

# Digital Data & Image Format Guidelines For School Photography and Yearbook Publication Version 2010-2011

Yellow highlights indicate new for 2010-2011

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## General Information

### Introduction

The school picture industry offers a variety of products and services to students and schools. These are often used in conjunction with yearbooks and other products. A system that facilitates the easy combination of the products and services of different suppliers has a number of benefits.

Currently, individual students and schools employ photographers to take photos. Each of these image takers involves a photo lab or digital imaging firm to convert the exposed image into another format, such as prints, CD/DVDs, cards, etc. In the case of yearbooks, the publisher takes the images and converts them to a printed page, employing yet another method for image creation.

When the students and schools use more than one photographer, and the photographers and the different labs generate CD/DVDs in their own formats, it is more difficult, time consuming and costly to coordinate the data, images and publishing of yearbooks. The problem is similar to the situation that would exist if audio compact disks could not be played on every CD/DVD player. By using a standard format, a greater number of vendor choices would exist for the school and increase the level of satisfaction.

At the same time, technology is changing. Any guideline promoting a coordinated system needs flexibility for the future. The ultimate goal is to satisfy the customer - the school. It is believed that satisfaction can be increased by creating common readable files for the transmission of digital images and associated data from the school photographer to the yearbook publisher in a format that is as efficient and consistent as possible.

### Audience & Scope

The following document is intended to inform the **Underclass** (K-11) School Photographer, Contract **Senior** Photographer, Photography Production Laboratory, interested Software Developers, and Yearbook Companies as to the generally accepted data and *subject* image guidelines for the exchange of data and *subject* images between photography organizations and yearbook producers. This document is NOT directly intended for the common school customer.

The scope of this document includes, and is limited to the PSPA sponsored ad-hoc committee developed technical guidelines for data and image exchange between the interested parties listed above. This document is technical in nature and does NOT intend to outline or require market implementation by any particular organization. This document is NOT intended to provide direct explanatory material to the target consumer of the final product resulting from adoption of these guidelines (the school).

### Benefits

Benefits from such a system could include the following:

- By specifying a guideline to which the product should conform, the school has the means to measure the value of what they are acquiring, and can make comparisons between suppliers. This can lead to opportunities that are more competitive for schools, permitting them to pick, choose, mix, and match among the numerous suppliers. While the format for the product is not the only element for price comparison, use of a common format makes the comparison simpler.
- Creating an easier interchangeability of images and data files between image providers and users. This can reduce the time it takes to create products, and could lead to reduced costs and improved quality and the number of product choices.
- Communication between schools, image providers and yearbook producers can be clarified and improved by reference to a common guideline.
- An assurance of a minimum level of quality and performance for the CD/DVD products.
- An easing of the decision making process for schools by the use of common terminology and comparable products.
- Removal of the school from the middleman position between photographers, photo labs and yearbook companies over the format of the CD/DVDs and the assurance of compatibility.

### **Drawbacks**

There are no apparent drawbacks from such a system. For firms that do not currently produce CD/DVD images, there is no impact since there is no requirement to produce a CD/DVD. However, the system is simple enough to permit anyone to readily adopt it should they choose to do so.

### **Communication**

A useful guideline will require communication and education programs directed to both the schools and the photo industry. It will be necessary to provide materials to explain the system and its benefits.

### **Limitations of the Guidelines**

These guidelines address the *format* for the CD/DVD. The guidelines do not address many areas for technical or legal reasons. Among them are the photo capture and editing process, the photo print output, and the yearbook printing quality and features. These areas are the subject of creative and artistic differences, as well as customer choice. In addition, these guidelines do not suggest or require which of the interested persons or organizations has responsibility for collecting, recording or distributing the data. That is a matter for those interested to arrange among themselves.

# DIGITAL DATA & IMAGE FORMAT GUIDELINES

The Digital Data & Image Format Guidelines strongly recommend the following:

## CD/DVD Layout & Structure

- The CD should meet the ISO 9660 standard for CD format. DVD media should be *Standard Data +R* or *-R*.
- The CD/DVD session must be *closed* or the CD/DVD must be *finalized*.
- Data layout:

```
Volume Name
  INDEX.TXT
  MASTER.TXT [optional]
  README.TXT [strongly recommended]
  FOLDERx [use an arbitrary name but must be unique]
    IMAGEx [use unique names for each image]
    IMAGEx+1
    *
    *
    *
  FOLDERY
    IMAGEy
    IMAGEy+1
    .*
    .*
    .*
  etc.
```

