KURZWEIL COMPUTER PRODUCTS
A Xerox Company

Kurzweil 4000

Intelligent
Scanning System

scan page contin	halt		end job	get menu

set-up

esc	1	2	3	4

→ show	Q	W	E	R

ctrl	shift lock	A	S	D
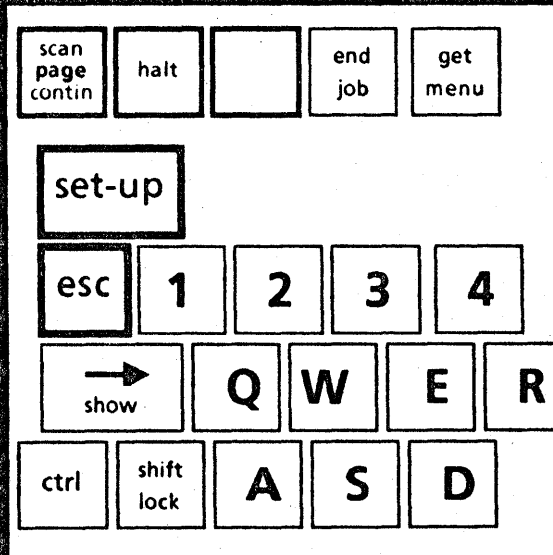
Basic Operations

WARNING

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested for compliance with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

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This reference booklet is provided as a quick reminder about basic system functions of the Kurzweil 4000. Consult the *Operator's Guides* included with the system for more detailed information.

System Start-Up

Procedure:

1. Press the **POWER** switch located on the front of the scanner unit to provide power to the Kurzweil system.

Power ➡️
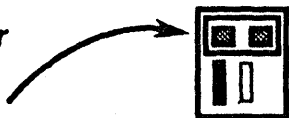
2. Press the terminal **POWER** switch (located on the front of the CRT housing) to the **On** position.
3. The letter "O" will be displayed, followed by a blinking exclamation point (!). This indicates that the system self-test is in progress. Self-test takes approximately 30- 45 seconds to complete.
4. When self-test is complete, the Status Prompt will be presented (**OK!**).

NOTE

If the Status Prompt is not displayed after one minute, press **RESET**.

Reset

5. The operator may now:

   - *Login* to the processing system, or
   - *Install* a new or existing software release.

Login Procedure

Procedure:

1. Press the letter "D" in response to the Status Prompt. The **Login Menu** will be displayed.

NOTE

If the **Login Menu** is not displayed, follow the Software Installation Procedure, described below.

2. Enter the date (as MM/DD/YY) and time. Any non-alphanumeric character may be used to separate the fields in the time and date entries.
3. Enter the operator name (or initials). This information is optional. If provided, it will be placed into **KDEMLOG**, a special record-keeping file that lists jobs and operators.
4. Press **ACCEPT** to enter the **Login Menu** information.

Software Installation Procedure

Procedure:

1. Press **RESET**.
2. When the Status Prompt (**OK!**) is displayed, insert Volume 1 of the Software Release set in the disk drive (label to the right) and close the door securely.
2. Press "**F**".
3. Enter the date (as MM/DD/YY) and time.
4. Two options are presented next. Type either:

   "**I**" to install a release, or

   "**R**" to rebuild a software base on the system.

WARNING

All data on the disk will be destroyed in a rebuild operation.

Either process takes a few minutes. After the installation or rebuilding process, the **TOP Level Dispatch Menu** will be displayed.

Scanning Parameters

To access the Scanning System, type the number one (1) followed by **ACCEPT**, in response to the "ENTER CALL-UP NUMBER:" prompt in the Top Level Menu.

Entry Question Menu

The **Entry Question Menu** will be displayed if a document has been scanned, but not displayed on the terminal screen. Otherwise, the **New Job Menu** is presented.

Procedure:

1. Determine whether the previously scanned (but unedited) text in the input buffer is to be saved or deleted.
2. If the text is to be deleted, type **Y** (Yes). The text will be deleted automatically and the **New Job Menu** will be displayed.
3. If the text in the input buffer is to be saved, type **N** (No). The **New Job Menu** will be displayed.

New Job Menu

This menu allows the user to start a new file, or to append to a file that already exists on the system.

Procedure:

1. Select option number 1. Supply a Document Name. If "Name" exists, the file will be appended to.
2. Select option number 2. This is a toggled variable and either *New* or *Old* must be selected. If *Old* is selected, text will be appended to.
3. Press the **ACCEPT** key. If no errors are discovered (e.g., selecting *Old* when the filename does not exist) the operator is presented with the **Document Entry Menu**.
4. Press the **CANCEL** key to redisplay the **TOP Level Dispatch Menu**.

