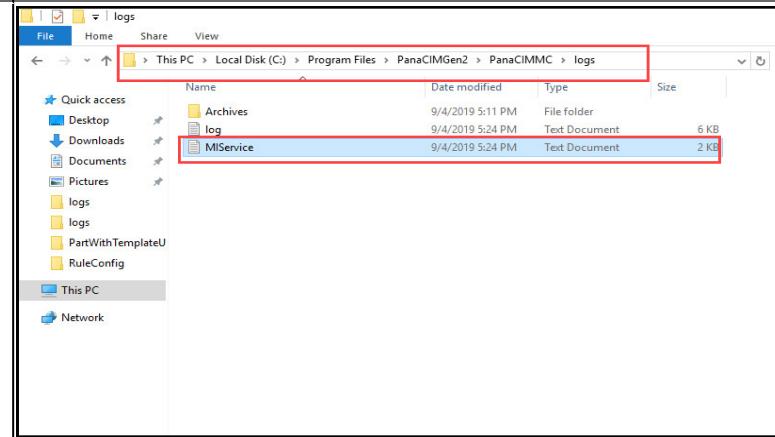
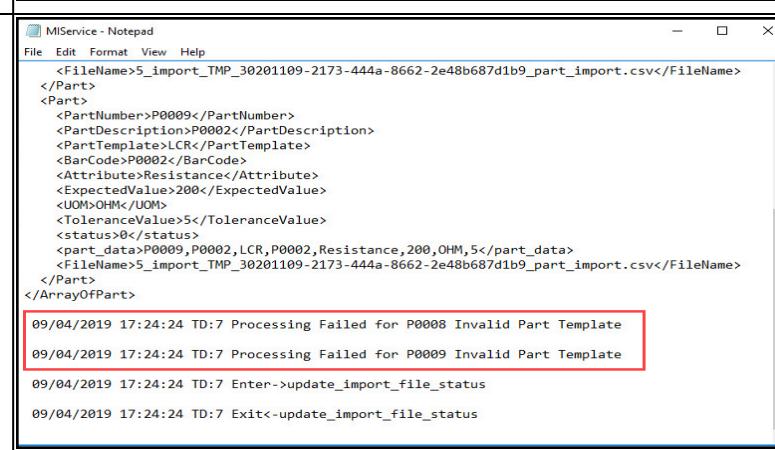
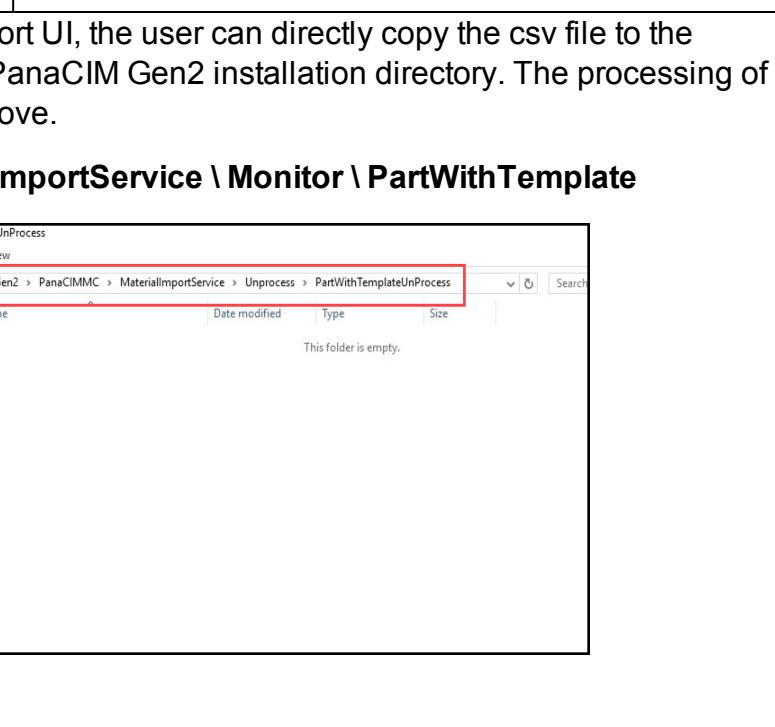
Step	Description	Screenshot
1	To download the csv file format, navigate to MC Config > System Configuration > Import Data . Select the Standard Part Template from the drop-down.	
2	The download link becomes visible. Click the Download CSV Template link.	

Step	Description	Screenshot										
3	<p>The csv file is downloaded. Open the file to view template's format.</p>	 <pre>PartNumber,PartDescription,PartTemplate,BarCode,Attribute,ExpectedValue,UOM,ToleranceValue,ForbidManualInput,MandatoryRegistration</pre>										
4	<p>Consider that a csv file that has part details in the Standard Part Template format.</p>	 <pre>PartNumber,PartDescription,PartTemplate,BarCode,Attribute,ExpectedValue,UOM,ToleranceValue,ForbidManualInput,MandatoryRegistration LCRP1,P0001,PT001,P0001,Inductance,100,H,10,Y,N LCRP2,P0002,PT001,P0002,Resistance,200,OHM,5,Y,Y LCRP3,P0003,PT001,P0003,Capacitance,50,F,10,N,N PART14,PART14,PT001,P0004,Inductance,70,H,6,,, PARTS,PART5,DefaultTemplate,PARTS,,, PART6,PART6,DefaultTemplate,PART6,,,</pre>										
5	<p>Navigate to MC Config > System Configuration > Data Import.</p>	 <table border="1"> <thead> <tr> <th>Entity Type</th> <th>File Name</th> <th>State</th> <th>Unprocess File</th> <th>Us</th> </tr> </thead> <tbody> <tr> <td colspan="5">No data available in table</td> </tr> </tbody> </table>	Entity Type	File Name	State	Unprocess File	Us	No data available in table				
Entity Type	File Name	State	Unprocess File	Us								
No data available in table												

Step	Description	Screenshot
6	<p>Select Part with Standard Template from the drop-down.</p>	
7	<p>Click the Choose File button. Select the csv file and click the Open button.</p>	
8	<p>Click the Upload button to upload file.</p>	

Step	Description	Screenshot
9	The file is uploaded. Click the Import button to import parts in MC system.	 <p>The screenshot shows the 'Import Data' section of the PanaCIM Material Control interface. A file named 'PartWithStandardTemplate.csv' has been uploaded. The 'Import' button is highlighted with a red box.</p>
10	The import status is shown as in progress.	 <p>The screenshot shows the 'Import Data' section after the file has been uploaded. The status of the imported file is 'In Progress'. A green message at the top right says 'File has been uploaded. Please check status in the Import table'.</p>
11	Click the Refresh button. The status changes to Complete if the file processing completes successfully.	 <p>The screenshot shows the 'Import Data' section after the file has been processed. The status of the imported file is now 'Completed'. The 'Refresh' button is visible at the bottom right.</p>

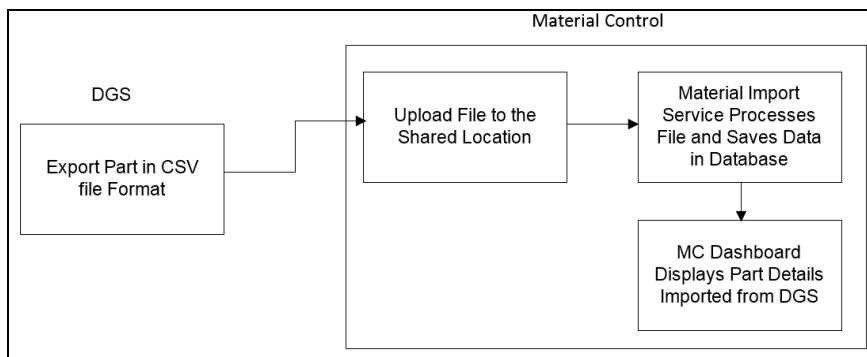
Step	Description	Screenshot
12	Navigate to MC Config > Part config > Part. The imported parts are displayed.	<p>The screenshot shows the 'Part' configuration screen in PanaCIM. The main area displays a table of parts with columns: Part Number, Add Cart, Part Description, Barcode, UOM, Default Location, Inductance, Capacitance, and Resistance. The imported parts from step 11 are listed: LCRP1, LCRP2, LCRP3, LCRTestPart, P003, PART5, PART6, and PARTL4. A red box highlights this list.</p>
13	If the file processing fails, the status appears as Completed with Errors.	<p>The screenshot shows the 'Import Data' screen in System Configuration. It lists two entries: 'PartWithStandard...' and 'PartWithStandard...'. The first entry is marked as 'Completed' with a green checkmark. The second entry is marked as 'Completed with Errors' with a red cross. A red box highlights the 'Completed with Errors' entry.</p>
14	In case of file processing fails, the unprocessed file is moved to ~\PanaCIMGen2 \ PanaCIMMC \ MaterialImportService \ Unprocess \ PartWithTemplateUnProcess folder.	<p>The screenshot shows a Windows File Explorer window with the path 'PartWithTemplateUnProcess'. Inside this folder, there is a single file named '5 import_TMP_30201109-2173-444a-8662...'. This file is highlighted with a red box. The file is a CSV file, as indicated by the file extension and the 'CSV File' label in the details pane.</p>

