CLAIMS

We claim:

1. A printer cartridge, comprising:

a memory device; and

a transform wrapper stored on the memory device, the transform wrapper to dynamically build a transform map for a printer based on metadata stored at the memory device, wherein

the metadata is to indicate at least one of a type of depositing material, transform map, print media and printer.

2. The printer cartridge of claim 1, wherein,

the metadata includes at least one of a property, tag, condition and recipe,

the property is to describe primitive data at least one of stored and generated by the printer cartridge,

the tag is to provide an identification of the printer cartridge,

the condition is to restrict when the transform map is available for use, and

the recipe is to include instructions for how to build the transform map from at least one of an existing map and the primitive data.

3. The printer cartridge of claim 2, wherein,

the metadata includes the property,

the property includes at least one of a version, depositing material channel, and dimension of the printer cartridge,

the dimension includes at least one of a channel and a count of nodes,

the channel relates to a type of color, and

a node is to indicate output colorant amount.

4. The printer cartridge of claim 2, wherein,

the metadata includes the tag and the condition,

the tag includes at least one of a color space, media type, print quality, printer platform, and supply family, and

the condition is to specify which of a plurality of types of transform maps to use based on the tag.

5. The printer cartridge of claim 2, wherein,

the metadata includes the property and the recipe,

the condition includes at least a Boolean expression of properties and tags, and

the instructions of the recipe utilize a stack model with reverse Polish notation (RPN) operators.

6. The printer cartridge of claim 2, wherein,

the transform map is at least one of a channel map and a color map,

the color map includes a mapping for a plurality of colors, and

the channel map includes a mapping for one of the plurality of colors.

7. The printer cartridge of claim 6, wherein,

the metadata includes the recipe,

the recipe includes instructions to,

select a plurality of the channel maps by matching at least one of the property and tag to the primitive data, and

combine the plurality of channel maps to build the color map, and

each of the channel maps is to correspond to one of a plurality of depositing material colors of the printer.

8. The printer cartridge of claim 6, wherein,

the recipe includes instructions to build a channel map based on at least one of a neutral axis, a set of seed nodes and a delta table included in the primitive data,

the neutral axis relates to a line extending from an origin of a three-dimensional color table to a node of the color table farthest from the origin,

the set of seed nodes correspond to nodes of a compressed color table, and

the delta table is to indicate a difference between an interpolated color table node and a corresponding actual color table.

9. The printer cartridge of claim 6, wherein,

the color map is to convert between CYMK and RGB color models,

the color map includes a plurality of the channel maps, and

the channel map includes the primitive data.

10. The printer cartridge of claim 2, wherein,

the transform map is at least one of a base map and modifier map,

the base map is to be used without any modification by the printer, and

the modifier map is to be used to modify at least one of the base map and the primitive data.

11. The printer cartridge of claim 10, wherein,

the recipe includes instructions to build a new map based on the modifier map and the base map, and

the modifier map is to be used to at least one of specify scale, specify offset and select replacement of data of the base map.

12. A printer cartridge, comprising:

a memory device including instruction to,

executing a transform wrapper to dynamically generate a transform map for a printer based on metadata stored at the printer cartridge, and

select the transform map based on testing a condition included in the metadata, wherein

the metadata is to indicate at least one of a type of depositing material, transform map, print media and printer.

13. The printer cartridge of claim 13, wherein at least one of a plurality of different types of the transform map is generated and used based on a property and tag included in the metadata.

14. A printer cartridge, comprising:

a non-transitory computer-readable storage medium storing instructions that, if executed by a processor of a device, cause the processor to,

generate a transform map based on a property and a tag included at the printer cartridge,

test a condition associated with the transform map and included at the printer cartridge, and

allow the transform map to be used by a printer if the tested condition is satisfied, wherein,

the property is to describe primitive data at least one of stored and generated by the printer cartridge, and

the tag is to provide an identification of the printer cartridge.

15. The printer cartridge of claim 14, wherein,

the transform map is stored at the printer cartridge, and

a change in the metadata is to be communicated from the print cartridge to the printer during run-time, if at least one a type of a depositing material, transform map, print media and printer changes.

