Digital India Corporation
Operational Handouts
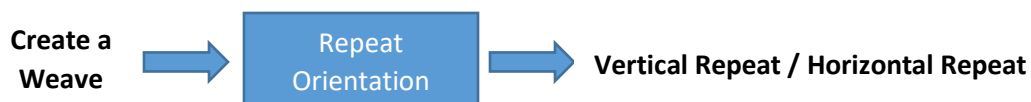
1. Dobby Weave

Dobby module of DigiBunai^{TM} is the initiation of Weave designing. Before making any design in DigiBunai^{TM} CAD software, different types of weave prepare in this module. In this module, first of all, size of the weave design is determined by going into the **'File'** menu, after that weave is filled with different colors of threads. The complete view of fabric is ready to visualize, we can see different views of the fabric by click on 'View' menu.
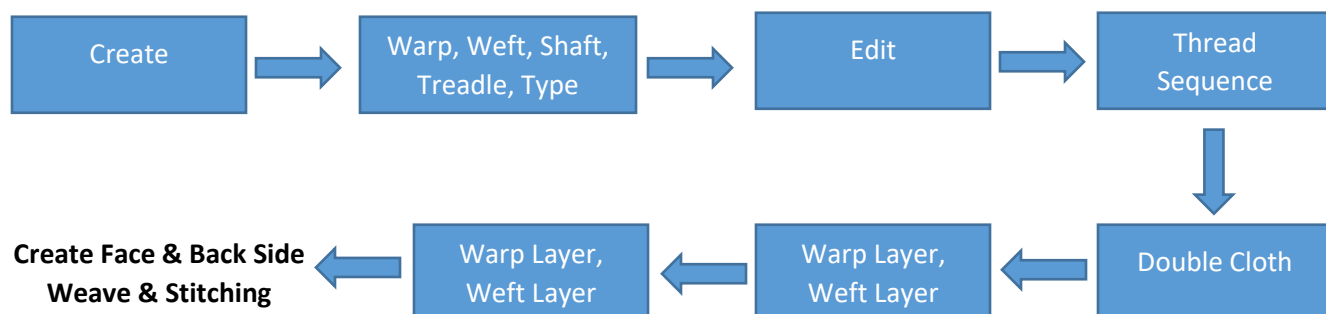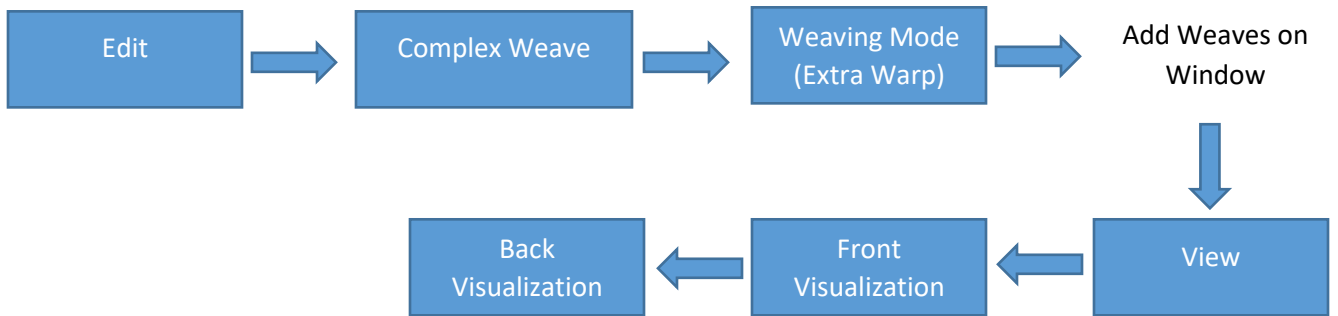
➢ **Create a Weave**

| Create | → | Warp, Weft, Shaft, Treadle, Type | → | **Start weave creation by using Left & Right** |

➢ **See the Weave repeats**

| **Create a Weave** | → | Repeat Orientation | → | **Vertical Repeat / Horizontal Repeat** |