Step	Description	Screenshot
15	<p>To check the error, navigate to PanaCIMGen2 \ PanaCIMMC \ logs folder.</p> <p>The part / material import logs are available in the MIService log file.</p>	
16	<p>Open the MIService log file. The file displays error message due to which the file processing fails.</p>	 <pre> <FileName>5_import_TMP_30201109-2173-444a-8662-2e48b687d1b9_part_import.csv</FileName> </Part> <Part> <PartNumber>P0009</PartNumber> <PartDescription>P0002</PartDescription> <PartTemplate>LCR</PartTemplate> <BarCode>P0002</BarCode> <Attribute>Resistance</Attribute> <ExpectedValue>200</ExpectedValue> <UOM>OHM</UOM> <ToleranceValue>5</ToleranceValue> <status>0</status> <part_data>P0009,P0002,LCR,P0002,Resistance,200,OHM,5</part_data> <FileName>5_import_TMP_30201109-2173-444a-8662-2e48b687d1b9_part_import.csv</FileName> </Part> </ArrayOfPart> 09/04/2019 17:24:24 TD:7 Processing Failed for P0008 Invalid Part Template 09/04/2019 17:24:24 TD:7 Processing Failed for P0009 Invalid Part Template 09/04/2019 17:24:24 TD:7 Enter->update_import_file_status 09/04/2019 17:24:24 TD:7 Exit<-update_import_file_status </pre>
Note:	<p>Apart from using Data Import UI, the user can directly copy the csv file to the below location under the PanaCIM Gen2 installation directory. The processing of file works as explained above.</p> <p>~\PanaCIMMC \ MaterialImportService \ Monitor \ PartWithTemplate</p>	

Part Data Import from DGS

A new template, **Part Data from DGS**, has been added under **MC Config > System Configuration > Import Data** to allow operators import parts data from DGS. The imported part details are displayed on the Part dashboard.

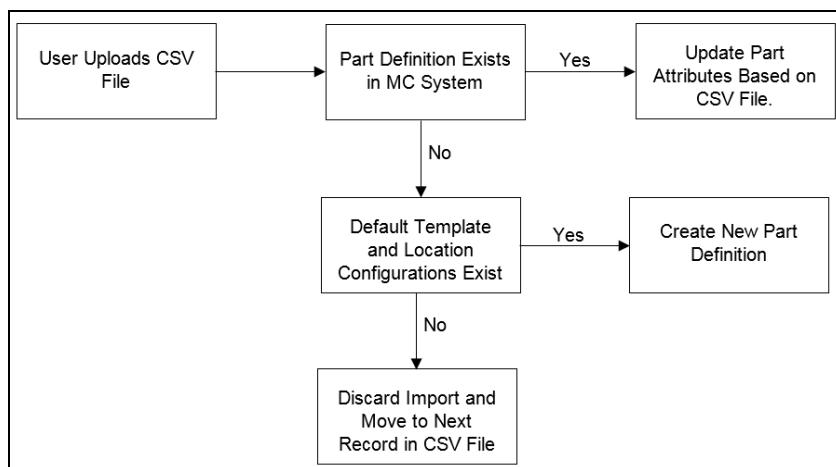
Currently, Material Import service supports csv file import for material and part import. DGS provides csv export option for each part library. From version 10.8.0.0, the Material Import service has been enhanced to process and import part details from csv part file generated in DGS. The MC dashboard displays part details imported from DGS.



The part data will be inserted/updated as per below use cases.

- **Use case1:** If part does not exist in the system, check if default part template and default material import location are configured in External Settings, if both configurations exist, import part data in MC system, otherwise, discard import operation and move to next record in csv file.
- **Use case2:** If part already exist in the system, import part data and update the part attributes based on csv file.

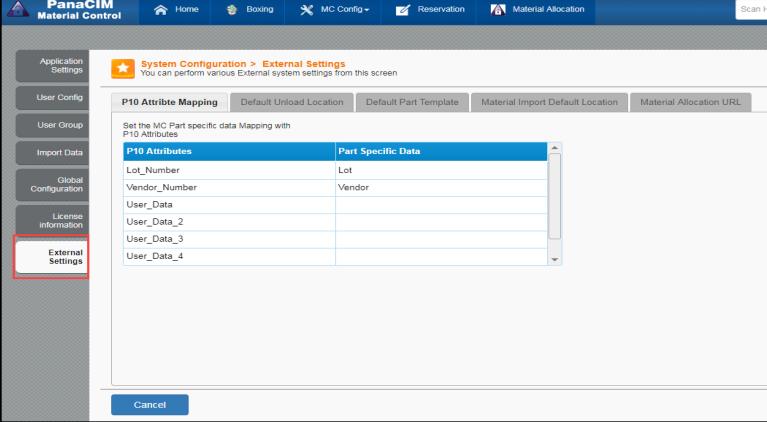
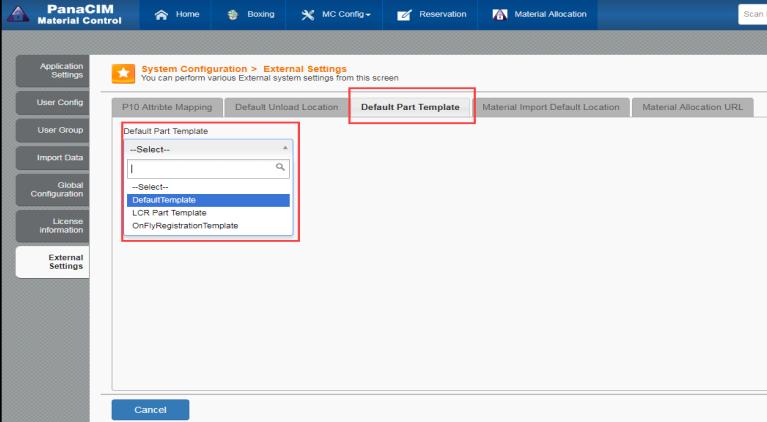
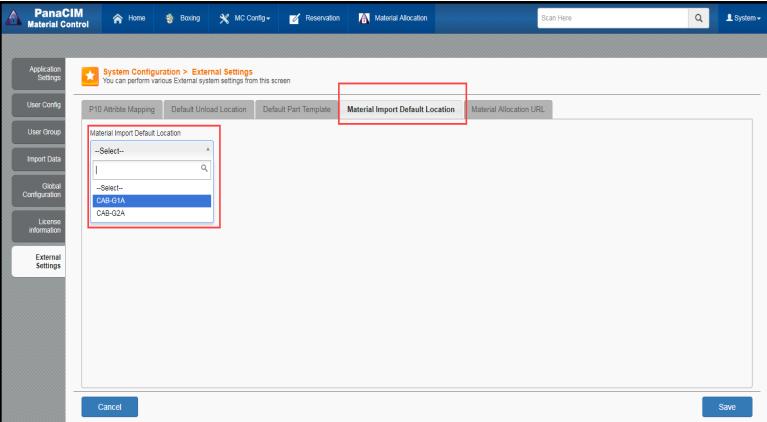
The below flow diagram depicts DGS part import use cases.

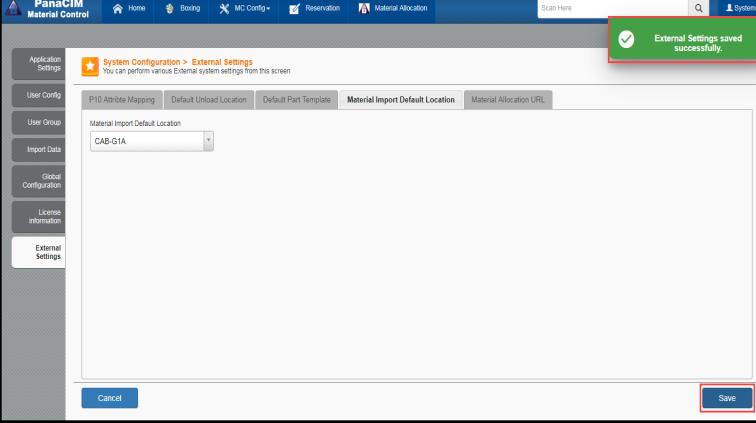


Part Import from DGS – Configuration

To import DGS part in MC, it is mandatory to configure default part template and default material import location in the **External Settings** under **MC Config > System Configuration**. If the settings are not configured, part import from DGS fails.

Refer the below steps to configure default template and default material import location for DGS part import.

Step	Description	Screenshot
1	Navigate to MC Config > System Configuration > External Settings.	
2	Click the Default Part Template tab and select a template from the dropdown.	
3	Click the Material Import Default Location tab. Select a default location for import.	

Step	Description	Screenshot
Note:		
4	<p>Click the Save button to save configuration.</p>	

Part Import from DGS – CSV Format

The csv file format contains the following two sections.

- [NPM]: The section starts with [NPM]. The next line indicates the part definition headings separated using the “,” character. After that each line indicates part data for all the NPM parts available in the csv file.
- [CM/DT]: The section starts with [CM/DT]. The next line indicates the part definition headings separated using the “,” character. After that each line indicates part data for all the CM/DT parts available in the csv file.

Note: The csv file contains one or both sections is valid for import.

The below figure depicts a sample csv file containing [NPM] and [CM/DT] sections.

