BERTL OUTSTANDING

Toshiba e-STUDIO855

85-ppm Monochrome

Print ▪ Copy ▪ Scan ▪ Fax

Key Buyer Benefits

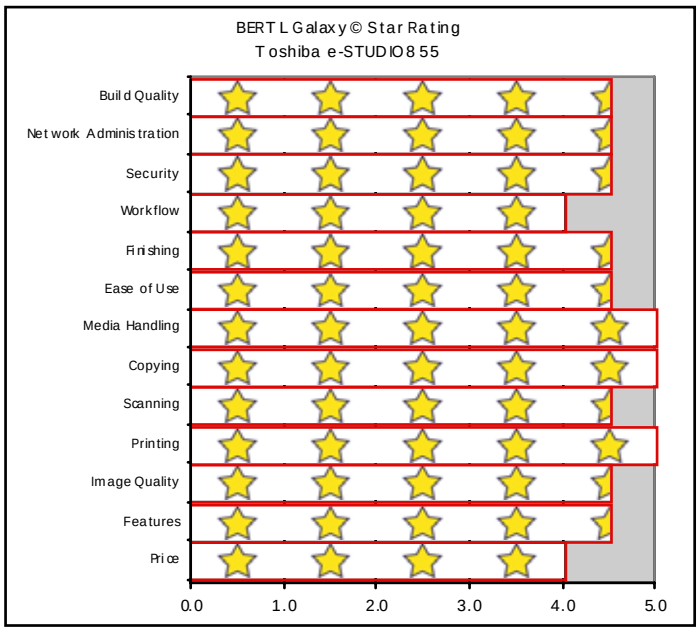
- Energy Star and RoHS compliant
- Superior print and copy productivity
- Good image quality creates professional presentations, graphics and office documents
- Control Panel displays animated step-by-step procedures for device maintenance
- Great design and ease-of-use with the PCL6, PostScript and XPS drivers
- Professional finishing options including saddle stitching, booklet making, stapling and hole punch
- Outstanding ease-of-use for clearing misfeeds, loading paper, and changing toner
- Toner can be changed on the fly without any interruptions
- Flexible desktop and network utilities via TopAccess Internet service delivers exceptionally easy to use device monitoring
- Scan to and Print from USB Flash Drives
- Security features include; advanced encryption standard (AES) hard disk encryption, IPv6, IPSec, SNMPv3 and 802.1x network authentication, secure PDF scanning and an optional Data Overwrite kit

100% INDEPENDENT ANALYSIS

September 2009

TABLE OF CONTENTS

OFFICE



ABOUT BERTL'S GALAXY© STAR RATING

BERTL understands how difficult it is to choose one office-imaging device over another and exists to make this an easier choice for the consumer. That said, how does a consumer decide between two or more devices that carry the same BERTL 3-, 4- or 5-star rating?

Category-Criteria

Build Quality - An analysis of the construction quality of the major components that the user must interact with on a regular basis (e.g.: paper trays, access covers, supplies, etc.).

Network Administration - The quality of administrative and management utilities (both executable and Web-based) when compared to that of a sliding scale benchmark based on the network administration feature set of other vendors.

Security - A security feature-set analysis (removable hard disk, hard-disk overwrite, encryption, IP filtering, Microsoft Windows NT Authentication and LDAP lookup) when compared to a sliding scale benchmark based on the security feature set found on other devices.

Workflow - The quality of the network scanning, job submission, document management, sharpening and enhancement, file conversion and job layout tools based on a sliding scale benchmark when compared to the workflow tools employed by other devices.

Finishing - The productivity penalty (punch, staple, booklets) based on tests and finishing specifications and effectiveness based on a sliding scale benchmark when compared to that of other finishing systems found on other devices.

Ease of Use - Ease of maintenance (adding paper, toner, misfeeds, cleaning) and ease of using the documentation, help, control panel, print drivers and client utilities when compared to a sliding scale benchmark based on of the ease of use of other devices.

Media Handling - Throughput specifications and evaluations based on a sliding scale benchmark when compared with the handling of special media (e.g.: oversize, thick or coated stock) found on other devices.

Copying - Copy productivity based on tests and a feature-set analysis when compared to a sliding scale benchmark based on the feature set found on other devices.

Scanning - Simplex and duplex scan productivity and quality based on tests and a comparison of the overall scan and send feature set when compared to a sliding scale benchmark based on the feature set found on other devices.

Printing - Duplex and simplex print productivity based on tests and a printing feature set analysis when compared to a sliding scale benchmark based on the feature set found on other devices.

Image Quality - The quality of business color images (text, dot, line, halftone and solid quality) based on tests and a subjective rating on the quality of continuous tones (photos) when compared to a sliding scale benchmark based on the continuous tone quality produced by other devices.

Features - The feature set compared to a sliding scale benchmark based on the feature set found on other devices.

Price - MSRP of a system configured with network printing, copying, scanning, and two media trays/rolls (wide format) configuration.

In June 2009, Toshiba America Business Solutions announced the expansion of its monochrome MFP product line e-STUDIO555/655/755/855. This series comes with a host of forceful features for businesses of all sizes. Features include: print and scan as a standard function; a full-color 8.5" WVGA touch-screen; scan-to and print-from-USB and an impressive monthly print volumes of 600,000 pages. These versatile monochrome multifunction products (MFPs) also offer enhanced productivity and superior image quality.

BERTL recently tested the Toshiba e-STUDIO855, which has a rated print speed of up to 85 ppm monochrome and has high toner yields of 62,400 impressions per bottle and a drum and developer yield of 600,000 pages. The e-STUDIO855 has flexible media capabilities with a maximum paper capacity of 7,600 pages, the ability to print on stock as heavy as 110lb. index (203 gsm) and paper sizes up to 11"x 17".

The new e-STUDIO855 monochrome MFP is designed to be easy on the environment and offers the following features:

- Energy Star and RoHS compliant
- Standard Automatic Duplexer
- High quality output with 2,400 x 600 dpi resolution
- Toner cartridges can be changed on the fly
- Paper (from any paper source that is not in use) can be replenished during operation eliminating downtime
- 1 GB RAM and a standard 60 GB Hard Disk Drive
- Standard 10/100BaseT Ethernet, 802.11b/g Wireless LAN, USB, Bluetooth (HCRP) and USB 2.0 connectivity
- View job queues and check supply levels remotely with Toshiba's Web-based interface TopAccess
- Private Printing feature provides extra security to help ensure files are safe
- Features Toshiba's third generation e-BRIDGE controller with Open Platform architecture. This technology allows third-party software applications, such as Microsoft SharePoint and Exchange, to integrate directly with the e-STUDIO device
- The Data Disk Overwrite option automatically overwrites hard drive data after each copy, scan, fax and print job
- Superior finishing options including saddle stitching, booklet making, stapler and hole punch

This series is available in four different models/ configurations and sold exclusively through Toshiba authorized providers. Pricing for each model in the series is as follows:

- e-STUDIO855 $36,995
- e-STUDIO755 $29,495
- e-STUDIO655 $24,495
- e-STUDIO555 $19,995

In the following test report, BERTL takes an in-depth look at the Toshiba e-STUDIO855, testing and evaluating its productivity, image quality and ease-of-use.

Toshiba e-STUDIO855 Features Summary	
List Price	$36,995
Imaging Technology	Electrostatic Photographic
Standard Functions	Print, Copy, Scan, Document Filing
Optional Functions	Fax
Maximum Monthly Print Volume	600,000
Mono Print Speed	85 ppm
Mono First Page Out Time	Less than 3.5 seconds
Automatic Duplex	Yes
Network Scanning	Yes
Color Scanning	No
NT Authentication	Yes
LDAP Compatibility	Yes
Hard Disk Overwrite	Yes

The Toshiba e-STUDIO855 as tested by BERTL.

PRINT PRODUCTIVITY

Evaluating print productivity is not as simple as timing copy jobs. The printing process involves several steps and can be affected by a variety of factors along the way.

The document must first be spooled by the print driver into a PCL or PostScript file. The PCL or PostScript file is then sent to the printer where it is raster image processed (Ripped) into image data by the device processor. The image data is then sent to the marking engine and output as printed pages.

There are three obvious factors highlighted above (spool time, RIP time, and print engine speed), which can all make or break a device's overall productivity. Other factors that could affect productivity and print speed of the device are the use of other device functions such as scanning and faxing.

It is possible to time and compare these factors through the use of careful preparation, conditioning and testing. Following are charts that show printing performance when tested under controlled conditions.

PRINT DRIVERS (PDLs)

+ The e-STUDIO855 also delivers multiple Page Description Languages (PDLs) including the following; PCL6, PostScript 3 and XPS.

+ The PostScript and PCL6 drivers offer bidirectional communication with the device with its user-selectable interface for all of the Windows base operating systems.