➢ **Generate Multiple weaves by Single Weave**

| **Create a Weave** | → | Warp, Weft, Shaft, Treadle, Type | → | **Click on Peg Plan** | → | **Check the Row / Column Option** |

➢ **Create Double Cloth**

| Create | → | Warp, Weft, Shaft, Treadle, Type | → | Edit | → | Thread Sequence |

↓

| **Create Face & Back Side Weave & Stitching** | ← | Warp Layer, Weft Layer | ← | Warp Layer, Weft Layer | ← | Double Cloth |

➢ Create Extra Warp Design

Edit → Complex Weave → Weaving Mode (Extra Warp) → Add Weaves on Window

↓

Back Visualization ← Front Visualization ← View

➢ Create Colorways Pattern

Create a weave → Edit → Thread Sequence → Warp Pattern / Weft Pattern

↓

Select & Save the fabric ← Colorways ← View

➢ Weave & Fabric View

Create a weave → Edit → Thread Sequence → Warp Pattern / Weft Pattern

↓

Select object for Fabric Visualization ← Mapping ← View

Grid View

Front Visualization   Back Visualization
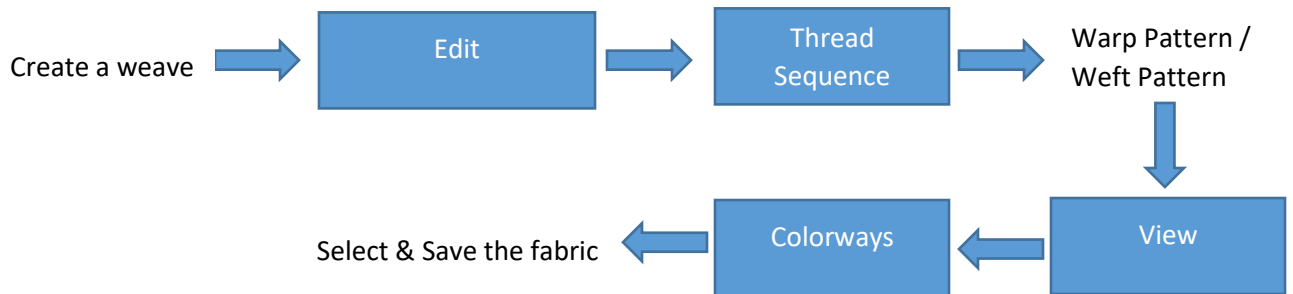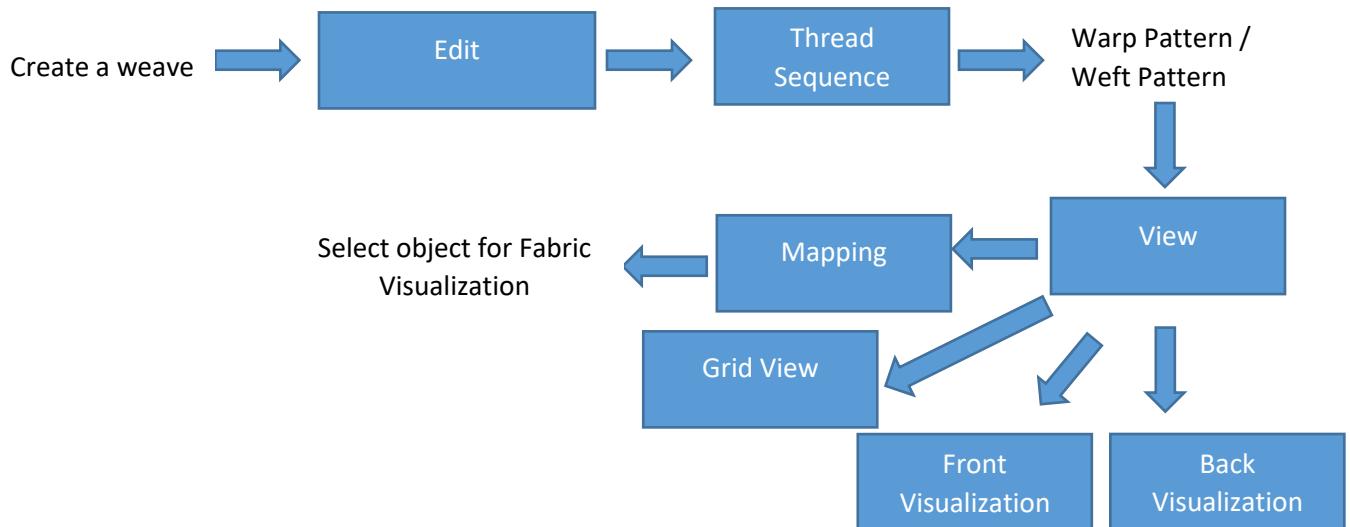
➢ Export & Print Weave, Fabric & Technical Sheet