PartList.csv - Excel																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	[NPM]																	
2	Part Name	Part Libra	REF	Descripti	Shape	Co	Physical C	Functiona	L	W	T	Supply Ty	Supply Kir	Tape Kind	Tape Wid	Tape Pitch	Reel Size	Part Coun
3	P1	Standard Parts		Rectangul	Capacitor	1	1			1 P0802_	L	Tape and	Paper		8	2 Large (330	1000	0 5/
4	ST160BC	Standard Parts		Rectangul	Chip Indu	5	4			2 Stick							99	0 9/
5	03015R	Standard Parts		Rectangul	Fixed Resi	0.3	0.15			0.11 E0401_	S	Tape and	Embossed		4	1 Small (18C	40000	0 1/
6	0201R	Standard Parts		ddd	Rectangul Fixed Resi	0.25	0.125			0.1 E0401_	S	Tape and	Embossed		4	1 Small (18C	40000	0 1/
7	0201C	Standard Parts		Rectangul	Capacitor	0.25	0.125			0.125 E0401_	S	Tape and	Embossed		4	1 Small (18C	40000	0 1/
8	SSS-MINIT	Standard Parts		Leaded Cc	SOT/Trans	1.2	1.2			0.52 E0802_	S	Tape and	Embossed		8	2 Small (18C	1000	0 1/
9	SSS-MINIT	Standard Parts		Leaded Cc	SOT/Trans	1	0.5			0.5 E0802_	S	Tape and	Embossed		8	2 Small (18C	1000	0 1/
10	FILTER-S	Standard Parts		Odd Shap	Filter	2	1.6			0.4 E0804_	S	Tape and	Embossed		8	4 Small (18C	5000	0 1/
11	ANTENNA	Standard Parts		Odd Shap	Other	3	3			1.8 E0804_	S	Tape and	Embossed		8	4 Small (18C	3000	0 1/
12	SCREW	Standard Parts		Odd Shap	Other	2.37	2.29			2 E1208_	L	Tape and	Embossed		12	8 Large (330	3000	0 1/
13	FILTER-R	Standard Parts		Odd Shap	Filter	3.15	2.45			0.6 E1208_	S	Tape and	Embossed		12	8 Small (18C	5000	0 1/
14	FILTER-L	Standard Parts		Odd Shap	Filter	3.6	2.9			1.2 E1208_	S	Tape and	Embossed		12	8 Small (18C	5000	0 1/
15	CONNECT	Standard Parts		Leaded Cc	Connecto	9.5	2.7			0.75 E1608_	L	Tape and	Embossed		16	8 Large (330	1000	0 1/
16	CONNECT	Standard Parts		Leaded Cc	Connecto	9.5	2.7			0.75 E2408_	L	Tape and	Embossed		24	8 Large (330	1000	0 1/
17	CONNECT	Standard Parts		Leaded Cc	Connecto	8.3	2.5			0.75 E2408_	L	Tape and	Embossed		24	8 Large (330	1000	0 1/
18	CONNECT	Standard Parts		Leaded Cc	Connecto	13	5.6			1.85 E3411_	L	Tape and	Embossed		24	12 Large (330	1000	0 1/
193	NW-ARRA	Standard Parts		Rectangul	Network/	1	1			0.35 P0804_	S	Tape and	Paper		8	4 Small (18C	10000	0
194	1005R	Standard Parts		Rectangul	Fixed Resi	1	0.5			0.35 P0802_	S	Tape and	Paper		8	2 Small (18C	10000	0
195	1005C	Standard Parts		Rectangul	Capacitor	1	0.5			0.5 P0802_	S	Tape and	Paper		8	2 Small (18C	10000	0
196	0603C	Standard Parts		Rectangul	Capacitor	0.6	0.3			0.3 P0802_	S	Tape and	Paper		8	2 Small (18C	15000	0
197	0603R	Standard Parts		Rectangul	Fixed Resi	0.6	0.3			0.23 P0802_	S	Tape and	Paper		8	2 Small (18C	15000	0
198	0402R/Pag	Standard Parts		Rectangul	Fixed Resi	0.4	0.2			0.13 P0802_	S	Tape and	Paper		8	2 Small (18C	15000	0
199	0402R/Em	Standard Parts		Rectangul	Fixed Resi	0.4	0.2			0.13 E0401_	S	Tape and	Embossed		4	1 Small (18C	40000	0
200	0402C	Standard Parts		Rectangul	Capacitor	0.4	0.2			0.2 P0802_	S	Tape and	Paper		8	2 Small (18C	15000	0
201																		
202	[CM/DT]																	
203	Part Name	Part Libra	REF	Descripti	Shape	Co	Physical C	Functiona	L	W	T	Supply Ty	Supply Kir	Tape Kind	Tape Wid	Tape Pitch	Reel Size	Part Coun
204	0402C	Standard Parts				0.4	0.2			0.2 P0802_	S	Tape and	Paper		8	2 Small (18C	15000	1/18/2016 6/27/2019 No
205																	256; 0; 0; 0	
206																		
207																		
208																		
209																		
210																		
211																		

The csv file generated in DGS contains various fields. However, while creating / updating part details in MC only the below fields are imported in MC system.

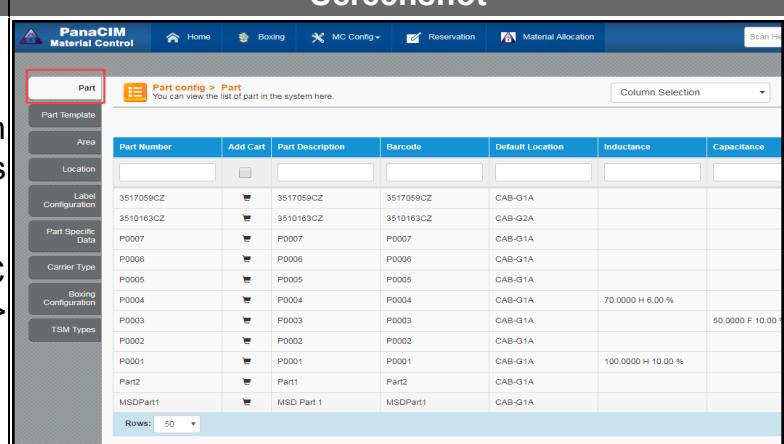
Part Attrib- utes	DGS Part Definition in CSV	Description	Mandatory (Yes / No)
TapeWidth	Tape Width	Refers the width of the tape consisting of electronic components.	No
TapePitch	Tape Pitch	Refers the pitch of the tape consisting of	No

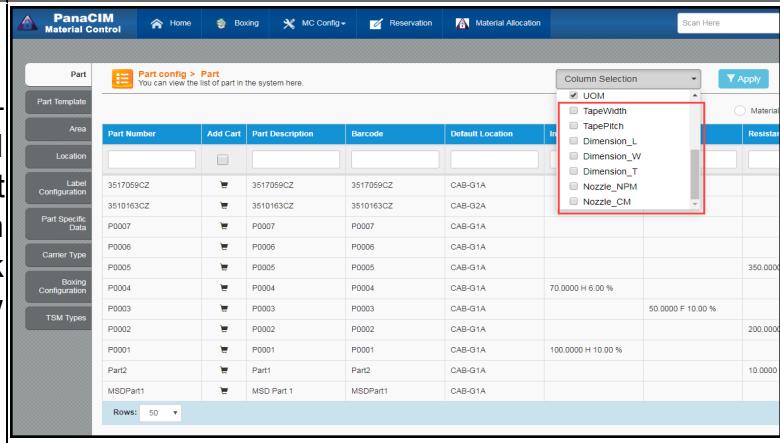
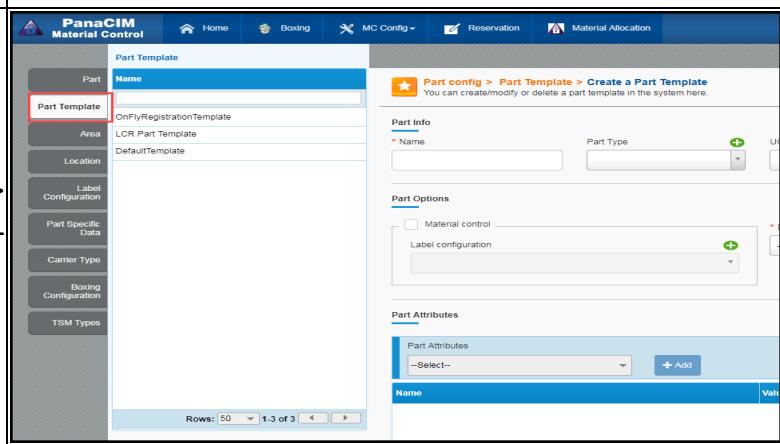
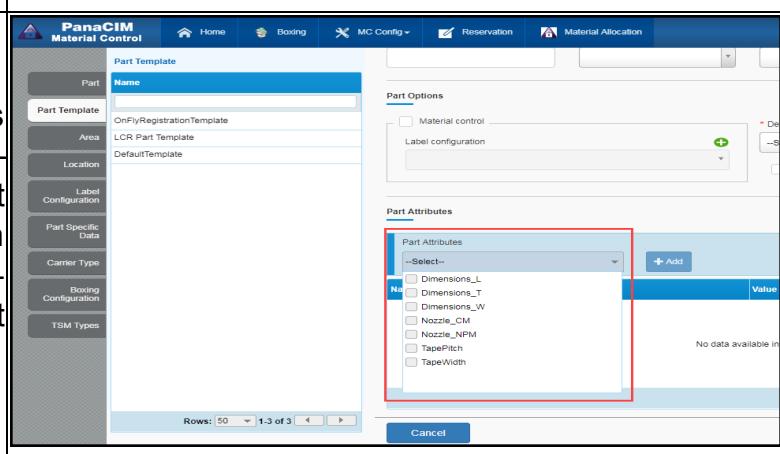
		electronic components. (distance between two consecutive parts on tape)	
Dimensions_L	L	Refers the part's length.	No
Dimensions_W	W	Refers the part's width.	No
Dimensions_T	T	Refers the part's thickness.	No
Nozzle_NPM	Nozzle in [NPM] section	Refers set of nozzles selected for the part. (For NPM machine)	No
Nozzle_CM	Nozzle in [CM/DT] section	Refers set of nozzles selected for the part. (For CM machine)	No
Part No	Part Name	Refers the part's number that is being imported.	Yes
Part Description	Description	Refers the part's description. If empty in the csv file, the part number is copied in this field while processing.	Yes

Part Import from DGS – UI Enhancements

To support DGS part import and display DGS specific attributes, Part dashboard and Part Template have been enhanced. The Part dashboard displays DGS specific attributes, and the Part Template allows users configure DGS specific attributes while creating a template.

