

# Open Assistance for Reporting on Information system Audits with Normative Assessment (OpenARIANA)

## User Manual (OpenARIANA-UserManuel)

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## Approval

Name	Role	Responsibility	Signature
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# 1 Introduction

## 1.1 Context

In the research project CyFORT co-funded by the Luxembourg Ministry of Economy, OpenARIANA was developed to address the repetitive task of creating policies, particularly Information Security Management System (ISMS) policies and audit reports.

These documents often consist of standardized text that needs to be tailored to individual customers' requirements. By integrating closely with Microsoft Word, OpenARIANA streamlines the process of document creation and customization in professional settings. It offers a user-friendly interface that enhances productivity and reduces manual effort, making the adaptation of standardized policies to specific client needs both efficient and reliable.

## 1.2 Objectives

This guide describes how to install and use the OpenARIANA tool.

The purpose of this document is to guide a standard, non-specialist user through the installation of OpenARIANA.

## 1.3 Scope

The scope and the content of this document is fully in line with the OpenARIANA project.

## 1.4 Document structure

The remainder of the document is structured as follows:

Section	Title	Description
Error! Reference source not found.	Introduction	Provides a short introduction outlining the purpose, objectives, and context of this document.
2	Setup	Provides instructions to build or install OpenARIANA.
3	Quick Start Guide	Provides an overview of OpenARIANA capabilities
4	Profile management & Tag replacement	In-depth description of the Profile management & Tag replacement features in OpenARIANA.
5	Change log	Lists changes between OpenARIANA versions.

## 1.5 References

- [1] <https://gitlab.itrust.lu/rsantos/openariana/-/tree/alpha>.

[2] "N:\RD\CyFORT\5\_CS-GRAM\5O\_OpenARIANA\5OB\_Concept\5OB3\_Test-concept\\_input\\_usecase-cha\5OC4U1X\_CyFORT-OpenARIANA-UseCase1-input\_v1.o.xlsx"

## 1.6 Acronyms

<b>CyFORT</b>	Cloud cYbersecurity Fortress of Open Resources and Tools for Resilience
<b>OpenARIANA</b>	Open Assistance for Reporting on Information system Audits with Normative Assessment

## 2 OpenARIANA install and use

### 2.1 For End-Users

#### 2.1.1 Requirements

- a. Windows 10 or Windows 11 (x64)
- b. Microsoft Office: Word/Excel.

#### 2.1.2 Installation

- a. Download the installer from the Github Repository.
- b. Run the installer with Administrator privileges;
- c. Launch Microsoft Word, OpenARIANA will be available in the Ribbon menu.

### 2.2 For Developers

#### 2.2.1 Requirements

- a. Operating System: Windows 10/11 (x64);
- b. Microsoft Office: Word/Excel;
- c. Microsoft Visual Studio 2022 or newer with the following extensions:
  - 1. .NET Framework 4 or newer
  - 2. Visual Studio Tools for Office
  - 3. Microsoft Visual Studio Installer Projects 2022

#### 2.2.2 Build OpenARIANA

- a. Clone the repository;
- b. Open "OpenARIANA.sln" with Visual Studio 2022 (ensure both 'OpenARIANA' and 'OpenARIANASetup' projects are correctly loaded);
- c. Generate a Certificate for the ClickOnce manifests<sup>1</sup>.
  - 1. Right click OpenARIANA in the Solution Explorer and go to 'Properties'
  - 2. Navigate to 'Signing'
  - 3. Select or create a certificate
  - 4. Save changes
- d. Build 'OpenARIANASetup'

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<sup>1</sup> <https://learn.microsoft.com/en-us/visualstudio/ide/how-to-sign-application-and-deployment-manifests?view=vs-2022>

## 3 Quick start

Welcome to OpenARIANA, a Microsoft Word Add-In designed to streamline your document creation process by reusing and repurposing standardized text. Here's how to get started:

- Open any Word document.
- Navigate to the OpenARIANA ribbon in the Word menu.

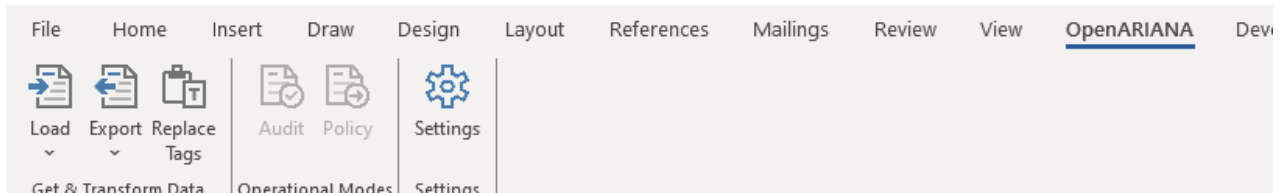


Figure 1 : OpenARIANA Ribbon Menu

### 3.1 Get & Transform Data

#### 3.1.1 Import

With the OpenARIANA Alpha version, you can load content from Excel files. Ensure the file is formatted as depicted below. Data loaded from an Excel file will adopt the styling defined in the respective column headers.

