GWG 2022
Specification explanation

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1 Introduction

This is **not** the GWG 2022 specification document!

The official GWG 2022 specification is contained in, and released as, a Google Sheet document. This document is the explanation you need to understand the concepts used in the specification and helps you to use it in the best possible way.

1.1 Why this change?

The Word document that was used became more and more unwieldy, especially so as the number of variants grew.

As this document was also structured quite loosely, and the GWG wanted to clean up the language used for all requirements; the decision was taken to move to a new format that would support this effort more easily.

A last point was that we wanted to make it easier to figure out what changes happen from one version to another. While that is not easy this time, during the move from the 2015 Word document to the 2022 spreadsheet version, it hopefully will be for later releases.

2   <u>Concepts</u>

The specification document was set up in an as structured way as possible, using the same overall concepts throughout its different parts. This chapter explains these generic concepts and how you can use them.

2.1   Definitions and requirements

As much as possible, these specifications pull apart definitions and requirements. This way definitions can be done very exactly and only once and re-used often. And they allow requirements to be simpler.

You'll see that definitions also extensively build on top of each other. Each time a requirement or definition builds on top of a definition, the unique ID of that definition is added to its title so that there is no confusion.

As an example, if you read somewhere "A type of Page Element (D0003)…" you can be sure that there is a definition with "Page Element" as its title and "D0003" as its unique ID.

2.2   IDs

In most tables of this specification, IDs are used. In all cases there is an ID consisting of a single letter ("D" for definitions, "R" for requirements…) followed by a unique ID, and a textual ID that is likewise unique.

The IDs are used internally in the specification to refer to objects, but they can be used externally as well.

2.3   Tracking changes

Once an item is defined and it has received an ID, that ID remains set in stone forever. The "Version" table next to the ID keeps track of changes to that item.

In the original 2022 specifications, all version numbers have been set to 1, as this is the original description for each item. As changes happen in future versions of the specification, the version number will be increased so it's easy to see what has changed.

2.4   Removed definitions and requirements

If an item (definition, requirement…) is no longer relevant to the specification, it may be removed. However, the ID remains in the specification, and it is never repurposed for another use. The 2022 specification contains one such occurrence in the Implementation Notes table.

This is important if you rely on these IDs. Each ID refers to a single concept and that will not change during the lifetime of the 2022 or subsequent GWG specifications.

3 Tables

This chapter contains a description of all tables in the spreadsheet and identifies what they are used for.

3.1 Legend

The legend table provides a short explanation to some of the specification's points.

3.2 Definitions

This is the definitions table. Each definition clearly and unambiguously defines a concept, building as closely as possible on:

- The underlying PDF standard concepts and language,
- Other definitions in the specification.

Each definition has a Title and Text next to the common ID and version fields. Some definitions may have content in the "Notes (informal)" column as well. This text is explanatory only and formally is not a part of the specification.

3.3 Requirements

This is the requirements table. Each requirement defines one or more rules a PDF document or the elements in the PDF document must obey to be compliant with the specification.

The requirements in this table are all requirements possible under this specification. They should only be considered according to the rules in the "Variants" table.

As much as possible, requirements build on definitions. Some requirements also need information from the "Processing Steps" or "Product Types" tables. In that case this is explained in the requirement.

3.4 Processing Steps

This table defines an overview of the different processing steps groups and types defined in the processing steps ISO standard. The table has different columns per product type (as further defined in the "Product Types" table).

Each column identifies which processing steps is required, recommended or not allowed to be used for each product type. This information is used in the requirements "Use of processing steps (R1001)" and "Required creasing (R1002)".

3.5 Product Types

This table defines the different product types used in the "Processing Steps" table and provides a short description of each.

3.6   Implementation Notes

In any specification, some items require additional information to define how a particular item should be implemented using the restrictions software has. This table defines such items identified for the Ghent Workgroup specification.

3.7   Variants

The most complex table in the specification, the variants table lists all requirements from the requirements table in the first two columns (identified by their unique ID and title).

The table then defines all variants in the specification. For each variant, it specifies a "severity" for each requirement. If the requirement requires additional input (variables), it contains the values for these as well. The severity level can be:

- Ignore: this requirement is not considered for this variant. A preflight application should not generate a hit when checking a PDF file.
- Warning: this requirement is important and during preflight must be checked. However, any detected problems must be reported as a warning only. Traditionally a warning message identifies items that could cause production problems but are not guaranteed to.
- Error: this requirement is important and during preflight must be checked. Any detected problems must be reported as errors. Traditionally an error is something that should stop the file from advancing in the workflow until it has been fixed because it has a high probability to cause production problems.

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