Pin codes and Pin code Validator: The Dyson India Pin code functionality will be consisting of the two modules, they are as follows:

Pin code: Basically, Pin code will bring the model and admin functionality for managing the table of the Pin codes effectively Pin code is very much owned to configure Pin codes and what those Pin codes are capable to do!

Pin code Validator: Pin code Validator will bring the touch points while querying and validating whether a pin code is valid or not in a given criteria. For e.g.: "Can I display cash on delivery for customer's pin code and basket value currently present?” In the above example, let's say customer city is Delhi and pin code is 110110, then the pin code Validator will search for the pin code of 110110 and basket value limit, if pin code is found and basket value is in limit then it'll display for order of Cash on Delivery, otherwise will return an error message.

Note: The modules pin code and pin code Validator are tightly coupled to each other and one can't work if other doesn't work. (The repositories were under dyson/In/app/code/)

What does pin codes mean and consists of?

In Magento, Pin codes can be found in the navigation of Catalog > Dyson Pincode > Pincodes in this link (<https://staging.admin.dyson.in/>) We can add Pin codes either manually or import from System > Data Transfer > Import and Magento pin code module consists of various components listed:

Feature: The pin code can have access to the three kinds of features.

* Is it shippable?
* Will it provides Home Installation?
* Can it have an In Home Demo?

Note: If the above mentioned three features are available in the given pin code, we need to add pin code for three times once for each in the database.

City/Region: We need to hardcode the values of City/Region in the database and can be linked to the pin code, thus results in manipulating of address fields of customer, and based on City/Region only, the products might be shipped or not can be determined.

Cash on Delivery/ Cash on Delivery message (COD/COD Message): For Cash on Delivery, we'll set a maximum value in Indian Rupees and will try to not exceed beyond that value. E.g. say 75,000 as the basket content limit, if the basket contents list is in range of maximum value (75,000), then Cash on Delivery will be applicable otherwise display an appropriate message to the customer.

DC1, DC2, DC3 (Distributed Centers): In India, You can choose orders from the above three Warehouses depending upon nearby to your (City/Region) pin code, if DC1 has stock then this pin code will be fulfilled from priority, if DC1 is out of stock, it'll try for DC2 and then DC3.

Note: Showing in stock on the website frontend will not be determined by pin code until you get the basket. If a product is in stock in at least one warehouse, it will appear in stock on catalog pages. The Pin codes are rarely managed by hands but most of times it'll be managed by the market using csv spreadsheets and Export/Import

Ideal workflow is:

* Export the current pin code list via Catalog > Dyson Pincode > Pincodes
* And then edit this csv as desired
* And then Import via System > Data Transfer > Import with the new changes/additions

Where does Pin codes are checked?

Pin codes are checked in different kinds of sales/orders and some of the important areas where it require pin code are as follows:

Shipping/Billing Address entered: When entering a pin code, pin code Validator will checks if pin code exists, whether the product is Shippable to the City/Region or surrounding pre-populated areas in the address. The code functionality can be found in the method of getData (), in the path of in/app/code/Dyson/PincodeValidator/Helper/Shippable.php

Shipping Address entered: When entering a pin code for the Shipping Address, pin code Validator will check whether Home Installation is possible for the Shipping address or not. The code functionality can be found in the method of getAvailability (), in the path of in/app/code/Dyson/PincodeValidator/Helper/Booking.php

On loading payment options: When entering a pin code, the pin code can be checked for Cash on Delivery availability, depending upon the basket value whether exceeding maximum limit or not. The code functionality can be found in the path in/app/code/Dyson/PincodeValidator/Plugin/Magento/OfflinePayments/Model/Cashondelivery.php aroundIsAvailable ()

Amasty Multi Warehouse: When Amasty Multi Warehouse tries to decide which warehouse, pin code validator does a Dependency Injection and makes its own decision based on our DC1, DC2 and DC3 preferences for the current pin code The code functionality can be found in the path in/app/code/Dyson/PincodeValidator/Model/Dispatch.php – getWarehouse()

Multi Warehouse: This is an Amasty Module and India uses this Amasty Multi Warehouse Module, This module will allows multiple warehouses to be configured in Magento admin but pin code functionality will allows only three preferences to be chosen per pin code (DC1, DC2, DC3), Warehouses configured with stock and quantity from S4 in India or else module is left to work as designed. If a sku is available in at least one Warehouse, then it will show as stock in the catalog pages but if you add to them for basket, and your provided pin code if doesn’t map onto the warehouse having sku, then only it'll shows them sku is out of stock for the given pin code.

Hotfixes to Payments: Some of the payment gateways are built by third party companies and there'll be an issues in the billing cycle and to fix those issues the third parties will again provide plugins. E.g. PayPal Mexico so in such case, the lead time to fix an issue or payment gateway understanding will takes too long. Hence Dyson have been engaged with some payment provider to provide an interim fix.

* PayU IN: it'll be installed as a zip file in folder IN/app/code from PayU, some of minor changes were made to this module and it's not ideal one
* WorldPay: Another payment method, which was seriously broken by Chrome 80 updates In addition to this, G&V created a new module in app/code and used dependency injection to override key parts of original module, but they removed from repository and is no longer available. Dyson won't carry interim fixes longer than needed time and they always push the vendors to release the new versions and will provide/demonstrate fixes where they made them.

Dashboards, views, advanced reporting and BI: Standard Magento dashboard functionality is in place with no customizations and is basically 'out of the box'. Generally, Magento Dashboards can be customized by admin users specific to their account but G&V has no input in that. Reporting in Magento is strictly out of box with no bespoke reporting other than

Note: Markets with sorted pro have the sorted pro logs viewable via Reports > Sorted Pro > API Logs and Advanced Reporting and Magento BI aren't enabled.

Sales & Order Management: All the Direct Markets and most Distributors will be having some form of back office/CRM integration so that it'll be making sales and order management largely automated The Magento workflow generally will be having statuses of pending, process and approval so that Sales can come in and complete these statuses. Magento order flow is automated through combination of payment gateways and back office modules updating other statuses. These markets largely doesn’t interact with sales/order view in the admin. Otherwise there are no specific differences between Distributors and Direct markets, rather that

* -->Directs will be Engage and S4, or SAP CRM and S4
* -->Distributors will be Bespoke, Generic sFTP or none

Non-Automated Markets:

* -->Hungary, Israel and Malaysia manually process their orders by exporting sales order view csvs and updating Magento order status workflow by hand in the UI
* -->Romania and Vietnam are TBC as to whether they are going to use the Generic sFTP back office integration