Document Entry Menu

This menu sets the framework for scanning operations.

Procedure:

1. Select option number 1. *Training Set Name* refers to the name of an exisiting training set. If the job is **New**, leave the setting at *None*.
2. Select option number 2. *Training Mode* may be Off, Manual or Automatic. The default mode is Automatic, unless a training set is loaded.
3. Select option number 3. The *User Page Number* is supplied by the operator and isused to number pages in the editor.
4. Select option number 4. The *Lexicon* is an internal dictionary that is used as an aid in the identification of characters from context. Select additional dictionaries by using option number 4.
5. Select options 5 and 6. These options will cause underlines and super/subscripts to be marked for output to a word processor or typesetter.
6. Press **ACCEPT**. The **Text Ambiguity Menu** is displayed.

NOTE

If an old training set has been requested, the operator is immediately presented with the editing subsystem and scanning may commence.

Text Ambiguity Menu

Text Ambiguity Menu items are toggled. Press the associated number key until either *Yes* or *No* is displayed.

Procedure:

1. Select option number 1. Indicate whether Ones and small L's are alike by displaying *Yes* or *No*.
2. Select option number 2. Indicate whether capital I's and small L's are alike by displaying *Yes* or *No*.
3. Select option number 3. Indicate whether Zeros and capital O's are alike by displaying *Yes* or *No*.

Training and Production Procedure

Procedures:

1. Position the paper approximately one inch from the top of the glass on the right hand side and one inch from the edge of the scanner. If an Automatic Document Feeder is not present, cover the page with the rubber platen mat.
2. Instruct the 4000 to scan the first page by pressing (SHIFT) **SCAN PAGE**. The scanner will search for the first line of text.
3. Press **ACCEPT** and a page boundary marker will appear on the screen. These boundaries appear after a **SCAN PAGE** command. They are useful for distinguishing the start of one page from the end of another.
4. Press **ACCEPT** again and the first line of text will be displayed. Check all the interventions during training to verify that the "guesses" are correct. If necessary, correct the images, as described below.
5. Continue to move through the line using the **SHOW** (right arrow) key. Correct all wrong guesses, touching images and broken characters (procedures listed below). When the end of the line is reached, press **ACCEPT**.

Commands that control scroll modes are listed in the *Operator's Manual*. Refer to section 3.1 for complete information about the display of text on the terminal screen.

Training Modes

Refer to the *Operator's Guide* (section 3.1) for more detailed information regarding Training Modes. The procedure described below assumes the use of *Manual* mode.

Procedure:

1. Position the cursor under the first interventioned character by using the **SHOW** (right arrow) key.
2. If the image is clear and well formed and the system's "guess" is incorrect, correct the guess by typing the letter that matches the image.
3. If the image is clear and well formed and the guess is correct, press **SHOW** (right arrow) to move to the next intervention and repeat steps 1 and 2. Characters displayed in inverse video must be:
   Corrected, when the guess is incorrect.
   Accepted, when the recognition is correct.
   Deleted, if the image is not clear.
4. After all the characters displayed in inverse video have been reviewed, press **ACCEPT** to approve the line for training.

Special Features

Bad Images

The **BAD IMAGE** key is used when non-interventioned characters are displayed incorrectly. It is effective in *Manual* Training Mode, only.

Procedure:

1. Position the cursor underneath the incorrect character.
2. Press **BAD IMAGE**. The Multiple Property Descriptor (*MPD*) that was most closely associated with the incorrect image will be deleted. A message prompt informs the user that the:

   MPD will be deleted.

3. Change the incorrect character.
4. Continue to train by pressing **SHOW** (right arrow).

NOTE

If the image of a character cannot be displayed, it is necessary to delete the MPD for that character. Refer to Chapter Four of the *Operator's Guide* for complete information about Advanced Operations.

Touching Characters

If the display shows joined characters typical of the font, put the intervention between braces as described below.

Procedure:

1. Press **JOIN IMAGE**. A pair of braces will enclose the character that the cursor is below.
2. Type in the correct characters.

For example:

   eve ~   time the symbol occurs
   eve { ry }   time the symbol occurs

Special Symbols

If a graphic character is encountered in the text and there is no keyboard equivalent, the **JOIN IMAGE** braces allow the operator to substitute a different character string. A maximium of 3 characters is allowed.

