



TECHNICAL DOCUMENT
END OF DAY DATA - CSV SPECIFICATION
CAPITAL MARKET
(LEVEL 3)

29 JUN 2012

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EXCHANGE PLAZA,
PLOT NO. C/1, G BLOCK,
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1. DATA DETAILS

A single packet contains Header, data and trailer. The interpretation of the data depends on the code field.

1.1 THE HEADER

The header consists of following fields

- a) **Code** – Code field indicating type of data.
- b) **Length** – Length field indicating the length of the packet that is being sent. (Can be ignored by CSV users)
- c) **Sequence Number** –Field indicating the sequence number of the ASCII text being sent. (Can be ignored by CSV users)

1.2 THE DATA

The following information is provided in data block -

- a) **Market Update Information** - The structure for the Market Update information is mentioned below in section 2.1.

1.3 TRAILER

The trailer is a two-byte checksum. A CR('\r') will terminate the block of data. (Can be ignored by CSV users)

2. DATA STRUCTURE DETAILS

2.1 MARKET DEPTH INFORMATION

These packets contain the latest order and trade information of securities up to the order book depth of **20**. These packets are sent during the normal market hours. These packets would not be sent during Pre-Open session. The Online Index field in this packet indicates the value of the CNX Nifty when the particular trade occurred. These packets would be sent for series **EQ, BE, DR** and **DE**.

HEADER:

a) Code	'CV'
b) Length	1057
c) Sequence Number	XXXX

ASCII DATA:

The format of the ASCII data sent is as follows:

FIELD TYPE	FIELD WIDTH
a) Symbol	10 Chars
b) Series	2 Chars
c) Market Type	1 Char ('N'-Normal)
d) Time Stamp	11 Chars
e) MARKET_DEPTH_BUY_ORDER_INFO [20]	
i. Best Buy-Order Price	10 Chars
ii. Best Buy-Order Quantity	12 Chars
f) MARKET_DEPTH_SELL_ORDER_INFO [20]	
i. Best Sell-Order Price	10 Chars
ii. Best Sell-Order Quantity	12 Chars
g) Last Traded Price	10 Chars (Last Trade Price for a token would be ZERO till first occurrence of the trade on that token.)
h) Last Traded Quantity	12 Chars (Last Trade Quantity for a token would be ZERO till first occurrence of the trade on that token.)
i) Total Traded Quantity	12 Chars
j) Security Status	1 Char (Suspended (S) or Blank)

k) Opening Price	10 Chars
l) High Price	10 Chars
m) Low Price	10 Chars
n) Close Price	10 Chars
o) Average Traded Price	10 Chars
p) Total Buy Quantity	12 Chars
q) Total Sell Quantity	12 Chars
r) Total Turnover	25 Chars
s) Online Index	8 Chars

TRAILER:

Trailer contains checksum and a CR('\r') will terminate the data packet

3. CONTACT INFO

Name	Email	Contact Number
NSE Data & Analytics Ltd	marketdata@nse.co.in	91-22-26598385
Technical Support	infofeed_support@nse.co.in	-

4. CHECKSUM

The **Checksum routine** followed for Info Vendor Feed is as follows:

```
// Following are the defines for checksum calculation
#define DC1      17
#define DC3      19
#define CR       13
#define LF       10
#define POLY     0x1021
// End of defines

unsigned check_sum (cData, iLength)
char *cData ;
int iLength;
{
    unsigned uAccum = 0;
    unsigned uData;
    unsigned char ucChk[2];
    int i,j;

    for (i=0;i<iLength;i++){
        uData = *(cData+i);
        uData <<= 8;
        for(j=8; j>0 ;j--){
            if((uData^uAccum)&0x8000)
                uAccum=(uAccum<<1)^POLY;
            /* SHIFT AND SUBTRACT POLY */
            else
                uAccum<<=1;
            uData<<=1;
        }
    }
    ucChk[0] = uAccum>>8;
    if (ucChk[0] == DC1 || ucChk[0] == DC3 || ucChk[0] == CR || ucChk[0]
    == LF )
        ucChk[0] -= 1;
    ucChk[1] = uAccum&0xFF;
    if (ucChk[1] == DC1 || ucChk[1] == DC3 || ucChk[1] == CR || ucChk[1]
    == LF )
        ucChk[1] -= 1;
    uAccum = ucChk[1];
    uAccum = (uAccum<<8) + ucChk[0];
}
```

```
    return(uAccum);  
}
```