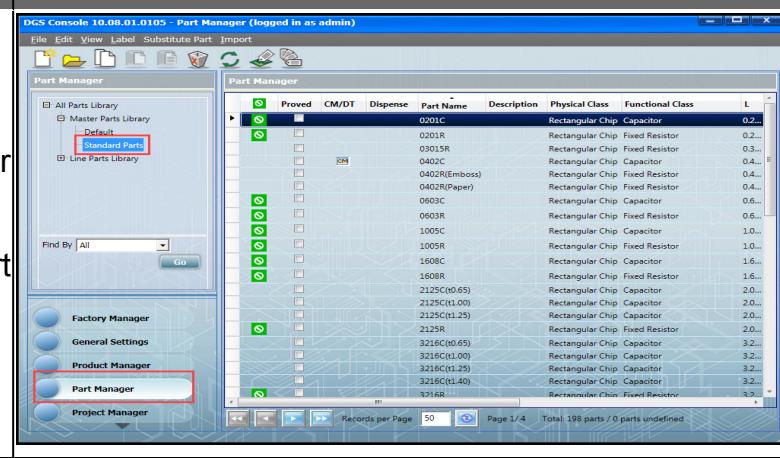
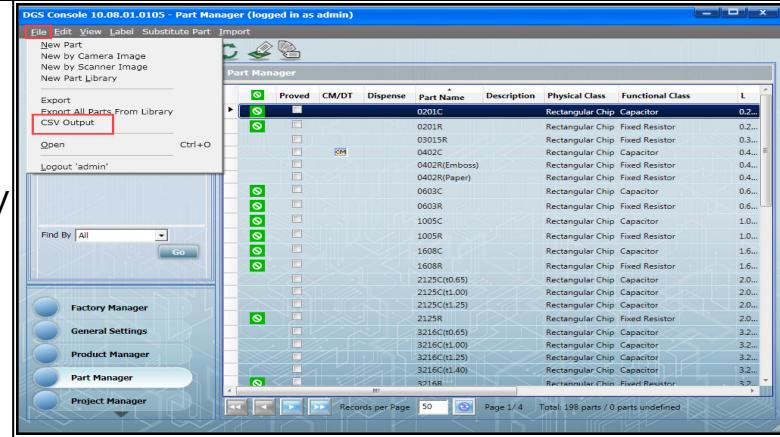
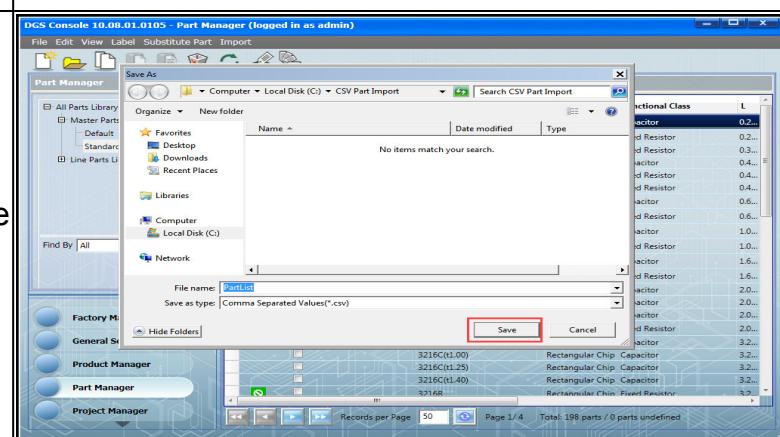
Refer the below table for UI enhancements for DGS part import.