	A	B	C	D	E	F	G	H	I	J
1	Heading 1	Heading 2	Heading 3	Heading 4	Body Of Text	SP-Paragraph	Bullet L1	Bullet L2	Bullet L3	SP-Quote
2	Organizational controls	Policies for information security [A5: o3]	Information security roles and responsibilities [A5: o2]	Segregation of duties [A5: o3]	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut		Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et	
3					Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	Egestas maecenas pharetra convallis posuere morbi leo urna. Enim ut sem viverra aliquet. Pulvinar proin gravida hendrerit				
4		Lorem ipsum dolor sit amet			Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.					Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor
5			Nulla facilisi morbi tempus iaculis urna id		Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.					

Figure 2 : Excel file Workbook sample

To import a file, select the 'Load' icon in the OpenARIANA ribbon menu and select the Excel file to import from the file browser dialog. This will forward you to the import dialog shown below.

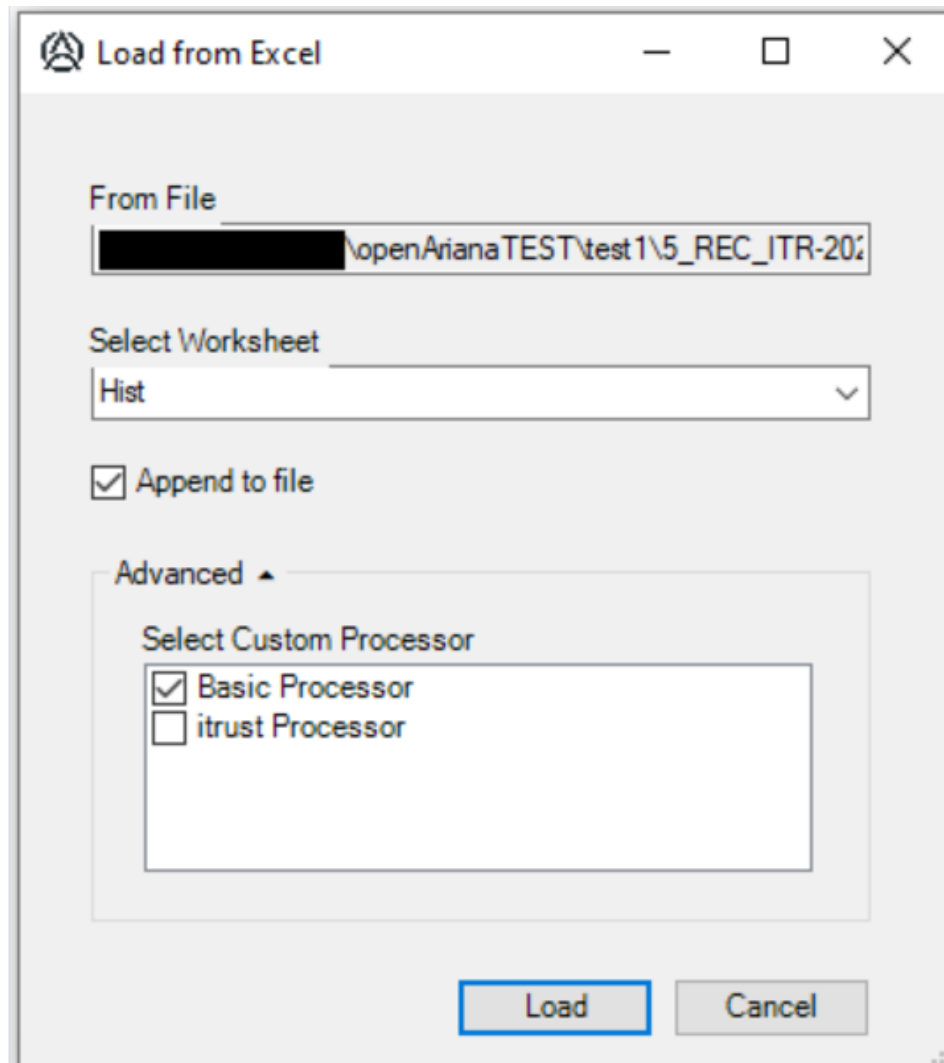


Figure 3 : Import Interface

Select the worksheet you wish to import. Keep in mind that the worksheet MUST match the format shown above.

The advanced setting (by default collapsed) allows you to select the processor used to parse the Excel and write to the active document.

The Basic Processor is only able to process Excel worksheets as shown above, while the itrust Processor is also able to process itrust specific syntax to apply specific styles inline such as bullet points (\*§B1) or enumerations (\*§E1), see ANNEX A for more.

