ABSTRACT: A reproduction system of a single electrostatic processing printer and a plurality of different imaging input devices such as devices which are adapted to produce imaging light rays for the printer from such informational forms as video facsimile signals, microfilm, data processing information, light scanning platen for full size documents, aperture cards, microfiche, etc. An interface connection is provided for the printer and any one or more of the input units. Paper input devices may also be arranged in the system for selectively feeding paper from different sources into the system.
DIVERSE-INPUT SYSTEM FOR ELECTROSTATICALLY REPRODUCING AND RECORDING INFORMATION

This invention relates to copier/reproduction systems in general and, more particularly, to such a system which is adapted to accept many input forms of information to be reproduced.

Generally, copier/reproduction systems of the type adapted to accept an input such as a letter size original, book page or picture, incorporate a printer processing unit with a single input station that converts the information on the letter original, book, or picture into corresponding light rays, suitable for a printer unit's operative input. For complete reproduction capability, that is, for a system to utilize other input forms such as microfilm, automatic document feeding operation, video signals, alpha-numeric keyboard electronic signals, aperture cards and the like, etc., a printer processing unit must be adapted to combine each of the forms of input. Needless to say, the use of a separate printer unit for each form of input is costly and, the space necessary to accommodate separate printers is needlessly wasted. Therefore, it is the principal object of the present invention to arrange copier/reproduction input units, a single printer unit and interface structure so that the printer unit is adapted for utilization for each of the input units.

Another object of the invention is to utilize a single printer unit in conjunction with multiple input units adapted to be readily attached to the printer unit for selectively presenting the printer unit with material to be produced originally provided in different forms.

Another object of the invention is to convert various forms of information to be reproduced into corresponding optical representations and to interface each of these representations with the imaging station of a reproduction machine.

Still another object of the invention is to arrange a reproduction system having a single printing unit, a plurality of output devices such as, catch trays, sorters or finishing stations, and a plurality of sources of information arranged to provide individual inputs for the printer unit wherein the system may be readily conditioned for producing readable copy of the information presented to the printer unit.

The system invention may be accomplished by an arrangement which includes a reproduction printer unit adapted to receive imaging light rays and to convert the same to readable intelligence on support material such as sheets or web of paper, a plurality of input units each capable of producing imaging light rays from a specific medium or form of information, such as, video facsimile signals, microfilm, data processing information, a light scanning platen to support an original document or book page for one-to-one reproduction, aperture cards, opaque cards, microfiche, other microforms, various forms of computer output, such as tape, etc. and, an interface connection between the printer unit and each of the input units in order to condition the output from each input unit to the printer unit.

Other objects and advantages of the present invention will become readily apparent from the following detailed description taken in conjunction with the accompanying drawings wherein:

FIG. 1 is an isometric view of a reproduction system embodying the principles of the present invention of utilizing a single printer unit and a plurality of imaging input units, a plurality of output devices and a plurality of record material inputs;

FIG. 2 is a plan view of the system shown in FIG. 1;

FIG. 3 is an isometric view, partly in section of the printer unit shown in FIG. 1, with an optical system for producing imaging light rays for the unit and two paper input devices;

FIG. 4 is an isometric view of the reproduction system arranged to effect reproduction from a microfilm input unit and a one-to-one copier combined with an automatic document feeding device;

FIG. 5 is a plan schematic view of two reproduction systems remotely located and each connected by a cable adapted to carry transmitted electrical signals to an input unit associated respectively with the systems; and

FIG. 6 is an isometric schematic view of a reproduction system arranged to receive inputs of different forms from several remotely located places of origination.

