

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A document that is both scanner and image friendly, and copy resistant, including:

first through fourth areas each having colored background lines at a first angle and colored VOID lines at a second angle, said second angle being at least about 20 degrees different than said first angle, but not 70-110 degrees or 160-200 degrees different;

at least one of said first and second angles for each of said first through fourth areas being at least about 10 degrees different than said first and second angles for each of said other first through fourth areas; and

substantially all of said background and VOID lines having a black content of at least about 15%, and a density of between about 7-22%, so that said document is scanner friendly and substantially copy proof.

2. A document as recited in claim 1 wherein substantially all of said lines have a frequency of between about 97-103 lines per 2.54 cm [inch].

3. A document as recited in claims 1 or 2 wherein said VOID lines include lines that are at angles between about 0-15 degrees from the direction of travel of a copier scan head for a document laid against a copy guide, and also from 90 degrees to the direction of travel of a copier scan head.

4. A document as recited in claim 3 wherein said VOID lines include lines that are at angles between about 5 degrees from the



direction of travel, and perpendicular to the direction of travel, of a copier scan head.

5. A document as recited in claims 1 or 4 further including at least fifth through eighth areas each having colored background lines at a first angle and colored VOID lines at a second angle, said second angle being at least about 20 degrees different than said first angle, but not 70-110 degrees or 160-200 degrees different;

at least one of said first and second angles for each of said first through eighth areas being at least about 10 degrees different than said first and second angles for each of said other of said first through eighth areas; and

substantially all of said background and VOID lines having a black content of at least about 15%, a density of between about 10-12%, and an average maximum line width variation of about .00063 cm [.00025 inches], so that said document is both scanner and image friendly, and copy proof.

6. A document as recited in claim 5 wherein areas are provided with colored background lines and colored VOID lines so that lines are provided at substantially all angles between about 95-175 degrees at about 10 degree increments with respect to the direction of travel of a copier scan head for a document laid against a copy guide.

7. A document as recited in any preceding claim wherein said document has first through fourth edges, and first and second quality control sections each adjacent one of said first through fourth edges, said first quality control section having a density that is about 2% greater, and said second quality control section having a density that is about 5% greater, than the density of said first through fourth areas,



each of said quality control sections having a width of about .34 cm [1/8 inch] or less.

8. A document as recited in claim 7 wherein said first through fourth areas have a substantially uniform density of about 10%, said first quality control section being at said first edge of said document and having a density of about 12%, and said second quality control section being at said third edge of said document, opposite said first edge, and having a density of about 15%.

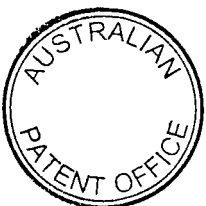
9. A document as recited in any preceding claim wherein said lines have a line width of between about .0063-.0076 cm [.0025-.003 inches] and an average maximum line width variation of about .00127 cm [.0005 inches].

10. A document as recited in any preceding claim further including a color image on said document having little or no black content.

11. A document as recited in any preceding claim wherein said colored background and VOID lines in each of said first through fourth areas are of substantially the same color.

12. A document as recited in any preceding claim wherein all of said lines in said first through fourth areas have an average maximum line width variation of about .00063 cm [.00025 inches].

13. A document as recited in any of claims 1-7 and 10-12 wherein substantially all of said VOID lines have a density of between about 10-12%.



14. A document as recited in claims 1 or 4 further including at least fifth through eighth areas each having colored background lines at a first angle and colored VOID lines at a second angle, said second angle being at least about 20 degrees different than said first angle, but not 70-110 degrees or 160-200 degrees different;

at least one of said first and second angles for each of said first through eighth areas being at least about 10 degrees different than said first and second angles for each of said other of said first through eighth areas; and

substantially all of said background and VOID lines having a black content of at least about 15%, a density of between about 7-22%, and an average maximum line width variation of about .00063 cm [.00025 inches].

15. A document as recited in claim 14 wherein areas are provided with colored background lines and colored VOID lines so that lines are provided at substantially all angles between about 95-175 degrees at about 10 degree increments with respect to the direction of travel of a copier scan head for a document laid against a copy guide.

16. A document as recited in claims 1 or 4 further including at least fifth through eighth areas each having colored background lines at a first angle and colored VOID lines at a second angle, said second angle being at least about 20 degrees different than said first angle, but not 70-110 degrees or 160-200 degrees different;

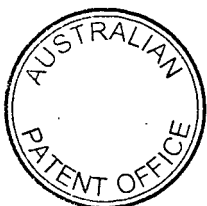
at least one of said first and second angles for each of said first through eighth areas being at least about 10 degrees different, up to 175 degrees, than said first and second angles for each of said other of said first through eighth areas; and



substantially all of said background and VOID lines having a black content of at least about 15%, a density of between about 7-22%.

17. A document as recited in any preceding claim wherein both said first and second angles for each area are at least about 10 degrees different than said first and second angles for each of said other areas.

18. A method of making a copy proof document having a first through fourth edges, the first and third edges opposite each other, a central section having: first through fourth areas each having colored background lines at a first angle and colored VOID lines at a second angle, the second angle being at least about 20 degrees different than the first angle, but not 70-110 degrees or 160-200 degrees different; the first and second angles for each of the first through fourth areas being at least 10 degrees different than the first and second angles for each of the other first through fourth areas; and substantially all of the background and VOID lines having a black content of at least about 15%, and a density of between about 7-20%, so that the document is substantially copy proof; and first and second quality control sections along the first and third edges, respectively, the quality control sections each having a width of about .34 cm [1/8 inch] or less, and the first section having a density about 2% greater than the central section, and the second section having a density about 5% greater than the central section; said method practiced using a press which images the document on a roll of paper, and said method including the steps of:



(a) at least at approximately the beginning and end of each roll performing a quality control check of the document by taking measurements on the imaged document itself in each of the central, first, and second sections of the document to determine if the average line width of all lines in the central section are about  $.0063 \text{ cm} \pm .00127 \text{ cm}$  [ $.0025 \text{ inches} \pm .0005 \text{ inches}$ ], and in each of the first and second sections is about  $.0076 \text{ cm} \pm .00127 \text{ cm}$  [ $.0030 \text{ inches} \pm .0005 \text{ inches}$ ]; and

(b) if necessary making press adjustments to ensure that the line widths are within the ranges set forth in step (a) above as determined by measurements taken after press adjustments are effected.

19. A method as recited in claim 18 including the further steps of: (c) evaluating the lines in the imaged document to insure that there are no broken lines or gaps, or uneven or excessive variation in width lines, or line density varying from light to dark across the document, or specs or blotches of ink above or below the lines; and (d) if necessary making press adjustments to make the lines smooth with little variation.

20. A method as recited in claim 19 wherein steps (a) and (c) are practiced substantially simultaneously, and steps (b) and (d) are practiced substantially simultaneously.



21. A document that is both scanner and image friendly, and copy resistant, the document substantially as hereinbefore described and illustrated with reference to the accompanying drawings.

22. A method of making a copy proof document having a first through fourth edges, the method substantially as hereinbefore described and illustrated with reference to the accompanying drawings.

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