Print Console 4

Overview

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1 GETTING STARTED

1.1 Post Installation – Disable Print Console Auto-start

After you have installed this simulation environment Print Console will automatically start each time you log in. To disable this feature:

- Go to:
  C:\Documents and Settings**YourLoginId**\Start Menu\Programs\Startup
- Delete the Print Console 4 shortcut.

1.2 What is Print Console?

Print Console:

- Connects to your workflow to accept input files for imaging on plates.
- **Note**: With Print Console 4 all TIFF file processing has moved from Print Console 4 to Prinergy Evo – this has been done to consolidate workflow capabilities, such as Hot Folders, into one place.
- Shows the status of your Computer to Plate device (**CTP**) as it loads and images plates.
- Provides tools to configure your CTP.
- Displays recovery information, and associated help, for error recovery.

1.3 Document Overview

This Print Console overview is delivered as part of a simulation environment that includes some components from the new GMCE workstation architecture. Later sections provide:

- Information on how to start the CTP simulator and Print Console.
- Suggested exercises.
- An overview of the new GMCE workstation architecture.

1.4 Components installed

The following components are installed for this simulation environment.

- Print Console 4.
- DCAPI – a common interface to the CTP for Print Console and Service Tools.
- PSRM – a common interface for delivering image data to the CTP.

- Log Message Culvert – which logs debug information.
- Stat Event Culvert – which logs CTP statistics.

1.5 Start the Simulation Environment

To run Print Console:

1. **Start the simulator** by running 5981FMWpSIM11407.EXE, located in C:\Creo\Magnus VLF MCE CR 3 Simulator\
2. **Start Print Console –** either from the Windows Start menu or from the shortcut installed on your desktop.

You can also start Print Console before the simulator to see what Print Console 4 will look like when the device is powered off.

Play! The following sections have some suggestions.

2 PRINT CONSOLE 4 – THINGS TO TRY

2.1 Read the Print Console online help!

It has lots of good information!

Access the Print Console online help by selecting **Help > Print Console Help**.

The online help provides a good overview of how Print Console 4 has changed from Print Console 2 and 3. Read all of the online help topics except perhaps for the individual errors listed in the 'Troubleshooting Magnus Errors' section.

Use context sensitive help to display help for any GUI item of interest:

1. Select the menu **Help > Context Help** or press the F1 key.
2. Click on a GUI element of interest – voila, the topic of interest is displayed!

2.2 Generate an Operator Prompt

This exercise generates a 'device suspend' or operator prompt in order to show:

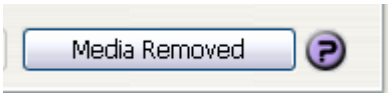
- How Print Console 4 displays operator prompt information.
- How a single button click displays **online help for a specific CTP error**.
- How you can access a **video** for an error recovery procedure.

Type the following commands in the DOS simulator window to generate a suspend:

- access dev
- suspend add 45904 1 0x10

When the suspend is displayed by Print Console **please**:

- Select the help button – this will display the help topic for this specific error. The help button is the purple button in the lower right corner and is available when there is a help topic for a specific error number.



- When the online help topic is displayed in response to pushing the purple help button:
    - Read the online help.
    - Select the **video**.

2.3 Submitting Jobs

All file processing has been consolidated to workflow now; see the Supported Workflows section. So to see Print Console 4 process a job you will either need:

