

Topic: Filter Wheel, Occluding
Color

VXServices, LLC

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Solution Report

Symptoms/Condition:

Message of bad Reseau Image/Error, or only part of Reseau Image visible.

Solution:

In the directory `/files/vexcel/cal` edit the `cal.cal` file for your scanner. The file name for your scanner should be `rc##_vxb##_cal`. It would be a good idea to backup the file before editing.

Search for the term, `3siDO`. Then look in the same line for the term `5si20` (The line wraps around and appears to be the next line). Change this to `5si19`. If this term is already `5si19`, change it to `5si15` (Note: these are hex values).

For the above change to take effect, the devtab calibration must be run. This is performed by typing the command `vxcal -dt` with the scanner powered on,. This calibration will cause the scanner to home, go to the center of the backpane and then park back at the home position. A new `devtab.cal` file will be written. It would be a good idea to backup the file before editing.

Now simply run `vxscan` again and verify this has resolved the problem. If you have any questions regarding this procedure, please call VXServices, LLC before continuing.

```

#
# @(#)cal.cal 1.15 9/19/95
# for Release 2.0
#
# (c) Copyright 1992 Vexcel Corporation.
# All rights reserved.
#
# File:          $(VX_HOME)/cal.cal
#
# Function:      To provide constants required for scanner calibration
#
# Author:       mike & bobw & mmoir
#
# Affiliation:   Vexcel
#
# Date:         5 May 1992
#
# Maintenance:  Try to keep the tags in alphabetical order with a common
#                prefix for a given calibration. Remember that "num_tags"
#                must be kept up-to-date. Every number indicating the number
#                of items in a tag must be followed by '\t'.
#
# Note: num_tags doesn't include itself

```

```

num_tags          int          1          94
#####
VR_ANG            dbl          1          2.0
VR_ASPECT         dbl          1          1.032
VR_LINE_SPACE     dbl          1          112
VR_MICRONS_PER_RESEAU  dbl      1          1701.8
VR_THETA          dbl          1          -2.5
VR_ThreshDist    dbl          1          10

VR_REZ_OFFSET_X   dbl          1          0.0
VR_REZ_OFFSET_Y   dbl          1          0.0

Vr_ResTanHorz    dbl          1          .038
Vr_ResTanVert    dbl          1          .035

VrR2I_Cfs        dbl          4          1.000000 0.000000 0.000000 1.000000

vc_ccd_pixel_size  dbl          1          13.0
#####
vc_diodes         int          4          0 0 0 0
#####
vc_dev_close      str          4          cf1,cf2,cf3,cf4,cf5,cf6,cf7,cf8,cf10
1sv30D40,2sv30D40
1ma10,2ma10,3ma0,4ma3100,5ma0,6ma0
1ws,2ws,3ws,4ws,5ws,6ws,1mf,2mf,3mf,4mf,5mf,6mf

vc_dev_open       str          11         hm,2se80,1se100
1se80,1sd12C,1sg12C,1il12C,1si12C,1sa200,1fr3
1se80,2sd7D0,2sg190,2il1F4,2si1F4,2sa200,2fr2
1sv37,3sa1F,4sv26,4sa0C,5sv40,5sa22,6sv40,6sa22
1i,cl2,cl3,cl4,cl5,cl6,cl7,cl8,cl10,ch0E,ch0F,ct1,ct2,ct3,ct4,ct5,ct6,ct7,ct8
10,ct0E,ct0F

```

```

cn1, cn2, cn3, cn4, cn5, cn6, cn7, cn8, cf10, cn0E, cn0F, cl9, ct9, clB, ctB, clC, ctC, clD, ctD,
1ln3, 2ln3, 3ln3
1mn, 1sv30D40, 1pm, 1mrFFFFFF000, 1we1, 1st, wa100, 1pm, 1mr80000, 1we0, 1st, wa100, 1sv30
pm, 1mrFFFFFF800, 1we1, 1fi0, 1st, wa100, 1sv3460B, 1pm, 1mn, 1sa100
2mn, 2sv30D40, 2pm, 2mrFFFFFF000, 2we1, 2st, wa100, 2pm, 2mr80000, 2we0, 2st, wa100, 2sv30
pm, 2mrFFFFFF800, 2we1, 2fi0, 2st, wa100, 2sv30D40, 2pm, 2mn, 2sa100
3siD0, 3mn, 3fe, 3si10, 3fe, 4siC0, 4mn, 4fe, 4si20, 4fe, 5si80, 5mn, 5fe, 5si20, 5fe, 5dh0,
5, 6si90, 6mn, 6fe, 6si20, 6fe, 6dh0
3ch-50, 3si13, 4si09, 4dh3270

