

6. Requesting Product Output

The product files created by the Product Generator are stored on disk. From there, they can be sent to displays, printers, storage media, other computers or communications ports. The Product Transmitter adds any requested overlays, then formats the product for the selected output device. The Product Output menu directs the output to the required destination.

The Product Output menu is available to all users to browse through the available product files and select ones to send to their workstation. Users can also request that all future versions of a particular product be sent automatically to their workstation or selected device. For example, a user might want to see a PPI product every time a particular volume scan TASK runs. In addition, an operator might send a product to a particular destination, such as a remote display, printer or magnetic tape.

To Enter the Product Output Menu:

Choose **Menus→Product Output** from the IRIS menu bar or from any of the IRIS menus.

In this chapter:

<i>Product Output Devices and Files</i>	Section 6.1
<i>Product Output Menu</i>	Section 6.2
<i>Sending a Product to a Display Device</i>	Section 6.3
<i>Flagging a Product</i>	Section 6.4

6.1 Product Output Devices and Files

The Product Output menu can route output to a variety of devices:

Printer	Either a DEC LJ-250, Canon PJ1080A, HP PaintJet XL, or HP XL300, or any postscript printer.
Window	An X-Window on an X-Terminal or Workstation on the local area network Ethernet. The display is generated by the IRIS host and shown in an X-Window on the device.
Network	Sends product files to another IRIS system that is networked via LAN or WAN. The files are stored on disk so they can be accessed by the IRIS workstation. When RAW products are sent, this provides powerful capabilities for distributed computing and custom product generation on networked workstations.
Link	A compressed serial line data format for sending product images to other computers. The format matches that used by the Austrian Weather Service.
Archive	A tape drive or MO disk can be used to store data.

The devices themselves are configured in the **setup** utility (See the *IRIS Utilities Manual*).

Cartesian products can be displayed using up to 32 data colors, with additional colors available of overlay and annotation. An product resolution can be displayed. However, the standard IRIS display sizes are:

Medium Resolution	For 480 by 480 pixel displays.
High Resolution	For 720 by 720 pixel displays.
X-High Resolution	For 940 by 940 pixel displays.

6.2 Product Output Menu

WIND Product Output Window 1 hot: DEFAULT

File Menus Device Commands

Help

Site

Type

Product Name

TASK

From

To

Day

Mon

Year

Files

20

Apply

Grab

All Wild

Wild Time

Commands

Filter

20*/364 Files 559.4K*/21.6M Bytes

Default

Show Headers

Site

Type

Name

Product-Specific-Parameters

TASK

Time

Date

Request

XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:39:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:38:30	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:38:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:37:30	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:37:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:36:30	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:36:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:35:30	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:35:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:34:30	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:34:00	9	JAN	1998	_____
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:33:30	9	JAN	1998	_____

Filter Menu Lets you choose the files that appear in the product list.
Section 6.2.1

Product List Displays the list of products that you have selected.
Section 6.2.2

6.2.1 Filter Section

The screenshot shows the IRIS Filter Section interface. It includes a grid of input fields for Site, Type, Product Name, TASK, From, To, Day, Mon, and Year. Below the grid are buttons for Apply, Grab, All Wild, Wild Time, and Commands. A status bar displays '20*/364 Files 559.4K*/21.6M Bytes'. There are also icons for Default and Opts, and a Show Headers checkbox.

When you first enter the Product Output menu, all possible products are listed at the bottom of the menu. This list can be quite large, making it difficult to find the products you need. Use the Filter section to narrow the list down to only those products that are of interest.

Site

Enter a site ID in this field to select data from only one radar site, or enter the wildcard character to select data from all sites. If you click on the Site button, IRIS pops up a list of known sites. This list differs from system to system, depending on the sites that are configured with the Setup utility.

Type

Enter a product type in this field to select products of only one type, or enter the wildcard character to select products of all types. You can pop up a list of types to choose from.

Product Name

Enter the name of a product to narrow the list down to products having that name. You can include wildcard characters in the product name. A question mark (?) matches any single character; an asterisk (*) matches any sequence of zero or more characters.

TASK

Enter the name of a TASK in this field to narrow the list down to only those products generated by a specific TASK. You can include wildcard characters in the TASK name. A question mark (?) matches any single character; an asterisk (*) matches any sequence of zero or more characters. For example, entering a product name of *PPI*_? selects all hybrid TASKS that have PPI somewhere in their names.

From, To

Enter a range of hours in these two fields to narrow the list of products by time of day. You can pop up a list of ranges to choose from.