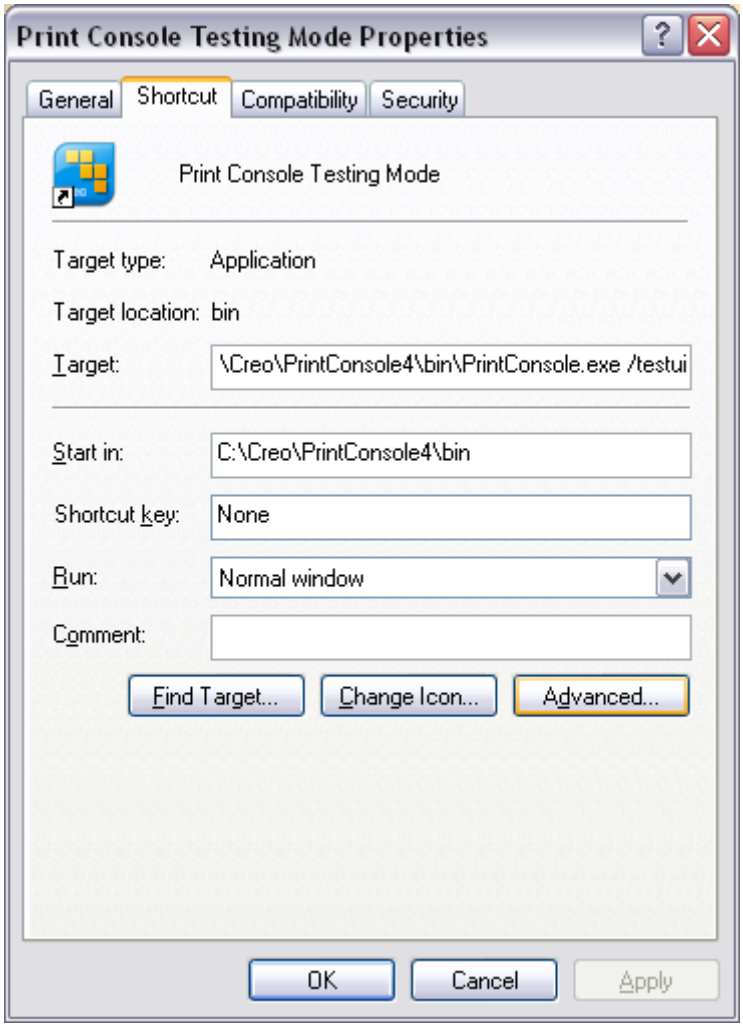
- A workflow installed.
- To run Print Console 4 in 'test UI' mode – see the following section.

2.4 Test UI Mode – Running Print Console 'Stand Alone'

Print Console 4 can be run in a testing mode which allows you to see how Print Console behaves without the need for a workflow or a CTP simulator. Note that it is more realistic to run with a workflow, but this is not practical on all workstations.

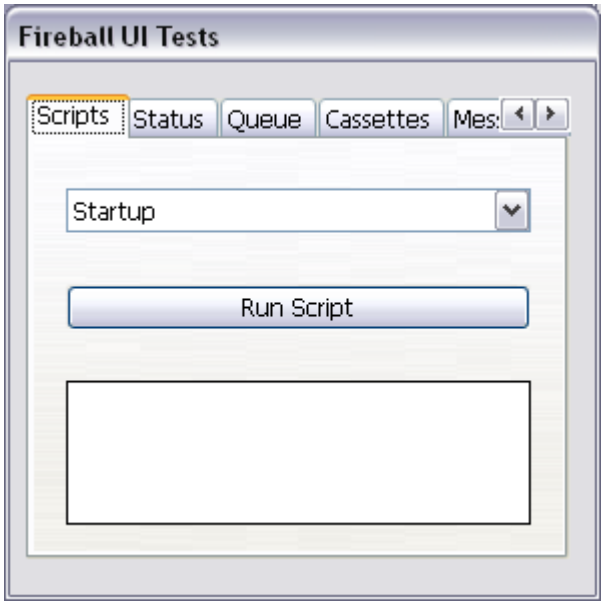
To run Print Console in 'test UI' mode:

1. Make a copy of the Print Console shortcut on your desktop. Re-name this shortcut to something like "Print Console Testing Mode".
2. Edit the properties of this new shortcut; right-mouse click → Properties.
3. Add **/testui** to the end of the **Target** setting – see the following screen shot of the properties window for this shortcut.



