Allied Packaging Documentation of Solution Portal:

Our project is related to machines which are used for packaging purpose. we have develop our solution portal which contains multiple modules regarding company, users, machines etc.

This documentation contains detailed information about all modules, configurations & it's dependency of other module.

# There are total 10 modules:

1. **Company :** Company for which we are providing machines. Company module contain three different section company, user and facility.
2. **Allied Admin :** He/She is user created at company level, who has access of one or more company.
3. **Users :** He/She has access of single company.
4. **Facility :** Facility means location wise different branches of main company.
   * **Facility** : It contain details of facility.
   * **Shift :** Single facility may have multiple shift. we have this shift module for that configuration.
   * **Facility Off Time :** We have to provide sometime for maintenance of machine. it is called facility off time.
5. **Machine :** It is machine use to wrap product.
   * **Machine** : It contain details of machine like name, id etc.
   * **Machine Configuration** : It contain some configuration related things with target value, upper limit & lower limit.
6. **Recipe :** Recipe means product on which wrapping of plastic is done for packaging.
   * **Recipe** : It contain details of recipe like name, id etc.
   * **Recipe Configuration** : It contain some configuration related things with target value, upper limit & lower limit.
7. **Film :** Film means plastic which we are using for wrapping.
   * **Film** : It contain details of film like name, id etc.
   * **Film Configuration** : It contain some configuration related things with target value, upper limit & lower limit.
8. **Web Breaks :** In case of any situation there are some issue in machine so it will stop working or not work properly, at that time there will be some wastage of plastic may occur. It is called web breaks. Here we are only displaying web breaks there are no any other operation.
9. **Rules :** This portal contain some set of rules, which must should follow for proper execution of machine.
10. **Alerts :** We have to send Alert in form of Email, SMS or direct to machine if any of rule define in portal has been breaks.

Let's Understand each of them in detail. here we will provide information about form field on each modules.

## Company :

* + Name
  + Location
  + Time Zone
  + Description
  + First name (user info)
  + Last name (user info)
  + Phone (user info)
  + Email (user info)
  + Name (facility info)
  + Location (facility info)
  + Time Zone (facility info)
  + Location (facility info)

## Allied Admin :

* + First name
  + Last name
  + Phone
  + Email
  + Company
  + Facility
  + Different Permissions of all modules(you can see it in form)

## Users :

* + First name
  + Last name
  + Phone
  + Email
  + Facility
  + Different Permissions of all modules(you can see it in form)

## Facility :

* + Name
  + Location
  + Time Zone
  + Location

## Shift :

* + Facility Name
  + Month
  + Shift no
  + Days
  + Shift Start Time
  + Shift End Time

## Facility Off Time :

* + Facility Name
  + Machine ID
  + Start Date & Time
  + End Date & Time
  + Reason

## Machine :

* + Facility name
  + Shift
  + Machine ID
  + Machine Name
  + Type
  + Manufacturer name
  + Pre-stretch
  + Recipe
  + Serial Number
  + Model Number
  + Line Number

## Machine Configuration

* + Facility
  + Machine ID
  + Start Date
  + End Date
  + Pre-Stretch (target value, upper limit, lower limit)
  + Number Of Pallets Wrapped/Hr (target value, upper limit, lower limit)
  + Web Breaks (target value, upper limit)

## Recipe :

* + Facility
  + Film
  + Recipe reference
  + width
  + length
  + height
  + wraps

## Recipe Configuration

* + Facility
  + Recipe reference
  + Start date
  + End date
  + Total Applied Stretch (target value, upper limit, lower limit)
  + Number Of Wraps/Pallet (target value, upper limit, lower limit)
  + Film Weight/Pallet (target value, upper limit, lower limit)
  + Film Cost/Pallet (target value, upper limit, lower limit)
  + Wrap Cycle Time (target value, upper limit, lower limit)

## Film :

* + Facility
  + Reference
  + Film Manufacturer
  + Film Type
  + Width
  + Gauge(in ga)
  + Roll Length(feet)
  + Cost per pound($)
  + Weight(lb)
  + Roll cost

## Film Configuration

* + Facility
  + Film Reference number
  + Start date
  + End date
  + Target Footage Left At Roll Change (target value, upper limit)

## Web Breaks :

* + Machine Id
  + Estimated Film Waste
  + Number of Wrap at break
  + Date

## Rules :

Rule Information

* + Alert Name
  + Alert Type
  + Notification Type (Email, Text, Device)
  + Status (Active, Inactive)

Snooze Configuration

* + Snooze Applicable (checkbox to enable snooze)
  + Send After Occurrences (number of minimum occurrences to send alert)
  + Snooze Notification (minimum time period to send alert)

Threshold Configuration

* + Override Default Limits (checkbox to override default configuration of machine/recipe)
  + Target
  + Upper limit
  + Lower limit

Rule Applies On

* + Rule Applies On (All Devices of selected Facility, Selected Devices of selected Facility)
  + Select Facility
  + Select Devices of selected Facility

Send Alert to

* + Users (List of users whom we are sending alert)
  + Super Admin (List of super admin whom we are sending alert)

## Alerts :

* + Alert type
  + Facility name
  + Machine name
  + Message
  + Email sent
  + SMS sent
  + Time
  + Actions

# Relationship between multiple modules are listed below

1. Company - Allied admin (many to many relationship) :

One company can have multiple allied admin & one allied admin can have multiple company.

1. Facility - Allied admin (many to many relationship) :

One facility can have multiple allied admin & one allied admin can have multiple facility.

1. Company - Users (One to many relationship) :

One company can have multiple users.

1. Facility - Users (many to many relationship) :

One facility can have multiple users & one users can have multiple facility.

1. Company - Facility (one to many relationship) :

One company can have multiple facility(branches)

1. Facility - Shift (one to many relationship) :

One facility can have multiple shift

1. Facility - Off Time (one to many relationship) :

One facility can have multiple off time.

1. Facility - Film (many to many relationship) :

One facility can have multiple film & one film can have multiple facility.

1. Facility - recipe (many to many relationship) :

One facility can have multiple recipe & one recipe can have multiple facility.

1. Facility - Machine (one to many relationship) :

One facility can have multiple machines.

1. Recipe - Film (many to many relationship) :

One recipe can have multiple film & one film can have multiple recipe.

1. Machine - recipe (many to many relationship) :

One machine can have multiple recipe & one recipe can have multiple machine.