

# Script controla fan - decimal/hexadecimal

Link: <https://forum.proxmox.com/threads/ipmi-tool-error-after-v8-upgrade.129334/page-2>

Bash:

```
#!/bin/bash

# Fancontrol v1.1 2022-09-15 15:42

# Define variables

MAX_FAN=90
MIN_FAN=20
HIGH_TEMP=37
LOW_TEMP=35
SPEED_STEP=10
IDRAC_IP=10.0.0.1
IPMI_USER=fancontrol
IPMI_PASSWORD=yoursupercomplexpassword

# Define Functions

ENABLE_FAN ()
{
    ipmitool -I lanplus -H $IDRAC_IP -U $IPMI_USER -P $IPMI_PASSWORD raw 0x30 0x30 0x01 0x00 > /dev/null 2>&1
}

GET_TEMP ()
{
    ipmitool -I lanplus -H $IDRAC_IP -U $IPMI_USER -P $IPMI_PASSWORD sensor reading "Exhaust Temp"|sed 's/[^0-9]//g'
}
```

```

SET_FAN ()
{
    ipmitool -I lanplus -H $IDRAC_IP -U $IPMI_USER -P $IPMI_PASSWORD raw 0x30 0x30 0x02 0xff $FAN_SETTING >
/dev/null 2>&1
}

# File to save the last fan speed

[ -f fan_speed.last ] || echo $MIN_FAN > fan_speed.last

FAN_SPEED=$(<fan_speed.last)

#-----

CURRENT_TEMP=$(GET_TEMP)          # get the current temperature

if (($CURRENT_TEMP > $HIGH_TEMP)) ; then
    FAN_SPEED=$(expr $FAN_SPEED + $SPEED_STEP)
    if (($FAN_SPEED > $MAX_FAN)) ; then
        FAN_SPEED=$MAX_FAN
    fi
fi

if (($CURRENT_TEMP < $LOW_TEMP)) ; then
    FAN_SPEED=$(expr $FAN_SPEED - $SPEED_STEP)
    if (($FAN_SPEED < $MIN_FAN)) ; then
        FAN_SPEED=$MIN_FAN
    fi
fi

FAN_SETTING=$(printf "0x"%"x\n" $FAN_SPEED)
ENABLE_FAN
SET_FAN

logger -t FanControl "Current Temperature" $CURRENT_TEMP"C" "Fans at" $FAN_SPEED""
echo $FAN_SPEED > fan_speed.last

exit 0

```

Informações adicionais:

Launch a command prompt on the server and navigate to the directory above. Then run the following commands, substituting the ip address (-H), username (-U), and password (-P) of your iDRAC:

```
To enable remote fan control: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x01 0x00

To set the fan to 20%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x14

To set the fan to 25%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x19

To set the fan to 30%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x1e

To set the fan to 35%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x23

To set the fan to 40%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x28

To set the fan to 45%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x2D

To set the fan to 50%: ipmitool -I lanplus -H 192.168.1.240 -U root -P calvin raw 0x30 0x30 0x02 0xff 0x32
```

TABELA CONVERSÃO DECIMAL PARA HEXADECIMAL

# Decimal-hexadecimal-binary conversion table

| Dec | Hex | Bin | Dec | Hex | Bin | Dec | Hex | Bin | Dec | Hex | Bin |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0   | 0   | 000 | 64  | 40  | 010 | 128 | 80  | 100 | 192 | c0  | 110 |
|     |     | 000 |     |     | 000 |     |     | 000 |     |     | 000 |
|     |     | 00  |     |     | 00  |     |     | 00  |     |     | 00  |