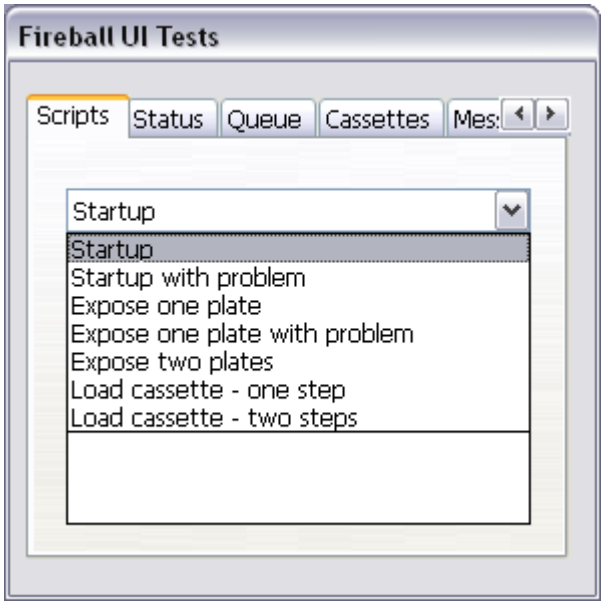
Click on this shortcut to run Print Console 4 in 'test UI' mode.

This will run Print Console with an additional testing window that allows you to exercise the GUI in different ways. Here is a screen shot of the UI Test control window (Fireball is the code name of Print Console 4).



Press the **Run Script** button to run the script for the typical startup sequence.

To see what Print Console looks like when processing a job, select any one of the following scripts: “Expose one plate”, “Expose one plate with problem”, or “Expose two plates”



Then press the **Run Script** button.

You can use the other tabs in the UI Tests window to drive the Print Console UI without a simulator or a workflow.

2.5 Operator Prompts – Loud, Louder, Loudest

This exercise shows how you can adjust Print Console to draw more attention to the workstation when an operator prompt is displayed.

1. Start Print Console.
2. Select the Tools Mode (the **Tools** button at the top left).
3. Select the preferences tool, it's this button 
4. Select the 'display' category in the preferences tool

Try the settings in each row of this table – to see the effect on *how* Print Console displays an operator prompt:

Text Size	Auto expand	Enhanced Attention!
Smallest	No	No
Medium	Yes	No
Medium	Yes	Yes

Select the settings in a given row and generate an operator prompt – see Generate an Operator Prompt for details on how to generate an operator prompt.

2.6 Mini View – Share the desktop with Workflow

Select the Mini View Mode by pressing the **Miniview** button.

This view shares the desktop with your workflow application while showing you the essential information about the CTP. The information displayed includes… the status of the device, the Queue tab – showing the status of plates moving through each stage of the device, and the Cassette tab – showing the current configuration and status of cassettes.

To return to the 'full screen view' of Print Console, click on the 'Full Screen View' button at the bottom of the Mini view screen.

2.7 Mini View – See-through!

Note also that the Mini View can be configured to be transparent.

Select **Tools > Preferences > Display > Mini View Transparency**

The 'Mini view transparency' setting allows you to make the Miniview window solid (0) or transparent (1 to 90), where 90 is the most transparent. Try 30% transparent. Click apply and return to the Mini View.

Now you can see other applications through the Mini View window.

The Mini View becomes solid again when you place the cursor over the Mini View window.

3 SUPPORTED WORKFLOWS

The workflows supported by Print Console 4 are listed here. Note that the plan is to eventually support all workflows, but there are some exceptions for Brisque with the initial release of Print Console.