```

↑
change this term

```

vc_dev_checksum      str      1      0000

vc_dev_cty          str      1      /dev/ttya

# axis limits:
vc_dev_col_limits    int      4      -100      +748      -40      +40
vc_dev_den_limits    int      4      -100      +864      -40      +40
vc_dev_foc_limits    int      4      0          +13568    -40      +40
vc_dev_xvel_limits   int      2              -200000   +200000
vc_dev_yvel_limits   int      2              -200000   +200000
vc_dev_z_limits      int      4      -3440     0          -117     +117

#####
vc_dm_end_length     int      1      5
vc_dm_max_win_hwid   int      1      7
vc_dm_merge_gray     int      1      0
vc_dm_n_intens       int      1      3
vc_dm_scale          dbl      1      10.0

#####
vc_fo_delta_x        dbl      3      -2.33 0.00 2.33
vc_fo_delta_y        dbl      3      -2.33 0.00 2.33
vc_fo_n_intens       int      1      4

#####
vc_lim_home_x        str      2      1mn, 1sv30D40, 1pm, 1mrFFFFFF000, 1we1, 1st
100, 1pm, 1mr80000, 1we0, 1st, wa100
1sv800, 1pm, 1mrFFFFFF800, 1we1, 1fi0, 1st, wa100, 1sv3460B, 1mn, 1sa100, 1pm

vc_lim_home_y        str      2      2mn, 2sv30D40, 2pm, 2mrFFFFFF000, 2we1, 2st
100, 2pm, 2mr80000, 2we0, 2st, wa100
2sv800, 2pm, 2mrFFFFFF800, 2we1, 2fi0, 2st, wa100, 2sv3460B, 2mn, 2sa100, 2pm

vc_lim_init_dcx      str      3      hm, 2se80, 1se100
1sd180, 1sg140, 1il0, 1si0, 1sa300
2sd400, 2sg140, 2il0, 2si0, 2sa300

vc_lim_x_axis        str      2      1se40, 1sv8000, 1mr20000, wa3000, 1tp
1mn, 1mr-20000, waFFFF, wa3000, 1tp

vc_lim_y_axis        str      2      2se40, 2sv8000, 2mr10000, wa3000, 2tp
2mn, 2mr-11000, waB000, 2tp

vc_lim_inset         int      1      50
vc_lim_min_x_range   int      1      95000
vc_lim_min_y_range   int      1      47000

#####
vc_color             int      1      0
vc_color             int      1      3

```

```

vc_xy_intensity          int          1          15.0
#####
vc_x_um_per_tick        dbl          1          3.2916667
vc_y_um_per_tick        dbl          1          3.2916667
#####
vc_xy_color             int          1          0
vc_xy_density           int          1          0
vc_xy_inset_bottom      int          1          200
vc_xy_inset_left        int          1          200
vc_xy_inset_right       int          1          200
vc_xy_inset_top         int          1          200
vc_xy_min_foc_ratio     dbl          1          1.3
vc_xy_nx_grids          int          1          21
vc_xy_ny_grids          int          1          11
vc_xy_nx_sites          int          1          11
vc_xy_ny_sites          int          1          7
vc_xy_resolution        dbl          1          20.0
vc_xy_z_half_width     int          1          15

vx_backlash_step        dbl          1          100.0
vc_xy_thresh_dfd        dbl          1          300.0

#####
vc_xys_min_res          dbl          1          8.5
vc_xys_max_res          dbl          1          160.0
vc_xys_res_num          int          1          95
#vc_xys_res_num         int          1          25
vc_xys_iter_num         int          1          15

#####
vcf_axis_hi_res         int          1          0
vcf_axis_lo_res         int          1          1
vcf_axis_switch_res     dbl          1          35.0
vcf_cam_range_u         dbl          1          3000.0
vcf_cam_step_size       dbl          1          87.277371
vcf_focal_length        dbl          1          27700.0
vcf_i_axis              int          3          0          0          0
vcf_i_inc               int          3          2          2          3
vcf_i_reps              int          3          60          90          140
vcf_i_z_step            int          3          1          30          100
vcf_i_zl_step           int          3          11692          6000          3861
vcf_lens_range_u        dbl          1          230.0
vcf_lens_step_size      dbl          1          3.06231
vcf_res_factor          dbl          1          0.98300
vcf_reseau_accums       int          1          4
vcf_targ_res_hi         dbl          24          20 18 16 15 14 13 12 11 10.5 10.0 9.5
25 9.0 8.75 8.6 8.55 8.52 8.510 8.501 8.500 8.499 8.498 8.495 8.490
#vcf_targ_res_lo        dbl          3          20 22.5 25
vcf_targ_res_lo         dbl          22          20 22.5 25 27 30 33 36 39 42 46 50 55
70 80 90 100 115 125 135 150 160

#####
vcb_res                 dbl          1          25.0
vcb_useframex2         inc          1          215
vcb_useframey2         inc          1          135
vcb_warm_val1_sec      inc          1          410
vcb_warm_val2_sec      dbl          1          0.5 0.5

```

```
vcb_y_insets          dbl      2      0.5      0.5
vcb_overlap_fact      dbl      1      1.5
vcb_size_in_pixels    int      2      508 254
vcb_size_of_pixel     dbl      1      1000.0
vcb_corner_offsets    dbl      2      2.5 2.5
```

```
#####
```

```
vc_x_center_mm        dbl      1      248
vc_y_center_mm        dbl      1      124
```

```
#####
```

```
vc2b_res              dbl      1      105.0
vc2b_move_with_wait_res dbl     1      5.0
```