Create a fabric by "Weave & fabric View" → File → Export File

Export as HTML

Print
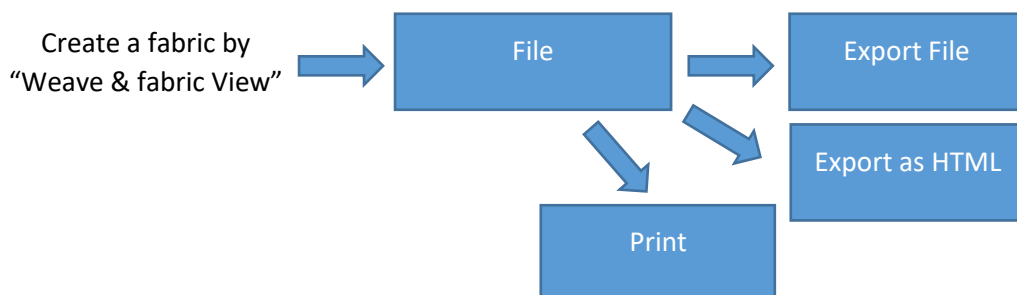
2. Artwork Designer
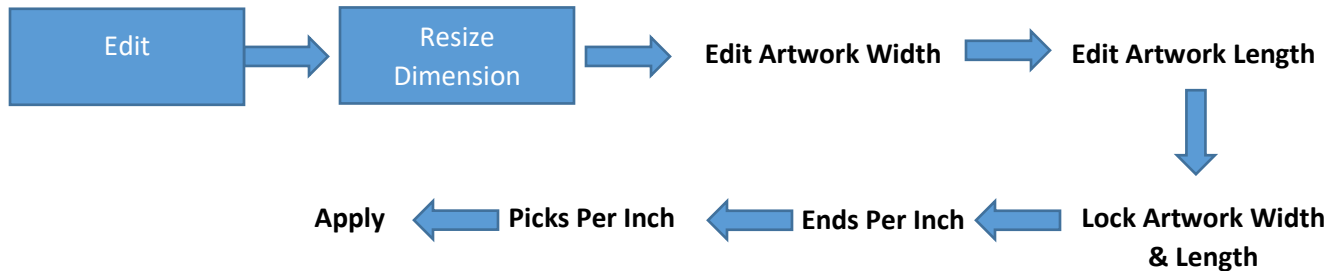
The Creation of Jacquard Designs:

DigiBunai^{TM} has two modules to prepare jacquard designs. These are Artwork Designer & Fabric Creator. Both of the modules has functionality to crate graph & punching support for manual as well as automatic punching mode. It also produces the yarn split image for weaving by using Electronic Jacquard. User can visualize the fabric (which generate from the created design) from different angles (Front/Rear/Flip) in Fabric Creator.