+Driver supports the following OS's; Windows 2000/XP/2003/Vista/2008, Mac X OS 10.2.4/10.3/10.4/10.5 (OS 10.4 PPD) UNIX, Linux, AS/400, and SAP R/3

OPERATING SYSTEMS SUPPORTED

+ The e-STUDIO855 offers support for a wide array of operating systems such as the following

- Windows 2000/XP/2003/Vista/2008
- Mac X OS 10.2.4/10.3/10.4/10.5
- UNIX
- Linux
- CUPS

NETWORK PROTOCOLS

+ Supported Network Protocols include: IPX/SPX, TCP/IP (IPV4/V6), EtherTalk, AppleTalk PAP, LPR/LPD IPP w/Authentication, Port 9100 Bluetooth, SMB and Netware.

CONNECTIVITY

+ Connectivity options for the e-STUDIO855 include Ethernet 10/100BaseT, USB 2.0, 802.11b/g Wireless LAN and Bluetooth (HCRP).

TESTING RESULTS

Network-Bandwidth/Print File Sizes			
	Native File Size	**PCL6**	**PostScript**
1-page Digital Photo PDF	4.48 MB	4.18 MB	5.62 MB
4 page Passport Form PDF	0.08 MB	277 KB	369 KB
16-page Magazine in PDF	1.78 MB	4.74 MB	3.30 MB
22-page Excel Worksheet	0.12 MB	255 KB	143 KB
32-page Text-Based PowerPoint	0.23 MB	1.99 MB	2.05 MB
32-page Graphic Intensive PowerPoint	4.20 MB	6.58 MB	6.21 MB
38-page Form Word Document	0.91 MB	3.29 MB	3.34 MB
50-page Text-Based PDF	0.17 MB	693 KB	1.50 MB

Print Productivity (seconds)			
# of Originals	**Mode**	**PCL Driver**	**PostScript Driver**
50	Simplex	81.9	85.5
50	Duplex	80.9	82.1

			First Page Out Time (seconds)		Job Time (seconds)	
Job List	**Media Size**	**Mode**	**PCL6**	**PostScript**	**PCL6**	**PostScript**
1-page Digital photo print original	Letter	1:1	13.50	14.47	13.50	14.47
4-page Passport Form PDF	Letter	1:1	10.05	10.33	13.31	12.00
16-page Magazine PDF	Letter	1:1	12.36	10.27	23.48	24.64
22-page Excel Worksheet	Letter	1:1	11.88	13.90	25.23	29.10
32-page Text-Based PowerPoint	Letter	1:1	14.40	15.99	40.43	71.12
32-page Graphic Intensive PowerPoint	Letter	1:1	22.52	25.85	45.25	43.63
38-page Form Word Document	Letter	1:1	12.67	14.15	40.06	40.47
50-page Text-Based PDF	Letter	1:1	22.77	24.97	58.25	58.35
50-page Text-Based PDF (duplex)	Letter	1:2	25.27	27.77	60.38	62.32

WHAT WE LIKED

- Tested simplex network-print speed with the PostScript driver was as fast as 85.5ppm, matching Toshiba's rated speed of 85 ppm.
- Tested simplex network-print speed with the PCL6 driver was as fast as 81.9 ppm.
- Tested duplex network-printer productivity was extremely productive up to 82.1 ppm with the PostScript driver and 80.9 ppm with the PCL6 driver.
- Tested First-Page-Out-Time was 10.05 seconds with the PCL6 driver and 10.33 seconds with the PostScript driver.
- In BERTL's job stream test the PCL6 driver completed the stream job test in 5 minutes and 31:19 seconds, running at 70 ppm, which translates to an efficiency rate of 82%. Using the PostScript driver the efficiency rate was up to 73%.

WHAT WE WOULD LIKE TO SEE

- BERTL was extremely satisfied with the Toshiba e-STUDIO855's performance in network-printer mode.

COPY PRODUCTIVITY

Advertised speeds are always quoted using the simplest route—in-and-out of a device. Of course, users often apply finishing options, incorporate different media sizes and types into the document, print in duplex, and add other elements that can affect speed. In the chart below, BERTL tests how different modes—mixed-size original mode and duplex mode—affect document-feeder productivity.

To assess copier productivity, BERTL ran copy jobs in order to determine document-feeder scanning speed, the affect of the first set out on overall engine speed, and whether specific job attributes affect engine throughput capability. Each job was set up by feeding media from the shortest media route to the shortest available output destination. A separate test examines how adding finishing/output destinations affects productivity.

COPY FEATURES

+ The e-STUDIO855 comes standard with a Reversing Automatic Document Feeder (RADF) with capacity for up to 100-sheet.

+ Users can submit jobs that require single or duplex copying. The e-STUDIO855 supports copy jobs that require 1:1, 1:2, 2:2 and 2:1 side printing.

+ Users can make copies that range from 1 to 999 in quantity.

+ Toshiba's Rated Output Speed is up to 85 cpm.

+ Toshiba's Rated First-Copy-Out Time (FCOT) is as fast as 3.5.

+ Copy Resolution is set at 2400 x 600 dpi.

+ The Toshiba's can simultaneously copy, fax and scan.

+ Users can use the variable zoom to scale from 25% to 400% in 1% increments.

First Copy Out Time Using the Automatic Document Feeder	
	Monochrome Mode
Number of Originals	**Time In Seconds**
1 Simplex Original	6.32
1 Duplex Original	13.12

First Copy Out Time Using the Platen Glass	
	Monochrome Mode
Number of Originals	**Time In Seconds**
1 Simplex Original	3.90

Copy Job Time			
# of originals	**Monochrome Mode**	**Time In Seconds**	**CPM**
10	1 sided to 1 sided	16.38	36.6
10	1 sided to 2 sided	20.31	29.5
10	2 sided to 1 sided	34.13	17.6
10	2 sided to 2 sided	37.25	16.1

Copy Productivity (seconds)		
# of Originals	**Mode**	**Monochrome**
50	**Simplex**	80.1
50	**Duplex**	80.0

Above and next page: The Toshiba e-STUDIO855 platen glass and automatic document feeder (ADF).

Document Finishing Penalty				
# of originals	**Finishing Selection**	**Time In (Sec)**	**1 Set Time (Sec)**	**Penalty (Sec)**
10/5	Corner Staple	93.41	23.74	1.47
10/5	Side Staple	58.47	16.75	0.04
8/5	Saddle-Stitch Booklet	172.50	39.56	2.32
10/5	Covers and Inserts	147.91	34.64	3.65

The "Copy" touch screen is clearly labeled and easy to read and can be adjusted to avoid any glares.

Document Feeder Productivity

BERTL also takes the user into account and looks at how document-feeder productivity affects the amount of time a user has to wait at the device before they can walk away with their originals.

Document Feed Speed			
# of originals	**Monochrome Mode**	**Time In Seconds**	**OPM***
11	Simplex Originals	14.16	42.4
6	Duplex Originals	29.38	10.2
11	Mixed Originals	17.23	34.8

*Originals per minute.

WHAT WE LIKED

- Copy touch screen is clearly labeled and easy to use.
- Tested copy First-Page-Out-Time was 3.90 seconds off the platen glass and 6.32 seconds using the automatic document feeder.
- Tested total job time in simplex mode was 80.1 cpm; closely matching Toshiba's rated copy speed of up to 85 ppm.
- Very productive duplex copier productivity—up to 80.0 cpm.

WHAT WE WOULD LIKE TO SEE

- BERTL was very satisfied with the Toshiba e-STUDIO855's performance in copier mode.

Scanning Features

+ The e-STUDIO855 offers users the option to scan their jobs in using Grayscale and Black and White.

+ Users can scan while the system is copying, printing or while it is transferring scan to network or fax jobs.

+The input scanning speed for the e-STUDIO855 is 80 spm using letter-size paper at 300 dpi.

+Authentication include; LDAP, SMTP and Windows Server Domain

Resolution

+ This device offers several resolution options aimed at satisfying the most demanding customers. Options include the following:

- 150 dpi
- 200 dpi
- 300 dpi
- 400 dpi
- 600 dpi

File Formats

+ Toshiba provides users with a multitude of file format options which include;

Standard Features;

- PDF
- Single Page (i.e. Batch mode)
- Multi-Page
- Secure PDF
- TIFF
- JPEG

Advance Scanning Options;

- XPS
- Automatic OCR
- MS Word
- MS Excel
- Searchable PDF w/Adv. Scanning option

These options are sure to meet the needs of the most demanding user.

Scan to E-mail

+ The e-STUDIO855 supports Scan to Email. Users can direct their document destination directly from the device.

+ Users can easily look up and search for a destination or e-mail address by accessing LDAP address directly from the control panel.

Scan to USB

+ By using this feature, users will be able to scan their original documents and save the documents in electronic format into a USB memory device.

WS-Scanner

+ This feature is compatible with the WSD (Web Services for Devices) specifications introduced with the Microsoft Windows Vista. Allowing the user to make preconfigured settings on their client PC and be able to scan documents to their client PC under those specified settings. The benefit for using this function is that it would allow the user to be able to use the settings of their choice without having to create the settings each time in front of the MFP device, which improves workflow and productivity.