Workflow	**Input File Formats** Some workflow configurations	**Supported**	**Data Path Supported**		
			SCSI **TMCE**	TSP	Gigabit Ethernet **GMCE**
Prinergy Connect	PDF, PS, DCS, EPS, CT/LW, TIFF/IT	December 2005	✓		✓
Prinergy Evo - Normalize	PDF, PS, DCS, EPS, CT/LW, TIFF/IT	December 2005	✓		✓
Prinergy Evo - Output from PostScript	PS	December 2005	✓		✓
Prinergy Evo – TIFF	1-bit TIFF	December 2005	✓		✓
Brisque **Via Screen2Go and Evo TIFF Hot Folders**	CT/LW, PDF, ICF,TIFF (1-bit, IT, 8-bit)	December 2005	✓		✓
Brisque Direct		TBD		✓	
Brisque Direct		TBD		✓	✓
Synapse News Manager	PDF, 1-bitTIFF	TBD	✓		✓
3rd Party Workflows via Evo TIFF Hot Folders	3rd party	December 2005	✓		✓

Note that the Brisque via Screen2Go and Evo TIFF Hot Folders is a short term solution that will be replaced by Brisque direct solutions in 2006.

4 NEW GMCE WORKSTATION ARCHITECTURE

Print Console 4 is part of a new workstation and electronics architecture that supports two types of CTP electronics and the new TH3 thermal imaging head. This section describes the new architecture in enough detail to show how Print Console fits in. The highlights of this new architecture are:

- Support for two types of electronics:
  - **GMCE** (Gigabit Machine Control Electronics).
  - **TMCE** (Trendsetter Machine Control Electronics).
- A **Gigabit Ethernet** connection for GMCE configurations. This simplifies the connection to the workstation for both control and image data. Note that it is required to deliver image data quickly enough for the TH3 head.
- A new version of **Print Console**.
- New workstation components which provide a **standard interface** to CTP devices for:
  - Control – via **DCAPI** (Device Control API).
  - Image Data Path – via **PSRM** (Post Screening Raster Manipulation).

  These components provide a common interface for control and image data to different device configurations for Print Console and Service Tools.

4.1 Basic Hardware Configurations

The following table summarizes the basic hardware configurations supported by this new architecture.

Configuration (Electronics)	Heads Supported	Connection / Purpose	Support Hardware
TMCE Legacy	TH2 TH1	Control of the CTP	Serial card and cables
		Diagnostic Commands	
		Deliver Image Data	SCSI card and cable
GMCE	TH3 TH2	Control of the CTP	Gigabit Ethernet card and cable
		Diagnostic Commands	
		Deliver Image Data	

