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MEDIA INPUT MANAGEMENT SYSTEM FOR A PRINTER

TECHNICAL FIELD

The present application relates to printers capable of receiving different types of
5 print media and to systems for managing input of these different types of print
media.

BACKGROUND

There is a variety of print media available on which to print indicia such as text
10 or graphics. Examples of such media include continuous Z-fold media with
sprocket holes, continuous Z-fold media without sprocket holes, continuous label
media and cut-sheet media.

While some printers are restricted to one or a few types of media, there exist
15 printers that are able to accept and print on a larger variety of media.

Such printers often require multiple input systems to be able to accept and
process the larger range of media, and/or require expensive and bulky add-on
modules.

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SUMMARY

According to a first aspect, there is provided a printer tractor feed system
comprising a tractor frame for fixing to a printer; a pair of tractor devices
operationally supported by the tractor frame for engaging with and motivating
25 print media into the printer; and at least one tray support for supporting a tray at
least partially between the pair of tractor devices.

In one embodiment, the tractor feed system comprises a first tray support and a
second tray support disposed between the pair of tractor devices.



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In one form, the first tray support and the second tray support comprise at least one tray retainer to retain the tray.

- 5 In one form, the tray retainer is a magnet for attracting a corresponding metal portion or magnet on the tray.

- 10 In one form the tray retainer comprises at least one locator hole for receiving a corresponding locator pin on the tray.

In one form each tray support comprises two locator holes for receiving respective corresponding locator pins on the tray.

- 15 In one embodiment, the printer tractor feed system further comprises a pair of shafts disposed between the pair of tractor devices and the first tray support and the second tray support are supported by the pair of shafts.

- 20 According to a second aspect, there is provided a tray for use with the printer tractor feed system of the first aspect, the tray defining a support surface for supporting a print media and comprising at least one corresponding retainer for cooperating with the at least one tray retainer of the first tray support and/or the second tray support.

- 25 In one embodiment, the at least one corresponding retainer is provided by at least a portion of magnetically active metal.

- 30 In one embodiment, the at least one corresponding retainer is a locator pin for location in a corresponding locator hole of the first support and/or the second support.

In one form, the tray is made of electro-galvanized steel and comprises four locator pins.

- 5 According to a third aspect, there is provided a media input management system comprising the tractor feed input system of the first aspect and the tray of the second aspect.

According to a fourth aspect, there is provided a printer comprising a printer
10 tractor feed input system of the first aspect.

According to a fifth aspect, there is provided a tray support for use in a printer tractor feed system comprising a tractor frame for fixing to a printer, a pair of tractor devices operationally supported by the tractor frame for engaging with
15 and motivating print media into the printer, and a pair of shafts located between the pair of tractor devices; the tray support comprising a substantially flat surface for providing support to a tray for supporting media passing into the printer; a pair of apertures for receiving one each of the pair of shafts; and at least one tray retainer for retaining the tray to the tray support.

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In one embodiment, the at least one tray retainer is a magnet.

In one form, the at least one tray retainer is a locator hole disposed in the flat surface for receiving a corresponding locator pin on the tray.

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In one form, the at least one tray retainer comprises at least one magnet for attracting a metal portion or tray magnet of the tray and two locator holes for receiving corresponding locator pins on the tray.

According to a sixth aspect, there is provided a method of converting a media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, the method comprising securing a tray over at least one tray support disposed between a pair of tractor devices of the printer.

In one embodiment, the step of securing the tray to the at least one tray support comprises locating at least one locator pin of the tray into a corresponding at least one locator hole in the at least one tray support.

In one embodiment, the method further comprises locating two locator pins in two corresponding locator holes in a first tray support and locating two locator pins in two corresponding locator holes in a second tray support.

According to a seventh aspect, there is provided a method of converting a media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, and a pair of paper clips disposed over corresponding ones of the pair of tractor devices, the method comprising moving the pair of paper clips into an upright position; positioning a tray over the first tray support and the second tray support; locating locator pins on the tray into corresponding locator holes in the first tray support and second tray support; and placing the tray onto the first tray support and the second tray support.

According to an eighth aspect, there is provided a method of converting a media input system of a printer to accept print media having no sprocket holes to a media input system to accept print media having sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, a tray supported by the first tray support and the second tray support, and a pair of paper clips disposed adjacent corresponding ones of the pair of tractor devices, the method comprising lifting the tray away from the first tray support and the second tray support.