AD works on *Sketch to Graph* mode. It use to convert the sketches in to workable artworks or designs. For this purpose first Import' the sketch (scanned image) by going into the File menu and click on 'Edit', to perform different functions like Resize the dimensions, Reduce colors, Design Editing, Weave Filling & Graph Corrections etc. Now we can see different views of designs after clicking on 'View Menu'.
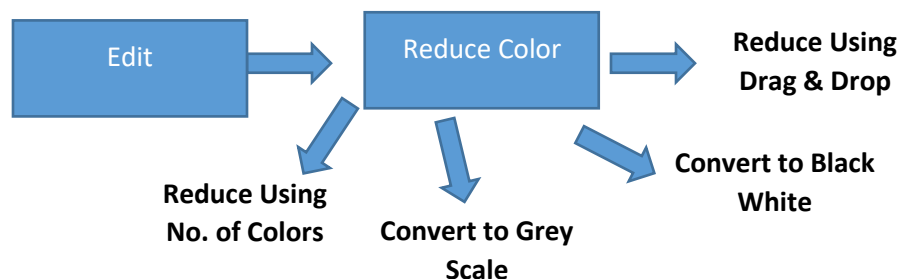
➢ **Import a Scanned Design**

```
[File]  ➡  [Import]  ➡  Open scanned cropped design in JPG/PNG/BMP
                              format
```

➢ **Resize the Design**

```
[Edit]  ➡  [Resize Dimension]  ➡  Edit Artwork Width  ➡  Edit Artwork Length
                                                                    ⬇
Apply  ⬅  Picks Per Inch  ⬅  Ends Per Inch  ⬅  Lock Artwork Width & Length
```

➢ **Color Reduction of Design**

```
[Edit]  ➡  [Reduce Color]  ➡  Reduce Using Drag & Drop
                │    │    ⬊
                │    │     Convert to Black White
                ⬋    ⬇
    Reduce Using    Convert to Grey
    No. of Colors        Scale
```

➢ **Design Graph Edit & Float Corrections**

```
[Edit] → [Graph Corrections] → **Select the Color & Start Editing** → **Edit Float size**
                                                                              ↓
**Graph Size** ← **Bind float on graph** ← **Floating error on graph**
```