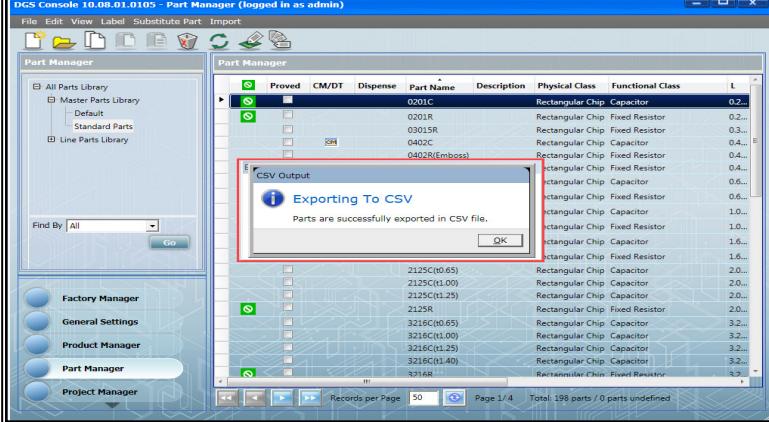
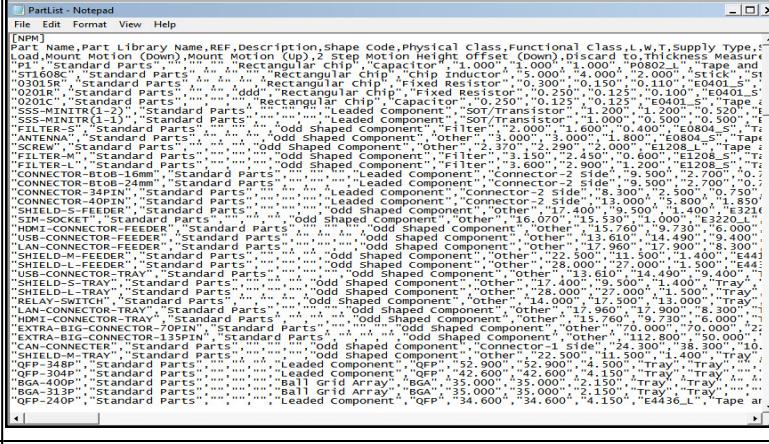
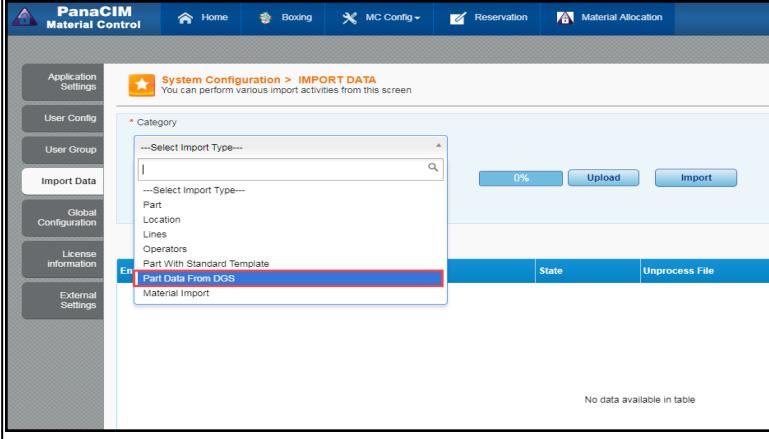
Step	Description	Screenshot																																																																																				
1	<p>Part dashboard has been enhanced to displays DGS attributes.</p> <p>To view, navigate to MC Config > Part config > Part.</p>	 <table border="1"> <thead> <tr> <th>Part Number</th> <th>Add Cart</th> <th>Part Description</th> <th>Barcode</th> <th>Default Location</th> <th>Inductance</th> <th>Capacitance</th> </tr> </thead> <tbody> <tr> <td>3517059CZ</td> <td></td> <td>3517059CZ</td> <td>3517059CZ</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>3510163CZ</td> <td></td> <td>3510163CZ</td> <td>3510163CZ</td> <td>CAB-G2A</td> <td></td> <td></td> </tr> <tr> <td>P0007</td> <td></td> <td>P0007</td> <td>P0007</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>P0006</td> <td></td> <td>P0006</td> <td>P0006</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>P0005</td> <td></td> <td>P0005</td> <td>P0005</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>P0004</td> <td></td> <td>P0004</td> <td>P0004</td> <td>CAB-G1A</td> <td>70.0000 H 6.00 %</td> <td></td> </tr> <tr> <td>P0003</td> <td></td> <td>P0003</td> <td>P0003</td> <td>CAB-G1A</td> <td></td> <td>50.0000 F 10.00 %</td> </tr> <tr> <td>P0002</td> <td></td> <td>P0002</td> <td>P0002</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>P0001</td> <td></td> <td>P0001</td> <td>P0001</td> <td>CAB-G1A</td> <td>100.0000 H 10.00 %</td> <td></td> </tr> <tr> <td>Part1</td> <td></td> <td>Part1</td> <td>Part2</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> <tr> <td>MSDPart1</td> <td></td> <td>MSD Part 1</td> <td>MSDPart1</td> <td>CAB-G1A</td> <td></td> <td></td> </tr> </tbody> </table>	Part Number	Add Cart	Part Description	Barcode	Default Location	Inductance	Capacitance	3517059CZ		3517059CZ	3517059CZ	CAB-G1A			3510163CZ		3510163CZ	3510163CZ	CAB-G2A			P0007		P0007	P0007	CAB-G1A			P0006		P0006	P0006	CAB-G1A			P0005		P0005	P0005	CAB-G1A			P0004		P0004	P0004	CAB-G1A	70.0000 H 6.00 %		P0003		P0003	P0003	CAB-G1A		50.0000 F 10.00 %	P0002		P0002	P0002	CAB-G1A			P0001		P0001	P0001	CAB-G1A	100.0000 H 10.00 %		Part1		Part1	Part2	CAB-G1A			MSDPart1		MSD Part 1	MSDPart1	CAB-G1A		
Part Number	Add Cart	Part Description	Barcode	Default Location	Inductance	Capacitance																																																																																
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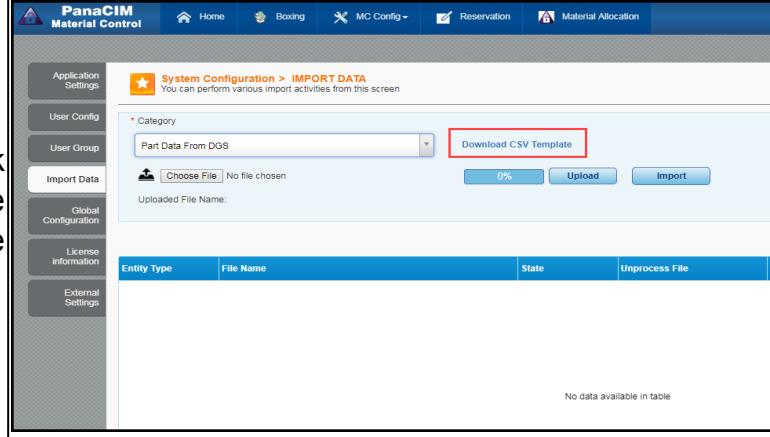
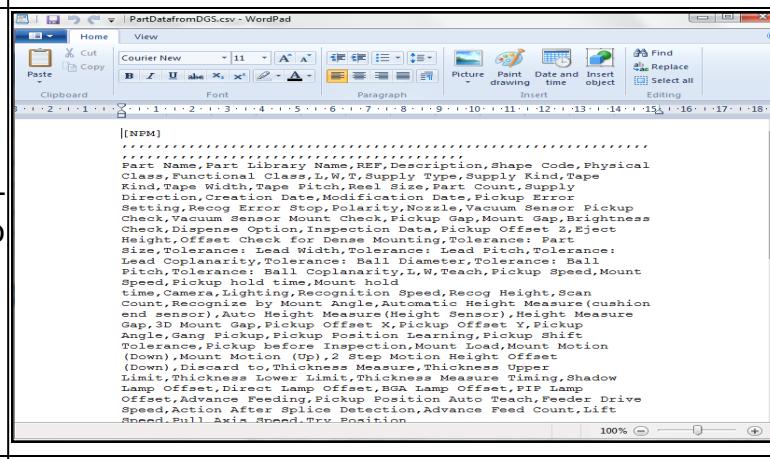
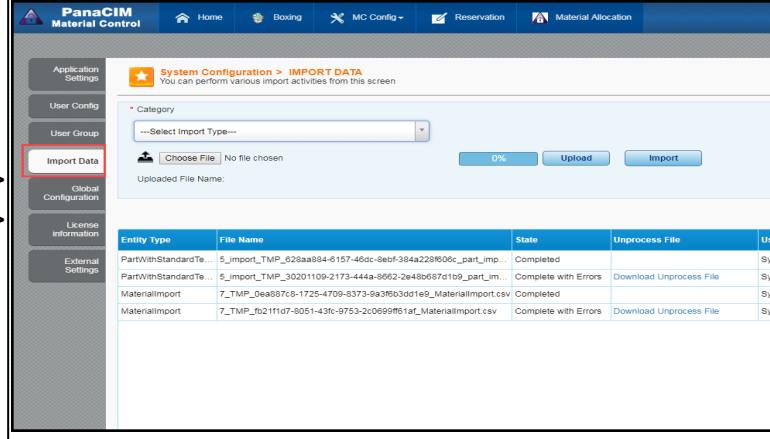
Step	Description	Screenshot
2	Click the Column Selection dropdown. Scroll down to view DGS part attributes. The user can select columns and click the Apply button to show them in the below grid.	 <p>The screenshot shows the 'Part config > Part' screen. On the left, a sidebar lists categories: Part, Part Template, Area, Location, Label Configuration, Part Specific Data, Carrier Type, Boxing Configuration, and TSM Types. The 'Part' category is selected. In the center, there is a table with columns: Part Number, Add Cart, Part Description, Barcode, Default Location, and more. To the right of the table is a 'Column Selection' dropdown menu with several checkboxes. One checkbox, 'JOM', is checked and highlighted with a red box. Other checkboxes include TapeWidth, TapePitch, Dimension_L, Dimension_W, Dimension_T, Nozzle_NPM, and Nozzle_CM. Below the table, there is a 'Rows' dropdown set to 50.</p>
3	Navigate to MC Config > Part config > Part Template.	 <p>The screenshot shows the 'Part config > Part Template > Create a Part Template' screen. The left sidebar shows 'Part Template' selected. The main area has sections for 'Part Info' (Name field), 'Part Options' (Material control and Label configuration), and 'Part Attributes' (dropdown menu). A red box highlights the 'Part Template' section in the sidebar.</p>
4	Click the Part Attributes dropdown. The DGS attributes are added to the part attributes. Users can select the required attributes while creating a part template.	 <p>The screenshot shows the same 'Create a Part Template' screen as above, but the 'Part Attributes' dropdown is now open. A red box highlights the dropdown menu, which contains the same list of DGS attributes as the previous screenshot: Dimensions_L, Dimensions_T, Dimensions_W, Nozzle_CM, Nozzle_NPM, TapePitch, and TapeWidth.</p>

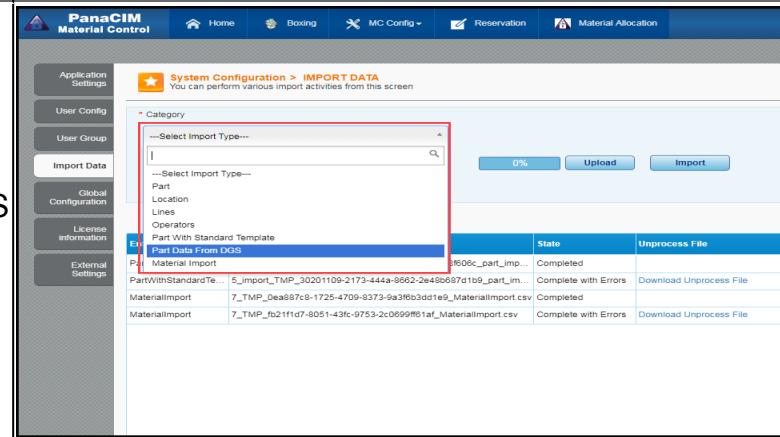
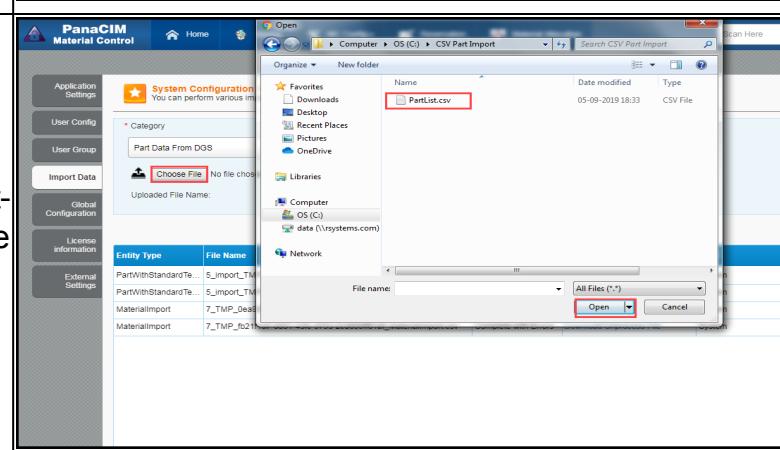
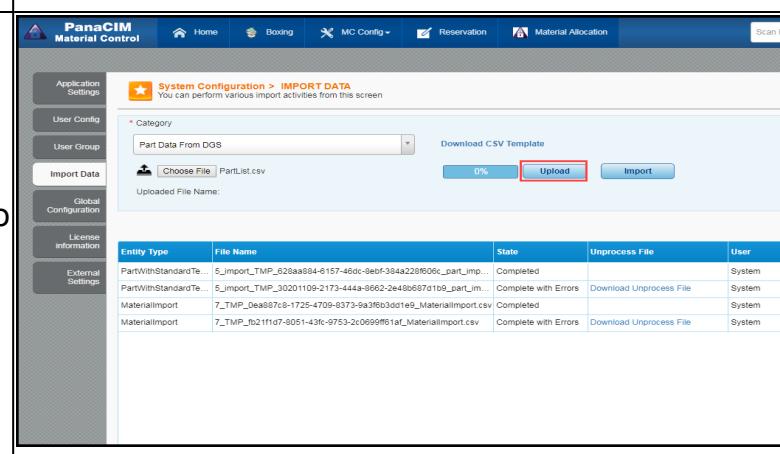
Part Import from DGS – Workflow