For a general understanding of a typical reproduction or printer apparatus to which the invention may be incorporated, reference is made to FIGS. 1, 2 and 3, and particularly FIG. 3 wherein various components of a typical printer system is schematically illustrated. For purposes of illustration, the printer unit to be described herein is of the electrostatic type and, in particular, a xerographic reproduction machine. As in all xerographic systems, a light image of an original to be reproduced is projected onto the sensitized surface of a xerographic plate to form an electrostatic latent image thereon. Thereafter, the latent image is developed with toner material to form a xerographic powder image corresponding to the latent image on the plate surface. The powder image is then electrostatically transferred to a record material such as a sheet or web of paper or the like to which it may be fused by a fusing device whereby the powder image is caused to permanently adhere to the surface of the record material.

For purposes of the present disclosure, the xerographic reproduction machine, indicated by the reference numeral 10 is arranged as a self-contained unit having all of its processing stations located in one unitary enclosure or cabinet. The printer unit includes an exposure station at which a light or radiation pattern of a document D positioned horizontally on a glass platen is projected onto a photoconductive surface, such as a xerographic belt 12. Imaging light rays from the document D, as "flash" illuminated by lamps 14, are projected by a first mirror 16, a projection lens 17 and another mirror 18 onto the belt 12, the focal plane for the lens 17, at a position indicated in FIG. 3 by the dotted line 19.

For purposes of more efficient flexibility and in accomplishing the objects of the invention, it is preferred that the optical path from the platen D to the focal plane 19 including the lens 17 with mirrors 16 and 18 on either side thereof be arranged so that the mirror 18 is mounted within the printer machine 10 and that the lens 17 and the mirror 16 be mounted in the optical input unit that supports the platen or object on either side of the optical path. However, for some purposes it may be more flexible to provide each of the optical input units with a mirror 18 and to end the printer unit cabinet with a wall that is closely adjacent the image plane 19.

As an interface structure and for unobstructed optical projection, the side of the cabinet for the printer 10 is formed with an enlarged rectangular opening to permit the projection of image light rays from the lens 17 to the mirror 18. Similarly, the cabinet for the input unit supporting the object plane is formed with a corresponding rectangular opening that mates with the opening in the printer cabinet when the two cabinets are operatively joined together for copy/duplicating purposes.

Suitable lighttight gaskets may be utilized adjacent the exterior of each opening in the cabinets in order to minimize the leakage of unwanted extraneous light. The positions of the lenses 17 and the mirrors 16 and 18 relative to the platen and the image plane 19 are such that when an input cabinet and the printer 10 are operatively jointed, the focal plane 19 will be within the plane of the belt 12 and good optical transmission of the document image rays will be achieved.

The xerographic belt 12 is mounted for movement around three parallel arranged rollers 20 suitably mounted in the printer unit 10. The belt may be continuously driven by a suitable motor (not shown) at an appropriate speed corresponding to the discharge response of the photoconductive material that comprises the belt and the intensity of the imaging light rays from the document D. The exposure of the belt 12 to the imaging light rays from the document discharges the photoconductive layer in the areas struck by light, whereby there remains on the belt an electrostatic latent image in con-
figuration corresponding to the light image projected from the document. As the belt continues its movement, the electro-
static latent image passes a developing station at which there is positioned a developer apparatus 21 for developing the ele-
ctrostatic latent image. After development, the powdered image is moved to an image transfer station whereat record
material or a sheet of paper just previously separated from a stack of sheets 22 is held against the surface of the belt
to receive the developed powder image therefrom. The sheet is
moved in synchronism with the movement of the belt during
transfer of the developed image. After transfer, the sheet of
paper is conveyed to a fusing station whereat a fuser device
24 is positioned to receive the sheet of paper for fusing the
powder image thereon. After fusing of the powder image, the
sheet of paper is conveyed to an opening in the housing for the
printer unit 10 for accumulation or distribution of the sheets
of paper as they are produced.

The sheets of paper may be separated from the stack of
sheets 22 arranged in the printer unit 10 and fed from the top
of the stack by means of a separator roll system 26 in timed
sequence with the movement of developed latent images on
the belt 12.