➢ **Fill Colors in Design**

```
[Edit] → [Fill Tool] → **Fill Area Type** → **Color All Instance** → **Click on design to fill the color**
                                          → **Color Single Instance** ↗
```
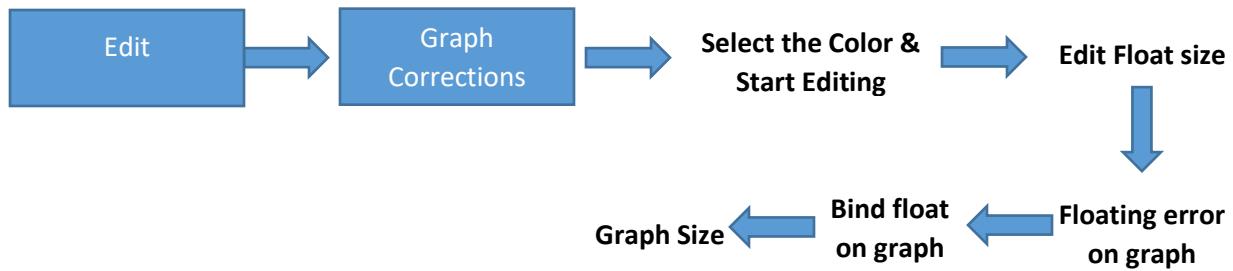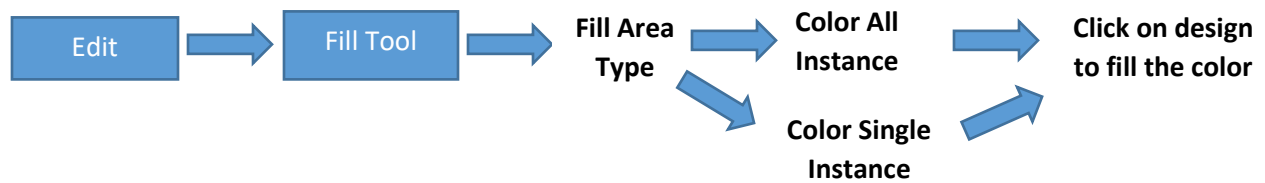
➢ **Fill Weave Patterns in Design**

```
[Edit] → [Jacquard Conversion] → **Change Default Value** → **Color All Instance** → **Click on design to fill the Weave**
                               ↘                          → **Color Single Instance** ↗
                                 **Border Type** → **Border Width** ↗
```
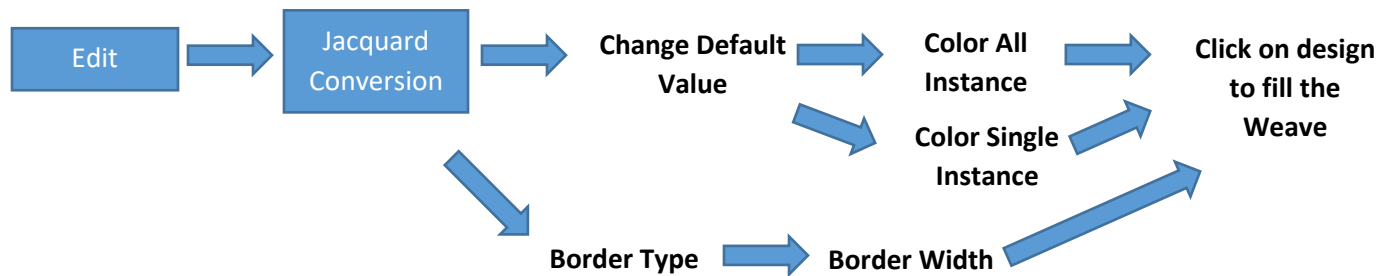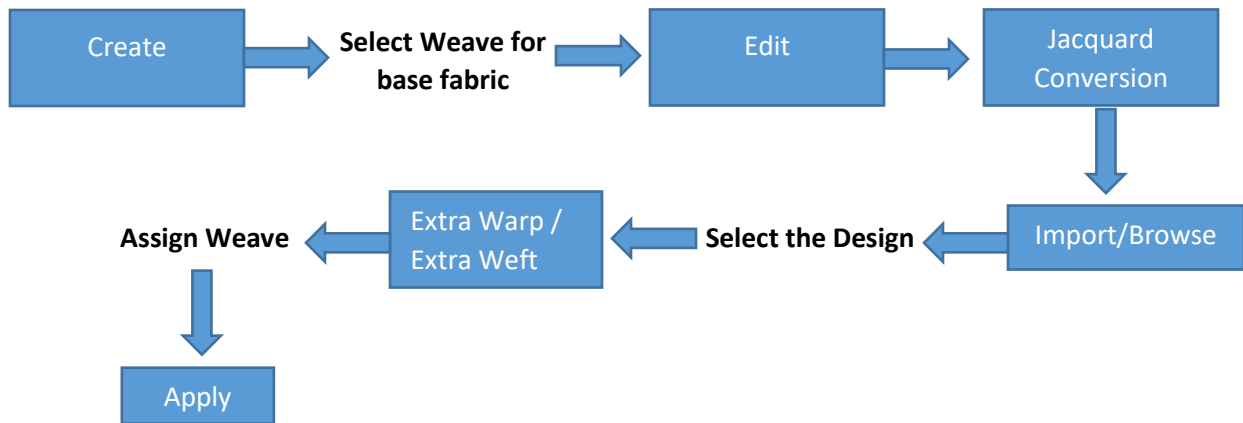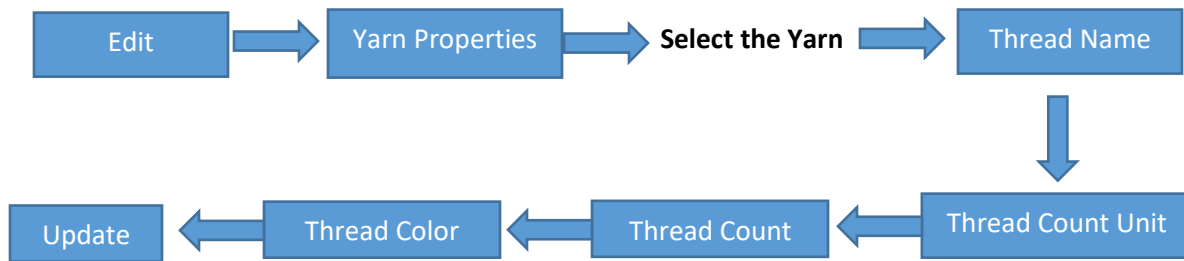
3. Fabric Creator