### 3.1.2 Export

The Export method allows you to export the current document/selected page ranges/current selection to the custom OpenARIANA format to be stored in the standardized text database.

**Status:** The export feature is under development and not part of the Alpha version.

### 3.1.3 Tag Replacement

Once you have opened or imported a standardized document you can open the 'OpenARIANA task pane' by selecting the 'Replace Tags' icon in the ribbon menu.





Tag	Replacement
#Chefs	
#FestivalOfLights	
#Fountain	
#innovative	
#Landmarks	
#NightMarket	
#Recycling	
#research	
#RiverWalk	
#SolarPower	
#SpringFestival	
#Sustainability	
#tag	
#UniversityOf	
#UrbanDevelopm...	
#architecture	Bradbury Building
#ArtDistrict	Downtown L.A.
#CentralPark	Grand Park
#CityHall	Los Angeles City ...
#FoodMarket	Grand Central Ma...

Figure 4 : Replace Tag interface

Using the 'Find' button will search for the in the settings specified tag pattern within the document and list these in the table underneath as a tag-replacement pair. You can now provide replacements for each tag within the table and replace all using the 'Replace' button. If you wish to store the specified tag-replacement pairs to be reused for other documents, provide a name in the 'Select Profile' box and press the 'Save' button.

Otherwise, if you already created profiles, you could select a profile from the dropdown list and press 'Apply'. This will automatically match the applicable tag-value pairs within the document and list these in the tag-replacement table together with potentially missing tag-replacement pairs.

If you complete the newly introduced pairs and wish to save these, you can either create a new profile as outlined before or simply press 'Save'. This will update the selected profile with the changes.

For more info see Profile Management & Tag replacement **Error! Reference source not found..**

## 3.2 Operational Modes

### 3.2.1 Audit

**Status:** This feature is in the planning stage and not yet implemented in the Alpha version.

However, the current version has been used to generate audit reports based on text structure in a table as shown before. Audit reports using Tables and Conclusion summary are planned for a further release.

### 3.2.2 Policy

**Status:** This feature is in the planning stage and not yet implemented in the Alpha version.

### 3.2.3 Settings

In Settings, you will be able to adjust the behavior of OpenARIANA.