In various aspects then, there are provided apparatus, systems and methods for allowing a printer to accommodate a large variety of print media types. In one form of apparatus, a tray or support surface is provided over a portion of an input feed arrangement of the printer to provide a support for print media not having sprocket holes. The tray or support surface is able to be removed to allow access to sprockets in a drive mechanism or tractor device to feed print media that has sprocket holes.

A tray support device is also provided that allows the tray or support surface to be located inside the input of the printer.

Various methods of interchanging printer media input capability are also provided, including a method to allow the printer to take in and process media with sprocket holes and without sprocket holes, as well as media of different widths.

DRAWINGS

Various aspects and embodiments are described in detail with reference to the following figures in which:

- Figure 1 – shows a generic component diagram of a printer tractor feed system
5 according to one aspect described herein;
- Figure 2 – shows a printer tractor feed system according to one aspect;
- Figure 3 – shows a top view of the printer tractor feed system of Figure 2;
- Figure 4 – shows the printer tractor feed system of Figure 2 with paper clips in a closed position;
- 10 Figure 5 – shows the printer tractor feed system of Figure 2 feeding print media with sprocket holes;
- Figure 6 – shows a side view of a tractor device feeding print media with sprocket holes;
- Figure 7 – shows another embodiment of a printer tractor feed system with a
15 single tray support;
- Figure 8 – shows a top view of the tray according to another aspect;
- Figure 9 – shows an underside view of the tray of Figure 8;
- Figure 10 – shows a media input management system according to another aspect;
- 20 Figure 11 – shows the media input management system of Figure 10 combined;
- Figure 12 – shows a perspective view of one embodiment of a tray support;
- Figure 13 – shows a perspective view of another embodiment of the tray support of Figure 12;
- Figure 14A – shows a perspective view of another embodiment of the tray
25 support;
- Figure 14B – shows the tray support of Figure 14A in place in the printer tractor feed system;
- Figure 15A – shows a printer comprising the media input management system configured to accept print media without sprocket holes;

Figure 15B - shows the printer of Figure 15A with a front lid open to access the media input management system;

Figure 15C - shows the printer of Figures 15A and 15B without the tray and configured to accept print media with sprocket holes;

5 Figure 16 - shows a flowchart of a method of converting a printer for different media types according to one aspect; and

Figure 17 - shows a flowchart of a method of converting a printer for different media types according to another aspect.

10 DETAILED DESCRIPTION

Various aspects and embodiments of a media input management system for a printer and related subsystems are described in detail in the following. It will be appreciated that the aspects and embodiments described are examples only and the scope of this application is not limited to the specific embodiments described.

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Referring to Figure 1, there is shown a general component diagram of the features of a printer tractor feed system 100 according to one aspect described herein. The printer tractor feed system 100 comprises a tractor frame 10, a pair of tractor devices 20, 21 and a tray support 30 for supporting a tray as will be described in more detail below. It will be understood that the tray will be supported to extend at least partially between the tractor devices so as to itself support print media in a printing zone. The actual point of support of the tray by the tray support may be outside of the printing zone or not between the tractor devices.

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Figure 2, shows one embodiment of printer tractor feed system 100. In this embodiment, printer tractor feed system 100 comprises tractor frame 10, the pair of tractor devices 20, 21, tray support (in this embodiment there are provided two tray supports 30, 40), and a pair of shafts 50, 51 extending between the pair

of tractor devices 20, 21. The driving shaft 50 has two grooves 50a, 50b (not visible in this view) on its cross section to engage with driving tractor wheels 20a, 21a (see Figure 6) of respective tractor devices 20, 21. The second shaft 51 is cylindrical. Driving shaft 50 is also connected with drive wheel arrangement 70 which when in place in a printer (not shown) engage with a motor of the printer to cause rotation of driving shaft 50.

Tractor device 20 is fixed to the right of the right media datum position of the printer (as seen from the front of the printer), while the other tractor device 21 is slidable along the shafts 50, 51 to accommodate media of different widths with sprocket holes. Locking level 52 is provided to lock the tractor device 21 in place when moved to its desired position.

Also provided in this embodiment are paper clips 60, 61 which are pivotable from an open position as shown in Figure 2 to a closed position as shown in Figures 4 and 5 to hold in place print media having sprocket holes being fed by tractor devices 20, 21.