Further details of the processing devices and stations in
the printer unit 10 are not necessary to understand the present
invention. A detailed description of the processing stations
and components along with the other structures in the printing
unit 10 are adequately disclosed in the copending application
Ser. No. 731,934 to Hewes et al. filed May 24, 1968.

The printer unit also is adapted to have positioned at one
end thereof and operatively associated therewith a roll con-
verter unit indicated by the reference numeral 30. The roll
converter 30 is adapted to convert a relatively large roll of
paper 31 into various sizes of sheets of paper by means of a
cutter device 32 and a control system (not shown) adapted to
control cutting and feeding of the individual sheets into opera-
tive cooperation with the separator roller 26 positioned within
the printer unit 10. With this arrangement, precut sheets from
the stack 22 of a specific size may be fed seriatim to the
transfer station for the photoconductive belt 12 or, if it is
desirable to utilize sheets cut from a supply roll of record
material, say for example in the event that different size sheet
are required for a production run of the unit 10, the operator
need only inactivate the precut paper feeding mechanism and
activate the roll converter unit with the cutting device for
feeding the cutting and feeding of sheets to the transfer station
for the printer unit. In accomplishing the objects of the inven-
tion, the roll converter unit is housed within its own cabinet
which can be moved into and out of operative position relative
to the printer unit. A slot formed in the rear panel of the
cabinet for the operator may be made to mate with a cor-
responding slot formed in the roll converter cabinet in order
to permit the movement of cut sheets from one cabinet to the
other. Inside the printer unit cabinet, the sheets fed from
the roll converter unit are transported by the sheet moving
devices for the stack 22.

As shown in FIG. 1 at the other end of the printer unit 10,
there is positioned an output tray 40 arranged to receive
sheets of paper as they pass through a slot 41 formed in a wall
housing for the unit 10. The conveyor (not shown) associated
with the fuser unit 24 is adapted to transport finished copy
sheets through the slot and into the tray. In place of the output
tray 40, a sorter or multiple sorter unit 42 may be positioned
in order to receive sheets of paper from the unit 10. The slot
41 may be utilized to direct fused finish copy sheets to various
finishing stations such as staplers, binders, joggers, etc.
Whereas the output tray 40 will accumulate a particular
production run of the unit 10, the sorter units 42 are adapted
to sort the individual sheets in accordance with a predeter-
mined plan that may be programmed for the sorter unit 42.

For versatility, the operator need only attach the output tray
40 to the printer cabinet, or bring the sorter units into opera-
tive engagement with the output conveyor for the printer unit.

In FIG. 1 there is also shown two optical input units 45, 46
that may be utilized to effect individually, or by combined use,
the exposure of the belt 12 at the focal plane or exposure sta-
tion 19. The first optical unit 45 is provided with a suitable
transparent plate upon which original documents of different
sizes and forms may be positioned for illumination thereof.
Details of such a unit were previously described in relation to
FIG. 3 and like structure will be designated with the same
reference numerals. A flexible platen cover C may be posi-
tioned to rest upon the top of the document being illuminated
from beneath and within the unit housing. Within the cabinet
for the unit 45, the illumination source 14 may be mounted
and supplied with electrical power, and the illumination source
14 may be positioned to direct light rays through the sides of the two
rectangular openings formed in the adjacent unit 45 and the
unit 10. Preferably the projection lens 17 is also made part of
the optical unit 45 and the mirror 18 remains apart of the pair
unit 10, as shown in FIG. 2. In the event a system arrangement
utilizes a mirror 18 for each imaging input unit so that the
printer unit ends along the plane of the belt 12, the catch tray
40 or sorters and the fuser unit 24 must be arranged above the
printer unit.

The optical unit 45 in being adapted to accommodate
original documents, books or the like characterized by having
standard print size may be considered a 1:1 image forming
device. Besides a standard 8½ inches x 11 inches letter size
original, the unit platen, mirror 16 and lens 17 is capable of
accepting 12 inches x 18 inches side-by-side originals or 5
inches x 8 inches cards, or any other desirable size or shape
of original. The resultant copy sheets which bears The same size
of information to be copied may be cut in the roll converter
30 to match the sizes of the originals. By incorporating a suitable
add-lens to the projection lens 17, it is capable of varying
the magnification power of the lens, a larger document such as
a two page original may be applied to the plate on the unit 45
for effecting a reduction of size of the informational area of
the original upon a small size of copy paper.