|    |   |                  |    |    |                  |     |    |                  |     |    |                  |
|----|---|------------------|----|----|------------------|-----|----|------------------|-----|----|------------------|
| 1  | 1 | 000<br>000<br>01 | 65 | 41 | 010<br>000<br>01 | 129 | 81 | 100<br>000<br>01 | 193 | c1 | 110<br>000<br>01 |
| 2  | 2 | 000<br>000<br>10 | 66 | 42 | 010<br>000<br>10 | 130 | 82 | 100<br>000<br>10 | 194 | c2 | 110<br>000<br>10 |
| 3  | 3 | 000<br>000<br>11 | 67 | 43 | 010<br>000<br>11 | 131 | 83 | 100<br>000<br>11 | 195 | c3 | 110<br>000<br>11 |
| 4  | 4 | 000<br>001<br>00 | 68 | 44 | 010<br>001<br>00 | 132 | 84 | 100<br>001<br>00 | 196 | c4 | 110<br>001<br>00 |
| 5  | 5 | 000<br>001<br>01 | 69 | 45 | 010<br>001<br>01 | 133 | 85 | 100<br>001<br>01 | 197 | c5 | 110<br>001<br>01 |
| 6  | 6 | 000<br>001<br>10 | 70 | 46 | 010<br>001<br>10 | 134 | 86 | 100<br>001<br>10 | 198 | c6 | 110<br>001<br>10 |
| 7  | 7 | 000<br>001<br>11 | 71 | 47 | 010<br>001<br>11 | 135 | 87 | 100<br>001<br>11 | 199 | c7 | 110<br>001<br>11 |
| 8  | 8 | 000<br>010<br>00 | 72 | 48 | 010<br>010<br>00 | 136 | 88 | 100<br>010<br>00 | 200 | c8 | 110<br>010<br>00 |
| 9  | 9 | 000<br>010<br>01 | 73 | 49 | 010<br>010<br>01 | 137 | 89 | 100<br>010<br>01 | 201 | c9 | 110<br>010<br>01 |
| 10 | a | 000<br>010<br>10 | 74 | 4a | 010<br>010<br>10 | 138 | 8a | 100<br>010<br>10 | 202 | ca | 110<br>010<br>10 |
| 11 | b | 000<br>010<br>11 | 75 | 4b | 010<br>010<br>11 | 139 | 8b | 100<br>010<br>11 | 203 | cb | 110<br>010<br>11 |
| 12 | c | 000<br>011<br>00 | 76 | 4c | 010<br>011<br>00 | 140 | 8c | 100<br>011<br>00 | 204 | cc | 110<br>011<br>00 |
| 13 | d | 000<br>011<br>01 | 77 | 4d | 010<br>011<br>01 | 141 | 8d | 100<br>011<br>01 | 205 | cd | 110<br>011<br>01 |

|    |    |                  |    |    |                  |     |    |                  |     |    |                  |
|----|----|------------------|----|----|------------------|-----|----|------------------|-----|----|------------------|
| 14 | e  | 000<br>011<br>10 | 78 | 4e | 010<br>011<br>10 | 142 | 8e | 100<br>011<br>10 | 206 | ce | 110<br>011<br>10 |
| 15 | f  | 000<br>011<br>11 | 79 | 4f | 010<br>011<br>11 | 143 | 8f | 100<br>011<br>11 | 207 | cf | 110<br>011<br>11 |
| 16 | 10 | 000<br>100<br>00 | 80 | 50 | 010<br>100<br>00 | 144 | 90 | 100<br>100<br>00 | 208 | d0 | 110<br>100<br>00 |
| 17 | 11 | 000<br>100<br>01 | 81 | 51 | 010<br>100<br>01 | 145 | 91 | 100<br>100<br>01 | 209 | d1 | 110<br>100<br>01 |
| 18 | 12 | 000<br>100<br>10 | 82 | 52 | 010<br>100<br>10 | 146 | 92 | 100<br>100<br>10 | 210 | d2 | 110<br>100<br>10 |
| 19 | 13 | 000<br>100<br>11 | 83 | 53 | 010<br>100<br>11 | 147 | 93 | 100<br>100<br>11 | 211 | d3 | 110<br>100<br>11 |
| 20 | 14 | 000<br>101<br>00 | 84 | 54 | 010<br>101<br>00 | 148 | 94 | 100<br>101<br>00 | 212 | d4 | 110<br>101<br>00 |
| 21 | 15 | 000<br>101<br>01 | 85 | 55 | 010<br>101<br>01 | 149 | 95 | 100<br>101<br>01 | 213 | d5 | 110<br>101<br>01 |
| 22 | 16 | 000<br>101<br>10 | 86 | 56 | 010<br>101<br>10 | 150 | 96 | 100<br>101<br>10 | 214 | d6 | 110<br>101<br>10 |
| 23 | 17 | 000<br>101<br>11 | 87 | 57 | 010<br>101<br>11 | 151 | 97 | 100<br>101<br>11 | 215 | d7 | 110<br>101<br>11 |
| 24 | 18 | 000<br>110<br>00 | 88 | 58 | 010<br>110<br>00 | 152 | 98 | 100<br>110<br>00 | 216 | d8 | 110<br>110<br>00 |
| 25 | 19 | 000<br>110<br>01 | 89 | 59 | 010<br>110<br>01 | 153 | 99 | 100<br>110<br>01 | 217 | d9 | 110<br>110<br>01 |
| 26 | 1a | 000<br>110<br>10 | 90 | 5a | 010<br>110<br>10 | 154 | 9a | 100<br>110<br>10 | 218 | da | 110<br>110<br>10 |

