# 

# **PL\_PIG\_CHESS\_ENGINE\_EVAL Package FAQ**

### **1. What is the purpose of the pdN and pdX functions?**

Both functions return the index of a piece within the pd array, which likely stores information about piece values or positional data. pdN uses the piece's numeric representation while pdX utilizes its character representation. Both require the felt (board position) as input.

### **2. What is the role of the Initialize procedure?**

Initialize handles the initial setup of the package, including memory allocation and other necessary initializations. This procedure is called only once when the engine starts.

### **3. What is the difference between the PreProcess and PreProcessor procedures?**

PreProcess sets the pd array to default values, essentially preparing a baseline evaluation. It's called once per engine call.

PreProcessor, on the other hand, takes the current board position (stilling) as input and adjusts the pd array and game states accordingly. This allows for a more accurate evaluation based on the specific situation. It is also called once per engine call.

### **4. What is the Eval function and what information does it use?**

Eval is the core evaluation function of the package. It assesses the current position and returns a numerical score representing its favorability. It uses the following information:

* stilling: The current board position.
* Activity: A parameter representing game activity or piece mobility.
* Black: A boolean indicating whether it's Black's turn to move.
* alpha and beta: Values used for alpha-beta pruning, a search algorithm optimization technique.

### **5. How frequently is the Eval function called?**

The Eval function is called numerous times for every move the engine considers. This highlights its importance in determining the engine's playing strength.

### **6. What is the pd array and what does it contain?**

The pd array is a central data structure within the package. While its exact contents aren't specified, it likely holds information related to piece values, positional bonuses, and other evaluation parameters.

### **7. What is the significance of the felt parameter used in several functions?**

felt represents the board position. It's a crucial input for functions that need to access or modify data related to specific squares on the chessboard.

### **8. What is the purpose of the stilling parameter in the PreProcessor and Eval functions?**

stilling represents the current game state, including the position of all pieces, castling rights, and other relevant information. This parameter provides the context for the evaluation and adjustment processes.