Day, Month, Year

Enter a day, month, or year to narrow the list of products by date. You can pop up a list of values to choose from.

Max

The Max field lets you control how many products to include in the list.

Exit

Click on the Exit button to close the Filter menu.

Apply

Click on the Apply button to update the product list, based on your selection criteria. The Apply button is enabled only if the Filter button is pushed in. If the Apply button is grayed out, click on the Filter button.

Grab

If a product is selected, the Grab button inserts the product's site, type, product name, TASK and date information into the filter fields.

All Wild

Click on the All Wild button to return all the fields to the wildcard character.

Wild Time

Click on the Wild Time button to change only the hours, month, day and year fields to the wildcard character.

Commands

Pops up the following list of operations that you can perform on the ingest files selected by the Filter menu. These commands apply to products, but not to headers:

Keep
Delete
Reingest
Remove Tag
Send
Cancel Send

Keep — Prevents the Watchdog process from deleting the selected products.

Delete — Marks the selected files for deletion by the Watchdog process.

Reingest — Marks the selected files to be reingested.

Remove Tag — Unflags any selected products that have been tagged.

Send — Sends all selected products to the output device.

Cancel Send — Cancels any send requests for the selected products.

Display Options



Click on the this icon to specify the output options to be used when your product is sent to a display device. See Section 5.8 for information on specifying output options.

Color Scale Configurations



Click on the this icon to specify the color options to be used when your product is sent to a display device. See Section 5.7 for information on specifying color output options.

Product Specific Output Options

The options button is greyed out unless either the CAPPI, FCAST, NDOP, VVP, or WIND product type is selected. See Sections 5.15.1 or 5.15.3 for more information on specifying these options.

Overlay Selections

This button is a quick way of changing your customized overlays layers.

Show Headers

When this button is not pushed in, the product list displays headers only for the product types for which products exist. Push this button in if you want to see all headers, regardless of whether any products of that type exist. This is useful if you want to assign product output for a particular product type any products of that type have been generated.



Hint: You may want to set up your product output assignments based solely on product headers. To get a list of headers only, set the filter year to some time in the past or future, for which no products exist.

6.2.2 Product List

Site	Type	Name	Product-Specific-Parameters				TASK	Time	Date		Request
	PPI	TEST									
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:39:00	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:38:30	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:38:00	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:37:30	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:37:00	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:36:30	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:36:00	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:35:30	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:35:00	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:34:30	9	JAN 1998	——
XXX	PPI	TEST	Z	0.5	100.0	720	TEST	09:34:00	9	JAN 1998	——

The product list is displayed at the bottom of the Product Output menu. Each product name is listed on a header line, followed by the versions of the product that are currently on disk. Each version is identified by the time the data were collected, which is the start time of the associated TASK.

Site and Type

The Site field displays the ID of the radar site where data for the product was collected. The Type field shows the type of the product, such as PPI or RHI. When you position the mouse cursor over either of these fields, you can pop up the following menu to flag or unflag the selected product:

Keep
Delete
Clutter
Reingest
Remove Tag

Keep — Prevents the Watchdog process from deleting the product.
Delete — Marks the file for deletion by the Watchdog process.
Clutter — Marks this file as a clutter filter.
Reingest — Marks this file as a file to be reingested.
Remove Tag — Unflags the product that has any of the above flags.

Name

The product name for the most recent generation of the product type. This is a display-only field.

Product-Specific-Parameters

The standard product generation parameters shown in Table 8–1 are taken from the product configuration and displayed in this field.

Table 8–1: Standard Product Generation Parameters

Product Type	Parameter 1	Parameter 2	Parameter 3
BEAM	Azimuth Limits	Elevation Limits	...
CAPPI	Data Parameter	Height	Max Range
FCAST	Speed & Direction	Data Threshold	Max Range
MAX	Layer Bottom	Layer Top	Max Range
NDOP	List of Sites	...	Max Range
PPI	Data Parameter	Elevation	Max Range
RAIN1	Input Product	...	Max Range
RAINN	Hours	...	Max Range
RAW	Data Parameters	...	Max Range
RHI	Data Parameter	Azimuth	Max Range
SHEAR	R, A, or E flags	Elevation	Max Range
SLINE	Elevation(s)	...	Max Range
TOPS	...	dBZ Threshold	Max Range
TRACK	Inputs Product	Area Threshold	Data Threshold
USER	Data Parameter	...	Max Range
VIL	Min Height	Max Height	Max Range
VVP	Min & Max Height	Number of Steps	Bin Quota
WARN	Symbol & Area	Number of Inputs	Number of hits
WIND	Min & Max Height	...	Max Range
XSECT	Data Parameter	Ctr Point R, AZ	Orientation Angle

Resolution

Included in the product specific parameters for cartesian products is the horizontal resolution of the product in pixels. For 3-D products, the verical resolution is also listed, as in “480x10”.