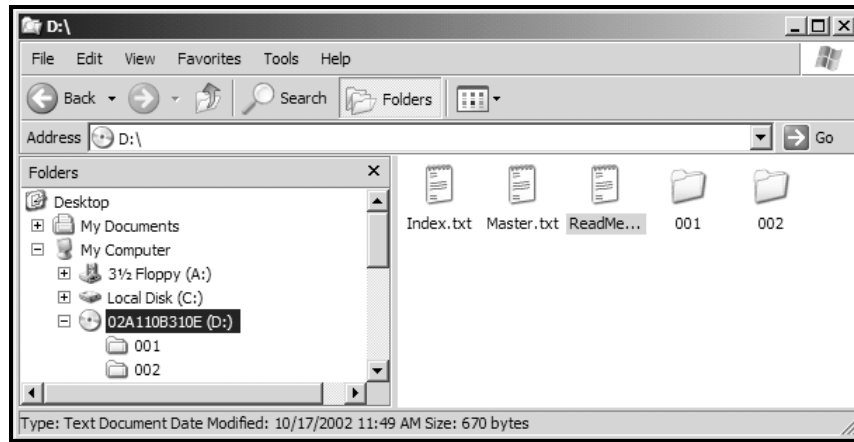
**Volume Name** – Volume name is an arbitrary name, but the name string must be ended with a numeric value to account for multiple CD/DVD volumes. Multiple CD volumes should have *consecutive* numbers.

**.TXT Files** – Text files (.TXT) are standard ASCII sequential text files and must be located directly at the CD/DVD root level.

**Folder Names** – Folders on the CD/DVD contain uniquely named image files. The folder name(s) must be unique using ANY naming convention (use of MS-DOS 8.3 naming convention is recommended for maximum compatibility. File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed).

**Image Names** – Image file names MUST be unique for each image and should conform to MS-DOS naming conventions of 8.3. File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed.

## Screen Shot Example of Data Layout:



## Data Structure

The following section defines the required and recommended text (.TXT) files and their structures:

- A standard text file is to be contained *directly under the root* of the CD/DVD.
- All volume, directory and file names should use MS-DOS 8.3 naming conventions for maximum compatibility **but is not required** (where 8 characters are for the file name and 3 characters for any extension). File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed.
- Text files are standard ASCII format for maximum compatibility. UTF-8 format can optionally be used but should be verified with the receiver because of accented characters.
- The fields, contained within the text files, are to be **Tab delimited** (fields separated by a tab character). **Note:** Care should be taken to limit the length of the data in the included field sets. Excessively long data strings can pose issues in downstream applications.
- Line termination must be indicated by **CR-LF** (carriage return, line feed).
- The **required** file **INDEX.TXT**
- The optional, but strongly recommended, file **README.TXT**
- The optional file **MASTER.TXT**
- The CD/DVD *may* contain other files and folders that the CD/DVD producer thinks may be helpful to the school or yearbook producer as long as they do not interfere with the structures and requirements of these guidelines. These files are not explained, required or covered by this document and are a superset to these guidelines.

## Data Content and Attributes

The following sections define the content and attributes of the required and recommended data files to be contained on the CD/DVD.

### **INDEX.TXT**

**The INDEX.TXT file is a REQUIRED file.** Its purpose is to contain all the data records to be included in the published yearbook product. Part of each data record contained in the INDEX.TXT file is a reference to the associated subject image. It is this file that the yearbook

producer will use to incorporate data and associated images into the yearbook product.

**Only the final records and associated images chosen to appear in the yearbook publication should be included in the INDEX.TXT file.** This file should include references to images contained on all CD/DVD volumes if there is more than one CD/DVD. If other images are also on the CD/DVD, they should be **separately** identified in the MASTER.TXT file (not to be referenced in the INDEX.TXT).

## Structure and Field Order

The following section defines the structure and field order for the INDEX.TXT file:

1. Volume Name
2. Image Folder
3. Image File Name
4. Grade\*
5. Last Name
6. First Name
7. Home room
8. Period
9. Teacher Name
10. Track
11. Department
12. [Any additional defined fields].

Note: The above 11 defined, default, and reserved fields should be maintained. If the CD/DVD producer chooses to omit any of the information, then that should be identified with a NULL VALUE (two tabs together). Any additional fields, beyond the 11 default fields, should trail field number 11 and be identified in the README.TXT by the labels in the first record.

**Note on Grade Field:** If it is determined that school staff are to be identified separately from students, use the "Grade" field to indicate staff definitions. If used, at a minimum "STA" should be used to identify staff members. More detailed definitions of staff should be included in the README.TXT file to identify staff code usage.

- The suggested, and optional, identifying file for *other* images is MASTER.TXT. This file would contain a listing of all of the images on the CD/DVD, combining those that are in the INDEX.TXT file as well as all others.

