## Changes to Routing UI (updated 29-09-24)

- Landing Page no changes
- When Part Selected, Open New Page with List of Routings available Page 1
- If Part does not have routing ...
  - o do not show grid ... show button Create New Routing
  - After Routing Name saved ... jump to Page 3 for entry of 1st Step of Routing
  - On Saving Page 3 contents take control back to Page 2
- · If Part has routing
  - show grid
  - show Button Create New Alternate Routing
  - When Routing Selected open Routing Steps List in Page 2
  - When Routing Step No is selected in Page 2 show details in Page 3
- When page is closed using "x" take control back to previous page
- Create New Alternate Routing / Create Routing will call the same popup for Routing Name Entry (no change)

For Assembly Make from cell is kept blank 3 Dot

- View
- Edit
- Rename Routing
- · Set as Preferred Routing
- Change Make From
- · Create Alternate Routing from this Routing
- Change Status
- Delete

If In Current Prodn = Y then status change / delete not allowed Delete will be visible only to Admin. Delete will be done after confirmation

# Page 1

# Routing List for Part No / Desc xxxx



| Pref | Routing Name | Make from | No of<br>Oprns | Mandatory<br>Docs Avl | Status   | Update<br>Date | In Current<br>Prodn |   |   |
|------|--------------|-----------|----------------|-----------------------|----------|----------------|---------------------|---|---|
| У    |              |           |                |                       | Active   |                | у                   | • | $\Big] egin{array}{c} \triangle \\ \square \end{array}$ |
| n    |              |           |                |                       | Inactive |                | n                   |   |   |
|      |              |           |                |                       |          |                |                     |   |   |
|      |              |           |                |                       |          |                |                     |   |   |
|      |              |           |                |                       |          |                |                     |   |   |
|      |              |           |                |                       |          |                |                     |   | $\bigg] \ \bigg  \\ \nabla$                             |

Create New Alternate Routing

Create New Routing

# **Routing Performance Comparison**

| Pref | Routing Name | # Inhouse<br>Oprns | # Sub Con<br>Oprns | Avg Inhouse Cycle<br>Time (min) | # Oprns > Avg Cycle<br>Time (min) | Total Inhouse setup<br>Time (min) | Max Total Setup Time (min) | Batch Size Manf Time<br>(Hrs) * |
|------|--------------|--------------------|--------------------|---------------------------------|-----------------------------------|-----------------------------------|----------------------------|---------------------------------|
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |
|      |              |                    |                    |                                 |                                   |                                   |                            |                                 |

Batch Size

250

Calculate Batch Manf Time.

The above grid is view only Batch size default = 250

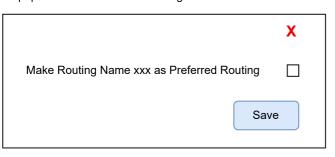
Batch size is not stored in any table. It is for local representation

Last column allows User to see how many hours it would take to manufacture Batch size to allow quick performance comparison between different Routings

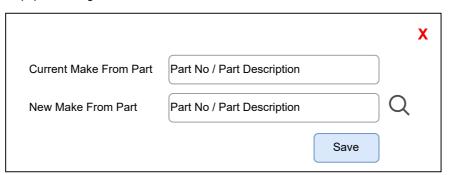
Batch Size Manf Time = Total of ((Batch size x Cycle time)/No of Machines running simultaneously + Setup Time) for each Routing Step. Same logic to be used for subcon batch size time calculation