The other optical input unit 46 is adapted to feed minidata
cards 47 in the form of aperture cards, 3X opaque cards,
microfiche or the like across a scanning station positioned
with the unit. The data on the cards may be enlarged to desired
magnification and directed to a mirror in the unit for pro-
tection by a lens out of the unit cabinet through an inter-
face opening in the side thereof. A corresponding opening
is formed in the cabinet for the printer 10 for permitting the
imposition of image light rays upon the mirror 18. As shown
in FIG. 2, the imaging light rays so produced are directed along the optical
axis onto the mirror 18 turned to the position indicated by
the dotted line 0 for exposing the photoconductor belt 12.
The minidata cards 47, in the form of aperture cards are formed with
suitable openings into which are secured film chips such as
microfilm frames having information reduced to a size of
between 12x and 16x. If the cards 47 are of the opaque type,
the minidata therewith, having been printed by a previous
process, are generally of a size approximately one-third the
size of the original information, unreduced.

In any event, with the use of either card form, a suitable au-
tomatic card pickoff and scanning system for presenting the
minidata of each card in seriatim or, repeatedly for multiple
copies thereof, may be utilized in order to accomplish a
production run of the printer unit 10 for a predetermined
number of cards placed in the unit 46. Such as automatic card
pickoff and scanning system that may be incorporated into the
input unit 46 is disclosed in the U.S. Pat. No. 3,379,106 to
Hewes et al. For scanning and projecting microfiche, the
unit 46 may incorporate the microfiche handling mechanism disclosed in U.S. Pat. No. 3,372,627 to Murray et
al.

Actuating and control means may be incorporated into the
printer unit 10 and operatively connected to the units 45, 46
for imparting rotation to the mirror 18 in a direction of posi-
tion, as shown, in FIG. 2, in order to receive and direct light
rays from either of the optical input units 45, 46 to the image
plane 19.
Alternatively, either of the units 45 or 46 may contain its own respective programming circuits for controlling operation of the printer 10, and control either of the paper supply units, that is, the paper feeder apparatus 22, 26 or 27 and the roll converter 30. A control panel and housing 48 on the unit 45 may be utilized for this programming and control and may contain the conventional "On-Off" switches; the "number of copies" selector switch; a copy counter indicator; a switch for the selection of paper feeder apparatus 22, 26 or roll converter 30 and the size of the sheets to be cut if the latter paper supply is to be utilized; the control for the sorter system 42 if one is to be in use and, distribution, that is, the number of copies for each distributee. Similarly, the unit 46 may include a control panel and housing 49 for these purposes.

Another arrangement of optical input units is shown in FIG. 4, wherein the printer unit 10 has associated therewith an optical input unit 50 similar to input unit 45 but including an automatic document feed mechanism 52. The document feeder is arranged upon the top of the cabinet for the unit 50 and is adapted to feed in seriatum original documents across the platen for the unit 50 in order to affect a precalculated production run of the printer unit 10 for a stack of documents placed in the document feeder 52. The unit 50 includes a projection lens system 17 and a mirror 9 similar to the mirror 16 for directing image light rays from documents being fed, to the mirror 18 of the printer unit 10.

On the other side of the printer unit 10, there is show in FIG. 4 another optical input unit 53 arranged to support a microfilm reel projection system 54 having an enlargement optical system for enlarging to full size the information on each of the microfilm frames. The unit 50 is provided with a control paneling and housing 55 similar to the panel 48 and may include specific document feeding control such as for number of copies per document. The unit 53 includes its own control panel and housing 56 which is similar to the panel 48 but including specific microfilm reel controls such as frame selection, fast wind or rewind, automatic frame advancing control.