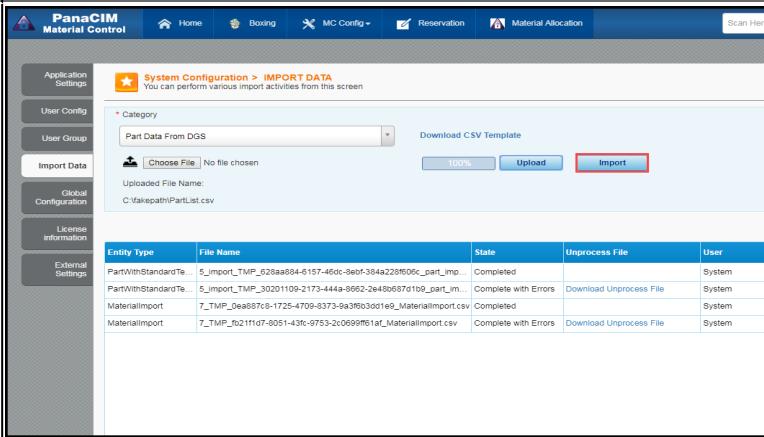
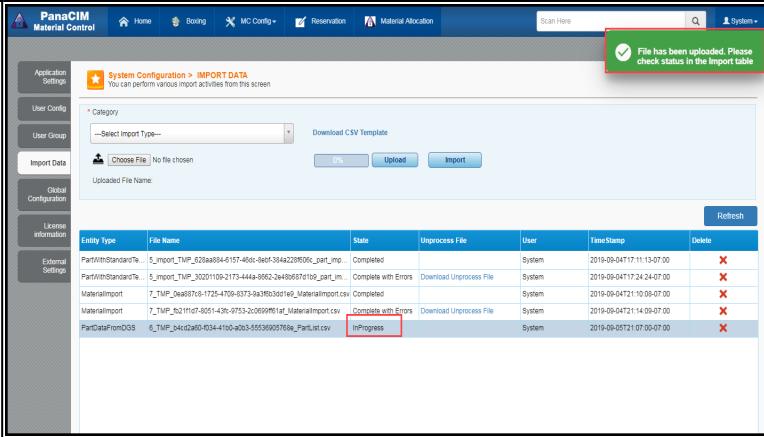
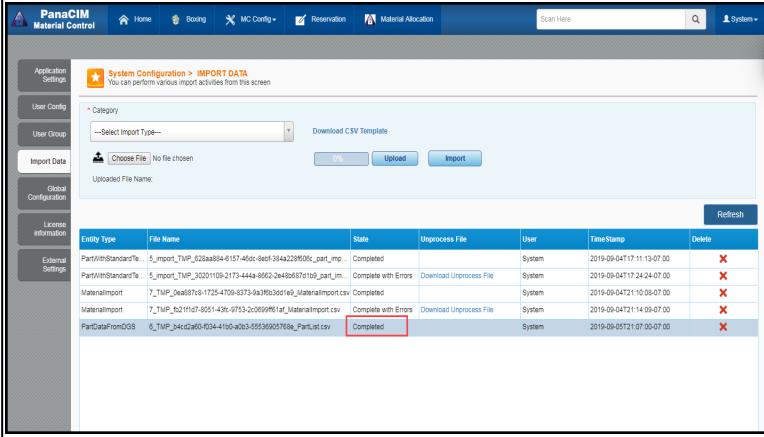
Refer the below steps to import DGS parts in MC.

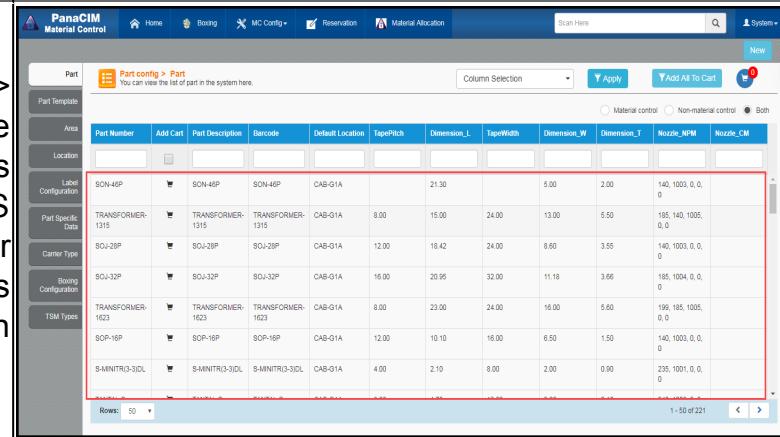
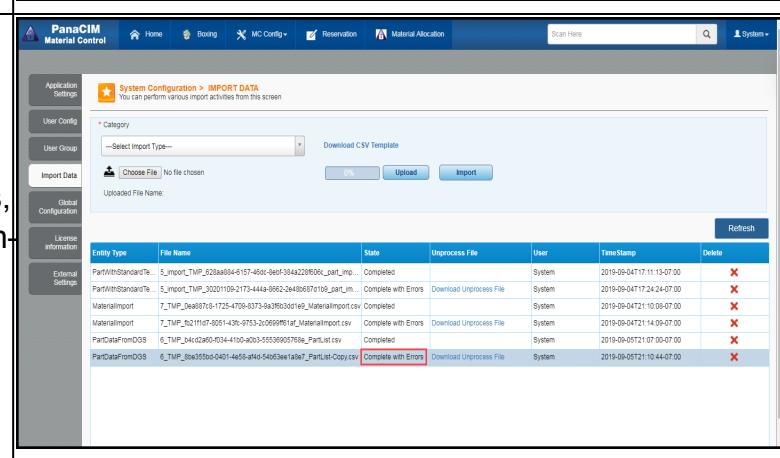
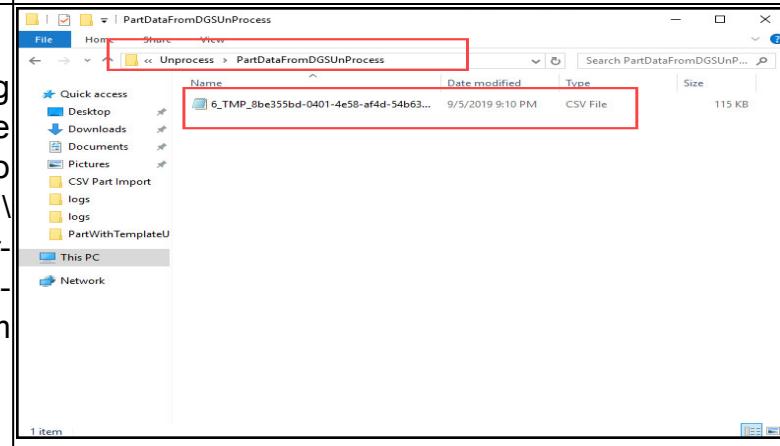
Step	Description	Screenshot
1	<p>Navigate to Part Manager in DGS.</p> <p>Select a library to export part data.</p>	
2	<p>Click File then select CSV Output.</p>	
3	<p>Select a location and save the csv file.</p>	