Scanning Productivity Test (Pages Per Minute)

Res (DPI)	Scan Color	File Type	Scan Time (sec.)	File Size (MB/KB)	Scans per Minute
200	Black	PDF	10.91	220 KB	55.00
300	Black	PDF	10.03	321 KB	59.82
200	Grayscale	PDF	10.72	2,559 KB	55.97
300	Grayscale	PDF	10.09	4,592 KB	59.46
200	Black	PDF	11.25	282 KB	53.33

*Scan productivity is evaluated based on a test of 1-10 letter sized pages.

WHAT WE LIKED

- Images can be scanned, printed and faxed directly to the device's hard drive and stored in e-Filling boxes. Scanned images stored in the e-Filling boxes can then be printed at any time (print-on-demand) e-mailed, sent via fax, sent via Internet fax or routed to a computer workstation.
- No print slowdown when scanning in jobs or when scan-date transfer is underway.
- LDAP compatibility enables users to access the network address book, making destination-management chores easier for network administrators.
- Scan-to-USB feature allows users to scan documents to a USB memory device for instant portability.
- In BERTL's scan productivity test the e-STUDIO855 produced 53.33 ipm using black mode at 200 dpi.
- The smallest file size achieved was 220 KB using black text mode at 200dpi, while the largest file size obtained was 4,592 KB using grayscale photo mode at 300 dpi.

WHAT WE WOULD LIKE TO SEE

- BERTL was very satisfied with the Toshiba e-STUDIO855's scanning capabilities.

IMAGE QUALITY

BERTL evaluates the output of several "test targets" in order to determine image quality. Following are descriptions of key elements of image quality. Note the numbered examples on each of the test targets shown in the right column.

Office Color Image Quality

1. **Density of Solid Areas -** Better contrast; more vivid overall images
2. **Line Work -** Better production of lines and text
3. **Halftones -** Better production of photographic and screened images
4. **Negative/Positive -** Better production of fine detail

Photographic Color Image Quality

5. **Flesh tones -** Better production of portraits
6. **Banding -** Better solid and dithered fill
7. **Low Contrast -** Better production of dark images
8. **Saturation -** Better production of bright colors
9. **Caste** – Better color fidelity
10. **Fine Detail** – Better reproduction of fine details

Density of Solid Areas*		
	Copy Density	**Print Density**
Black	1.47	1.49

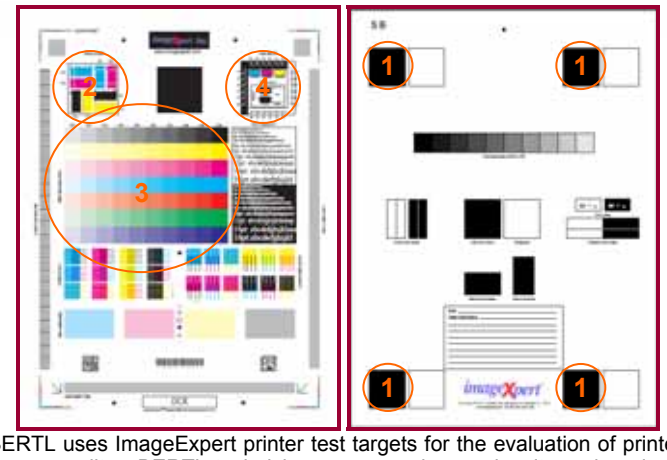
*Density is on a scale of 0 to 2.5, with 2.5 being the best possible.

Copy & Print Resolution*				
	Copy Resolution		**Print Resolution**	
	Vertical	Horizontal	Vertical	Horizontal
Black	3.6	3.6	3.0	3.0

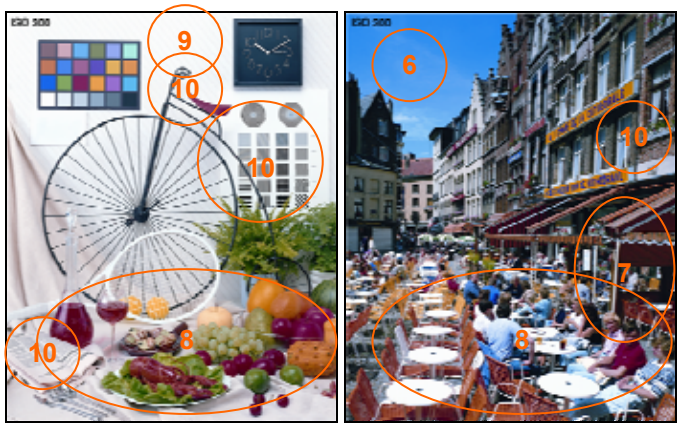
*Line Pairs per Millimeter. For copy resolution, higher is better (range, 2.0-8.0); for printer resolution, lower is better (range, 1.0-5.0).

Copy Halftones		
	Min. Gradation*	**Max. Gradation****
Black	10	100
Print Halftones		
	Min. Gradation*	**Max. Gradation****
Black	10	100

*Minimum gradation is on a scale of 10 – 100 percent in 10 percent increments. The best possible minimum gradation is 10 percent. **Maximum gradation is on a scale of 10 – 100 percent in 10 percent increments. The best possible maximum gradation is 100 percent.



BERTL uses ImageExpert printer test targets for the evaluation of printed image quality. BERTL technicians measure image density and evaluate the device's ability to produce a full range of halftones and various sizes of negative/positive text, dots and lines in each primary printing color (CYMK).



BERTL uses synthetic (photographic) test images obtained from **ISO International Standard 12640--Graphic Technology—Prepress digital data exchange—CYMK Standard Color Image Data (CYMK/SCID)** in order to evaluate the ability to print photographic images.

IMAGE QUALITY

Negative/Positive Lines*				
Line Width (points)	**Negative**		**Positive**	
	Vertical	Horizontal	Vertical	Horizontal
1	√	**x**	√	**x**
2	√	√	√	√
3	√	√	√	√
4	√	√	√	√
5	√	√	√	√
6	√	√	√	√

A "√" mark indicates the device was able to print the line width correctly. *Chart cells containing an "x" indicate that the printer was not able to print the line width correctly. Overall, the fewer "x's," the better the image quality. If no cells are marked with an "x," then the device was able to print all line widths correctly.

Negative/Positive Dots*	
Line Width (points)	**% of Dots Printed**
1 pixel Black	100
1 pixel Black Neg	0
2x2 pixel Black	100
2x2 pixel Black Neg	100
Checkerboard apparent?	No

*On a scale of 0 – 100%. The higher the percentage, the better.

WHAT WE LIKED

- Great print and copy density.
- Excellent resolution in both copy and printer modes.
- Great halftone reproduction in printer and copier modes when printing all grayscale shades.
- Output displayed good line control, printing nearly all of BERTL's negative/positive test lines correctly.
- Text was bold, crisp and cleanly formed.
- Excellent production of business charts and graphs.
- 2,400 x 600 dpi resolution.

WHAT WE WOULD LIKE TO SEE

- BERTL was satisfied with the Toshiba e-STUDIO855's image quality.

PROGRAMMING THE CONTROL PANEL

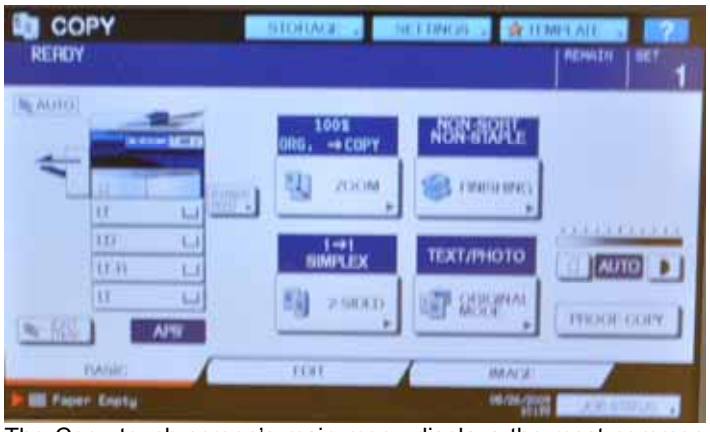
A control panel's ease of use—or lack of—can often have a significant effect on user productivity. The harder it is to select frequently used options such as duplexing, document finishing, etc., the more time the user has to spend programming the device and the less productive they are. Toshiba e-STUDIO855's control panel has a large full color 8.5" WVGA touch screen and several hard keys. On the right side of the control panel users can select different function keys such as Copy, e-Filing, Scan, Print and Fax. Also contributing to this device is the ability to Scan-to and Print from a USB flash drive instantly allowing users a more portable way of accessing their documents.

BERTL was exceptionally impressed with its animated step-by-step instructions for device management and error recovery.

In the chart below, BERTL assesses how many steps are required to make common place settings.