4.2 Controlled Release Installer

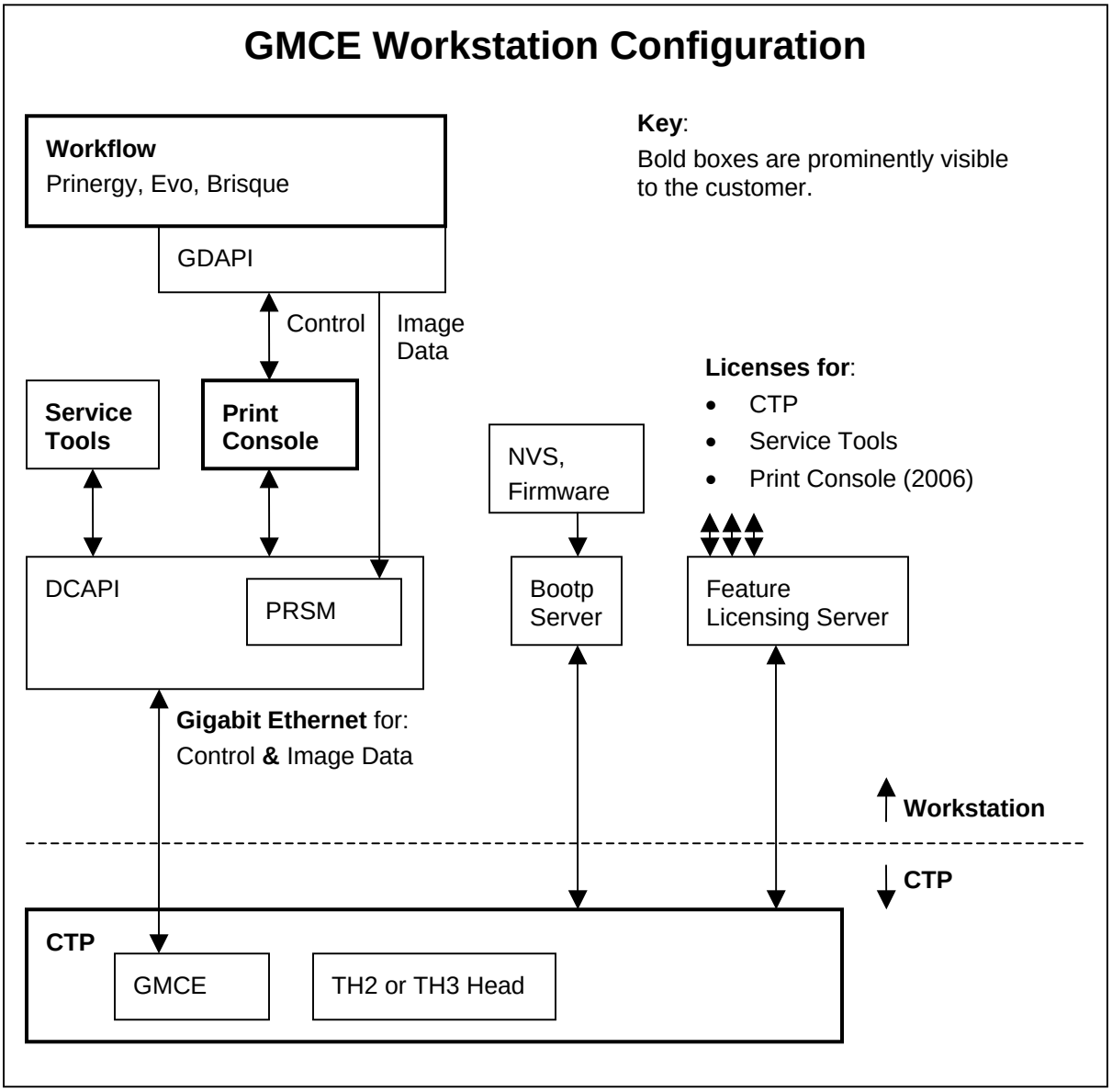
A Controlled Release Installer has been created to install all of the components of the New Architecture and to simplify the installation process. **A configuration of the CR installer was used to install the Print Console simulation environment and this document**.

The Controlled Release installer:

- Copies all components onto the workstation – in case anything needs to be re-installed.
- Allows you to select the configuration for the Controlled Release; example configurations include:
    - GMCE for TH2
    - GMCE for TH3
    - TMCE for TH2
    - GMCE – no head
    - TMCE – no head
- Calls the installers for all of the components that form the Controlled Release.