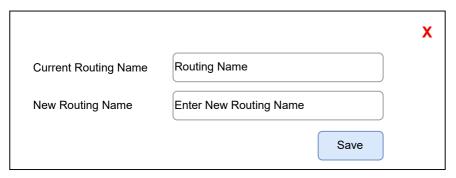
### Popup for Set as Preferred Routing



### Popup for Change Make From

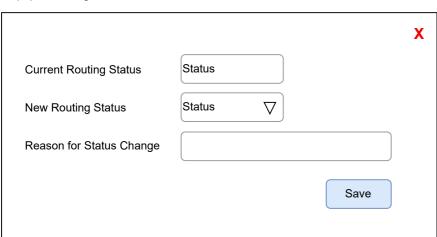


# Popup for Rename Routing



Routing Name to be checked to make sure it is unique - case insensitve

# Popup for Change Status



Routing Name to be checked to make sure it is unique - case insensitve

# Details of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx

|   | Oprn No | Routing Step Description | Location | No of M/cs | Cycle Time<br>(Min) | Setup Time<br>(Min) | Mandatory<br>Docs Avl | Update<br>Date | In Current<br>Prodn |  |
|---|---------|--------------------------|----------|------------|---------------------|---------------------|-----------------------|----------------|---------------------|--|
| = | у       |                          |          |            |                     |                     |                       |                | у                   |  |
| = | n       |                          |          |            |                     |                     |                       |                | n                   |  |
| = |         |                          |          |            |                     |                     |                       |                |                     |  |
|   |         |                          |          |            |                     |                     |                       |                |                     |  |
|   |         |                          |          |            |                     |                     |                       |                |                     |  |
|   |         |                          |          |            |                     |                     |                       |                |                     |  |

For Assembly Make information is not included in the Heading 3 Dot

View

X

- Edit
- Delete

Edit / Delete allowed only if for all Oprn No - In Current Prodn = N

= Slider to change sequence Add New Step

Shesha: Pl use a gird where the individual rows can be moved up or down (other than header)

Shankar we need to have the ability to show the visual sequence of the Routing steps Internal Sequence No maintained in the Routing Table will be the same as what is displayed If user moves the individual rows to change sequence, the same should reflect in the sequence nos for the Oprn Nos in the table

Responsibilityof updating the Opr No to reflect the change in sequence is with the User PI see if any simple interlock can be

# Details of Oprn No xxx of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx

|                           |                                   |                             | Machine Floor to Floor time  |   |                    |         |
|---------------------------|-----------------------------------|-----------------------------|--|---|--------------------|---------|
| Step Number *             |                                   |                             | Plant Shop 1 VMC 1   | 15:55:44  | Approved           | :       |
| step Number               |                                   |                             | Plant Shop 1 VMC 2   | 15:55:44  |                    | :       |
| Step Description *        |                                   | h                           | Plant Shop 1 VMC 1   | 15:55:44  |                    | :       |
| Operation *               | Select                            | ~                           | Plant Shop 1 VMC 1   | 15:55:44  |                    | :       |
| Step Location *           | Select                            | ~                           | Plant Shop 1 VMC 1   | 15:55:44  | Not Started        | :       |
|                           |                                   | Save                        | No of Machines that can run this operation simultaneously                  |   | Ac                 | dd Mach |
| his Routing step Sequer   | ncing with respect to Next Rou    | uting Step                  |  |   |                    |         |
| Sequential : Next Routing | g step starts only after all part | s of this routing step O Pa | rallel: Next Routing step can start while this routing step is in progress | Line : Current Routing Step Machine feeds 1<br>Routing Step Machine | 1 to 1 to the next | 0       |

Associate BOM Parts Assembled / Used in this step

Retain Routing Step Data entry screen same as before Below this the Reference Documents for Routing Grid will be shown - continuation of same page

Associate BOM Parts Assembled in this Step Button to be made visible only for Part Type = Assembly This will open new popup

Add Machine will open in the popup ... same as before

X

# **Reference Documents for Routing**

Replace Document Accordian with this content

| Document Type | Mandatory | Info / Comment | Uploaded by | Uploaded on | View | Down<br>load            |   |                          |
|---------------|-----------|----------------|-------------|-------------|------|-------------------------|---|--------------------------|
|               | у         |                |             |             |      | $\overline{\mathbf{D}}$ | : | 3 Dots                   |
|               |           |                |             |             |      |                         |   | Upload<br>Edit<br>Delete |
|               |           |                |             |             |      |                         |   | Delete                   |
|               |           |                |             |             |      |                         |   |                          |