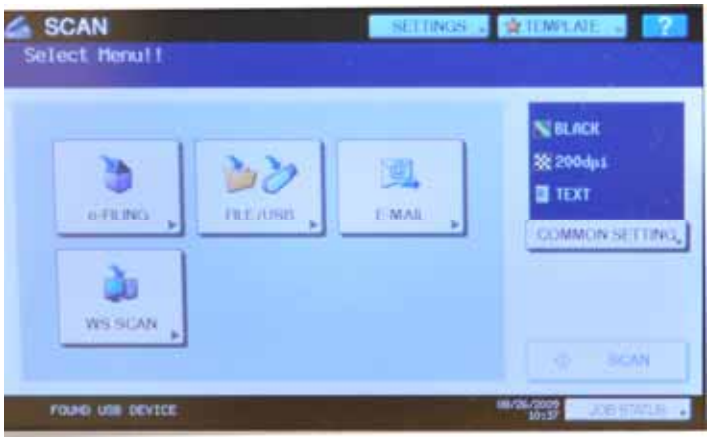
Selections Required for Frequently Used Copy Functions	
Photo Mode	2
Corner Staple	2
1:2	2
2:2	2
Front and Rear Covers	2

.

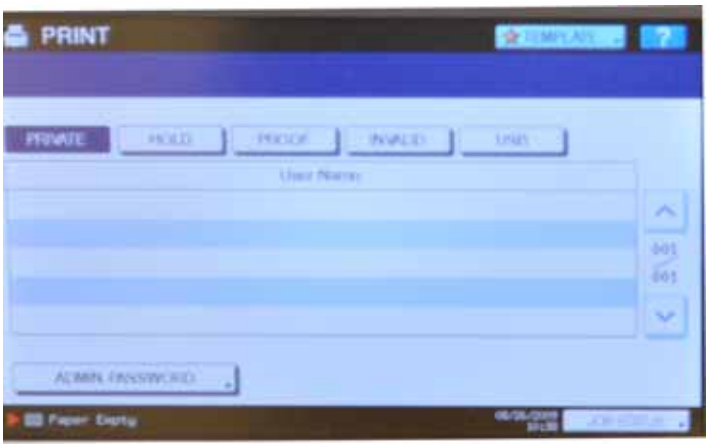


The Copy touch screen's main menu displays the most common copying choices. The blue highlighted buttons on the touch screen display currently selected settings.

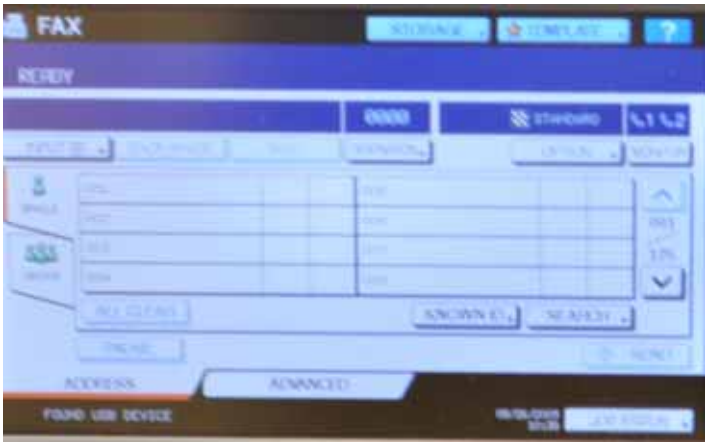
The e-Filing system has 1 Public box and 200 private user boxes in which can electronically store up to 400 documents pre folder for on-demand reprinting



In the Scan screen users have the option to scan to the following destinations; e-Filing, File/USB, Scan-to-Email and WS Scanning.



In the Print options screen users have the ability to view submitted print jobs and reset jobs.



Users can send faxes with a Super 3G fax modem with a transmission speed of approximately three seconds per page. Memory transmission has up to 1,000 destinations.

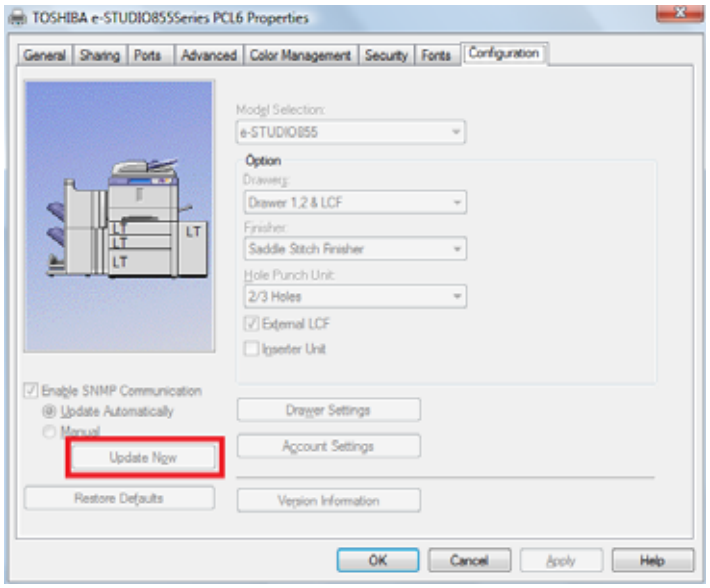
Users can take and print files with them instantly by scanning to and printing from USB flash drives. This port is located on the front and left of the control panel.

PCL AND POSTSCRIPT DRIVERS

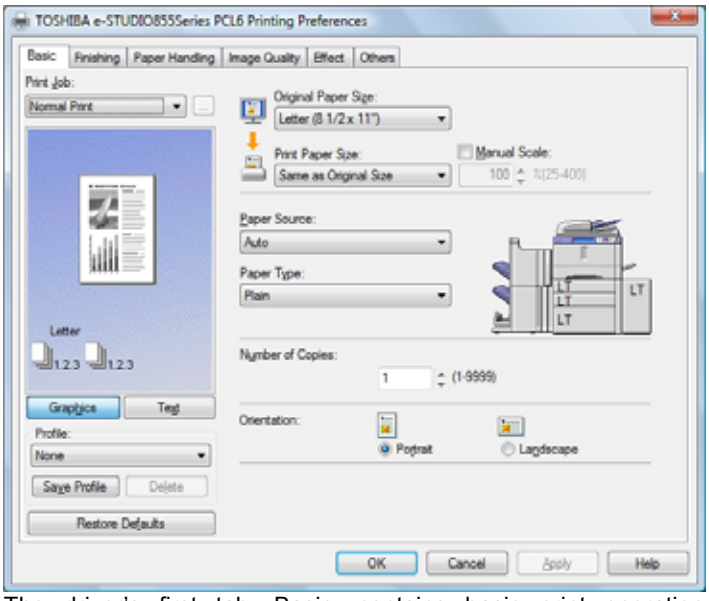
As with control panels and touch screens, print-driver design can vary enormously from manufacturer-to-manufacturer. Toshiba has made it a simple process with their design of the PostScript and PCL drivers. The drivers are the same as other Toshiba device drivers, which will make it especially easy for Toshiba users to quickly acclimate to it.

Print-Driver Checklist	
Do print drivers have identical user interfaces?	Yes
Are print drivers interfaces identical to other models from this vendor?	Yes
Bidirectional communication within print drivers?	Yes
Auto device configuration from within print driver?	Yes
Does print-driver installation require rebooting of the workstation?	No
Are print-driver deployment processes included?	Yes
Are print-driver deployment guidelines and procedures included?	Yes

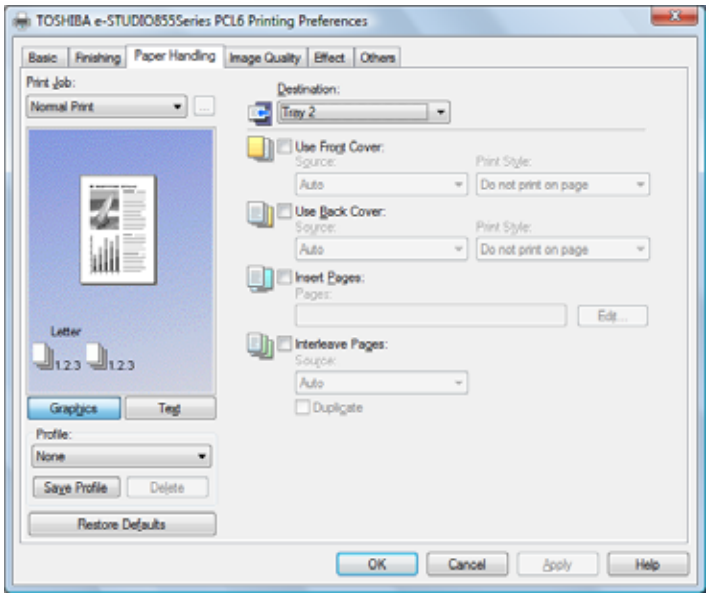
PCL6 PRINT DRIVER



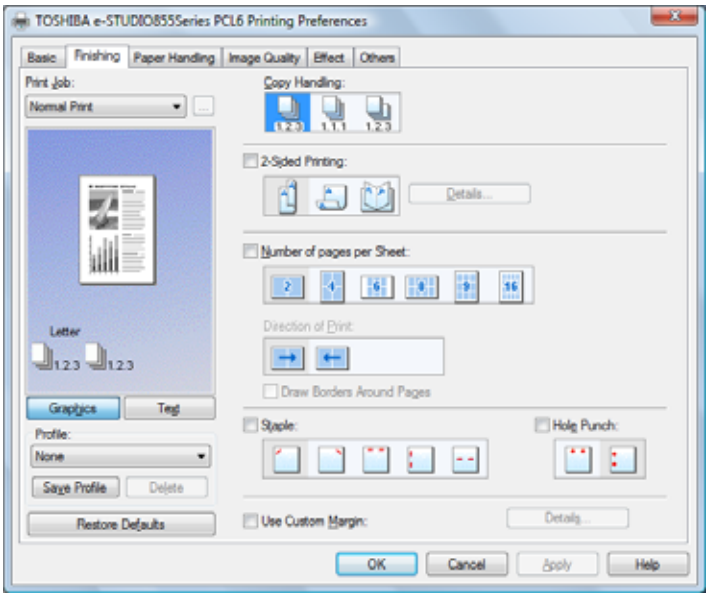
In order to specify which options have been installed, as well as specify system defaults, administrators first access the “Printers and Faxes” folder via the Microsoft Windows’ Start menu, and then select the e-Studio855 PCL or PostScript driver. Administrators can “manually” specify which options are installed, or they may simply enable “Update Now” between the device, and the driver automatically indicating the options shown above are available for use.