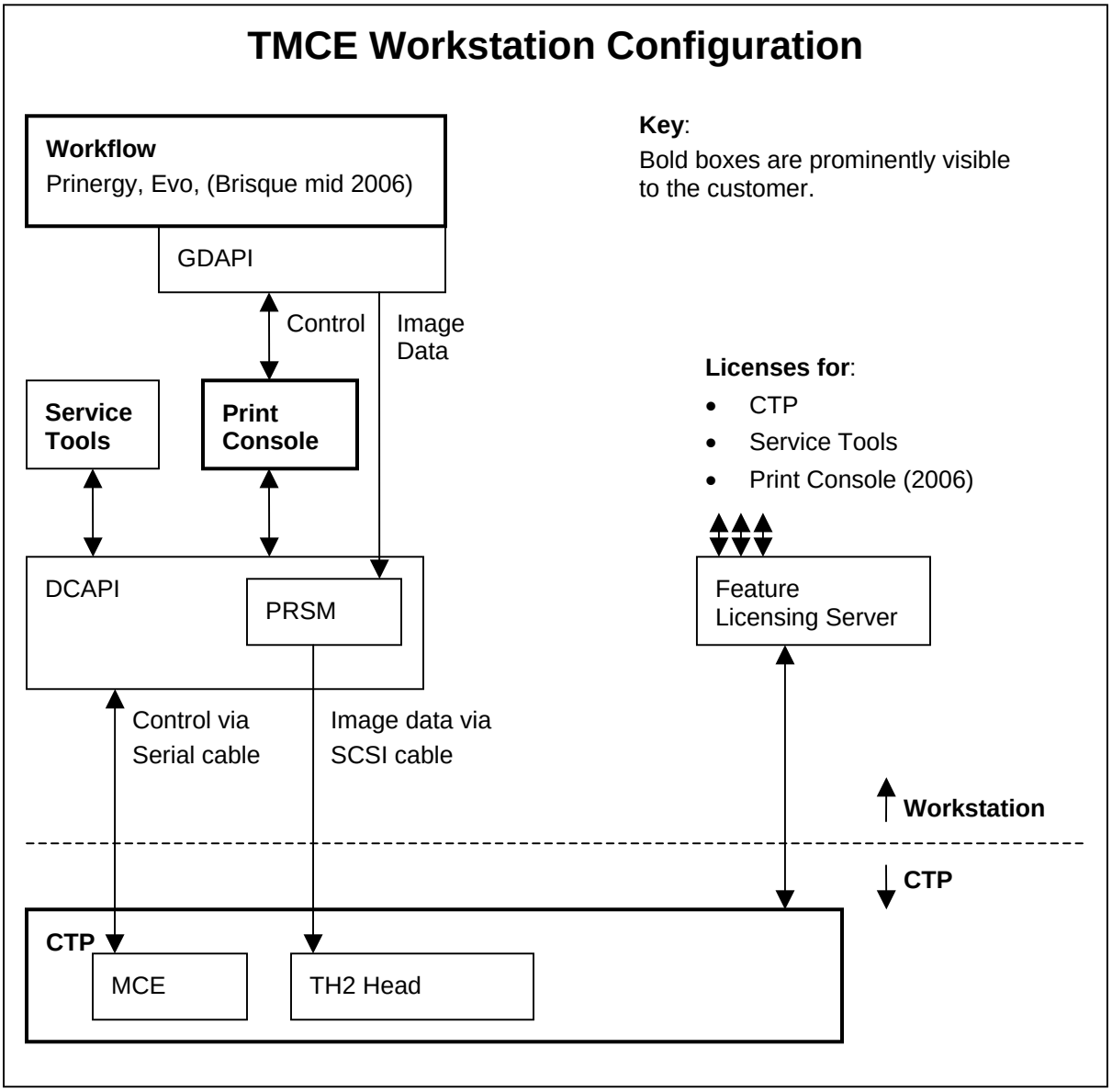
4.3 GMCE Workstation Diagram

The following diagram shows a **GMCE** workstation configuration – each of the components is described in the Meet the Workstation Software Components section below.



4.4 TMCE Workstation Diagram

The following diagram shows a **TMCE** workstation configuration – each of the components is described in the Meet the Workstation Software Components section below.



5 MEET THE WORKSTATION SOFTWARE COMPONENTS

Use this section in conjunction with the workflow diagrams in previous sections.

This section provides a brief description of the workstation software components – their basic purpose, how they are installed, how they are started, and where they log information.

Note that all components, except workflow, are installed by the Controlled Release Installer shipped with the CR. A configuration of the CR installer was used to install the Print Console simulation environment and this document.