## INDEX.txt File Keyword Definitions

- **Volume Name** - Volume name is an arbitrary name, but the name string must be ended with a numeric value to account for multiple CD/DVD volumes. Multiple CD volumes should have *consecutive* numbers.
- **Image Folder** - The folder holding the images. Located directly under the root volume. The folder name(s) must be unique using ANY naming convention (use of MS-DOS 8.3 naming convention is recommended for maximum compatibility. File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed).
- **Image File Name** - The file name for an image, with extension. Example: "00001.jpg" Image file names MUST be unique for each image and should conform to MS-DOS

naming conventions of 8.3. File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed.

- **Grade** - The grade data assigned to the individual, if applicable. Example: "4"
- **Last Name** - The individual's last name. Example: "Smith"
- **First Name** - The individual's first name. Example: "John"
- **Home Room** - An identifier for the individual's home room. Example: "AA"
- **Period** - An identifier for the individual's period. Example: "6"
- **Teacher Name** - The name or identifier for the individual's teacher. Example: "Jones".
- **Track** - The name or identifier for the individual's track (usually used in year around schools). Example: "Special Needs" or "A".
- **Department** - Indicates which role the individual plays at the school. Recommended values are "Faculty", "Administration", "Support Staff", and "Student".

## README.TXT

**The README.TXT file is an OPTIONAL but STRONGLY RECOMMENDED file.**

The README.TXT is used to describe the content, order, special instructions, data and image source, etc. of the CD/DVD (s). It should identify *key words*, the definition of each field included, and the number of additional data fields used in the INDEX.TXT file, if any. If the README.TXT file is included on the CD/DVD, the structure and content should be as follows:

- Each keyword should be contained with bracket ([ ]) characters
- The bracketed keyword and the keyword value should be separated by an equal (=) sign
- Each keyword and value should appear as one line terminated by a carriage return and line feed (CR/LF)
- The structure, order and keywords should be as follows:

```
[Image Size]=  
[Color Mode]=  
[School Name] =  
[# Fields] =  
[Field Definition #1] =  
[Field Definition #2] =  
etc.until the last field used is defined  
[Group Fields] =  
[Group By] =  
[Sort By] =  
[Lab Name] =  
[Lab Location] =  
[Lab Contact Name] =  
[Lab Contact e-mail] =  
[Lab Contact Phone] =  
[Photo Job Number] =
```

[Date Created] =

[PSPA Version]=

[License]= **The images on this CD are copyright protected and are solely for the use of publishing yearbooks. You do not have permission to make copies for sale or other distribution in any manner that circumvents the sale of these images by the photographer.**

[Comments] =

[ICC] =

[Grade]=

## Readme.txt File Keyword Definitions

- **Image Size** – Keywords used to identify the size of the images contained on the CD/DVD. Allowable keywords are: **Small, Large.** **Note:** Image sizes cannot be mixed on a CD/DVD.
- **Color Mode – RGB**
- **School Name** – Keyword to indicate the information to follow will be the name of the school contained on the CD/DVD. The name of the school is simple a text string identifying the school by name.
- **# Fields** – The number of fields keywords identifies how many fields will be identified in the Index.TXT and Master.TXT files. The minimum value allowed is **11** with no maximum.
- **Field Definition #1 - ?** – The keywords for field definitions will repeat themselves, one for each included field. The content of the keyword will be the definition of the field at that position. Example for the first 2 fields:  
[Field Definition 1] = Volume Name  
[Field Definition 2] = Image Folder
- **Group Fields** – Keyword to indicate the allowable field set from which data grouping is allowed.
- **Group By** – Keyword to indicate the field(s), from the Group Fields allowable field set, that have been selected to group data for the publication.
- **Sort By** – Keyword to indicate the sorted order of data within the selected Group By selection.
- **Lab Name** – Keyword to indicate the information to follow is the *name* of the CD/DVD producing Lab or entity.
- **Lab Location** - Keyword to indicate the information to follow is the *location* of the CD/DVD producing Lab or entity.
- **Lab Contact Name** - Keyword to indicate the information to follow is the *name of a contact person* at the CD/DVD producing Lab or entity.
- **Lab Contact E-mail** - Keyword to indicate the information to follow is the *e-mail address* of the contact person at the CD/DVD producing Lab or entity.
- **Lab Contact Phone** - Keyword to indicate the information to follow is the *phone number* of the CD/DVD producing Lab or entity.
- **Photo Job Number** - Keyword to indicate the information to follow is the *reference job number used* at the CD/DVD producing Lab or entity.
- **Date Created** – The date the CD/DVD was created.
- **PSPA Version** – The guideline version (from the document title).