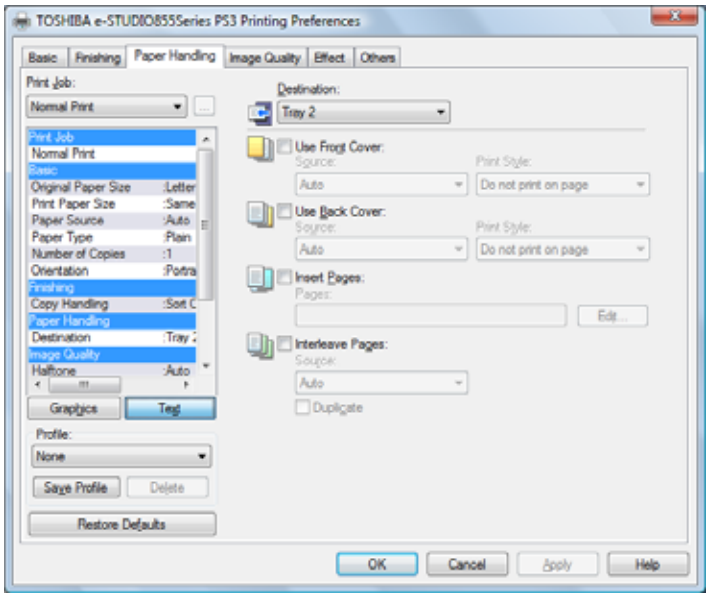
The driver's first tab, Basic, contains basic print operation settings, such as original paper size, print paper size, paper source, paper type, orientation, and number of copies. The Image on the on the left side indicates the currently selected options.



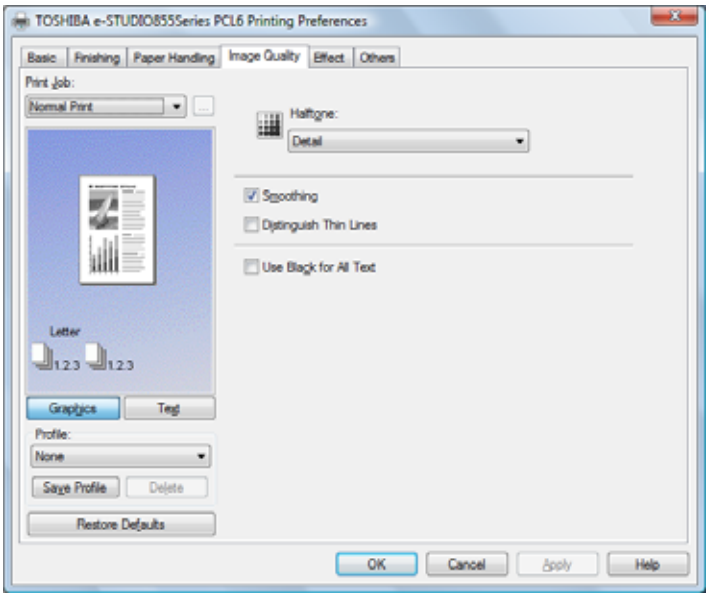
The Paper Handling tab on the e-STUDIO855 provides several options to enable Front Cover printing, Back Cover printing, Inserting Pages, and Interleaving Pages.



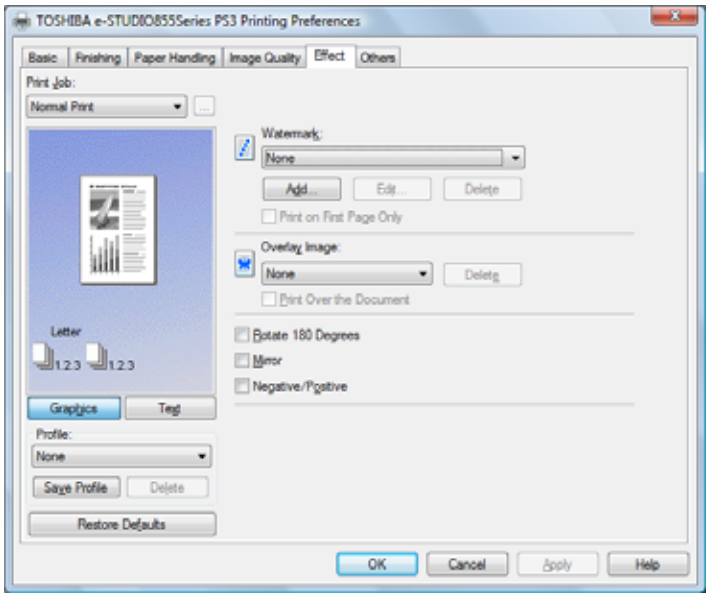
The Finishing tab allows users to enable sort printing, 2-sided printing, N-up printing, stapling and punching.

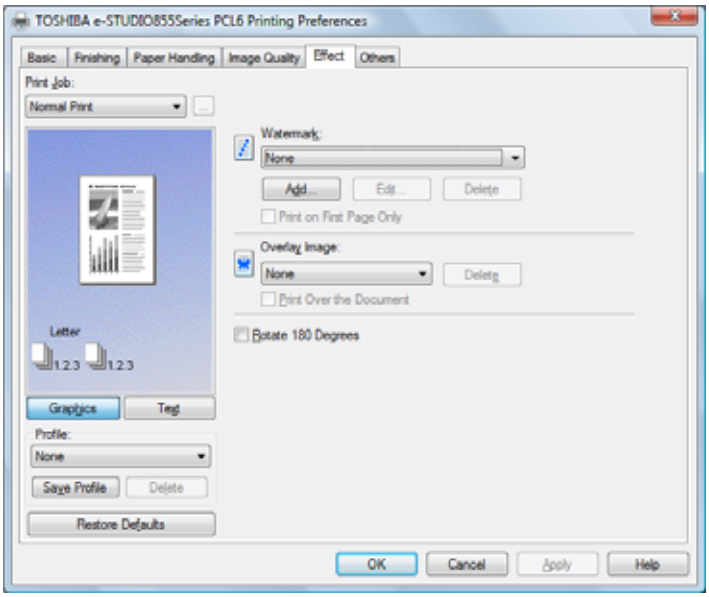


The Insert Pages option allows users to insert a sheet between pages, or print a specific page on a sheet fed from a tray other than the Paper Source option selected on the Basic tab. This option is useful when inserting blank sheets between chapters, or when printing chapter cover pages on the different paper.

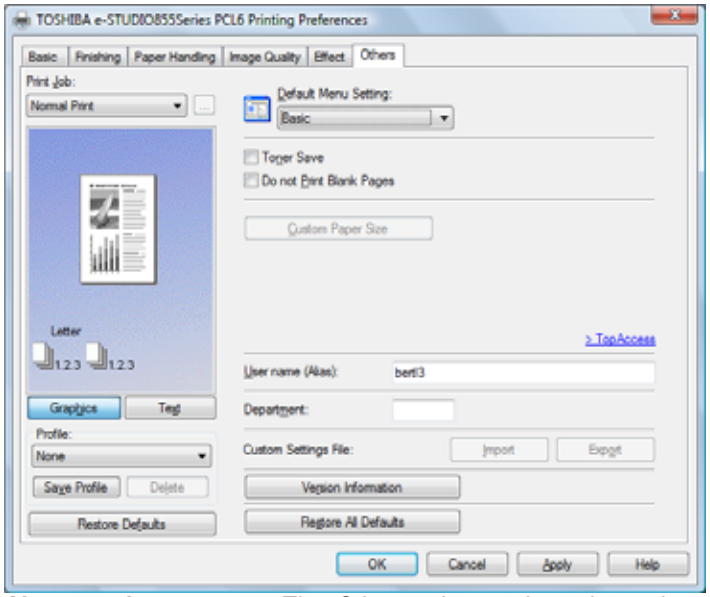


The Image Quality tab allows users to select how images are printed. Users can easily select the appropriate image quality depending on the type of document being printed out.