FC works on *Artwork to Fabric* mode. Different types of weaves fills in Artwork on color bases and distortion of design boundaries during weave filling are secured by click on 'Don't touched border of motif'.

In this module, we can do various types of improvements and selections such as Weaving patterns, Graph corrections, Yarns color change, Yarn colors sequencing, etc. This module facilitates different views of created fabrics. By going into the 'utility' of this module, we can calculate the consumption of yarns as well as cost of production.
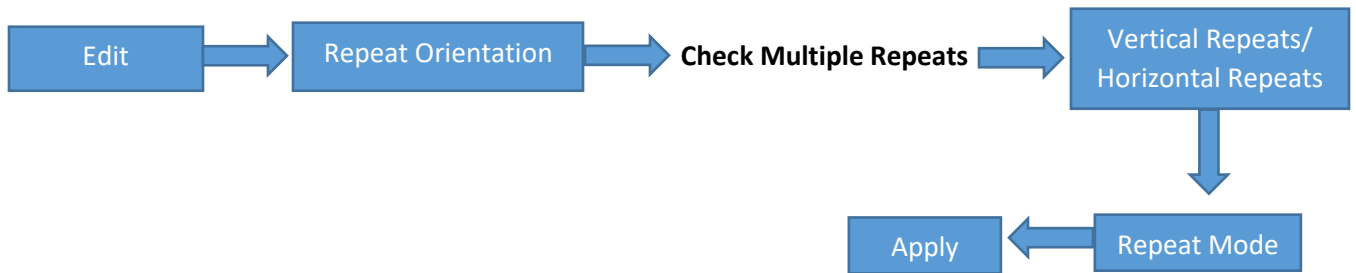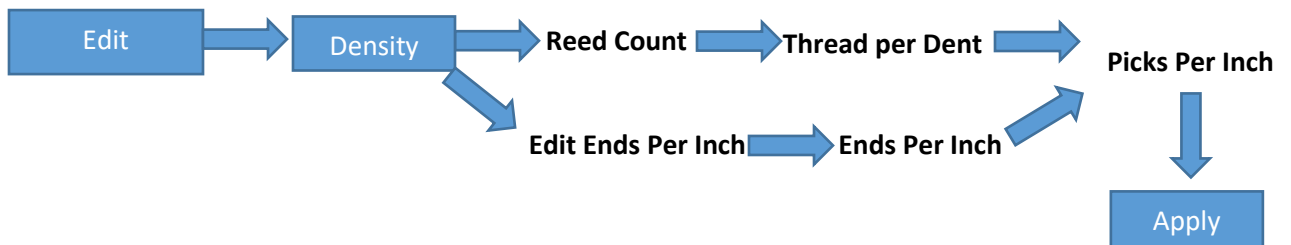
Create a Fabric

Create → **Select Weave for base fabric** → Edit → Jacquard Conversion

Jacquard Conversion → Import/Browse → **Select the Design** → Extra Warp / Extra Weft → **Assign Weave** → Apply

Change the yarn properties (Yarn Type, Yarn Count, Colors)

Edit → Yarn Properties → **Select the Yarn** → Thread Name

Thread Name → Thread Count Unit → Thread Count → Thread Color → Update

Set the Designs repeats

Edit → Repeat Orientation → **Check Multiple Repeats** → Vertical Repeats/ Horizontal Repeats

