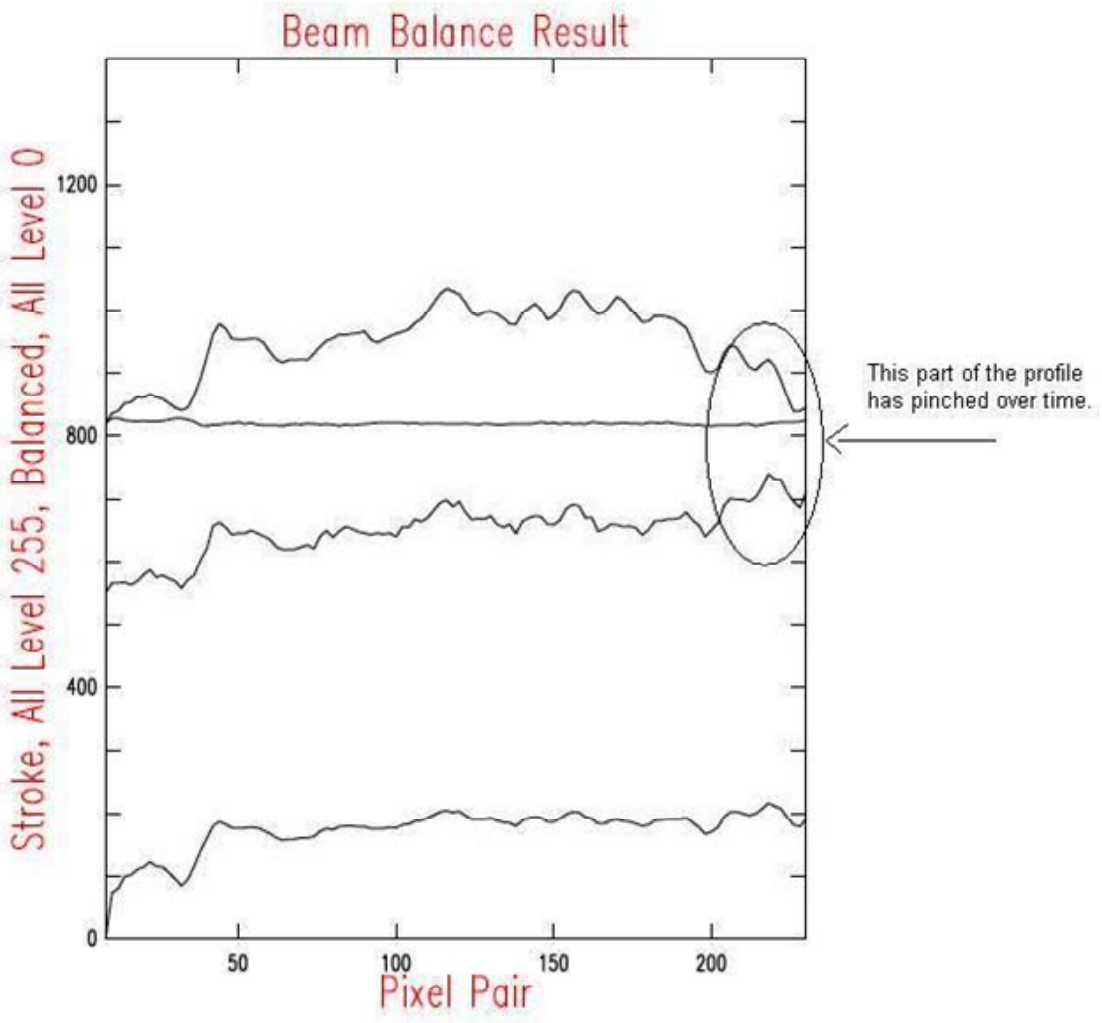
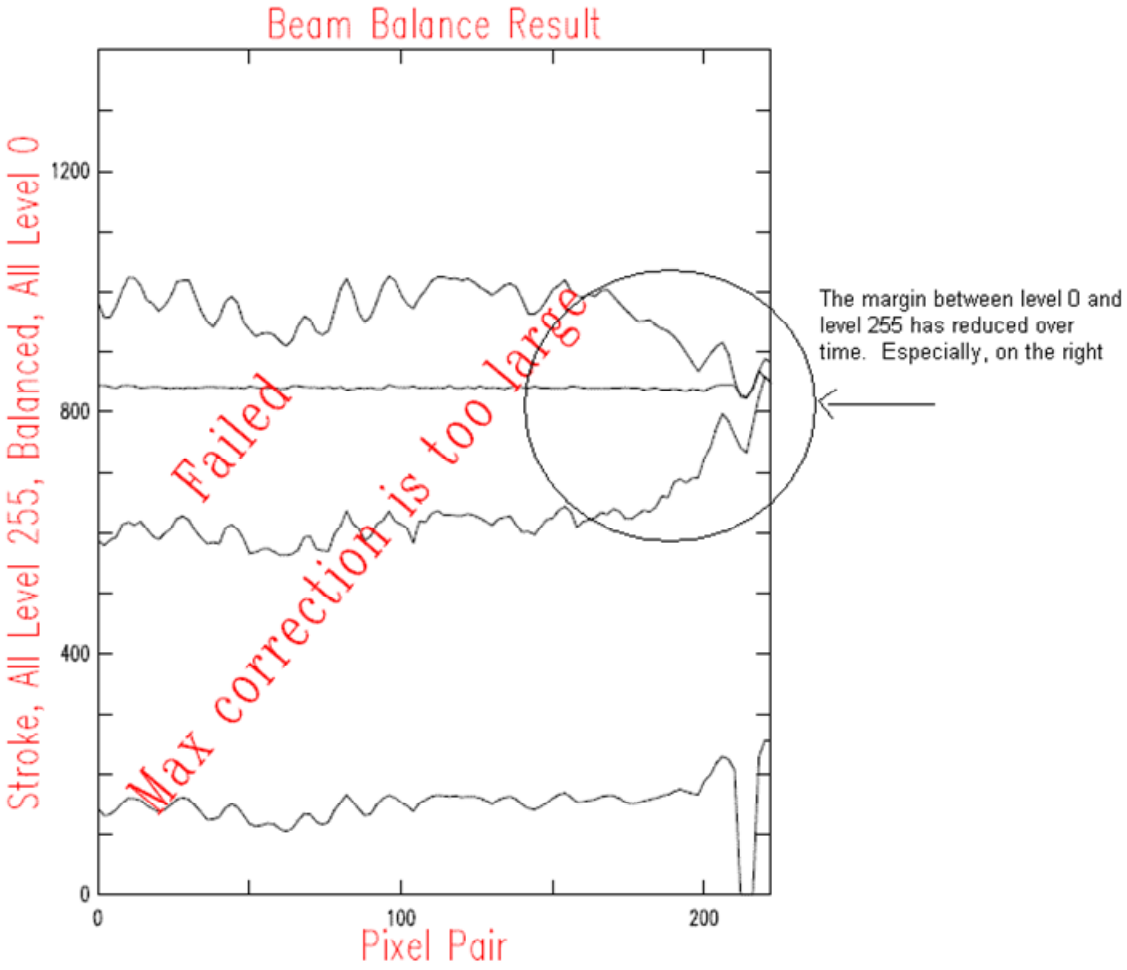
1. WHEN SHOULD A MANUAL BEAM CORRECTION BE DONE