In use, the printer tractor feed system 100 is connected or otherwise fixed to a printer (not shown in this Figure) in which the system is to be used, via tractor frame connection points 11, 12. It will be appreciated however that any other suitable forms of connection may be used in other embodiments including slot and tab arrangements, nut and bolt arrangements and welding arrangements.

First tray support 30 and second tray support 40 are shown supported by shafts 50, 51. It will be appreciated however, that either or both of the tray supports can be supported by any suitable means including directly or indirectly (operationally) by the frame 10, and in some embodiments, need not be disposed between the tractor devices 20, 21. In this embodiment, first tray support 30 is

fixed at a position along the shafts 50, 51 while the second tray support 40 is slidable on the pair of shafts 50, 51. The distance between the first and second tray supports 30, 40 is adjustable to allow for adjustability of the tractor devices 20, 21 as described above.

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The tray supports 30, 40 provide a substantially flat surface on top to support a removable tray as will be described in more detail below. This surface provides the primary datum plane for the tray.

- 10 Each tray support 30, 40 comprises at least one tray retainer to assist in retaining the tray to the tray support when the tray is placed upon the substantially flat surface. In one embodiment, the tray retainer is one or more pieces of built-in magnets 35, 45 (see Figure 3) inside each of the tray supports 30, 40, to attract and retain the tray to the substantially flat surface.

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The tray retainer in this embodiment is also provided by locator holes 36, 37 and 46, 47 (see Figure 3).

- Figure 3 shows a top view of printer tractor feed system 100 comprising tractor frame 10, tractor frame connection points 11, 12, tractor devices 20, 21 and first tray support 30 and second tray support 40 supported by shafts 50, 51. In this view, magnets 35, 45 and locator holes 36, 37, 46, 47 are clearly seen.

- Figure 4 shows the printer tractor feed system 100 with paper clips 60, 61 in the closed position, over the tractor devices 20, 21. In use, these retain print media with sprocket holes which engage with sprockets of the tractor devices 20, 21 to motivate the media over the printer tractor feed system into the printer for printing.

Figure 5 shows the printer tractor feed system 100 of Figure 4 in use motivating or driving a print media with sprocket holes 400.

5 Figure 6 shows a side view of tractor device 21. Shown there are ends of driving shaft 50 and other shaft 51. In this view, the grooves 51a, 51b can be seen engaging driving tractor wheel 21a. Print media with sprocket holes 400 can be seen being fed by tractor device 21 with sprockets 21c engaging in the sprocket holes of print media 400.

10 Figure 7 shows another embodiment of printer tractor feed system 100 with only one tray support 30. In this embodiment, tray support 30 is located substantially equi-distant between tractor devices 20, 21.

15 In other embodiments, tray support 30, or multiple tray supports are supported directly by tractor frame 10.

Figure 8 shows tray 200 defining a support surface 210 for supporting print media. In this embodiment, tray 200 has datum wall 211 providing a right media datum. Also provided is a width adjuster module 212 which is slidable along the support surface 210 for accommodating print media of different widths. Adjuster module 212 can be pushed against the edge of the print medium to hold it firmly and biased towards datum wall 211. Adjuster module 212 may also be locked into position at its desired location.

25 It will be understood that the term “tray” is to be construed broadly and can simply be a support surface without any side walls or other elements, or may comprise additional elements and side walls such as in the embodiment shown in Figure 8.

In one embodiment, tray 200 also comprises at least one corresponding retainer 220 for cooperating with the tray retainer of tray support 30, 40. In one example, corresponding retainer 220 (not visible in this view) is provided by at least one magnet for cooperation with a corresponding magnet 35, 45 on tray support 30, 40. In another embodiment, the corresponding retainer is provided by the material of the main body of the tray 200 such as a portion of magnetically active material. In one example, this is electro-galvanized steel.

In another embodiment, the corresponding retainer is provided by one or more locator pins. Figure 9 shows an underside view of tray 200 showing locator pins 240, 241, 242, 243 for locating in corresponding locator holes 36, 37, 46, 47 of first and second tray supports 30, 40 as previously described. In some embodiments, there is only 1 locator pin, in other embodiments there are 2 locator pins, in other embodiments there are 3 locator pins, in yet other embodiments there are 5 or more locator pins, including 6, 7, 8, 9, 10 or more locator pins.