Each of the units 50, 53 is formed with an opening in a side of the cabinet therefor, that is adapted to cooperate with corresponding openings formed in the printer unit 10 in order to permit the transmission of imaging rays from either of the optical units 50, 53 to the photoconverter 12.

Another arrangement of optical input units is illustrated in FIG. 5 wherein there is shown two copying/duplicating machines 10, each coupled with transmitting and receiving devices 60 and 62, each coupled with transmitting and receiving devices 60 and 62 respectively, to form reproduction system capable of producing readable hard copy from information received by way of telephone cables or by RF signals. Each reproduction system may be operated in a different location such as distant cities or the various floors of a large office building and, are operatively connected together by a two way cable or RF link illustrated by the reference numeral 64. Each reproduction system is a duplicate of the other and is connected by suitable cables or RF links that will permit the transmission of video facsimile and control signals. While any number of reproduction systems may be employed, only two are illustrated and these are operatively arranged so that control signals and information to be copied can be transmitted and received in either direction. Since both reproduction systems are duplicates, only one will be described in some detail.

Each reproduction system includes a printer unit 10 in cooperative relationship with the optical input 45 previously described, and, an electrical-optical converter in the form of the transmitting and receiving facsimile apparatus 60 or 62, as the case may be. The unit 60, 62 is adapted, in one mode of operation, to convert input video facsimile signals into a corresponding optical representation of the information supplied in the signal. This may be accomplished by a CRT adapted to receive electric signals indicative of the information of a document scanned by a "flying spot" scanner of another CRT in the other reproduction system and to effect "flying spot" scanning upon the mirror 18 in the printer unit 10. In another mode of operation, the CRT in the unit 60, is adapted to scan a document positioned on a suitable platen for this unit and to produce corresponding video signals and to transmit these signals to the duplicate unit 62 in the other reproduction system. With both modes of operation, the electrical-optical converters or facsimile apparatus are adapted to produce video signals, transmit the same to remote locations and to receive video signals for converting the same to facsimile reproductions of documents being reproduced. Details of an optical unit type portrayed by the unit 60 may be found in the U.S. Pat. No. 3,149,201 to Huber et al. and therefore further details thereof are not necessary. As previously stated, the signals received by the unit 60 are generated from the similar unit 62 associated with the other reproduction unit.

The arrangement illustrated in FIG. 5 then has the capability of producing copies directly from the documents by virtue of the optical input unit 45 at 1:1 or other magnification. The arrangement is also capable of reproducing information carried by way of a cable or an RF link in the form of video signals from relatively long distances and to present the information in graphical form suitable for reproduction by printer unit 10. The units 60, 62 may include their own specific controls for operation and also supervisory controls which integrate into the controls of each other and other similar facsimile units that may be employed in the arrangement of FIG. 5.

Such controls are disclosed in the U.S. Pat. No. 3,303,280 to Fox et al. and further detailed disclosure thereof is not necessary for the present invention.

The arrangement is additionally capable of receiving inputs simultaneously from both units 45 and, 60 or 62, the combination of which is adapted to produce on a single sheet, representation from both information sources. When an original is being scanned by the unit 60 while on the platen for the unit 45, the mirror 18 is moved out of the optical path and the system is also capable of transmitting information from an original placed on the platen for the unit 45 for reproduction thereof at a remote location at the same time the same original is being copied by the printer unit 10 located at the originating station. This may be accomplished by utilizing a mirror 18 that is semitransparent and capable of presenting an image at the exposure station 19 for the units 60 while at the same time allowing the image to be received by the unit 60 and converted to a corresponding video signal for transmission to the unit 62.

