

Chess-Figure-Movement-Protocol (ChFiM-Protocol)

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Version: 1.1

Description:

An abstract protocol allowing for moving chess figures on a checkerboard. Communication with this protocol can be realized by accessing the public methods directly or interpreting specified commands.

The protocol can respond to certain commands by sending back the desired output terminated by a newline-character.

The checkerboard consists of fixed length squares (henceforth called 'fields'). Usually the board is a square itself consisting of 8 x 8 fields, but this protocol is theoretically applicable to any alignment of fields.

Interface:

public functions:

Syntax	Description
<code>void interpretLines(char*)</code>	Searches in the given null-terminated char array for commands and tries to execute those. <i>parameters:</i> null-terminated char array with commands <i>return values:</i> -
<code>void moveFigure(byte, byte, byte, byte)</code>	Move a figure to the given field. <i>parameters:</i> <ol style="list-style-type: none">1. x-coordinate of the figure's current field2. y-coordinate of the figure's current field3. x-coordinate of the figure's target field4. y-coordinate of the figure's target field <i>return values:</i> -
<code>void removeFigure(byte, byte)</code>	Remove a figure from the checkerboard. <i>parameters:</i> <ol style="list-style-type: none">1. x-coordinate of the figure's current field2. y-coordinate of the figure's current field <i>return values:</i> -
<code>void setFieldSize(unsigned int)</code>	Set the side length of a field in millimeters. <i>parameters:</i> the side length of a field <i>return values:</i> -
<code>unsigned int getFieldSize()</code>	Return the side length of a field in millimeters. <i>parameters:</i> - <i>return values:</i> the side length of a field

commands:

Syntax (<...>: argument)	Description
<code>/m <x1> <y1> <x2> <y2> \n</code>	Move a figure to the given field. <i>arguments:</i> x1 (int): x-coordinate of the figure's current field y1 (int): y-coordinate of the figure's current field x2 (int): x-coordinate of the figure's target field y2 (int): y-coordinate of the figure's target field <i>sends back:</i> -
<code>/r <x1> <y1> \n</code>	Remove a figure from the checkerboard. <i>arguments:</i> x1 (int): x-coordinate of the figure's current field y1 (int): y-coordinate of the figure's current field <i>sends back:</i> -
<code>/s f <fieldsize> \n</code>	Set the side length of a field in millimeters. <i>arguments:</i> fieldsize (unsigned int): the side length of a field <i>sends back:</i> -
<code>/g f \n</code>	Sends back the side length of a field in millimeters. <i>arguments:</i> - <i>sends back:</i> f<unsigned int>\r\n