PL_PIG_CHESS_ENGINE Package

Method Signatures and Code Behavior

STILLING_TO_EPD Function

```
FUNCTION STILLING_TO_EPD(
    stilling PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    operationlist VARCHAR2 DEFAULT NULL
) RETURN VARCHAR2;
```

Behavior:

- Converts a position from internal array format to a string in EPD format.
- Allows for the addition of EPD operations, such as 'bm Nf3; id "test1";'.

FEN_EPD_TO_STR Function

```
FUNCTION FEN_EPD_TO_STR(
    FEN_EPD VARCHAR2
) RETURN VARCHAR2;
```

Behavior:

- Converts a position in FEN or EPD format to POSITIONSTR format.

still Procedure

```
PROCEDURE still(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    p_st char DEFAULT ''
);
```

Behavior:

- Sets up a position from a string in POSITIONSTR format.
- Converts to internal format if standard FEN or EPD format is detected.
- Accepts English format and translates it to the internal format.

DoMoveOk Function

```
FUNCTION DoMoveOk(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    fra SIMPLE_INTEGER,
    til SIMPLE_INTEGER,
    MoveTyp in out MOVETYPE
) RETURN BOOLEAN;
```

Behavior:

- Checks if a move is legal and generates black/white moves.
- Returns TRUE if the move is legal, FALSE otherwise.

DoMoveC Procedure

```
PROCEDURE DoMoveC(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    fra SIMPLE_INTEGER,
    til SIMPLE_INTEGER
);
```

Behavior:

- Performs a move without requiring move type information.
- Faster than DoMoveOk and used when the move is already validated.

DoMove Procedure

```
PROCEDURE DoMove(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    fra SIMPLE_INTEGER,
    til SIMPLE_INTEGER,
    MoveTyp MOVETYPE
);
```

Behavior:

- Performs a move with move type information.
- Validates the move before execution.

GetNext Procedure

```
PROCEDURE GetNext(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    fra in out SIMPLE_INTEGER,
    til in out SIMPLE_INTEGER,
    retning in out SIMPLE_INTEGER,
    MoveTyp in out MOVETYPE
);
```

Behavior:

- Finds the next legal move in the position.
- Updates the `fra` and `til` parameters to the next move.

Mirror Procedure

```
PROCEDURE Mirror(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE
);
```

Behavior:

- Mirrors a position, swapping the board layout and colors.

FindTrk Procedure

```
PROCEDURE FindTrk(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    dybde SIMPLE_INTEGER,
    ekstra SIMPLE_INTEGER,
    Traek in out TRKDATA
);
```

Behavior:

- Finds a move at a specific depth in the search tree.
- Updates the `Traek` parameter with the move data.

GetMove Procedure

```
PROCEDURE GetMove(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    t in out TRKDATA,
    MoveNr SIMPLE_INTEGER,
    Quick BOOLEAN
);
```

Behavior:

- Makes a move based on a move number.
- If Quick is TRUE, it drops the check for checks.

GetMoveNr Procedure

```
PROCEDURE GetMoveNr(
    stilling in out PL_PIG_CHESS_ENGINE_EVAL.STILLINGTYPE,
    p_fra SIMPLE_INTEGER,
    p_til SIMPLE_INTEGER,
    MoveNr in out SIMPLE_INTEGER,
    Quick BOOLEAN
);
```

Behavior:

- Gets a move number based on a move.
- If Quick is TRUE, it drops the check for checks.

Initialize Procedure

```
PROCEDURE Initialize;
```

Behavior:

- Initializes the chess engine, likely setting up initial variables and data structures.