

# Novag Citrine to PC Communication Protocol

This document demonstrates the serial communication protocol between the Novag Citrine and an IBM<sup>\*)</sup> compatible PC (description of commands to be used for the communication between Citrine and PC). As a communication interface the Microsoft HYPERTERMINAL<sup>\*)</sup> program can be used. We recommend reading this document in its entirety prior to connecting the Citrine to an IBM compatible PC.

In this document we have listed various commands, which make use of the following conventions:

- Any letter with **bold type** represents input by the user and will not be echoed by the Citrine.
- Any letter with normal type represents response by the Citrine.

The command descriptions are listed in alphabetical order.

Should you have any questions regarding the information contained in this document then please feel free to e-mail us at:

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## **COMMUNICATION PROTOCOL**

The communications are RS232 based and use the values of 57600 Baud, 8 Data Bits, 1 Stop Bit, No. Parity and no flow control.

## **COMMAND DESCRIPTIONS**

### **Clock : C**

Display the current white and black time.

**C**

Clock 00:06:27 00:00:01

### **Flip : F**

Flip CITRINE white move from the top of the chessboard when at new game position.

**N**

New Game

**F**

Flip

Flip color to move from white to black or from black to white.

M 1 e2-e4 |

M 1, e7-e5 |

**F**

Flip --> Black

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## **Game : G**

Display game move list.

### **G**

Game 2

. white black  
. 1 e2-e4 c7-c5  
. 2 Ng1-f3 d7-d6

## **Chess ID : I**

Display the CITRINE chess ID.

### **I**

ID.UCBII VI.09

## **Level : L, L +CITRINE5, L -TR1,**

Display the current play level or set the play level for different color.

**L** (display current play level for white & black)

Level tr 1

Level tr 1

**L CITRINE 5** (set play level CITRINE5 for both white and black color)

Level sd 5

Level sd 5

**L -CITRINE 3** (set play level CITRINE3 for black)

Level sd 5

Level sd 3

Note: Set level for white will always set the black level at the same level as the white level. Set level for black will not affect the level setting of white.

## **Move : M e2e4**

Make move from PC.

### **N**

New Game

**ME2E4**

M 1 e2-e4 |

M 1, d7-d6 |

Note: When making a pawn move to the 8<sup>th</sup> row, the valid promote piece type (/N,/B,/R,/Q) must be entered, otherwise promote to queen is taken as default.

## **New Game : N**

Start a new game.

### **N**

New Game

## **Origin : O**

Reset the game to the origin starting position.

## **Position : P**

To display the current board position or set up the board position.

### **N**

New Game

**pcpa2ka1bkh8-**

pcpa2ka1bkh8-

### **P**

Position Board

```
.  aa bb cc dd ee ff gg hh
.8 ::  ::  ::  ::  :: bk 8
.7  ::  ::  ::  :: 7
.6 ::  ::  ::  :: 6
.5  ::  ::  ::  :: 5
.4 ::  ::  ::  :: 4
.3  ::  ::  ::  :: 3
.2 WP  ::  ::  :: 2
.1 WK ::  ::  :: 1-
.  aa bb cc dd ee ff gg hh
```

**Note :** abb. used

c = board clear

p = pawn

n = knight

b = bishop if follow a valid board sq or b = black color if follow a valid chess piece type

q = queen

k = king

+ = white move at start

- = black move at start

## **Takeback : T**

To take back move.

### **T**

t 2            g8-f6

## **Referee : U, U ON, U OFF**

To display current referee mode and setting referee mode on or off.

### **U**

.Referee off

### **U ON**

.Referee on

### **U OFF**

.Referee off

## **Xmit : X, X ON, X OFF**

To display current transmission setting and setting the transmission on or off.

**X**

Xmit off

**X ON**

Xmit on

**X OFF**

Xmit off

**Note:** The Xmit must be set **on** while interfacing the CITRINE with a PC, otherwise no move data will be transmitted by the CITRINE.