- **License** – Usage and license statement for images and data
- **Comments** – Additional comments intended for communication about the CD/DVD or content.
- **ICC** – ICC profile tag to indicate color profile used. Default is blank and will assume sRGB.
- **Grade** – List staff code definitions if staff identification used *beyond* the defined “STA” code to indicate staff members. As an example: TCH (teacher), CUS (Custodian), PRI (Principal), VPR (Vice-Principal), SEC (Secretary), AID (Aide). The code and definition should be paired as seen in the examples above. These codes are not required nor define what they should be. They are only examples to indicate structure for CODE and (definition) comma separated in one line following the keyword.

## **MASTER.TXT**

The **MASTER.TXT** file is an **OPTIONAL** file. Its purpose is to contain all the data records associated with the school photography activity. Like the **INDEX.TXT** file, part of each data record contained in the **MASTER.TXT** file is a reference to the associated subject image.

Some photographers, schools or other customers may desire to include *multiple poses* or “proof plan” photos on the CD/DVD, even though they are *not* intended for yearbook reproduction. There is no suggestion in these guidelines that anyone should or should not provide extra images. However, if such images are provided but are not intended for inclusion in the product covered by the **INDEX.TXT** file, they should *not be listed within the INDEX.TXT* file. **Only the pose or image selected for inclusion in the yearbook should be identified in the file named INDEX.TXT.**

The structure and order of the **MASTER.TXT** file is **IDENTICAL** to that defined above for an **INDEX.TXT** file.

## **Multiple CDs**

There may be times when the number of image files requires the use of multiple CD discs to contain all the data and images for a given school. When this situation occurs, the following guidelines should be used:

- Any folder, containing images or data, *should not be split between two CDs*. Access for a complete folder is simpler if the *entire folder* is on a single CD.
- If the CD producer wishes to use only one folder to contain subject images, then a *second unique folder should be created on each subsequent CD volume*.
- *Unique volume names* for each CD volume should be maintained

## **Post CD/DVD Production Modifications of Data**

Some CD/DVD producers may choose to develop image and data editing applications to allow school customers to review and edit data and associated images. If such applications are used, then text files will obviously be modified from their original CD/DVD versions. When changes are made to **INDEX.TXT**, **MASTER.TXT** and/or **README.TXT** files, it is preferable to incorporate those changes into a new CD/DVD. However, in the absence of a new CD/DVD, then **replacement files** should be completely rewritten on a floppy disk (or other media acceptable to the parties) and provided with the CD/DVD to the yearbook producer.

## Image Structure and Attributes

The following section defines the image files and their attributes:

- All image file names should be unique.
- All image file names should use MS-DOS 8.3 naming conventions for maximum compatibility **but is not required** (where 8 characters are for the file name and 3 characters for any extension). File names must consist of UPPER or lower case alphanumeric characters and numeric values 0-9 ONLY. No special characters allowed .

### Image Attributes:

#### Image file format

- Color images
  - The *default guideline for all images* (underclass and senior) is **RGB** color. RGB color images are preferred even if the book is produced in B&W. Publisher assumes the responsibility for conversion.
  - The default, and assumed, ICC color space is **sRGB**. Any color space used other than the default must be indicated in the ReadMe.txt file in the “[ICC]=” tag. It is **important** that the ICC profile be identified in this tag if it is NOT sRGB.
- All RGB color image files are to be saved in **JPEG format**.
- For JPEG, use a compression ratio of **7.5:1** or less. The file format should be PC byte order. An option is to include a qualitative reference image, such as a Macbeth™ chart, gray card, or other tools that provide a reference standard, which will assist in verifying the color space and color balance applied.
- If the photographer desires to explain what has been done on the images (if anything), it can be explained in the README.TXT file. Any compression ratios, ICC Profiles and reference standards should be identified.

### Image sizes

Image sizes cannot be mixed on single CD/DVD issue.

#### Small (default)\*\*

- 320 X 400 pixels (.8 aspect ratio). **This file size is not recommended for printed images greater than 8 picas by 10 picas (1.334 x 1.667 inches)**. See Printing Industries of America (PIA) Guidelines.
- 300 dpi\* in the image file header
- **Small is the default for most producers unless otherwise specified.**

#### Large\*\*

- 640 X 800 pixels (.8 aspect ratio). **This file size is not recommended for printed images greater than 12 picas by 16 picas (2 x 3 inches)**. See Printing Industries of America (PIA) Guidelines.

- 300 dpi\* in the image file header

\* **Notes:** If there is a question about individual publisher DPI or format requirements, contact that specific publisher for their specific guideline.

\*\* Increasingly, there is need for larger images than defined in this document. In those cases direct contact with the publisher and provider is required. It should be understood that images required larger than defined in this document may incur financial compensation.

### **Electronic Transmission**

Requests for electronic transmission of the defined data above should be negotiated between provider, school, and publisher. When required and agreed upon, the electronic formulation will adhere to this guideline with the additional definition of all data and images, defined above, contained in a single zip file.