**Vancouver Response Center**
**T.** 604.451.2727
**Toll free T.** 1.800.451.2727
**F.** 604.451.2713
**Toll free F.** 1.888.767.2736

**Customer support email:**
callcentre@creo.com

www.creo.com

**Document number:**
**Release date:** 27 Jan 2006

FAQ

**Creo Confidential** - This document contains competitive information that should be kept confidential to Creo. It should not be displayed or left behind at customer sites.

# FAQ: Thermal Head Swath Width Adjustment

This document is an overview of the policy regarding device specification and adjusting the swath width.

When Creo sells a system to a customer, the device is sold with a throughput specification. Creo is obligated to maintain this specification after the sale and installation of the device.

At Creo's discretion and with the approval of the customer, we can upgrade the specification if it is more cost effective to support (for example, a new head type becomes available and we want to standardize the stocking of replacement heads to reduce logistics costs).

Under no circumstances can we downgrade a customer's specification as a long-term solution.

**Note**: The statement above refers to customers that are covered by a warranty or service plan. For T&M (time and materials) customers, maintaining the throughput of the device is at the customer's discretion.

The following is a list of frequently asked questions and answers on the subject of reducing the swath width on TH1.x and TH2 heads, and the requirement to maintain the imaging time specification of the device. Unless otherwise stated, the questions and answers relate to customers covered by a warranty or service plan.

### Question: How do we calculate plate throughput?

**Answer**: Imaging speed is expressed in inches per minute and is a function of swath width, drum diameter, and drum speed. When a plate size is specified, this can be converted to a throughput specification expressed in plates per hour.

In recent releases of firmware, throughput is expressed as a minimum image time. For example, TS 800 F speed minimum image time is 150 seconds. This enables the drum speed to be increased if the swath width is reduced, in order to maintain the imaging time.

### Question: Can I reduce the swath width in a TH1.x or Th2 head?

**Answer**: Yes, but the drum speed of the device must be increased to ensure the imaging time remains constant. Refer to the swath reduction worksheet in the media database to calculate the new drum speed. The media database can be found at: http://techplanet.creo.com/consumables/media/nav/qualification.htm (**TechPlanet > Consumables > Media > Media Qualification**).

### Question: The firmware limits the drum speed. What can I do?

**Answer**: Upgrade the firmware to the latest version that supports an increase in drum speed if the swath width is reduced (not available for all devices—refer to the latest device firmware release notes).

**Note**: Make sure any firmware upgrade you perform is compatible for the latest controlled release for the device you're working on.

**Question: Can I change the configuration of the device to get around the drum speed limitation?**

**Answer**: No. This would cause too much confusion because the configuration records would no longer match the configuration of the device. This could also result in a free speed upgrade, because if the head gets replaced the new head will have the original number of pixels and the drum speed may not get reduced, which would lead to a higher power setting for the head and increased throughput.

**Question: Do I have to change the exposure to compensate for the increased drum speed?**

**Answer**:

**For TH1.x heads**: The laser power is measured before the light valve, so the head does not compensate automatically for the power lost due to the pixels that were removed from the swath. The laser power must be increased manually by a percentage equal to the reduction in the swath width.. This value then becomes the centre point for the power series to verify the correct exposure.

**For TH2 heads**: The laser power is measured after the light valve (at the shutter sensor), so the head automatically compensates for the lost power of the pixels that were removed from the swath. This increases the power density of the remaining pixels. It is important that the drum speed be increased to maintain the imaging time and ensure the increased power density of the remaining pixels does not overexpose the plate. The `wpower` setting itself has not been changed, and remains the centre point for the power series to verify the correct exposure.

**Note**: For TH1.x and TH2 heads, whenever the drum speed is changed, you must always run a power series to verify the correct exposure.

**Question: What if I need to exceed the maximum recommended head power to obtain the correct exposure and maintain the imaging time?**

**Answer**: You cannot exceed the maximum power specified for the head during normal setup and operation. Exceeding the power specification can severely shorten the life of the head.

If the power required to maintain the imaging time exceeds the recommended power, perform the lens cleaning procedure and confirm that the final lens/window is clean.

If the plate is still underexposed, check if this is consistent for all plate sizes/batches, and that the processing line has fresh chemistry and is functioning correctly.