In one embodiment, the corresponding retainer is provided by both a magnetically active material such as electro-galvanized steel and four locator pins 240, 241, 242, 243 as shown in Figure 9. The provision of four locator pins provides some over-constraint so as to eliminate or reduce the looseness of the retention of tray 200 to tray supports 30, 40 due to clearance and tolerances between the pins and holes.

Friction between the magnetically-retained tray 200 and the tray supports 30, 40 also reduces looseness between the tray 200 and tray supports 30, 40. In some embodiments, a material with a high co-efficient of friction, such as a rubber, may be applied to some or all of the substantially flat surface 31, 41 of tray supports 30, 40 to increase the frictional forces between the tray 200 and tray

supports 30, 40 thereby further reducing any looseness in the contact. In other embodiments, the substantially flat surface 31 may be chemically or otherwise treated or processed to roughen the surface to make the surface itself provide greater friction.

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Figure 10 shows a media input management system 400 according to another aspect. The system comprises the tractor feed input system as described in relation to Figures 1 to 7 above and the tray 200 as described with reference to Figures 8 and 9 above. When converting the media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, in one embodiment, the user simply manually pops the paper clips 60, 61 into the open position as shown in Figure 10, holds the tray 200, approximately positions the tray 200 over the tray supports 30, 40 to align the locator pins 240, 241, 242, 243 of the tray 200 with corresponding locator holes 36, 37, 46, 47 of tray supports 30, 40, and places the tray 200 down onto the substantially flat surfaces 31, 41 of tray supports 30, 40. The tray 200 is then firmly retained to the fixed structure of the printer tractor feed system by virtue of the magnetic attraction and restriction between the pins and holes.

20 Figure 11 shows the media input management system provided by tray 200 retained to printer tractor feed system 100 after performance of the steps described above.

To remove the tray 200, and thus convert the media input system from one that accepts print media without sprocket holes to one that accepts print media with sprocket holes, the user simply grabs the main structure of tray 200 and applies a lifting force to overcome the magnetic force, as shown again in Figure 10. Once the print media with sprocket holes is located over the sprockets of tractor

devices 20, 21, paper clips 60, 61 can be placed in the closed position to retain the print media during printing, as shown in Figure 6.

Figure 12 shows a perspective view of one embodiment of tray support 30 as shown in the previous Figures. Tray support 30 provides substantially flat surface 31 to provide support to tray 200 (not shown in this view). Provided on a side of tray support 30 are two apertures 32, 33 for receiving respective shafts 50, 51 of the printer tractor feed system 100 (not shown in this view). In this embodiment, on or within substantially flat surface 31 is a tray retainer 34 for retaining tray 200 when in place. It will be appreciated that tray support 30 need not have a tray retainer in some embodiments, but the provision of such a tray retainer provides for a more secure contact between tray 200 and tray support 30.

In one embodiment, tray retainer 34 is provided by one or more locator holes 36, 37 (see Figure 13). In another embodiment, tray retainer 34 is provided by one or more magnets 35 to provide magnetic attraction to tray 200 as previously described. In another embodiment, tray retainer 34 is provided by both magnet 35 and locator holes 36, 37. In another embodiment, tray retainer 34 is provided by magnet 35, locator holes 36, 37 and friction material 38. It will also be appreciated that instead of the locator holes 36, 37 being in tray support 30 for receiving corresponding locator pins on the tray, in some embodiments, the locator holes are provided in the tray 200 with corresponding locator pins being provided on the tray support 30.

Figure 13 shows tray support 30 comprising substantially flat surface 31, two apertures 32, 33, magnet 35, friction material 38 and two locator holes 36, 37.

Figure 14A shows a modified version 30' of tray support 30 which can be used to retro-fit an existing printer tractor feed system of a conventional printer having

no tray support. In this embodiment, apertures 32, 33 of tray support 30 are provided by arches or cut-aways 32', 33' in the material of tray support 30'. These arches act to receive shafts 50, 51.

- 5 In use, tray support 30' is simply clipped over shafts 50, 51 as shown in Figure 14B to provide the printer tractor feed system 100 previously described.

In another aspect, there is provided a printer 300 comprising the printer tractor feed system 100. Figures 15A to 15C show such a printer. Tray 200 can be
10 provided with the printer to provide the media input management system, or tray 200 may be provided separately.