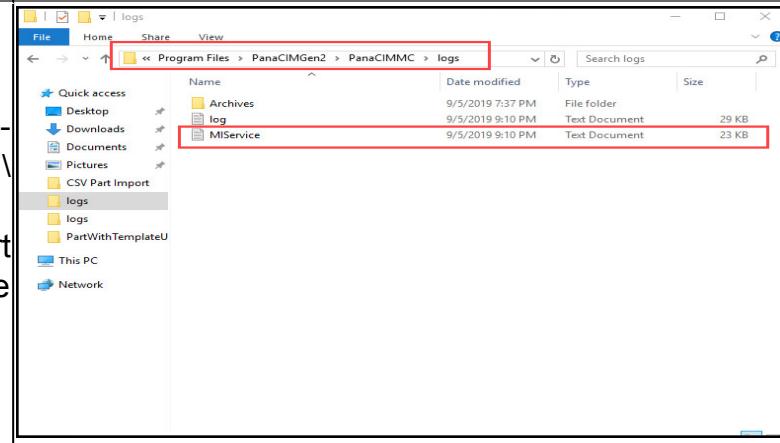
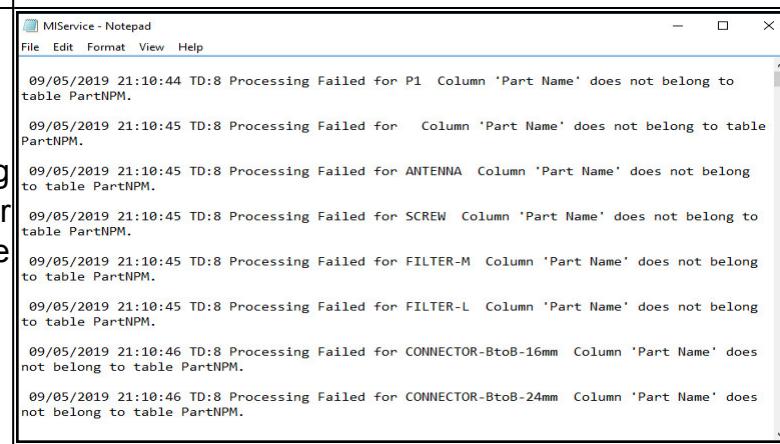
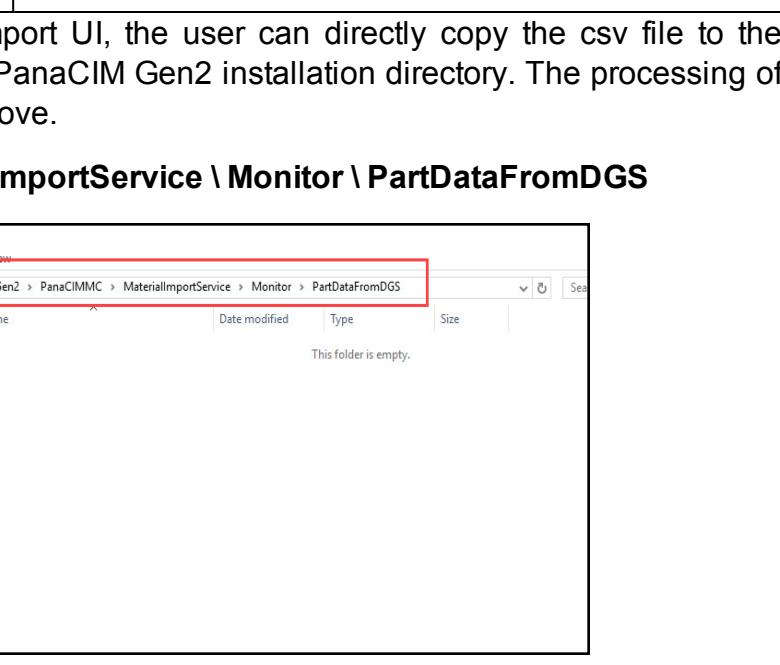
Step	Description	Screenshot
4	After file is being imported successfully, a message box appears. Click OK to close message box.	
5	To check the exported file, navigate to the location where file is saved and open it.	
6	To download the csv file format, navigate to MC Config > System Configuration > Import Data. Select the Part Data from DGS from the dropdown.	

Step	Description	Screenshot
7	The download link becomes visible. Click the Download CSV Template link.	
8	The csv file is downloaded. Open the file to view template's format.	
9	Navigate to MC Config > System Configuration > Data Import.	

Step	Description	Screenshot
10	Select Part Data from DGS from the dropdown.	
11	Click the Choose File button and select a csv file and click Open button.	
12	Click the Upload button to upload file.	

Step	Description	Screenshot
13	The file is uploaded. Click the Import button to import part data.	
14	The import status is shown as in progress.	
15	Click the Refresh button. The status changes to Complete if the file processing completes successfully.	

Step	Description	Screenshot
16	Navigate to MC Config > Part config > Part. The imported part details appears along with DGS part attributes. (Consider that DGS part attributes are selected in column selection)	
17	If the file processing fails, the status appears as Completed with Errors.	
18	In case of file processing fails, the unprocessed file is moved to ~\PanaCIMGen2\PanaCIMMC\MaterialImportService\Unprocess\PartDataFromDGSUnProcess folder.	

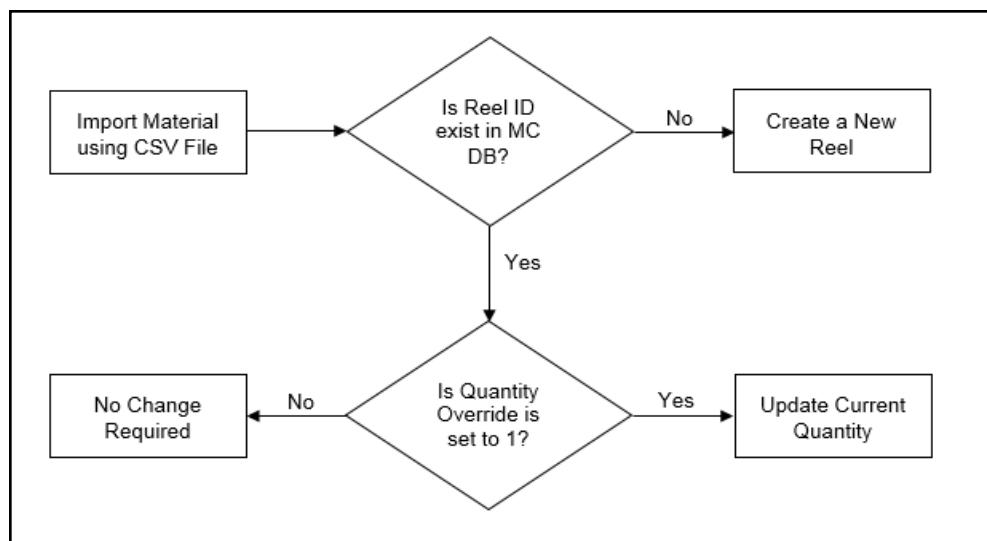
Step	Description	Screenshot
19	To check the error, navigate to PanaCIMGen2 \ PanaCIMMC \ logs folder. The part / material import logs are available in the MIService log file.	
20	Open the MIService log file. The file displays error message due to which file processing fails.	 <pre> 09/05/2019 21:10:44 TD:8 Processing Failed for P1 Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:45 TD:8 Processing Failed for Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:45 TD:8 Processing Failed for ANTENNA Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:45 TD:8 Processing Failed for SCREW Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:45 TD:8 Processing Failed for FILTER-M Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:45 TD:8 Processing Failed for FILTER-L Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:46 TD:8 Processing Failed for CONNECTOR-BtoB-16mm Column 'Part Name' does not belong to table PartNPM. 09/05/2019 21:10:46 TD:8 Processing Failed for CONNECTOR-BtoB-24mm Column 'Part Name' does not belong to table PartNPM. </pre>
Note:	Apart from using Data Import UI, the user can directly copy the csv file to the below location under the PanaCIM Gen2 installation directory. The processing of file works as explained above.	~\PanaCIMMC \ MaterialImportService \ Monitor \ PartDataFromDGS 

Updating Current Quantity of Existing Material

Operators can update current quantity of existing material using csv file import. To update the current quantity of existing material, the **Quantity Override** field value must be set to 1 in the csv file.

When the **Quantity Override** is set to 1 and the same reel ID exist in the MC database, the current quantity of the material is updated with specified value in csv file. If the material does not exist, a new reel is created with specified attributes.

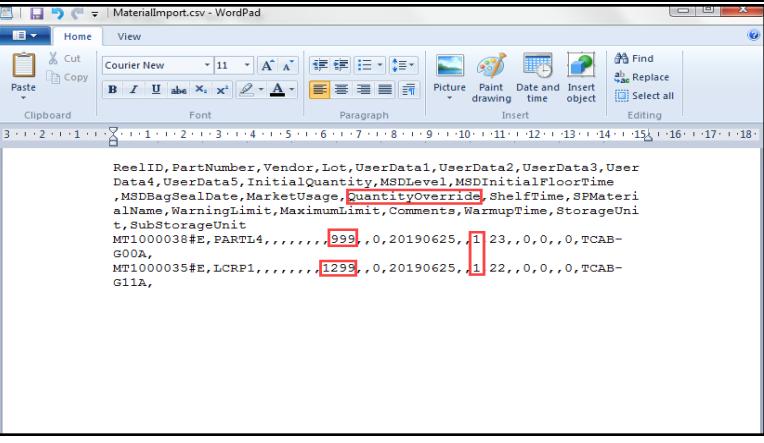
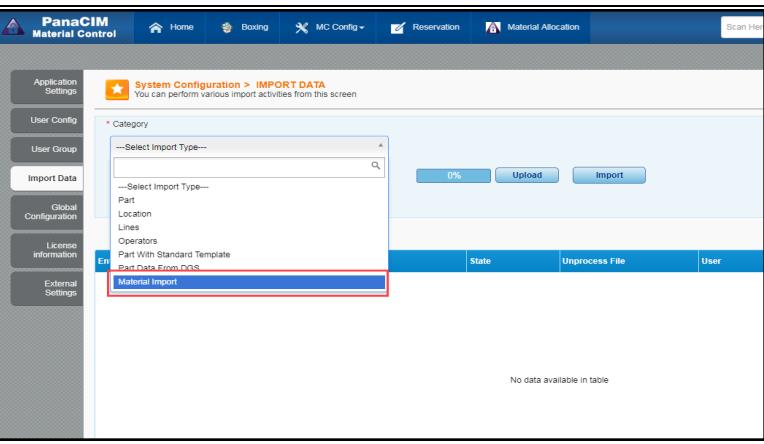
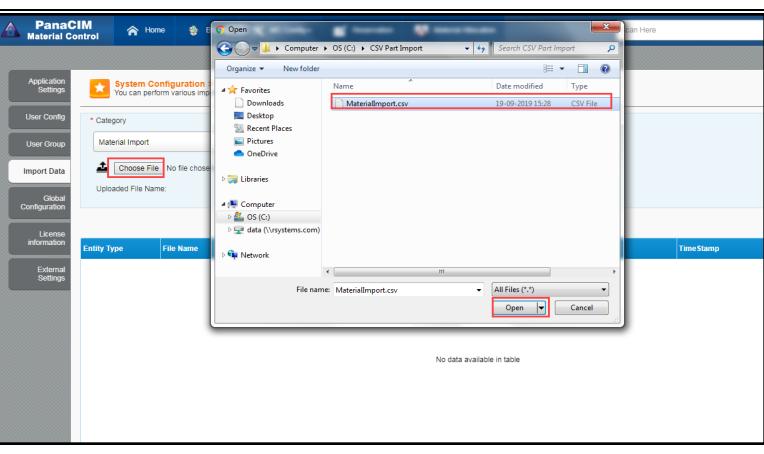
The following diagram demonstrates the flow of updating current quantity of existing material.