Another arrangement of imaging units for reproduction purposes is illustrated in FIG. 6. In this arrangement, the printer unit 10 is combined with 1:1 document optical input 45 and an interface unit 70 on which may be a character generator adapted to convert electromagnetic signals, such as video facsimile signals to graphic representations suitable for producing an image configuration on the photoconverter belt 12 in the unit 10. The unit 70 is provided with a mirror and a lens such as the mirror 16 and the lens 17 in the unit 45 and is formed with an opening in a wall of the cabinet therefor, thereby effecting cooperation with the corresponding opening in the unit 10 and the mirror 18. This cooperation, as in the other previously described arrangement, establishes an operative engagement between the signal-to-graphic interface unit 70 with the printer unit.

The interface unit 70 is illustrated as being coupled to two remotely located facsimile units 72, 74 by way of cables 76. Each of the units 72, 74 is adapted to scan optically original and to convert the resultant optical image to electronic signals. In this function, the units 72, 74 are similar to the facsimile devices 60, 62 in the arrangement of FIG. 5. The electric signals produced by the units 72, 74 being indicative of the optical images of the originals, are transmitted by the respective units to the interface unit for conversion of the signals into corresponding optical representations that can be utilized to produce electrostatic images on the belt 12.

The interface unit 70 is also operatively coupled by cables to two remotely located alpha-numeric transmitting
devices 80, 82 each being provided with an alpha-numeric typewriter keyboard. Use of one of the units by an operator serves to produce signals indicative of the alpha-numeric characters selected by the operator on the respective keyboard. These signals are converted to alpha-numeric characters by the interface unit 70 in order to present corresponding optical images for reproduction by the printer unit 10. A tape recording device 84 is coupled into the cables 78 and may receive simultaneous recording when either of the units 80, 82 is operated in order to permit a latter playback for the interface unit. Any other previously produced tape may be utilized instead of those produced with the units 80, 82 in order to acquire hard, readable copy from the printer 10 of the material contained in the tape.

For still further versatility, the cables 78 are also connected to a voice recognition scanner 86 which is adapted to produce optical signals indicative of audio transcription such as voice induced recordings. Such scanner may include an optical scanning device for converting recognized sound recordings into a corresponding optical representation and the into a video facsimile signal representative of the optical results. The video signal may then be transmitted and converted by the interface unit 70 into optical images suitable for reproduction as line copy by the printer unit 10. Incorporate with the units 80, 82 may be suitable storage and retrieval systems having a computer that will use audiotape, videotape or even movie film as a storage form. Any number of different retrieval devices may be then utilized to recall stored information from the computer for print out purposes by the printer unit 10.

With the arrangements comprising the 1:1 optical input unit 45 in combination with: in FIG. 1, the minicard unit 46, in FIG. 4 the microfilm reel projection system 53; in FIG. 5, the transmitting and receiving facsimile system 60; in FIG. 6, the signal to graphic interface unit 70 and any one or all of the input devices thereto, there is provided standard copying/duplicating service in the form of the unit 45 and any one of a multitude of other services capable of accepting and handling other various forms of information for conversion to a form which can be utilized for producing hard readable copy. Other arrangements of inputs to the printer unit 10 may be incorporated than those illustrated in FIGS. 1, 4, 5, and 6. For example, in FIG. 1 the 1:1 optical unit 45 may be replaced by the microfilm reel projection system 53 thereby allowing the use full use of most types of miniaturized masters such as microfilm, microfiche, aperture cards and opaque cards in the event that a particular production run is to involve exclusively stored data material. In such an arrangement, the control panel 56 for the unit 53 may include additional controls which are effective to operate the respective units sequentially. Another arrangement would integrate either of the two miniature input form units 46, 53 with either of the facsimile systems 60 or 70 with some of the devices 72, 74, 80, 82, 84, and 86.