Figure 15A shows printer 300 with media input management system 400 installed at the input of the printer 300. In this view, tray 200 is visible. As
15 previously described, this arrangement will allow printer 300 to accept and print on print media of varies widths and types without sprocket holes.

Figure 15B shows printer 300 with a front lid 310 in the open position to allow access to media input management system 400 and in particular, to tray 200. In
20 the event that the user now wishes to print on print media with sprocket holes, the user simply lifts lid 310, grabs tray 200 and lifts to overcome the magnetic force as previously described, and removes tray 200.

Figure 15C shows the printer 300 with tray 200 now removed. In view now is
25 printer tractor feed system 100 which will now allow printer 300 to receive and print on print media with sprocket holes. The print media with sprocket holes is simply loaded over the sprockets of tractor devices 20, 21 and paper clips 60, 61 closed over the print media to retain it in place during the printing procedure.

To return the printer 300 to a printer that can accept and print on print media without socket holes, the process is simply reversed, with tray 200 replaced over printer tractor feed system 100 as previously described.

- 5 Thus it can be seen how quickly and simply the printer 300 can be converted to accept a wide range of print media with sprocket holes and without sprocket holes.

In the case of retro-fitting an existing printer, use of the modified tray support(s)
10 30', 40' can be made to allow the otherwise conventional printer to benefit from the advantages of the various aspects described herein.

Figure 16 shows a flowchart for a general method according to one aspect, of converting a media input system of a printer to accept print media having
15 sprocket holes to a media input system to accept print media without sprocket holes. In this embodiment the method comprises a single step 600 of securing a tray over at least one tray support disposed between a pair of tractor devices of the printer.

- 20 In one particular embodiment, the step of securing the tray to the at least one tray support comprises locating at least one locator pin of the tray into a corresponding at least one locator hole in the at least one tray support.

In another particular embodiment, the step of securing the tray to the at least one
25 tray support comprises locating two locator pins in two corresponding locator holes in the first tray support and locating two locator pins in two corresponding locator holes in the second tray support.

Figure 17 shows a flowchart of a method according to another aspect. In one embodiment, there is provided a method of converting a media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, and a pair of paper clips disposed over corresponding ones of the pair of tractor devices. In a first step 700, the method comprises moving the pair of paper clips into an upright position. In step 701, a tray is positioned over the first tray support and the second tray support. In step 702, locator pins on the tray are located into corresponding locator holes in the first tray support and second tray support; and in step 703, the tray is placed onto the first tray support and the second tray support.

In another aspect, there is provided a method of converting a media input system of a printer to accept print media having no sprocket holes to a media input system to accept print media having sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, a tray supported by the first tray support and the second tray support, and a pair of paper clips disposed adjacent corresponding ones of the pair of tractor devices. In this embodiment, the method comprises lifting the tray away from the first tray support and the second tray support. This allows print media having sprocket holes to engage with corresponding sprockets in the pair of tractor devices.

The above has described a system, apparatus and methods with significant advantages over existing systems, apparatus and methods. In particular, the aspects described herein enable easy and convenient switching of input guides for different print media types. The solution provided is a low cost solution
5 which also occupies less space than existing systems which either require two separate input feed units or bulky attachments. The systems and apparatus described allow a printer to accommodate a wide range of print media including but not limited to continuous Z-fold media with sprocket holes, continuous Z-fold media without sprocket holes, continuous label media and cut-sheet media.

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Furthermore, there is no requirement for the use of screws or any tools or alignment jig or fixture to install the tray described herein. The tray is able to be retained in place sufficiently firmly to meet printing alignment requirements. Furthermore, the addition or removal of the tray from the printer does not result
15 in the need to reconfigure control or alignment software.

Throughout the specification and the claims that follow, unless the context requires otherwise, the words "comprise" and "include" and variations such as "comprising" and "including" will be understood to imply the inclusion of a stated integer or group of integers, but not the exclusion of any other integer or
20 group of integers.

The reference to any prior art in this specification is not, and should not be taken as, an acknowledgement of any form of suggestion that such prior art forms part of the common general knowledge.

It will be appreciated by those skilled in the art that the aspects and
25 embodiments described are not restricted in its use to the particular application described. Neither are they restricted to the embodiments with regard to the particular elements and/or features described or depicted herein. It will be

appreciated that the various aspects are not limited to the embodiment or embodiments disclosed, but are capable of numerous rearrangements, modifications and substitutions without departing from the scope as set forth and defined by the following claims.