|    |    |                  |     |    |                  |     |    |                  |     |    |                  |
|----|----|------------------|-----|----|------------------|-----|----|------------------|-----|----|------------------|
| 27 | 1b | 000<br>110<br>11 | 91  | 5b | 010<br>110<br>11 | 155 | 9b | 100<br>110<br>11 | 219 | db | 110<br>110<br>11 |
| 28 | 1c | 000<br>111<br>00 | 92  | 5c | 010<br>111<br>00 | 156 | 9c | 100<br>111<br>00 | 220 | dc | 110<br>111<br>00 |
| 29 | 1d | 000<br>111<br>01 | 93  | 5d | 010<br>111<br>01 | 157 | 9d | 100<br>111<br>01 | 221 | dd | 110<br>111<br>01 |
| 30 | 1e | 000<br>111<br>10 | 94  | 5e | 010<br>111<br>10 | 158 | 9e | 100<br>111<br>10 | 222 | de | 110<br>111<br>10 |
| 31 | 1f | 000<br>111<br>11 | 95  | 5f | 010<br>111<br>11 | 159 | 9f | 100<br>111<br>11 | 223 | df | 110<br>111<br>11 |
| 32 | 20 | 001<br>000<br>00 | 96  | 60 | 011<br>000<br>00 | 160 | a0 | 101<br>000<br>00 | 224 | e0 | 111<br>000<br>00 |
| 33 | 21 | 001<br>000<br>01 | 97  | 61 | 011<br>000<br>01 | 161 | a1 | 101<br>000<br>01 | 225 | e1 | 111<br>000<br>01 |
| 34 | 22 | 001<br>000<br>10 | 98  | 62 | 011<br>000<br>10 | 162 | a2 | 101<br>000<br>10 | 226 | e2 | 111<br>000<br>10 |
| 35 | 23 | 001<br>000<br>11 | 99  | 63 | 011<br>000<br>11 | 163 | a3 | 101<br>000<br>11 | 227 | e3 | 111<br>000<br>11 |
| 36 | 24 | 001<br>001<br>00 | 100 | 64 | 011<br>001<br>00 | 164 | a4 | 101<br>001<br>00 | 228 | e4 | 111<br>001<br>00 |
| 37 | 25 | 001<br>001<br>01 | 101 | 65 | 011<br>001<br>01 | 165 | a5 | 101<br>001<br>01 | 229 | e5 | 111<br>001<br>01 |
| 38 | 26 | 001<br>001<br>10 | 102 | 66 | 011<br>001<br>10 | 166 | a6 | 101<br>001<br>10 | 230 | e6 | 111<br>001<br>10 |
| 39 | 27 | 001<br>001<br>11 | 103 | 67 | 011<br>001<br>11 | 167 | a7 | 101<br>001<br>11 | 231 | e7 | 111<br>001<br>11 |