Procedure:

1. Press **JOIN IMAGE**. A pair of braces will enclose the character that the cursor is below.
2. Type in a substitute character string.

For example:

Snap, crackle, pop - Rice Krispies™
Snap, crackle, pop - Rice Krispies {@@}

Broken Characters

If broken characters are encountered, follow the procedure described below.

Procedure:

1. Position the cursor at the first part of the broken image and press **JOIN IMAGE**.
2. It may be necessary to press **JOIN IMAGE** more than once, to surround the broken characters. Press **SHOW** to redisplay the entire image.

WARNING

The **JOIN IMAGE** key must be used to enter braces for the applications associated with touching characters, broken characters and special symbols. Do not enter braces from the keyboard.

Train Image

TRAIN IMAGE adds a new image to the Training Set while in Training Mode *Off.*

Procedure:

1. Press **SHOW** in Training Mode *Off.* If the image is of good quality but the interventioned guess is incorrect, change the interventioned character.
2. Press **TRAIN IMAGE** .
3. The message, *TRAINING TURNED ON* will appear.

NOTE

In the **DOCUMENT DISPOSITION MENU** be sure to *Save* the training set.

Font Identification

The Kurzweil system can be configured to preserve, or "flag" changes in typestyle.

Procedure:

1. Position the cursor under the first character where the font change occurs.
2. Press **BEGIN FONT**. A prompt will instruct the user to:

Please enter a font number (1 - 9)

"< N" will appear before the first character.

NOTE

"N" is the user-supplied font number.

3. Train on all the characters in the new font that are interventioned, by using the **SHOW** (right arrow) key.
4. At the end of the font change, position the cursor after the last character and press **END FONT** and provide the same font number. "> N" will appear after the last character.
5. Repeat this procedure and assign new fonts a different identification number. If there are additional characters in the line, train on them; then **ACCEPT** the line for training.

If the system places the angle brackets in the wrong place during training, delete them and insert the brackets in the correct position using the procedure above .

Underline and Super/Subscript Identification

Follow the procedure below to train the system on underlines or script characters that have not been flagged properly.

Procedure:

1. Position the cursor under the first character where the text change occurs.
2. Press Begin Underline (or Begin Sub/Superscript).
3. At the end of the text change, position the cursor after the last character and press End Underline (or End Sub/Superscript).

End Job Procedure

Procedure:

1. When scanning activities are complete, press the **END JOB** key. The **Exit Question Menu** will be displayed, if there is scanned, but unscrolled text in the input buffer.
2. The operator may:
   Delete the scanned text (press **Y** and press **ACCEPT**). The **New Job Menu** will be displayed.
   Return to the editor and scan additional text (press **CANCEL**).
   Preserve the scanned text or training (press N and **ACCEPT**). The **End Job Menu** will be displayed.

When the **END JOB** key is pressed and text has been edited or training has been performed, the **End Job Menu** is displayed.

3. Determine whether text is to be deleted, saved, or auto-output.
4. If additional training was performed (with the **TRAIN IMAGE** key) the images may be saved and added to existing training. Select **Yes** to incorporate additional training.

The *Training Set Name* is required (and operator-supplied) if *Save Training* is specified. **ACCEPT** returns control to the New Job Menu. To exit from the Scanning Subsystem, press **CANCEL.**

System Backups

System Backups are performed to provide insurance against inadvertent deletions and System Errors.

Procedure:

1. Select *Utilities* (option 4) from the TOP Level Dispatch Menu. The **Utilities Dispatch Menu** will be presented.
2. Select *Backup/Restore* (option 1) from the Utilities Dispatch Menu. The **Backup/Restore Dispatch Menu** will be displayed next.
3. Select option 1 (*Backup Files to a Floppy*). The **Backup Menu** will be presented.
4. Select option 1. Indicate which type of backup to perform (Full or Incremental).
5. Select option 2. Enable or disable the file check option.
6. Select options 3-7, one at a time. Press the associated option number until "Backup" or "Don't Backup" is displayed.

7. Select option 8. If an Incremental backup is desired, enter the date from which files are to be copied. When all options have been selected, press **ACCEPT.**
8. Provide a descriptive name for the backup set and place a floppy disk in the disk drive.
9. Press **ACCEPT** to start the Backup operation.
10. When the backup function is complete, press **ACCEPT**. The **TOP Level Dispatch Menu** will be presented.

Restore Procedure

Files that were copied to a Backup or Library floppy disk can be reinstalled on the Kurzweil system by performing a *Restore* operation.