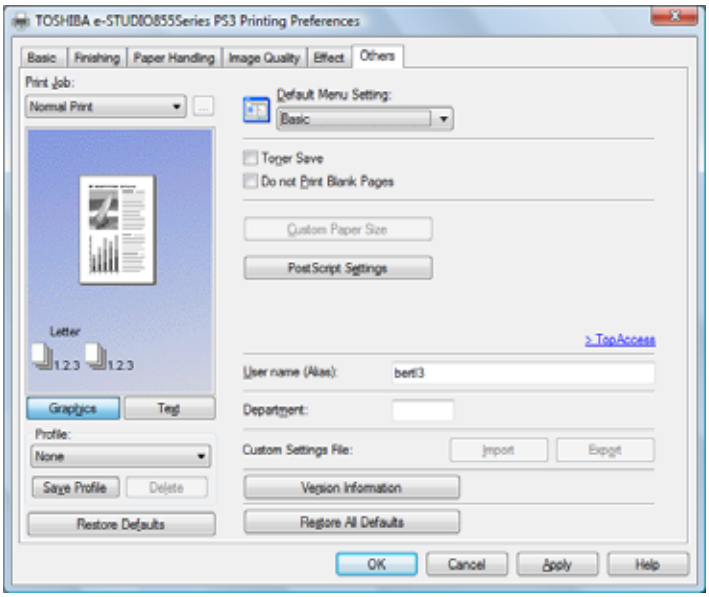




Above and next column: The Effect tab contains print options that add effects to your print jobs such as Watermarks, Overlay Image printing, and Rotate printing. The PostScript drivers added features are Mirror and Negative/Positive.



Above and next page: The Others tab contains print options such as Toner Saving, Do not Print Blank Pages and custom paper sizes. PostScript s added feature has PostScript settings that allow users to print error information, enable compress bitmap and use PostScript pass through.



MAINTENANCE

The Toshiba e-STUDIO855 displays animated, step-by-step instructions for routine tasks, such as clearing paper misfeeds or replacing toner. BERTL found these animated screens very helpful when performing these routine maintenance tasks.

The e-STUDIO855 uses 5 Service Modules (Fuser, Transport Belt, Drum, Charge Corona and Developer Unit). By utilizing these modules, a routine PM can be performed in minutes, effectively changing out all of the items that affect image quality. These modules then can be taken back to service and rebuilt in a controlled environment eliminating any downtime for the user. This is good for the customer since they can get a PM done quickly, getting the MFP back to work and alleviating less pressure for a dealer since they will not have to send a specialist to a customer site having them tied up rebuilding the modules.

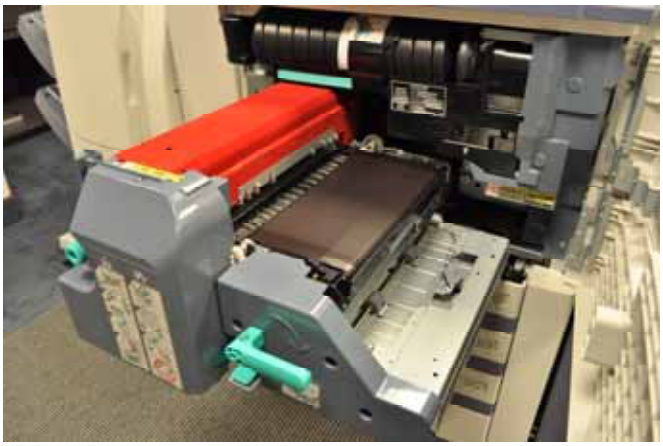
Maintenance Checklist	
Load ink/toner while running?	Yes
Requires rear access for access to maintenance items?	No
Requires side access for access to maintenance items such as toner cartridge?	No
All-in-one imaging units?	No
User-disposable waste item(s)?	Yes

ROUTINE MAINTENANCE–REPLACING TONER

Above and below: In order to replace the e-STUDIO855's toner, the user must first open the front panel door. Once open, the user can then replace the toner bottle by pulling the green lever and sliding the unit out. Toner can be replaced "on the fly" without stopping or slowing operation.

MISFEED ACCESS

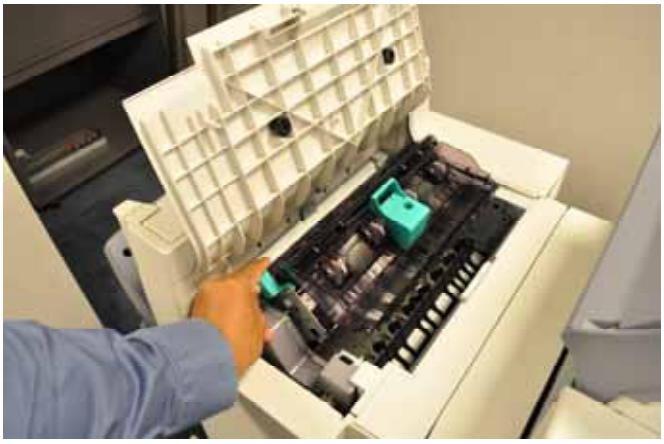
The document feeder's misfeed access area is accessed by lifting up the ADF cover.



To access the front misfeed areas, the user first opens the front door. Once open, the user can use the green dials and levers to clear any misfeeds.

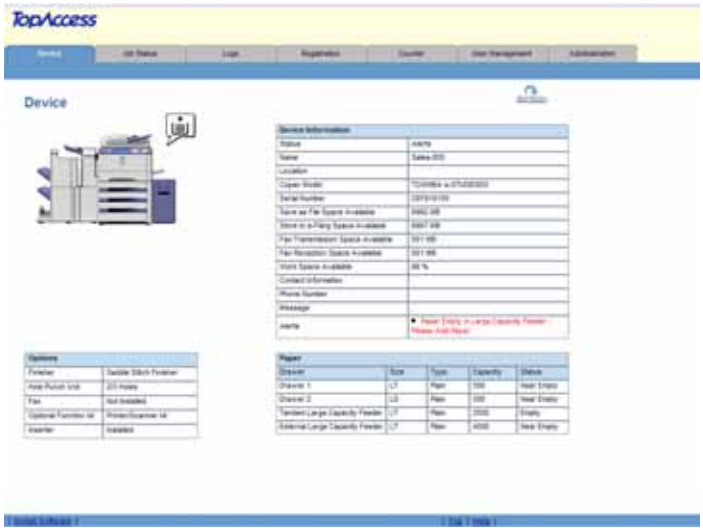
When a finisher is attached all misfeeds can be cleared by opening the finisher door and following the instructions on the control panel or inside the panel door as shown above.

Above and below: Misfeeds can be cleared on the top the finisher by lifting this panel and using the green levers to guide any jammed paper out**.**

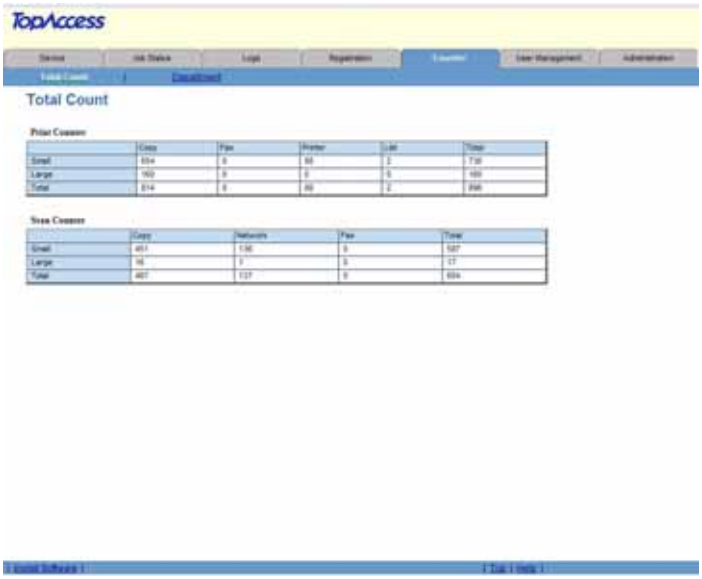


CLIENT UTILITIES AND DEVICE MANAGMENT

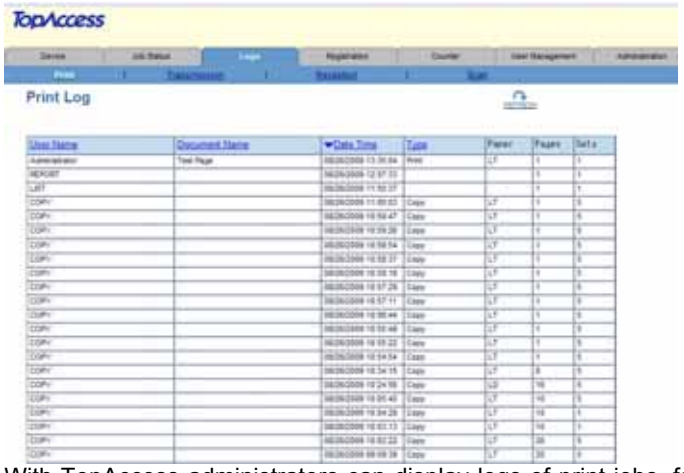
In order to take the best and most efficient advantage of a device and its capabilities, as well as ensure maximum uptime, clients need an efficient way to access and monitor the device. Toshiba offers many features and options to help productivity for all users.