1. When the thermal head is reporting beam balance failures such as:
   - 00217 Beam-balance prevented by drift error
   - 00218 Beam-balancerror exceeds the maximum error
2. When the buffer for beam balancing has reduced over time.

The following beam profiles are examples of what can be corrected using the manual beam correction:





2. REQUIREMENTS

Firmware 1.05d and higher is required.

If the required thermal head hardware is not present, the beam correction process will report `Hardware does not support beam correction` and exit the process.

3. HOW TO PERFORM A MANUAL BEAM CORRECTION

1. Capture the blockeroffset.

```
TH2 > set lvd blockeroffset
Key     Sub   Parameter          Active        Default     Units
-----------------------------------------------------------------
[02504] LVD    blockeroffset     8             0
*** Command Success ***
```

2. Capture the blockerwidth.

```
TH2 > set lvd blockerwidth
Key     Sub.   Parameter           Active      Default    Units
-----------------------------------------------------------------
[02505] LVD    blockerwidth        224         240
*** Command Success ***
```

3. Set the bbs beamcorrpos using the formula (blockerwidth + blockeroffset – 2).

   Using the values from the example in step #1, this would be (224+8-2) = 230.

```
TH2 > set bbs beamcorrpos 230
*** Command Success ***
```

4. To enable manual correction, type:

```
TH2 > eng
TH2 > sys correct on
```

The head will begin by measuring the magnitude of the beamcorrection that is required. This takes approximately 5 minutes. If there is no beamcorrection required, the head will return the following message:

```
No correction required, exiting.
```

Otherwise, the head will proceed with correction. This could take many hours and in extreme cases, it may take days. (Beamcorrection can be stopped at any point.) Every hour the head will return a progress message indicating how long the test has been running, and approximately how much time is remaining. When the correction is complete, the head will return the following message:

```
Correction complete.
```

5. At any time you can exit manual correction by typing:

```
TH2 > sys correct off
```

6. Following the manual correction, reset the device and leave the device idle for approximately 15 minutes. This allows the head to recover from the correction and ensures that a good beam balance is performed on each media before plotting. Beam balance is essential, because manual correction could cause the profile to change considerably.

Note: During a manual correction it is expected that the head will be left idle by the user.