5.1 GDAPI

GDAPI	Generic Device Application Programming Interface
Purpose	Provide a common interface to Trendsetters for all workflows
Installed by	The Print Console installer
Started by	Workflow
Logs to	Workflow log files and \Creo\PrintConsole4\log

5.2 Feature Licensing

Purpose	License CTP features. Licenses can be for customer features or service tools. Licenses can also be permanent, temporary, or emergency
Installed by	The Feature Licensing installer
Started by	Automatically by Windows as a service
Logs to	\Creo\FeatureLicensing\Logs

5.3 Print Console

Purpose	Provide CTP status, CTP suspend information, plate status, and CTP configuration.
Installed by	The Print Console installer
Started by	The Operator
Logs to	\Creo\PrintConsole4\Log

5.4 Log Message Culvert

Purpose	Log troubleshooting information for: Print Console, GDAPI, DCAPI, and PSRM
Installed by	The DCAPI installer
Started by	Automatically by Windows as a service
Logs to	\Creo\PrintConsole4\Log

5.5 Stat Event Culvert

Purpose	Log statistics for: Print Console and Firmware
Installed by	The DCAPI installer
Started by	Automatically by Windows as a service
Logs to	\Creo\PrintConsole4\EventLog

5.6 DCAPI

DCAPI	Device Control Application Programming Interface
Purpose	Provide a common interface to the CTP for Print Console and service tools
Installed by	The DCAPI installer
Started by	Automatically by Windows as a service
Logs to	\Creo\PrintConsole4\Log

5.7 PSRM

PSRM	Post Screening Raster Manipulation
Purpose	Provide a common data path for Workflow and Service Tools to TMCE and GMCE systems
Installed by	The DCAPI installer
Started by	Automatically by Windows as a service
Logs to	\Creo\PrintConsole4\Log

5.8 NVS

NVS	Non Volatile Storage
Purpose	Firmware configuration and GC settings. **Note for GMCE configurations that NVS resides on the workstation and is loaded on each CTP startup**
Installed by	The Firmware installer
Started by	Loaded from the workstation to the CTP in the first seconds of each CTP startup
Logs to	N/A

5.9 CTP Firmware

Purpose	Control the CTP. **Note for GMCE configurations that Firmware resides on the workstation and is loaded on each CTP startup.** Updating Firmware consists of copying the Firmware executable to a workstation directory
Installed by	The Firmware installer
Started by	Loaded from the workstation to the CTP in the first seconds of each CTP startup
Logs to	\ServiceShell\Logs

5.10 BootP

Purpose	This is a 'GMCE only' component. BootP server is a Windows service on the workstation that provides IP addresses to the GMCE and TH3 on startup: GMCE = 192.168.100.193, TH3 = 192.168.100.145 Synchronizes GMCE firmware and parameters to a back-up on the workstation by automatically: • Downloading the workstation copy of product firmware to the GMCE board on startup • Uploading NVS parameters to the workstation regularly (every 5 s) and downloading them at startup as a substitute for battery-backed RAM Configuration of BootP is from CreoBootp.ini file driven by Service Host Configuration Wizard. **DO NOT** edit manually as you may lose device and head diagnostic access.
Installed by	The Firmware installer
Started by	Automatically by Windows as a service