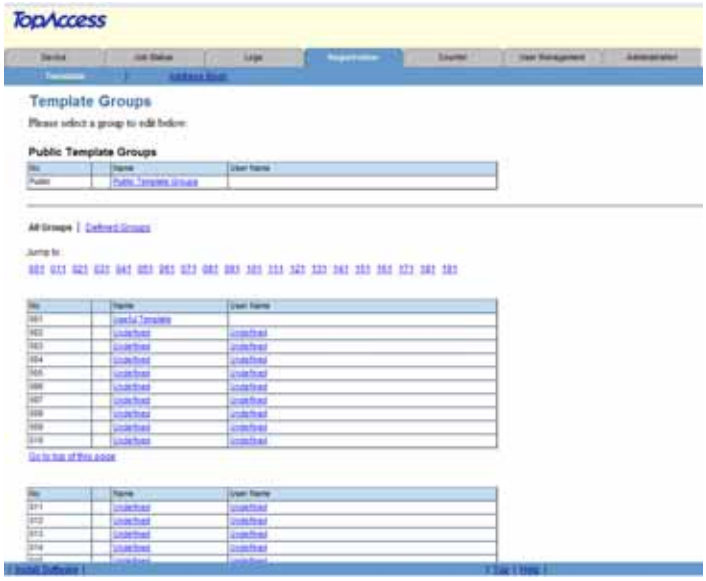
Users and administrators can view device settings and manage jobs using Toshiba's Web-based TopAccess management system. TopAccess provides a quick view of current device status, toner levels, installed paper sizes and media tray conditions and availability.



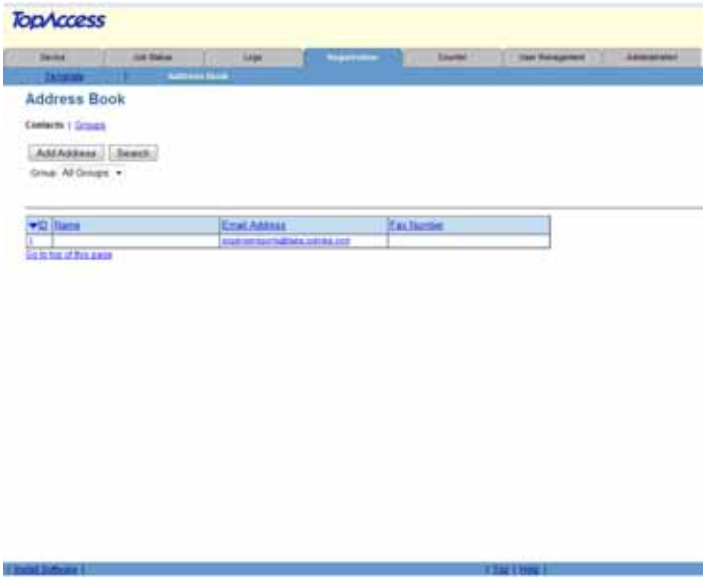
TopAccess Internet Services provides detailed billing information and total impression counts.



With TopAccess administrators can display logs of print jobs, fax transmissions, and Scan Job Logs performed on then e-STUDIO855. The log can be exported to the desktop for further evaluation by Excel or other cost accounting applications.



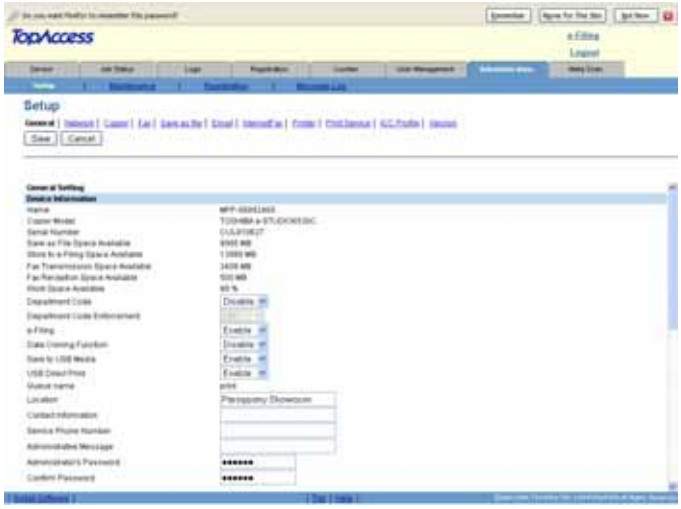
With TopAccess, users can easily set up job scan templates from the desktop. These templates will translate to a one-touch scan button on the unit's control panel. Instructions walk users through the process. Even multi-step functions were relatively simple to follow without a manual or online help. Templates can be stored in a public or private folder. Each user can have a private folder locked with a PIN so they can store scan to e-mail, fax, or folder templates in their own folder for fast retrieval rather than filtering through the shared address book.



Users have the ability to log on to the TopAccess Internet Services, register a new contact, and enter their e-mail address, fax number, company name, and department code directly from the Web interface. Once created, users can easily lookup and select the contact from the address book so they can conveniently send a fax, e-mail or a scan.

web jetadmin certified

Toshiba also provides plug-ins for Web JetAdmin, which is considered a simple; print and imaging peripheral management software tool that helps optimize device utilization, control color costs, secure devices, and streamline supplies management by enabling remote configuration, proactive monitoring, security, troubleshooting, and reporting of printing and imaging devices.



Administrators can modify the device's printer default settings and enable or disable the device to automatically print duplex mode, print startup pages, and set other basic print defaults.

An administrator can set up to three e-mail addresses to route specific notifications. Some other advanced systems offer unlimited e-mail addresses, but the TopAccess option is probably more than adequate for most environments. The administrator can set up a local office contact for easy fixes such as media and toner refill. More complex technical issues can be routed to tech support. E-mails automatically can be sent to the dealer for tasks like imaging drum replacement.

Toshiba also provides several document management software solutions some of which include e-Bridge, Re-Search, DocRecord and DocuWare.

Some of these document management solutions are used as workgroup document repositories with searching, indexing, retrieval, and other baseline document management and records management capabilities.

Toshiba also provides a host of solutions for document output management, as well as solutions for tracking, measuring, and monitoring document output from the e-STUDIO455. Some of the solutions also provide security features and functions that prevent unauthorized access.

Toshiba offers several integration options with many of today's most popular document capture / workflow solution providers. Sample products include Re-Rite, eCopy, e-BRIDGE Sharepoint and Open Platform Exchange.

WHAT WE LIKED

- The control panel's hard keys are large, well-organized and clearly labeled, while the 8.5" WVGA touch screen features large text for easy viewing, as well as a simple design for easy navigation.
- The color touch screen provides easy access to several common and frequently used copier settings on the Basic Copying screen. This enables copy users to quickly and easily make typical settings without having to navigate through to many sub-menus, and significantly reduces the time to make copy-job settings. BERTL was able to make frequently used copier settings in a matter of only 2 key presses (see "Selections Required for Frequently Used Copy Functions" chart on page 12).
- For network and device management, Toshiba provides its TopAccess Web Software Suite. TopAccess Internet Services provides an easy-to-use Web-based interface, and can be used to view detailed system and consumables' status. It also enables administrators to manage and configure device and network settings. This Web-based solution enables administrators to monitor and manage a fleet of devices from any workstation on the network.
- TopAccess Web-based interface provides automatic e-mail alerts when the system requires attention.
- Features Toshiba's third generation e-BRIDGE controller with Open Platform architecture. This technology allows third-party software applications, such as Microsoft SharePoint and Exchange, to integrate directly with the e-STUDIO device.
- Both PCL6 and PostScript drivers are relatively easy to use and logically organized. Both drivers have nearly the same exact user interface. This will enable users to quickly and easily switch between drivers and allow them to find the settings they need from one driver to another with ease.
- Both print drivers provide bi-directional communication, so users can quickly check device and consumables' status.
- Very easy toner and paper replacement. Ability to change paper and toner while in use.
- Misfeed-access areas are easy to locate and access. Correcting paper jams can be easily accomplished by following the step by step guide displayed on the control panel.
- Scanning and printing documents directly into and from a USB stick was very easy using the front USB port.

WHAT WE WOULD LIKE TO SEE

- BERTL believes administrators and users will find the Toshiba e-STUDIO855 exceptionally easy to use.

MEDIA INPUT

The Toshiba e-STUDIO855 comes standard with two 500-sheet drawers, 2,500-sheet letter-only tandem drawer and a 100-sheet stack feed bypass tray. For high-volume printing, a 4,000-sheet Large Capacity Feeder option increases the total capacity to 7,600 sheets. A wide range of paper sizes and weights are supported. Paper sizes up to 11 x 17 inches are supported through all the trays. Standard bond and post cards run easily with great dependability. All trays support media up to 110 lb. index (203 gsm). The crown jewel of this device is its support for copying and printing on tab paper. Its ability to insert tabs into any job expands productivity for all users. Tab paper can be loaded via bypass tray and the second paper drawer. A tab sheet holder comes standard with every MFP.