The Product Output process always generates a display even if the output resolution does not match your display capabilities. It does this by either skipping pixels or duplicating pixels, as required. For example, if you send a low resolution display to a medium resolution display device, such as a printer, the Product Output process duplicates each pixel to zoom the image on the printer to full size.

TASK

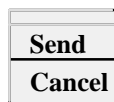
The name of the associated TASK. This is a display-only field.

Time

The date and time (local time) when data for the product was collected. This is a display-only field.

Request

The Request field is used for requesting product output. Position the mouse cursor over an entry in the product list and choose from the pop-up menu. The menu that you see depends on the entry you select in the list.



If you select a product from the list, you can choose to send the product to the output device, or cancel a Send request.



If you select a header line from the list, you can choose to send all or only the next occurrence of the product to the output device. You can also select particular sites that you want to receive the output. Each site you select is marked with an asterisk.

After you issue the Send request, the Request field displays a message indicating the status of the request.

6.3 Sending a Product to a Device

You can send one or more existing products to a display device, or one or more future versions of a product to a display device at one or more sites.

To Send Existing Products:

1. Choose **Device** from the menu bar and select the device to which you want to send the product.
2. Select the products you want to send. There are several ways to make your selection:
 - Click the left mouse button over an entry in the list to select it, or press Ctrl and click to select more than one entry in the list.
 - Click and drag the mouse to select a group of entries in the list, or press Ctrl, then click and drag the mouse to select multiple groups of entries.
 - Use the Filter menu to produce a list of the products that you want to send.
3. Choose →**Send** from one of the following pop-up menus:
 - If you selected the entries with the mouse, position the mouse cursor over the product list and click on the right mouse button to pop up the menu.
 - If you selected the entries from the Filter menu, click on the Commands button to pop up the menu.

Send	The product is marked to be sent to the selected device and is waiting for the Output Formatter to send it.
Sending	The Output Formatter is working on your request.
Done	The product has been sent to the selected display device.
— — —	There is currently no request.
Error	An error occurred. Check the Radar Status menu.

Keep in mind that if the selection contains both headers and products, the command applies only to the products. To perform an operation on headers, you must select only headers.

To send one or more future versions of a product:

Select the header for the type of product you want to send, and choose →**All** or →**Next** from the pop-up menu. You may also select any number of sites that are known to your system. They will receive all or the next version of the product.

When you choose →**All** or →**Next** from the header line, a Send request is issued automatically whenever a new version of the product is added to the disk, and a Send status message appears in the Request column.

To Cancel a Send Request:

You can cancel a Send request at any time by positioning the mouse cursor over the Request column and choosing →**Cancel** from the pop-up menu. If you have selected a single product, you cancel only the Send request for that product. If you have selected the header line, you cancel the All or Next request.

6.4 Flagging a Product

Normally, the Watchdog process removes product files as the disk space fills by deleting the oldest product files. The first column of the product list allows you to signal the Watchdog with either a Keep or a Delete flag.

To set or unset a flag, select the product or products that you want to tag:

- Click the left mouse button over an entry in the list to select it, or press Ctrl and click to select more than one entry in the list.
- Click and drag the mouse to select a group of entries in the list, or press Ctrl, then click and drag the mouse to select multiple groups of entries.
- Use the Filter menu to narrow the list down to the entries you want to flag.

When you are satisfied with your selection, flag the entries using one of the following commands:

- | | |
|----------------------|--|
| -> Keep | Prevents the Watchdog from deleting a file. This is useful if you have files that you want to save for several days. Note that the best way to make a record of a file is to send it to tape. |
| -> Delete | Signals the Watchdog to delete a file immediately. This is useful if you want to restore a RAW file from tape so that it is automatically reingested. This cannot be done if the RAW product file already exists on disk; it must be deleted first. |
| -> Clutter | Available only for the RAIN1 product. This flags the file that serves as the clutter map for the RAIN1 product. If more than one file of the same product name is tagged, the most recent version is used. Clutter maps are not deleted by the Watchdog. |
| -> Remove Tag | Removes a flag. |

If you have selected the entries with the mouse, these commands are available on a pop-up menu within the product list. They are on the Commands pop-up menu if you have selected the files with the Filter menu.