

# The PAL (Package Administration Layers) Model

## First Informal Overview

### High Level Layer – The Management Layer

#### Entities

**I.P.M** Independent Package Manager

Independent Ruby-Based Package Meta data Management Tool

#### Data Members

**M.D.P.T** - Meta Data Package Tree Xml-Based Data Structure

#### Layer Description

This is the higher level layer of the PAL model, it is the interface between the user and the package management system. In this layer the IPM is the most central feature, due to this entity handles the information stored in the MDPT using a friendly user interface. The developer challenge is to provide a easy-to-understand and power full API (Application Programming Interface) that can make the software management task easy and fun.

### Medium Level Layer – The Installation Layer

#### Entities

**I.P.T** Independent Package Translator

Independent C/C++Based Package Installing Tool

#### Layer Description

The medium Level layer is the Layer that makes the package installation tasks, The central entity of this layer is the IPT and its main function is install the ("Smart Packages") provides by the building process in the subsequent L.L.L Low Level Layer, The IPT acts like a "translator", It provides a common interface between the H.L.L and the L.L.L, layers that in another way can't be communicated. The IPT will be implemented like a daemon that will be "hearing" for requests from the user thorough the H.L.L, and at the same time it will send requests to the L.L.L to satisfy the needs of the H.L.L.

### Low Level Layer - The Building Layer

#### Entities

**P.P** Package Provider

C/C++Based Raw Package Providing Tool

**B.P.P** Binary Package Builder

Ruby-Based Binary Package Building Tool

**S.P.B** Source Package Builder

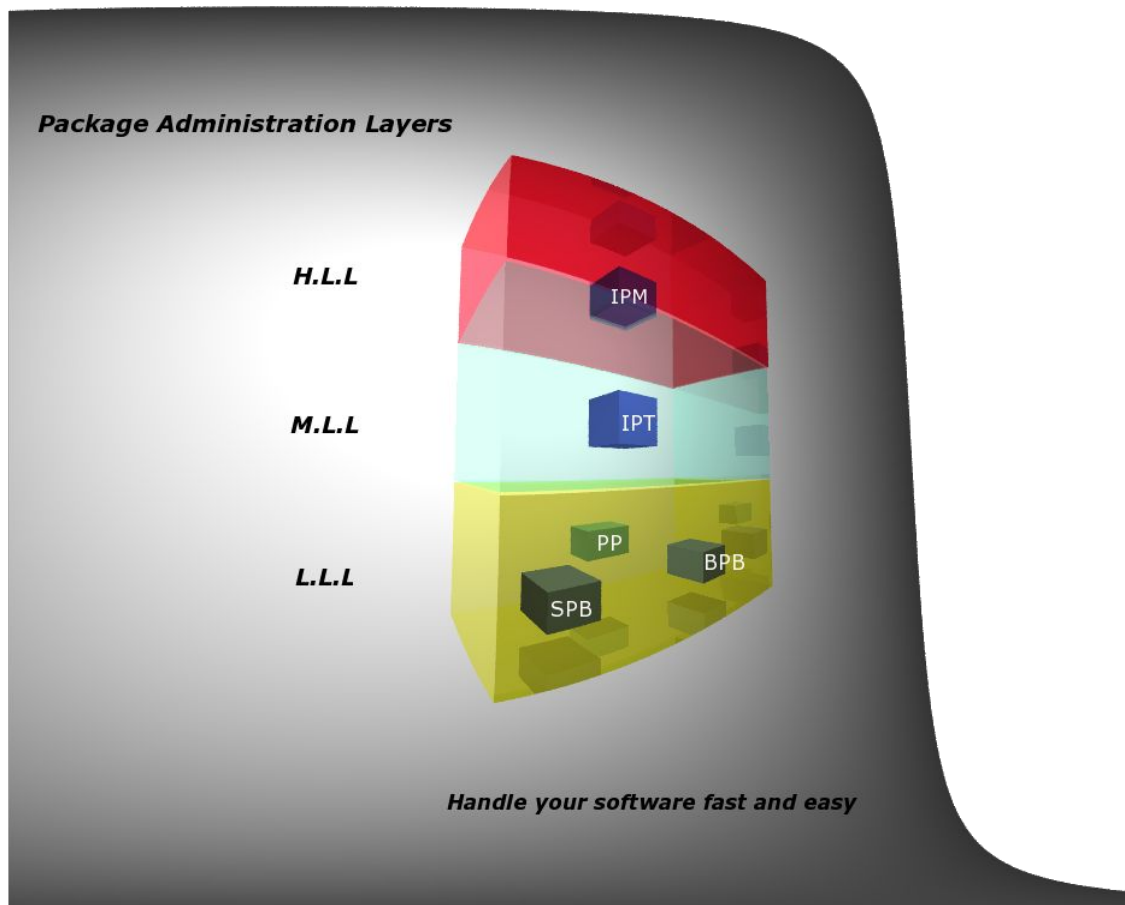
Ruby-Based Source Package Building Tool

### Layer Description

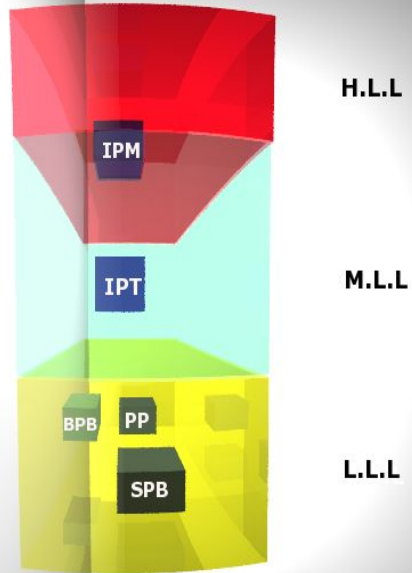
The Low Level Layer is one of the most important of this model, It's main functionality is the Package Building work, to perform this job the L.L.L layer has three entities each of them with a well defined function. First, on Top of the Layer is located the PP package provider, It's function of is to provide the data needed by the SPB and the BPB to perform it's work including here the source code and all the respective meta-data to build the packages.

The other two entities are the SPB and the BPB and it's main function is build, pack and encapsulate the data provided by the P.P to provide to the M.L.L one type of (I.S.B.P) Independent Smart Binary Package that the M.L.L can handle

### Pal Architecture



## Package Administration Layers



Jose G.Narvaez goyox86@gmail.com UDSL group.