Media Handling Checklist	
Minimum/Maximum Media Weight	500-sheet drawer (17lbs – 110lbs), Tandem drawer (17lbs – 110lbs), Bypass (17lbs - 110lbs)LCF (17lbs – 110lbs)
Feeds maximum media weight from all sources?	Yes
Finisher	Yes
Hole Punch	Yes
Saddle Stitch	Yes

The Toshiba e-STUDIO855 shown here is equipped with the following:

Standard: two 500-sheet paper drawer, two 1,250-sheet tandem drawer and a 100-sheet stack sheet bypass.
Optional: 4,000-sheet letter-size large capacity feeder, booklet finisher and a post inserter unit.

LOADING MEDIA

Media Loading Checklist	
Drop-in loading of a full ream of paper?	Yes
Spring-loaded ramps in paper trays?	Yes
Geared media size side guides?	No
Captured rear media guide?	No
Automatic paper size detection?	No

The 100-sheet bypass tray can be adjusted by sliding these levers into place. The feeder can be adjusted for tab paper.

Above and next page: In order to adjust them two 500-sheet paper cassettes to accommodate different paper sizes, the user squeezes and slides these green guides into place. BERTL found it easy to adjust the paper cassettes.

The 2,500-sheet tandem drawer can hold letter sized paper. User can load paper during operation eliminating workflow interruption. The user will first need to select an interim paper source then open the tandem drawer for replenishment.

The large capacity feeder can hold up to 4,000 sheets.

MEDIA OUTPUT AND FINISHING

Finishing Options	MJ1027 – 50-Sheet Stapler Console Finisher MJ1028 – 50-Sheet Saddle-Stitch Finisher MJ1029 – 100-Sheet Saddle-Stitch Finisher KN1017 – Rails for finisher MJ6003 – 2 or 3 Hole Punch Unit MJ7001- Post Inserter Unit
Additional Paper Options	MP4004 - 4,000-Sheet LT-Size Large capacity Feeder
Connectivity/Security Options	GD1250 – Fax Kit GD1260 – 2nd Line Fax GN1050 – Wireless LAN Adapter GN2010 – Bluetooth Module GN3010 – antenna GP1070 – Data Overwrite Kit Gp1080 – IPSec Kit GS1010 – Meta Scan Enabler GS1020 – External Interface Enabler GB1280T – Advanced Scanning
Miscellaneous Options	KP2004 – HID/Mifare Card Reader KP2005 – Mifare Reader Option GQ1240 – Harness Kit for Coin Controller

The Post Inserter Unit can be adjusted by sliding these levers into place.

The Toshiba e-STUDIO855 has three different finishers to choose from:

MJ1027 – 50-Sheet Stapler Console Finisher with a 4,000 sheet output capacity.

MJ1028 – 50-Sheet Saddle-Stitch Finisher with a 4,000 sheet output capacity. Saddle unit staples up to 15-sheets of LT-LG or LD-size paper to produce 60-page booklets. Also supports pre-imposed jobs.

MJ1029 – 100-Sheet Saddle-Stitch Finisher with a 4,000 sheet output capacity. Saddle unit staples up to 15-sheets of LT-LG or LD-size paper to produce 60-page booklets. Also supports pre-imposed jobs.

WHAT WE LIKED

- 100-sheet bypass tray is easily adjusted to accommodate different paper sizes including envelopes and supports tab printing.
- Paper capacity can be expanded up to 7,600 sheets for longer uninterrupted operation.
- Output bin (when finisher is installed) can hold up to 4,000 sheets for large jobs.
- Tandem drawer can be opened and refilled during operation to eliminate workflow interruption.
- Easy to adjust and fill all paper cassettes.
- Finisher provides advanced finishing options such as stapling, booklet making, saddle stitching, etc.
- Versatile media handling and flexibility, with the ability to print on stock as heavy as 110lb index (203 gsm) and paper sizes up to 11"x 17".

WHAT WE WOULD LIKE TO SEE

- BERTL was very satisfied with the Toshiba e-STUDIO855's media-handling capabilities.

Toshiba has done an excellent job with the design their e-STUDIO555/655/755/855 series. During BERTL's extensive testing of the Toshiba e-STUDIO855, this office-monochrome, toner-based MFP designed for mid-size to large workgroups performed exceptionally well. BERTL observed the following when testing the Toshiba e-STUDIO855:

- Tested simplex network-print speed with the PostScript driver was as fast as 85.5ppm, matching Toshiba's rated speed of 85 ppm.
- Tested simplex network-print speed with the PCL6 driver was as fast as 81.9 ppm.
- Tested duplex network-printer productivity was extremely productive up to 82.1 ppm with the PostScript driver and 80.9 ppm with the PCL6 driver.
- Tested copy First-Page-Out-Time was 3.90 seconds off the platen glass and 6.32 seconds using the automatic document feeder.
- Photo prints and business charts displayed good image quality. Good resolutions in both copier and printer modes.
- Various Scan-to functions let users share information at the touch of a button. These include Scan-to-Email for rapid delivery, Scan-to-e-Filing for automated archiving, and Scan-to-File to minimize network traffic.
- The Scan-to-USB option lets users scan documents to a USB clip drive for instant document portability. Users can also print from a USB drive.
- With internet fax users can send documents to a remote fax machine without leaving their desk.
- The e-Filing option is a repository that allows documents such as forms, brochures, etc. to be printed on demand, which can be accesses from the control panel.
- In the software department's ease-of-use, the e-STUDIO855 print drivers and software were very easy to use, and TopAccess (Toshiba's embedded web server) provides very detailed device status, configuration and consumables status for clients and administrators.
- Versatile media handling and flexibility, with the ability to print on stock as heavy as 110lb. index (203 gsm) and paper sizes up to 11"x 17".
- Multiple finishing choices, including the ability to staple, fold and saddle-stitch booklets, offer additional flexibility to get jobs done quickly and cost-effectively.
- Ability to expand paper supply to up 7,600 sheets.
- Duty Cycle up to 600,000 pages per month.
- Ease of maintenance is effortless, with front-loading toner, easy misfeed access, and paper tray loading. Users can replenish paper and toner during operation to eliminate downtime.
- Vast array of efficient features and options such as secure Bluetooth short range wireless printing, automatic status notification sent to IT, facilities, or dealers, and a fax feature that includes the option of a second line.
- Toshiba's e-BRIDGE controller takes document security to the next level by featuring integrated advanced encryption standard (AES) hard disk encryption, IPv6, IPSec, SNMPv3 and 802.1x network authentication, secure PDF scanning, optional Data Overwrite kit protecting the document workflow all the way to the network.
- e-BRIDGE open platform has enabled this device to connect to MS Exchange and MS Office SharePoint among other third-party software.
- The Toshiba 8.5" full-color WVGA control panel makes it easy to program jobs in seconds.
- The Toshiba e-STUDIO855 has superior energy and supply-saving features, which include fast warm-up and first copy out times and are Energy Star and RoHS compliant. In addition, 100% of the base materials for their circuit boards are halogen-free, and 100% of the solder on the boards are lead-free.

Considering the Toshiba's e-STUDIO855 outstanding overall performance in testing, great ease of use, and exceptional office-monochrome image quality, BERTL awards the Toshiba e-STUDIO855 its Four and Half-Stars *Outstanding* rating and highly recommends the device for mid-size to large offices that require a fully functional monochrome MFP.

OFFICE

About BERTL

The success of an organization depends on its ability to manage its information and assets. An effective workflow process requires the complex integration of information, devices, software and people.

IT managers, office managers, and other knowledge-management professionals need to know what digital imaging devices would best serve their specialized workflow processes.

BERTL's services are designed around this real-world framework, delivering business consumers the independent analysis and insight needed to make critical decisions about digital imaging's role in their organization.

Independent Analysis and Insight

BERTL's reports, comparative data, and strategic guides look at digital imaging through the eyes of the business user. The research examines not only the technical features, but also vertical market applications, and business benefits. The impact on worker productivity is a primary concern.

BERTL is 100 percent independent. It receives no funding from manufacturers and all product evaluations and reports are published at BERTL's own expense for its subscribers. Business users worldwide trust BERTL for objective, unbiased analysis of digital imaging systems.

BERTL Services

Reports and Star Ratings
BERTL analysts provide detailed reports on the technical and practical benefits of thousands of color and monochrome workgroup, office, graphic arts, and production devices.

Product Specifications
DataCheck Gen II provides the most current competitive data on printers, copiers, MFPs, fax devices, wide format printers, scanners, and more.

News, Interviews, and Analysis
The ITchat online magazine provides insight into the dynamics and trends of the digital imaging marketplace through interviews, feature articles, and software reviews.

BERTL Awards

BERTL analysts recognize the leading devices and software solutions in the annual BERTL's Best awards. BERTL also honors the performance of manufacturers in the annual Readers' Choice selections.

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