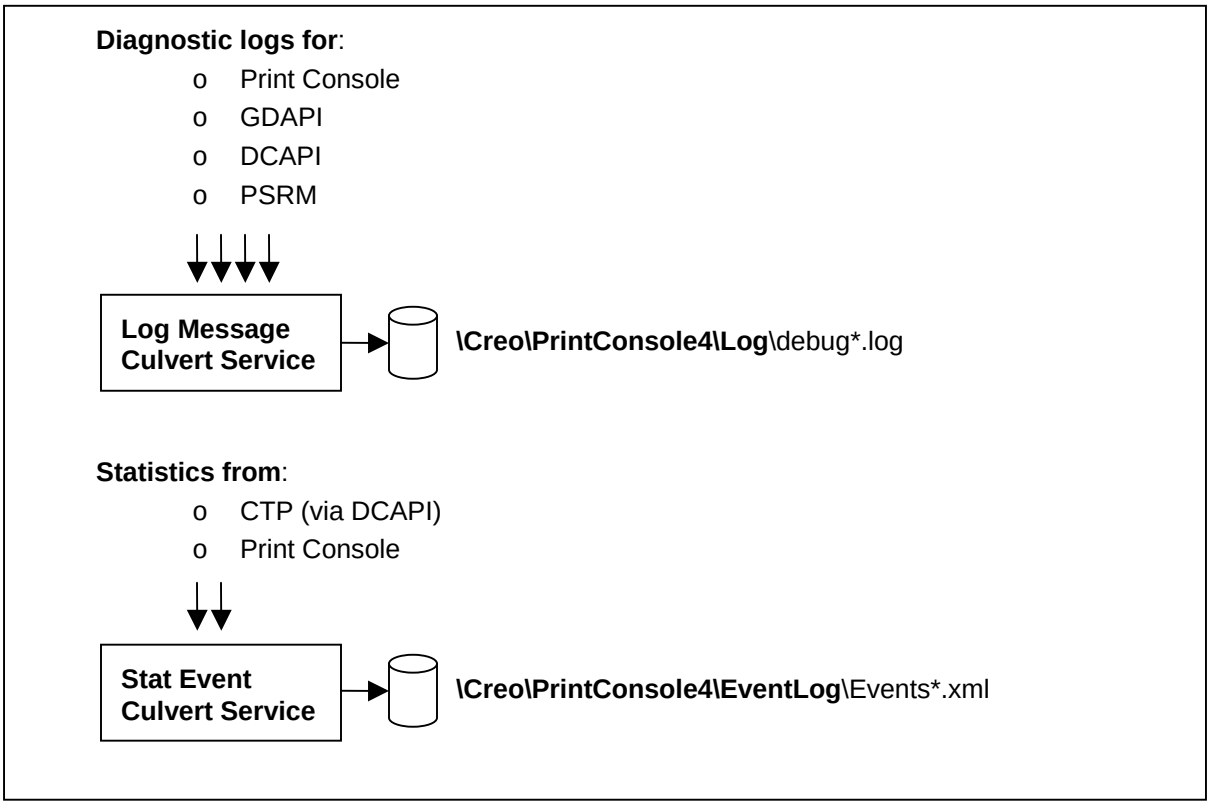
6 LOGGING SERVICES

There are two logging services. The following diagram shows

- The '**Log Message Culvert**'
  This service logs debug information for Print Console, GDAPI, DCAPI, and PSRM.

- The '**Stat Event Culvert**'.
  This service logs statistics for the CTP and Print Console. These are used by Product development to track error rates and to troubleshoot devices.

These logging services are installed by DCAPI and run in the background as Windows Services.



The diagram also shows which clients use these services and where these services create log files.

6.1 Log Message Culvert

This service logs debug information for Print Console, GDAPI, DCAPI, and PSRM.

The registry settings for the Log Message Culvert are located in KEY_LOCAL_MACHINE\SOFTWARE\Creo\LogManager. Here are the items to control the number and size of log files created.

- MaxLogFileBackups

  This determines the number of log files kept on the hard drive. If this number is ‘n’, then the creation of file ‘n+1’will result in the deletion of the oldest log file.

  This will be changed in a future release to MaxDaysLogFileBackups so that logging verbosity levels will not impact the number of days of log files available – as they do with this current approach.

- MaxLogFileSize

  This numerical value determines the number of lines of text in each log file. When a file reaches this number of lines, then a new file is created.

6.2 Statistics Event Culvert

This service logs statistics for the CTP and Print Console. These are used by Product development to track error rates and to troubleshoot devices.

The registry settings for the Stat Event Culvert are located in KEY_LOCAL_MACHINE\SOFTWARE\Creo\StatisticEventManage