Procedure:

1. Select *Utilities* (option 4) from the **TOP Level Dispatch Menu.** The **Utilities Dispatch Menu** will be presented.
2. Select *Backup/Restore* (option 1) from the Utilities Dispatch Menu. The **Backup/Restore Dispatch Menu** will be displayed next.
3. Select option 2 (*Restore Files from a Floppy*). Insert Volume 1 of the backup floppy set and press **ACCEPT**. Files that do not conflict will automatically be restored to the 4000 system. When file names conflict, the operator is given the opportunity to overwrite the *Winchester* version.

WARNING

Ensure that the *Winchester* file is no longer required. If overwritten, it cannot be recovered.

4. When the operation is complete, remove the floppy disk from the disk drive.

If additional backup disks complete the set, they will have to be installed, also.

List Files Procedure (*for Backup Floppy Disks*)

Procedure:

1. Select *Utilities* (option 4) from the **TOP Level Dispatch Menu.** The **Utilities Dispatch Menu** will be presented.
2. Select *Backup/Restore* (option 1) from the Utilities Dispatch Menu. The **Backup/Restore Dispatch Menu** will be displayed next.
3. Select option 3 (*List Files That Were Backed Up to a Floppy*).

A message will be displayed, instructing the user to:

Mount Volume 1 of the backup floppy.

and

Press the Accept key to continue.

4. Press ACCEPT to display the **TOP Level Menu**.

Library Floppy Disks

Library floppy disks are created so that users may copy specific files or groups of files as part of an archival storage system. The configured disk is used as part of *Filing Operations*, described below.

Procedure (Creation):

1. Select *Utilities* (option 4) from the **TOP Level Dispatch Menu.** The Utilities Dispatch Menu will be presented.
2. Select (option 2) from the **Utilities Dispatch Menu** (Create a Library Floppy).
3. Enter a title or description for the floppy.
4. Insert a ("writeable") floppy disk into the drive and press ACCEPT.

System Error Procedures

Occasionally, the 4000 may experience a System Error. Follow the procedures below to create and use a System Error floppy disk. Forward the disk to Kurzweil for diagnosis by the Technical Support staff.

Procedure (Create a System Error disk):

1. Select the *Utilities* option from the **TOP Level Dispatch Menu.** The Utilities Dispatch Menu is displayed next.
2. Select option 4 (*Create a System Error Floppy*).
3. Insert a ("writeable") floppy disk into the drive and press ACCEPT.

The configured System Error disk may be used in the event of a *System Error*, according to the instructions below.

Procedure (Use a System Error disk):

When a System Error occurs:

1. Press **RESET**.
2. Insert a configured System Error floppy disk into the disk drive.
3. When the status prompt is displayed (OK!), press the letter "F".
4. Enter the date and time in response to the displayed questions.
5. Press the **ACCEPT** key to recover diagnostic information to the floppy disk.

The System Error floppy disk must be forwarded (in a padded mail envelope) to:

Kurzweil Computer Products, Inc.
185 Albany Street
Cambridge, MA 02139
Attn: Customer Service Department / 4000

Include a description of exactly what actions were performed prior to the System Error. Consult the *System Administration Guide* (section 3.7) for more specific information.

Additional problems or questions may be directed to the Kurzweil Customer Support Department at the toll-free number below:

(800) 343-0311 Extension 244.

Filing Operations

To access the Filing subsystem from the **TOP Level Dispatch Menu** select option 3 (*Filing*) and press **ACCEPT**.

Copying Files

Procedure:

To duplicate a file on the Kurzweil system:

1. Select option 1 from the **Filing Dispatch Menu** (*Copy a File*). The **Copy a File Menu** is used to duplicate files, convert a document to smaller segments or append the contents of one document to another.
2. Select the *File Type*, by pressing option 1, which will present the available options. "Toggle" through the options by pressing 1, repeatedly.
3. Select option 2. Enter the name of the file that is to be copied. If the file resides on floppy disk, precede the filename with **FLPY:**.
4. Select option 3. Enter the name of the file to be created. Use this option to copy files to a library disk. Select option 3 and precede the filename with **FLPY:**.
5. Select option 4. Enter the number of pages to be skipped. This option may be changed only if the *File Type* selected is Document. If the entire document is to be copied, leave the setting at **0**.

NOTE

This option allows a document to be converted to smaller sections. Refer to the *System Administration Guide* for complete details.