Vertical Repeats/ Horizontal Repeats → Repeat Mode → Apply

Set the Fabric Density

Edit → Density

Density → **Reed Count** → **Thread per Dent** → **Picks Per Inch**

Density → **Edit Ends Per Inch** → **Ends Per Inch** → **Picks Per Inch**

Picks Per Inch → Apply

➢ **Design Graph Editing, Float Detection & Float Binding**

Edit → Graph Correction → **Select the color** → **Start Editing**

↓

Bind Float on Graph ← **Show Floating Error on Graph** ← **Float Size**
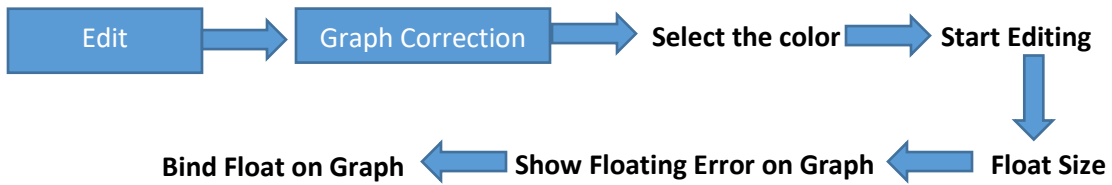
➢ **See the Fabric Visualization**

View → Front Visualization → Rear Visualization

↓

Rear Cut ← Front Cut
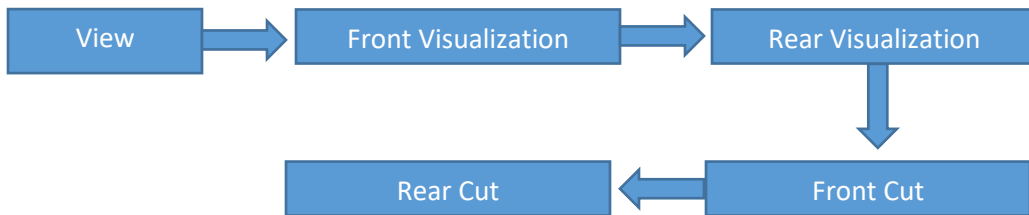
➢ **See the fabric on objects**

View → Mapping → **Select the Object**

➢ **See the Fabric Simulation**

View → Fabric Simulation → **Zoom In/ Zoom out**

➢ **Design Card for Electronic Jacquard**

Utility → Card View → Extra Hooks → **Left/ Right** → Finger Selection

↓

Start, End ← Selvedge Weave ← **Start, End** ← Regulator ← **Start, End**

↓

Change Default Value → **Export in Color** → **Export**

Change Default Value → **Invert** → **Export**
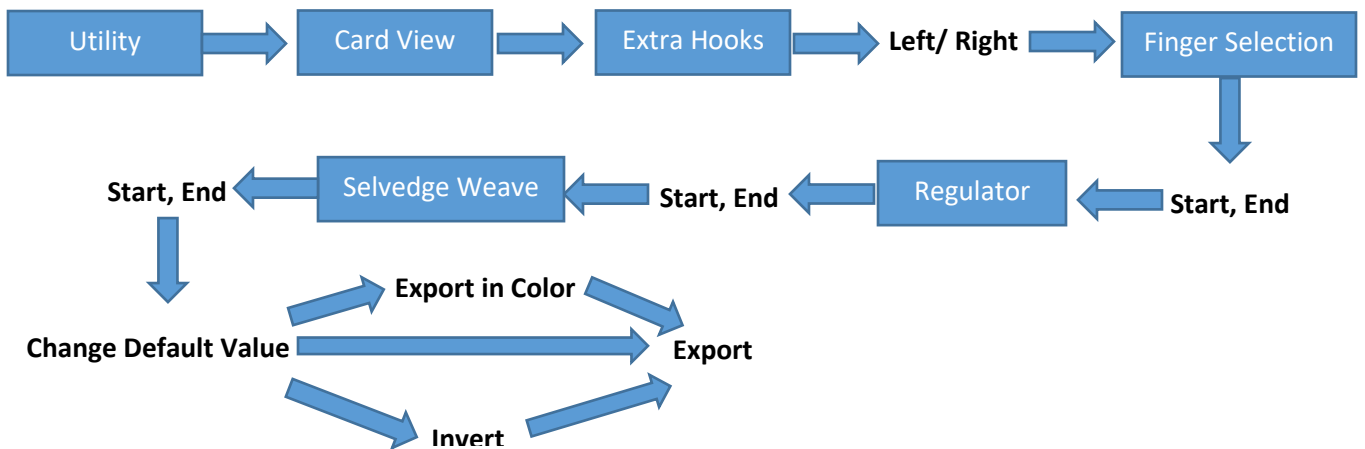
4. Garment Viewer