CLAIMS

1. A memory device for a printer cartridge, the memory device comprising:

a transform wrapper stored on the memory device, the transform wrapper to dynamically build a transform map for a printer based on metadata stored on the memory device, wherein

the metadata is to indicate at least one of a type of depositing material, transform map, print media and printer.

2. The memory device of claim 1, wherein,

the metadata includes at least one of a property, tag, condition and recipe,

the property is to describe primitive data at least one of stored and generated by the printer cartridge,

the tag is to provide an identification of the printer cartridge,

the condition is to restrict when the transform map is available for use, and

the recipe is to include instructions for how to build the transform map from at least one of an existing map and the primitive data.

3. The memory device of claim 2, wherein,

the metadata includes the property,

the property includes at least one of a version, depositing material channel, and dimension of the printer cartridge,

the dimension includes at least one of a channel and a count of nodes,

the channel relates to a type of color, and

a node is to indicate output colorant amount.

4. The memory device of claim 2, wherein,

the metadata includes the tag and the condition,

the tag includes at least one of a color space, media type, print quality, printer platform, and supply family, and

the condition is to specify which of a plurality of types of transform maps to use based on the tag.

5. The memory device of claim 2, wherein,

the metadata includes the property and the recipe,

the condition includes at least a Boolean expression of properties and tags, and

the instructions of the recipe utilize a stack model with reverse Polish notation (RPN) operators.

6. The memory device of claim 2, wherein,

the transform map is at least one of a channel map and a color map,

the color map includes a mapping for a plurality of colors, and

the channel map includes a mapping for one of the plurality of colors.

7. The memory device of claim 6, wherein,

the metadata includes the recipe,

the recipe includes instructions to,

select a plurality of the channel maps by matching at least one of the property and tag to the primitive data, and

combine the plurality of channel maps to build the color map, and

each of the channel maps is to correspond to one of a plurality of depositing material colors of the printer.

8. The memory device of claim 6, wherein,

the recipe includes instructions to build a channel map based on at least one of a neutral axis, a set of seed nodes and a delta table included in the primitive data,

the neutral axis relates to a line extending from an origin of a three-dimensional color table to a node of the color table farthest from the origin,

the set of seed nodes correspond to nodes of a compressed color table, and

the delta table is to indicate a difference between an interpolated color table node and a corresponding actual color table.

9. The memory device of claim 6, wherein,

the color map is to convert between CYMK and RGB color models,

the color map includes a plurality of the channel maps, and

the channel map includes the primitive data.

10. The memory device of claim 2, wherein,

the transform map is at least one of a base map and modifier map,

the base map is to be used without any modification by the printer, and

the modifier map is to be used to modify at least one of the base map and the primitive data.

11. The memory device of claim 10, wherein,

the recipe includes instructions to build a new map based on the modifier map and the base map, and

the modifier map is to be used to at least one of specify scale, specify offset and select replacement of data of the base map.

12. A memory device for a printer cartridge, the memory device comprising:

instructions to,

execute a transform wrapper to dynamically generate a transform map for a printer based on metadata stored at the printer cartridge, and

select the transform map based on testing a condition included in the metadata, wherein

the metadata is to indicate at least one of a type of depositing material, transform map, print media and printer.

13. The memory device of claim 13, wherein at least one of a plurality of different types of the transform map is generated and used based on a property and tag included in the metadata.

14. A memory device for a printer cartridge, comprising:

a non-transitory computer-readable storage medium storing instructions that, if executed by a processor of a device, cause the processor to,

generate a transform map based on a property and a tag included at the printer cartridge,

test a condition associated with the transform map and included at the printer cartridge, and

allow the transform map to be used by a printer if the tested condition is satisfied, wherein,

the property is to describe primitive data at least one of stored and generated by the printer cartridge, and

the tag is to provide an identification of the printer cartridge.

15. The memory device of claim 14, wherein,

the transform map is stored at the printer cartridge, and

a change in the metadata is to be communicated from the print cartridge to the printer during run-time, if at least one a type of a depositing material, transform map, print media and printer changes.

16. A printer cartridge, comprising:

a memory device; and

a transform wrapper stored on the memory device, the transform wrapper to dynamically build a transform map for a printer based on metadata stored on the memory device, wherein

the metadata is to indicate at least one of a type of depositing material, transform map, print media and printer.