If you still require a higher exposure, seek assistance from your regional Thermal specialist. The specialist can determine if the head is capable of running beyond the power specification or if it would be better to reduce the drum speed temporarily to ensure the device and head will run in a stable condition until a new head can be installed.

**Question: What if I need to exceed the maximum recommended head power for only some sizes/batches of plates?**

**Answer**: Using the appropriate media tech note, run an exposure series on each size/batch of plates and confirm if the media sensitivity is correct. If it is not, inform the pre-press manager and ask him/her to follow-up with the media vendor.

To image these plates at a sustainable power, reduce the drum speed as per the *Out Of Specification Media Policy* available at: http://techplanet.creo.com/consumables/media/nav/toolkit.htm (**TechPlanet > Consumables > Media > Tools and Media Setup**).

Ensure the relevant information is captured in the service log.

**Question: Do I need to tell the customer that I have reduced the swath width if the imaging time can be maintained?**

**Answer**: No, as long as you are able to maintain the imaging time. We are obligated to maintain the throughput that the customer purchased, but how we provide that throughput (number of pixels, drum speed, and so on) is entirely at Creo's discretion.

**Question: Do I need to tell the customer that I have reduced the swath width if the imaging time cannot be maintained?**

**Answer**: Yes. You must inform the pre-press manager if the device is not running at full speed, and you must indicate the shortfall in throughput (for example, 27 plates per hour versus the 29 plates per hour they purchased).

If a replacement head has already been ordered and is on-site, you should ask the pre-press manager if they wish the head to be replaced immediately.

If the pre-press manager would prefer to operate at a reduced throughput due to production schedules, or if a new head has not yet been ordered, the most cost-effective solution (lowest cost to Creo, minimum downtime for the customer) would be to ask the pre-press manager if they can live with the reduction in throughput and arrange a head swap at the next planned maintenance visit.

If the pre-press manager insists on a head swap sooner, you should arrange for this to happen at a mutually convenient time.

**Question: What about T&M (time and materials) customers?**

**Answer**: T&M customers pay for all parts and labor. If the swath must be reduced and the customer does not want to pay for a replacement thermal head, as long as the customer approves the reduction in throughput and the device is no longer meeting the specification, this is the customer's decision to make. Please ensure that the pre-press manager's name appears in the service log so we have a record of the customer's authorization on file.

**Note**: If the customer wishes to purchase a service plan at some future date, Creo cannot cover the device under a service plan until the device is restored to meet the original specification. The cost of any parts and labor to return the device to specification are at the customer's expense.


| **Ian Williams** | **Jeff Edgar** | **Doug Jeffery** |
|---|---|---|
| PD-PSM | PD-PSS / TH1.x | PD-PSS / TH2.x |
| T. 1.604.451.2700 local 2540 | T. 1.604.451.2700 local 5214 | T. 1.604.451.2700 local 5896 |
| F. 1.604.427.9891 | F. 1.604.427.9891 | F. 1.604.427.9891 |
| ian.williams@creo.com | jeff.edgar@creo.com | doug.jeffery@creo.com |

**About Creo**

Creo is a world leader in solutions for the graphic arts industry. Core product lines include image capture systems; inkjet proofers; thermal imaging devices for films, plates and proofs; professional color and copydot scanning systems; and workflow management software. Creo is also an Original Equipment Manufacture supplier of on-press imaging technology, components for digital presses, and color servers for high-speed, print-on-demand digital printers.

© 2005 Creo Inc. Creo and the Creo logo are trademarks or registered trademarks of Creo Inc. The Creo products mentioned in this document are trademarks or service marks of Creo Inc. and may be registered in certain jurisdictions. Apple, AppleShare, AppleTalk, EtherTalk, LaserWriter, LocalTalk, and Macintosh are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. Adobe and PostScript are trademarks of Adobe Systems Inc., are registered in the U.S. Patent and Trademark Office, and may be registered in other jurisdictions as well. Acrobat, the Acrobat logo, and Adobe Illustrator are trademarks of Adobe Systems Incorporated, which may be registered in certain jurisdictions. Microsoft, Windows, and Windows NT are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. AIX, PowerPC, and RS/6000 are registered trademarks of International Business Machines Corporation. Xerox is a registered trademark of Xerox Corporation in the U.S. and/or other countries. Other company and brand, product, and service names are for identification purposes only and may be trademarks or registered trademarks of their respective holders. Data is subject to change without notice.