For any arrangement of input units, operative cooperation is assured between the units and/or the printer unit 10 optical systems, by the physical association of the cabinets for the units, and the matching openings which permit the transmission of imaging light rays between the input units and the printer unit. Locking clamps may be provided on all the units for preventing the inadvertent movement of the unit during use and, interlock switches and alignment devices may be utilized on each unit for insuring proper optical alignment of all the optical structure involved and to terminate or suspend operation in the event misalignment or separation of units occurs. For facility, each of the units are provided with caster wheels and locking brakes thereby aiding in the movement of the units into and out of cooperative engagement. The positioning of the optical input units may be reversed, assuming that units are available which are oriented as left-handed and right-handed, or only one input unit utilized and the printer unit positioned against an office wall. This latter arrangement has significant advantage if there is a shortage of office space.

With the printer unit fixed against a wall, each optical input unit can be applied as needed rather than arranging two input units in operative engagement with the printer unit.

From the foregoing it may be appreciated that the present invention allows the use of a single reproduction unit in conjunction with a multitude of different optical input units, paper supply devices and paper output apparatus. It will be apparent that arrangements other than those described above may be devised without departing from the scope of the invention which is limited only by the accompanying claims.

What I claim is:

1. In a system for recording originals of different forms, the system having processing stations for producing a record indicative of an original, said system including:

   a support structure,

   an image receiving surface supported by the support structure for receiving imaging rays of an original to be recorded,

   a first imaging unit for producing imaging rays indicative of originals having a first form and at approximately a one-to-one magnification,

   a second imaging unit for producing imaging rays indicative of originals of a form different from the form of the originals associated with said first unit,

   means for operatively connecting selectively each of said units to the support structure and in image projecting relation to said image receiving surface,

   and means for producing an imaging relationship of the units with the image receiving surface thereby effecting the presentation of the imaging rays of the originals from the first unit and the second unit upon the image receiving surface.

2. The system of claim 1 wherein said means for producing an imaging relationship between the units and the image receiving surface includes at least one optical element arranged to direct the imaging light rays from the units to said surface.

3. The system of claim 2 wherein said optical element is a reflecting surface and includes means for moving said reflecting surface to at least two positions each of which permitting the imaging rays corresponding from the units.

4. In a system for recording information of different forms, the system having processing station for producing a record indicative of the information, said system including:

   a support structure,

   an image receiving surface supported by the support structure for receiving imaging rays of the information to be recorded,

   a first imaging unit for producing imaging rays indicative of information in micro form and to project an enlarged image of the information,

   a second imaging unit for producing imaging rays indicative of the information of a form different from the form of the information associated with said first unit,

   means for operatively connecting selectively each of said units to the support structure and in image projecting relation to said image receiving surface,

   and means for producing an imaging relationship of the units with the image receiving surface thereby effecting the presentation of the imaging rays of the information from the first unit and the second unit upon the image receiving surface.

5. The system of claim 4 wherein the micro information is carried on card material and said first imaging unit includes means for receiving and handling the card material.

6. The system of claim 5 wherein said second unit is adapted to receive a microfilm reel and to project enlarged images of the information thereon.

7. In a system for electrostatically recording information existing or initiated in a plurality of different forms, the system having electrostatic processing stations for producing a record indicative of the information, said system including:

   a support structure,
an image receiving surface supported by the support structure for receiving imaging rays indicative of the information to be recorded,
an image receiving station for receiving imaging rays indicative of the information,
an imaging unit for producing imaging rays of each form of information,
means for operatively connecting selectively each of said units at the imaging station, and for producing an imaging relationship with said image receiving surface for effecting the presentation of the imaging rays of the information thereon.

9. The system of claim 7 wherein one of said units includes means for producing imaging rays for an image having a magnification of one-to-one relative to the information in its originating form.

10. The system of claim 7 wherein one of said units includes means for receiving video signals indicative of information to be recorded and including means for converting the video signals to imaging rays.

11. The system of claim 10 including means responsive to actuation of a keyboard in the formation of characters thereby for producing said electric signals.

12. The system of claim 10 including tape recording and playback means operatively connected to said means for converting electric signals for generating said signals in response to information on tape.

13. The system of claim 10 including voice recognition means operative connected to said means for converting electric signals for generating said signals in response to audio induced information.