6. Select option 5. Enter the number of pages that are to be copied. If the entire document must be copied, leave the (default) setting at 10,000.
7. Press **ACCEPT**. When the copy action is finished, the following message will be displayed:

Copy successfully completed.

Press Cancel, or enter any other key to continue.

Deleting Files

Procedure:

1. Select option 2 from the **Filing Dispatch Menu** (*Delete a File*). The **File Deletion Menu** will be displayed.
2. Select the *File Type*, by pressing option 1, which will present the available options.
3. Indicate the name of the file that is to be deleted from the Kurzweil 4000 system. Preface the filename with **FLPY:**, if the file is on a floppy disk.

Typing Out Files

Procedure:

1. Select option 3 from the **Filing Dispatch Menu**. A message will be displayed that asks the operator to:

Enter the name of the document to be typed out.

2. If the file resides on a floppy disk, precede the filename request with **FLPY:**. After the text has been displayed, a final message informs the user that the

End of text

has been reached, and

Enter Cancel to go back or any other key to continue.

Reediting Files

Procedure:

1. Select the Filing option (3) from the **TOP Level Dispatch Menu** and option 4 (*Reedit A File*) from the **Filing Dispatch Menu**, when it is displayed.

   A prompt will instruct the user to:

   Enter the name of the document to be reedited.

2. Press **ACCEPT**. Another question is presented to the operator

   Text will be copied to the KDEM unedited text file
   Are you continuing with a previous reedit? (Y/N):

3. Answer **No (N)** and press **ACCEPT**. If the file is too large for the unedited text buffer, the operation will have to be performed again, after editing. Refer to the *System Administration Guide* for complete details.
4. *Cancel* Filing operations and select *Scanning* (option 1) from the **TOP Level Dispatch Menu**. The operator will be informed that

   There is unedited scanned text in the KDEM input buffer.

   Do you want to delete it? (Y/N):

5. Answer **No (N)** to this question and press **ACCEPT**. The **New Job Menu** will be displayed next.
6. Change the *Document Name* and press **ACCEPT**. Press **ACCEPT** as both the **Document Entry Menu** and the **Text Ambiguity Menu** are displayed. A prompt instructs the user to :

   Place page on scanner, press SCAN PAGE and ACCEPT to start job.

7. Press **ACCEPT**. Text can be displayed one line at a time by pressing **ACCEPT**, or text may be scrolled continously by pressing one of the **SCROLL** keys.

Refer to the *System Administration Guide* for specific details about reediting text.

Magnetic Tape Drive Operation

Procedure:

1. Press the **POWER** switch at the top of the tape drive operating panel. The light indicates that the system is **On**.
2. Mount a tape (with a write-enable ring installed), following the arrows that show the correct tape path. When the tape drive is write-enabled, the light on the **WRT EN** button is **On**.
3. When the tape has been threaded, press **LOAD** and the mechanical arms will swing into place.
4. Press **LOAD** again and the drive will search forward for the *beginning-of-tape* marker.
5. Select the proper tape density (either 800 or 1600 bpi). If the **HI DEN** button is illuminated, the drive is configured for 1600 bpi. Otherwise, 800 bpi is standard.
6. When the light on the **LOAD** button goes on, press **ON-LINE** to enable the communications link between the tape drive and the Kurzweil 4000.

After copying to (or from) tape:

1. Press **ON LINE** -- the light will go out.
2. Press **REWIND** -- the tape will rewind to the load position.
3. Press **REWIND** again -- the tape will rewind off the top reel.

Automatic Document Feeder (ADF) Operation

Procedure:

1. Place the platen cover down, so that it rests on the glass scanner surface. The ADF is now enabled.
2. Up to 25 pages may be placed in the paper hopper at the back of the unit. Jog the pages so that the edges align and place them in the hopper *face down*, with the tops of the pages toward the switch panel. Adjust the guide rails as required.
3. When **SCAN PAGE** is pressed, pages will be fed to the scanner surface, automatically. Processed pages are deposited in the paper reservoir.

To disable the **ADF** and perform scanning operations manually, raise the platen cover to its upright position.

Power Down Sequence

Follow the instructions below to turn the Kurzweil system off.

Procedure:

1. Select the *Log out* option from the **TOP Level Dispatch Menu** (option 6).
2. The following message will be displayed:

   "You may now shut down the system, or enter any character to Login again.

   Enter cancel to go back, or enter any other key to continue."

3. If a system shut down is desired, simply push the **POWER** button to the **Off** position.

WARNING

Log out procedures <u>must</u> be followed to shut down the system safely.