|    |    |                  |     |    |                  |     |    |                  |     |    |                  |
|----|----|------------------|-----|----|------------------|-----|----|------------------|-----|----|------------------|
| 40 | 28 | 001<br>010<br>00 | 104 | 68 | 011<br>010<br>00 | 168 | a8 | 101<br>010<br>00 | 232 | e8 | 111<br>010<br>00 |
| 41 | 29 | 001<br>010<br>01 | 105 | 69 | 011<br>010<br>01 | 169 | a9 | 101<br>010<br>01 | 233 | e9 | 111<br>010<br>01 |
| 42 | 2a | 001<br>010<br>10 | 106 | 6a | 011<br>010<br>10 | 170 | aa | 101<br>010<br>10 | 234 | ea | 111<br>010<br>10 |
| 43 | 2b | 001<br>010<br>11 | 107 | 6b | 011<br>010<br>11 | 171 | ab | 101<br>010<br>11 | 235 | eb | 111<br>010<br>11 |
| 44 | 2c | 001<br>011<br>00 | 108 | 6c | 011<br>011<br>00 | 172 | ac | 101<br>011<br>00 | 236 | ec | 111<br>011<br>00 |
| 45 | 2d | 001<br>011<br>01 | 109 | 6d | 011<br>011<br>01 | 173 | ad | 101<br>011<br>01 | 237 | ed | 111<br>011<br>01 |
| 46 | 2e | 001<br>011<br>10 | 110 | 6e | 011<br>011<br>10 | 174 | ae | 101<br>011<br>10 | 238 | ee | 111<br>011<br>10 |
| 47 | 2f | 001<br>011<br>11 | 111 | 6f | 011<br>011<br>11 | 175 | af | 101<br>011<br>11 | 239 | ef | 111<br>011<br>11 |
| 48 | 30 | 001<br>100<br>00 | 112 | 70 | 011<br>100<br>00 | 176 | b0 | 101<br>100<br>00 | 240 | f0 | 111<br>100<br>00 |
| 49 | 31 | 001<br>100<br>01 | 113 | 71 | 011<br>100<br>01 | 177 | b1 | 101<br>100<br>01 | 241 | f1 | 111<br>100<br>01 |
| 50 | 32 | 001<br>100<br>10 | 114 | 72 | 011<br>100<br>10 | 178 | b2 | 101<br>100<br>10 | 242 | f2 | 111<br>100<br>10 |
| 51 | 33 | 001<br>100<br>11 | 115 | 73 | 011<br>100<br>11 | 179 | b3 | 101<br>100<br>11 | 243 | f3 | 111<br>100<br>11 |
| 52 | 34 | 001<br>101<br>00 | 116 | 74 | 011<br>101<br>00 | 180 | b4 | 101<br>101<br>00 | 244 | f4 | 111<br>101<br>00 |

|    |    |                  |     |    |                  |     |    |                  |     |    |                  |
|----|----|------------------|-----|----|------------------|-----|----|------------------|-----|----|------------------|
| 53 | 35 | 001<br>101<br>01 | 117 | 75 | 011<br>101<br>01 | 181 | b5 | 101<br>101<br>01 | 245 | f5 | 111<br>101<br>01 |
| 54 | 36 | 001<br>101<br>10 | 118 | 76 | 011<br>101<br>10 | 182 | b6 | 101<br>101<br>10 | 246 | f6 | 111<br>101<br>10 |
| 55 | 37 | 001<br>101<br>11 | 119 | 77 | 011<br>101<br>11 | 183 | b7 | 101<br>101<br>11 | 247 | f7 | 111<br>101<br>11 |
| 56 | 38 | 001<br>110<br>00 | 120 | 78 | 011<br>110<br>00 | 184 | b8 | 101<br>110<br>00 | 248 | f8 | 111<br>110<br>00 |
| 57 | 39 | 001<br>110<br>01 | 121 | 79 | 011<br>110<br>01 | 185 | b9 | 101<br>110<br>01 | 249 | f9 | 111<br>110<br>01 |
| 58 | 3a | 001<br>110<br>10 | 122 | 7a | 011<br>110<br>10 | 186 | ba | 101<br>110<br>10 | 250 | fa | 111<br>110<br>10 |
| 59 | 3b | 001<br>110<br>11 | 123 | 7b | 011<br>110<br>11 | 187 | bb | 101<br>110<br>11 | 251 | fb | 111<br>110<br>11 |
| 60 | 3c | 001<br>111<br>00 | 124 | 7c | 011<br>111<br>00 | 188 | bc | 101<br>111<br>00 | 252 | fc | 111<br>111<br>00 |
| 61 | 3d | 001<br>111<br>01 | 125 | 7d | 011<br>111<br>01 | 189 | bd | 101<br>111<br>01 | 253 | fd | 111<br>111<br>01 |
| 62 | 3e | 001<br>111<br>10 | 126 | 7e | 011<br>111<br>10 | 190 | be | 101<br>111<br>10 | 254 | fe | 111<br>111<br>10 |
| 63 | 3f | 001<br>111<br>11 | 127 | 7f | 011<br>111<br>11 | 191 | bf | 101<br>111<br>11 | 255 | ff | 111<br>111<br>11 |