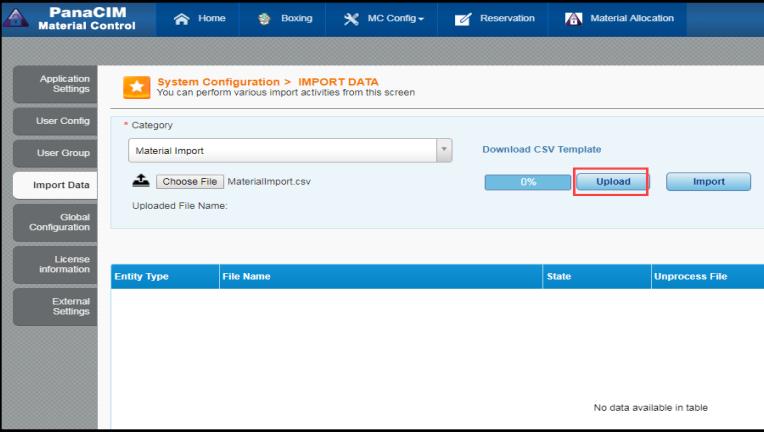
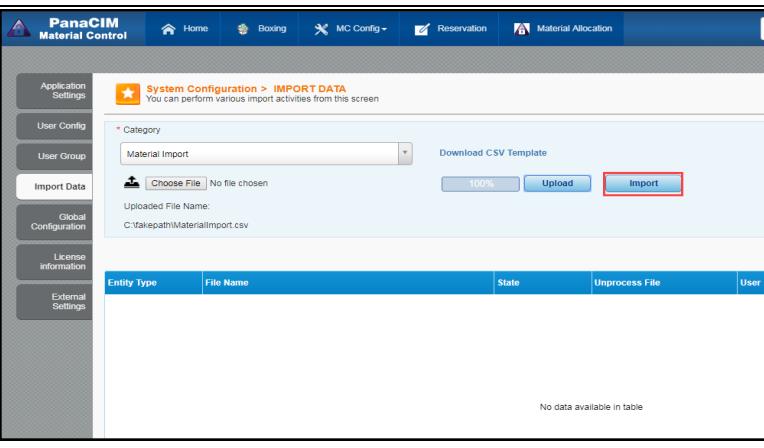
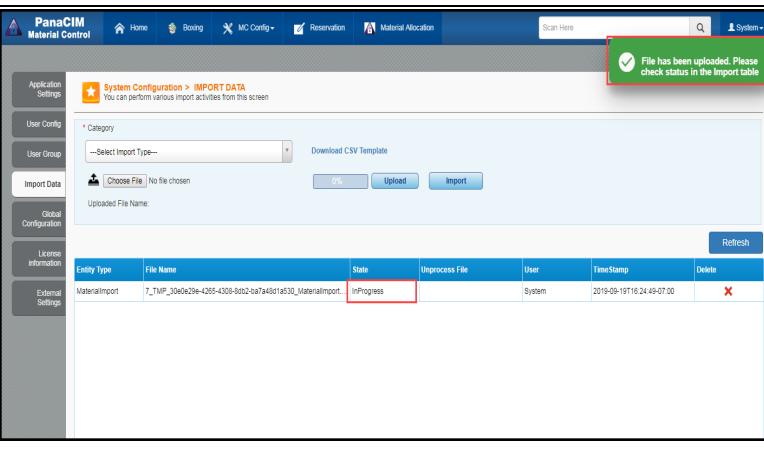


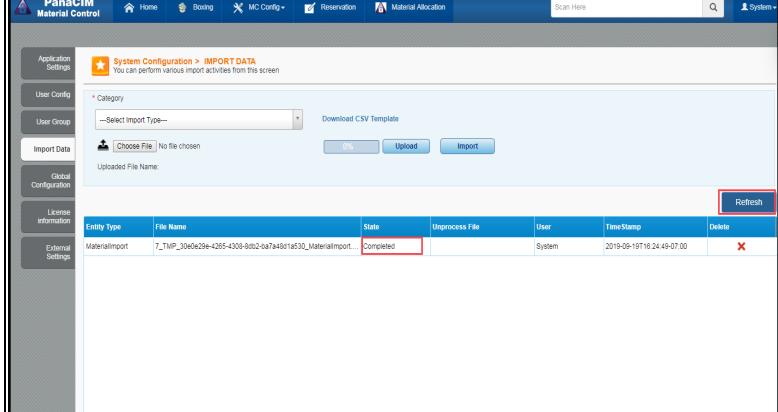
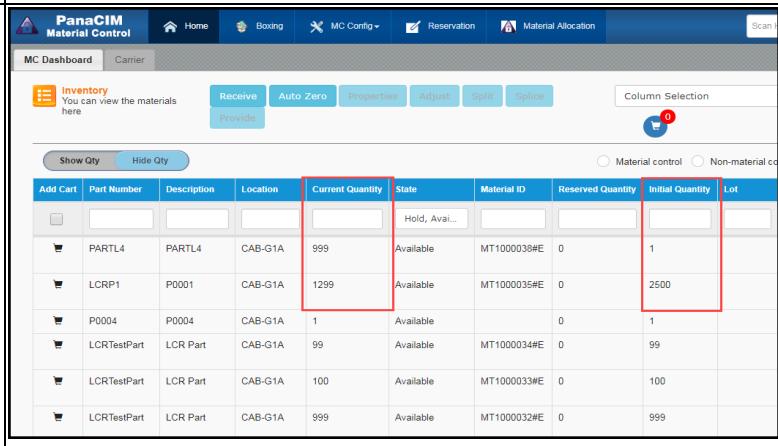
Workflow - Quantity Override

The below action table describes steps to update current quantity of existing material using csv file import.

Step	Description	Screenshot
1	<p>The Inventory section lists the available material in MC.</p> <p>Consider that the operator wants to update the current quantity of highlighted reels.</p>	

2	<p>Set the quantity as required and set the Quantity Override field to 1 in csv file.</p>	 <pre> ReelID,PartNumber,Vendor,Lot,UserData1,UserData2,UserData3,UserData4,UserData5,InitialQuantity,MSDLevel,MSDInitialFloorTime,MSDBagSealDate,MarketUsage,QuantityOverride,ShelfTime,SMaterialName,WarningLimit,MaximumLimit,Comments,WarmupTime,StorageUnit,SubStorageUnit MT1000038#E,PART14,.....,999,,0,20190625,1,23,,0,0,,0,TCAB-G00A, MT1000035#E,LCRP1,.....,1299,,0,20190625,1,22,,0,0,,0,TCAB-G11A, </pre>
3	<p>Navigate to MC Config > System Configuration > Data Import.</p> <p>Select Material Import from the dropdown.</p>	
4	<p>Click the Choose File button and select a csv file and click Open button.</p>	

5	<p>Click the Upload button to upload file.</p>															
6	<p>The file is uploaded. Click the Import button to import material.</p>															
7	<p>The import status is shown as in progress.</p>	 <table border="1" data-bbox="731 1347 1429 1410"> <thead> <tr> <th>Entity Type</th> <th>File Name</th> <th>State</th> <th>Unprocess File</th> <th>User</th> <th>Time Stamp</th> <th>Delete</th> </tr> </thead> <tbody> <tr> <td>MaterialImport</td> <td>7_TMP_30a0e209e4265-4308-5e02-ca7a48d1a530_MaterialImport</td> <td>InProgress</td> <td></td> <td>System</td> <td>2019-09-19T16:24:49-07:00</td> <td>X</td> </tr> </tbody> </table>	Entity Type	File Name	State	Unprocess File	User	Time Stamp	Delete	MaterialImport	7_TMP_30a0e209e4265-4308-5e02-ca7a48d1a530_MaterialImport	InProgress		System	2019-09-19T16:24:49-07:00	X
Entity Type	File Name	State	Unprocess File	User	Time Stamp	Delete										
MaterialImport	7_TMP_30a0e209e4265-4308-5e02-ca7a48d1a530_MaterialImport	InProgress		System	2019-09-19T16:24:49-07:00	X										

8	<p>Click the Refresh button. The status changes to Complete if the file processing completes successfully.</p>	
9	<p>Navigate to MC dashboard. Check the updated quantity. The Current Quantity of materials are updated with the quantities specified in the csv file. The Initial Quantity remains unchanged.</p>	
Note:		<p>Only the Current Quantity of material is updated using csv file import, the Initial Quantity remains unchanged.</p>