This module is used to see different garment layouts & also facilitates different orientations of design on fabric. We can save & export of these layouts according to the requirement.

➢ **Create a Garment Layout**

| File | ➡ | Create | ➡ | **Name** ➡ | **Cloth Type** ➡ | Submit |

➢ **Select a Garment Layout**

| Edit | ➡ | Pre- Defined Layout | ➡ | **Select Layout** |

➢ **Add or remove the Layout part**

| Edit | ➡ | Custom Layout | ➡ | **Add Pallu/ Add Border/Add Cross Border/ Add Blouse/Add Skirt** |

➢ **Fill Fabric in Layout**

Right Click on Layout ➡ | Fabric Assignment | ➡ **Select Fabric**

➢ **Change the yarn colors**

| Edit | ➡ | Edit Fabric | ➡ | Yarn Properties | ➡ **Select Yarn** ➡ | Thread Color |

➢ **Rotate & Repeat the Design**

| Edit | ➡ | Repeat Orientation | ➡ | Rotation | ➡ | Repeat Mode |

↓

| Apply |
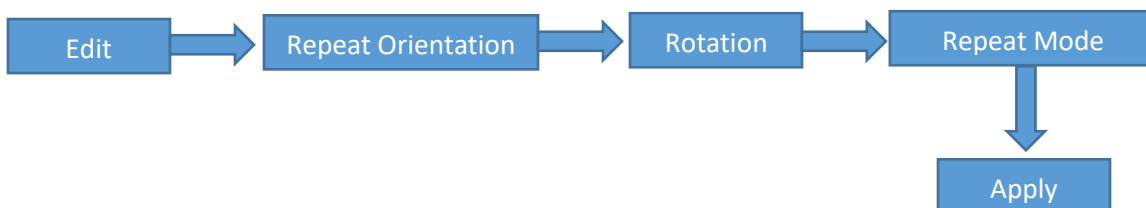
➢ **Change the Density of the Design**

Edit → Density → Reed Count → Thread per Dent → Picks Per Inch

Density → Edit Ends Per Inch → Ends Per Inch → Picks Per Inch → Apply
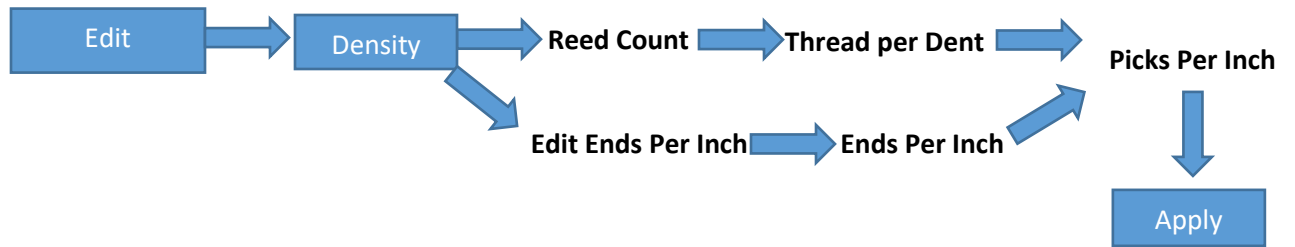
➢ **Export Design graphs, Layout & Technical Sheet**

File → Graph

File → Texture

File → HTML