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CLAIMS

1. A printer tractor feed system comprising:
 - a tractor frame for fixing to a printer;
 - 5 a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; and
 - at least one tray support for supporting a tray to extend at least partially between the pair of tractor devices.
- 10 2. A printer tractor feed system as claimed in claim 1 comprising a first tray support and a second tray support disposed between the pair of tractor devices.
- 15 3. A printer tractor feed system as claimed in claim 2 wherein the first tray support and the second tray support comprise at least one tray retainer to retain the tray.
- 20 4. A printer tractor feed system as claimed in claim 3 wherein the tray retainer is a magnet for attracting a corresponding metal portion or magnet on the tray.
- 25 5. A printer tractor feed system as claimed in claim 3 wherein the tray retainer comprises at least one locator hole for receiving a corresponding locator pin on the tray.

6. A printer tractor feed system as claimed in claim 5 wherein each tray support comprises two locator holes for receiving respective corresponding locator pins on the tray.
- 5 7. A printer tractor feed system as claimed in claim 3 further comprising a pair of shafts disposed between the pair of tractor devices and the first tray support and the second tray support are supported by the pair of shafts.
- 10 8. A tray for use with the printer tractor feed system as claimed in any one of claims 3 to 7, the tray defining a support surface for supporting a print media and comprising at least one corresponding retainer for cooperating with the at least one tray retainer of the first tray support and/or the second tray support.
- 15 9. A tray as claimed in claim 8 wherein the at least one corresponding retainer is provided by at least a portion of magnetically active metal.
- 20 10. A tray as claimed in claim 8 wherein the at least one corresponding retainer is a locator pin for location in a corresponding locator hole of the first support and/or the second support.
- 25 11. A tray as claimed in claim 8 wherein the tray is made of electro-galvanized steel and comprises four locator pins.
- 30 12. A media input management system comprising the tractor feed input system as claimed in any one of claims 1 to 7 and the tray as claimed in any one of claims 8 to 11.
13. A printer comprising a printer tractor feed system as claimed in any one of claims 1 to 7.

14. A tray support for use in a printer tractor feed system comprising a tractor frame for fixing to a printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer, and a pair of shafts located between the pair of tractor devices; the tray support comprising:
- 5 a substantially flat surface for providing support to a tray for supporting media passing into the printer;
- a pair of apertures for receiving one each of the pair of shafts; and
- 10 at least one tray retainer for retaining the tray to the tray support.
15. A tray support as claimed in claim 14 wherein the at least one tray retainer is a magnet.
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16. A tray support as claimed in claim 14 wherein the at least one tray retainer is a locator hole disposed in the substantially flat surface for receiving a corresponding locator pin on the tray.
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17. A tray support as claimed in claim 14 wherein the at least one tray retainer comprises at least one magnet for attracting a metal portion or magnet of the tray and two locator holes for receiving corresponding locator pins on the tray.
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18. A method of converting a media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, the method comprising:
- securing a tray over at least one tray support disposed between a pair of tractor devices of the printer.

19. A method as claimed in claim 18 wherein the step of securing the tray to the at least one tray support comprises locating at least one locator pin of the tray into a corresponding at least one locator hole in the at least one tray support.
20. A method as claimed in claim 19 further comprising locating two locator pins in two corresponding locator holes in a first tray support and locating two locator pins in two corresponding locator holes in a second tray support.
21. A method of converting a media input system of a printer to accept print media having sprocket holes to a media input system to accept print media without sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, and a pair of paper clips disposed over corresponding ones of the pair of tractor devices, the method comprising:
- moving the pair of paper clips into an upright position;
 - positioning a tray over the first tray support and the second tray support;
 - locating locator pins on the tray into corresponding locator holes in the first tray support and the second tray support; and
 - placing the tray onto the first tray support and the second tray support.

22. A method of converting a media input system of a printer to accept print media having no sprocket holes to a media input system to accept print media having sprocket holes, the media input system comprising a tractor frame fixed to the printer, a pair of tractor devices operationally supported by the tractor frame for engaging with and motivating print media into the printer; a first tray support and a second tray support disposed between the pair of tractor devices, a tray supported by the first tray support and the second tray support, and a pair of paper clips disposed adjacent corresponding ones of the pair of tractor devices, the method comprising:

lifting the tray away from the first tray support and the second tray support.