### Upload Other Related Documents

When Upload button is pressed the popup below is opened. Document Type = Others

# Upload Document Document Type View Allowed File Extn. View Info / Comment Enter Info / Comment Upload \* Show uploaded File Name Save

### At time of first entry

- Document Upload is allowed only after above Information is saved
- All Document types associated with the Operation will shown in the rows
- 3 Dots will display upload only
- Upload other related documents button will be visible / will allow documents other than in the list to be uploaded

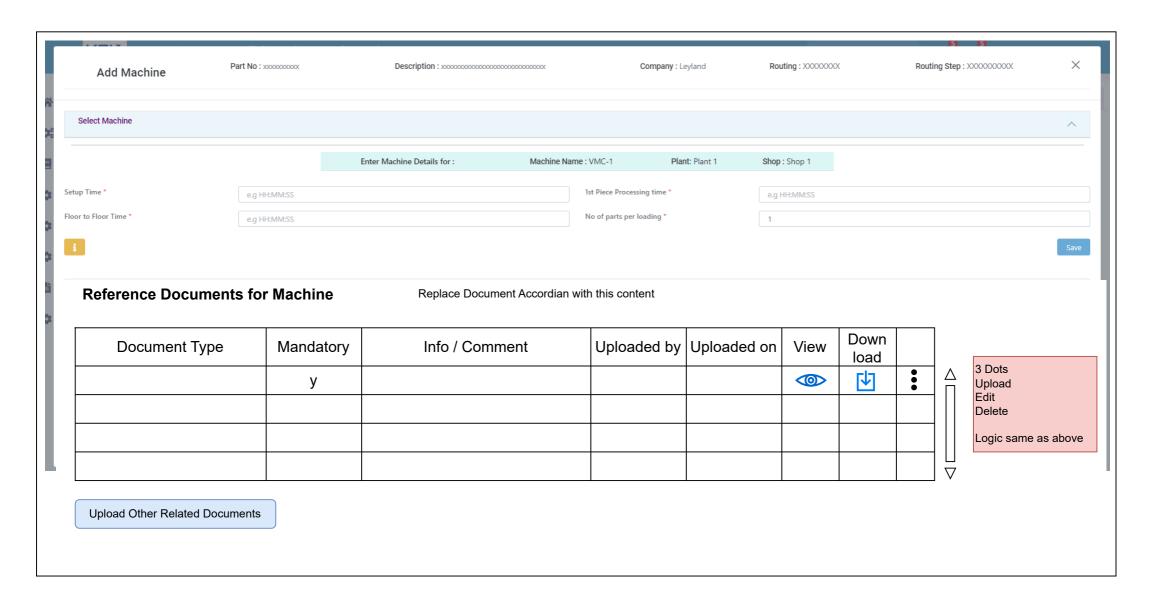
### After First Entry

- For Doucment Upload Mandatory = Y ... 3 dots will have only Edit (no delete)
- For Document Upload Mandatory = N .... 3 Dots will have Edit & Delete
- Upload other related documents button will be visible / will allow documents other than in the list to be uploaded

View will show Document Viewer in popup ... Download will open file explorer popup

- Document Type is pre filled by the Upload, Edit or Upload Other Related Documents
- File Extensions allowed are shown as concatanated string in the view field
- Info Comment is mandatory for Document Type = Others
- For Document Type = Others there is no check on the File Extension
- Upload function should check if uploaded file matches allowed extension (for other than "Others"). If not warning message to be shown Uploaded file does not match allowed file extension. PI check and upload
- Upload will show file only to indicate the file selected
- Save will be executed only when above conditions met
- On saving, Reference Documents for Part Grid is updated with the fields
- All other fields of Docu List table are to be updated with available information

# Popup for Add Machine Data Entry



Shesha: PI adjust the data entry fields for width to make it look more proportional