### 3.2.4 Profile Manager

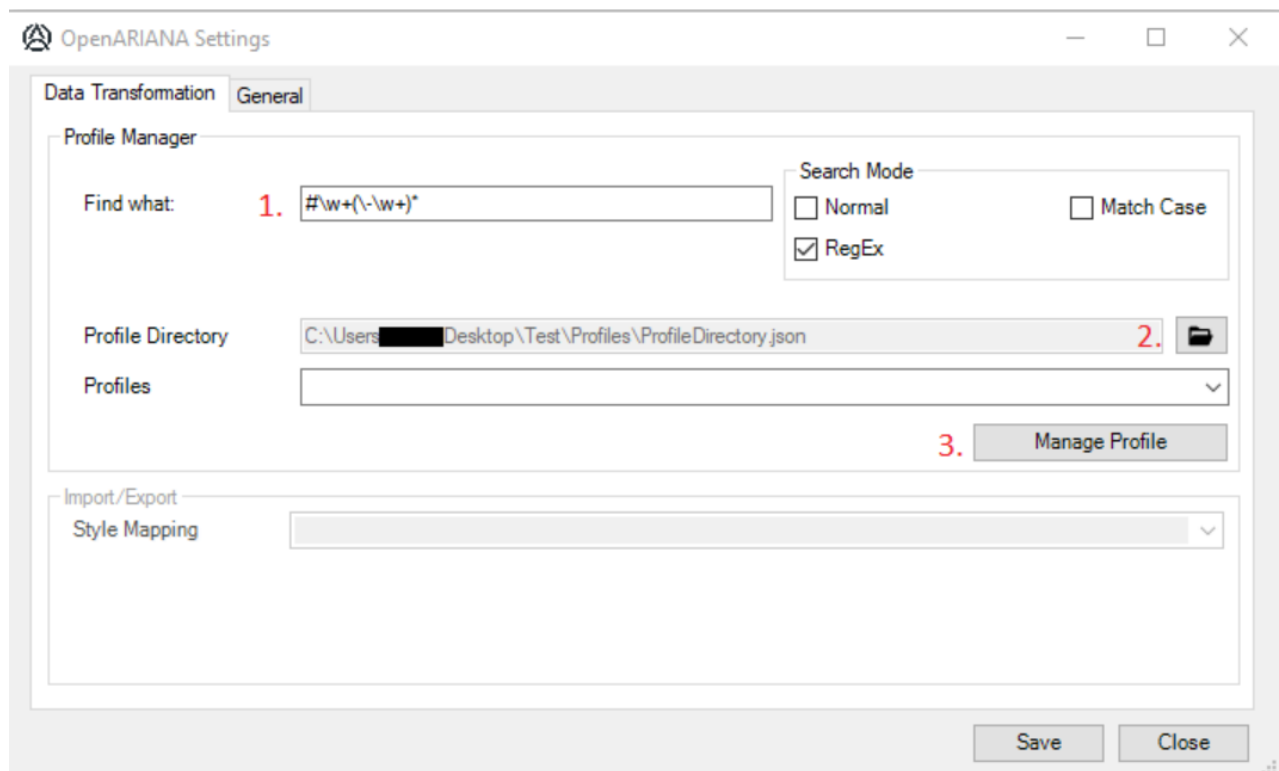


Figure 5 : Profile Manager Interface

- Change the tag pattern.
- Change the profile directory. This will move all stored profiles to the new directory.
- Manage selected profile in the dropdown list. Currently this will open the respective JSON file.

Changes will only apply after saving.

### 3.2.5 General

In the tab 'General', you can adjust the verbosity level of the Logger as well as open the log file for the current session.

## 4 Profile management & Tag replacement

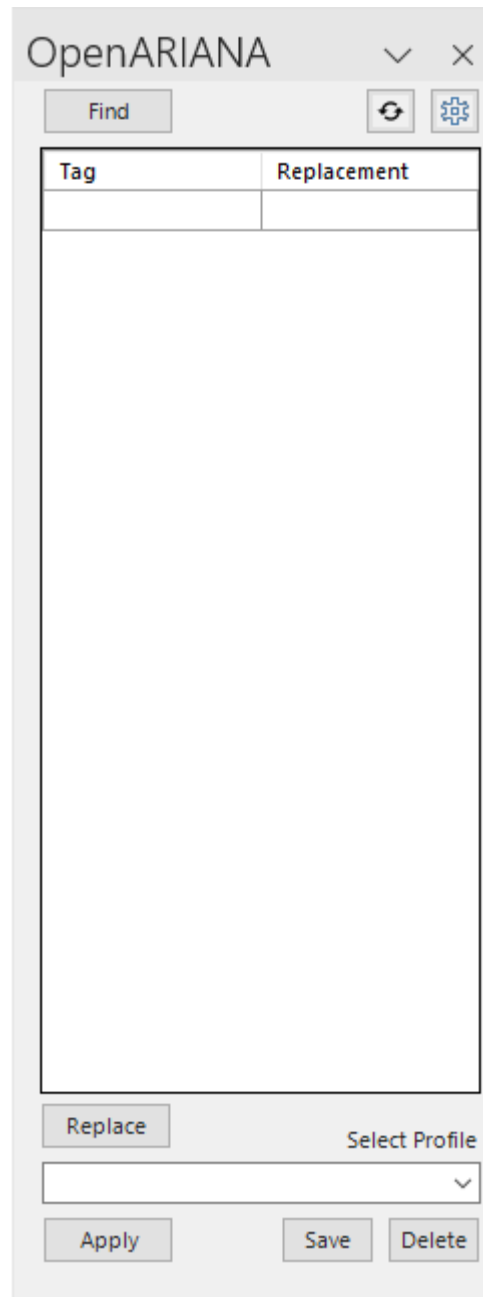


Figure 6 : OpenARIANA Task Pane

### 4.1 What is a profile?

In OpenARIANA, a Word Add-in, a profile is a set of predefined tag-to-replacement mappings. This feature allows users to edit various documents efficiently and consistently by automating the process of replacing specific tags or phrases. It's particularly useful for repetitive editing tasks, saving time and reducing manual errors.

## 4.2 Create a profile

To create a profile:

- **Identify Tags:** Start by using the 'Find' feature to locate all tags in the current document. These tags are typically based on a predetermined pattern set in the application settings (default: `#\w+(\-\\w+)*`);
- **Specify Replacements:** Once the tags are listed, enter the desired replacements for each tag in the provided table;
- **Save the Profile:** After setting up the tag-to-replacement mappings, save these as a new profile. Enter a name for this profile in the 'Select Profile' box;
- **Finalize:** Click 'Save' to store the profile. This profile can now be applied to any document, streamlining the editing process for similar tasks or contexts.

## 4.3 Apply a profile

To apply a profile:

- **Choose the Profile:** Open the document you wish to edit and select the desired profile from the dropdown menu in the application's task pane;
- **Apply the Profile:** Click 'Apply'. The application will automatically load the applicable tag-replacement values in the document based on the mappings defined in the selected profile;
- **Replace Tags:** Click 'Replace' to replace all tags;
- **Review Changes:** It's advisable to review the document to ensure all replacements are correctly applied.

## 4.4 Update a profile

To update an existing profile:

- **Select the Profile:** Choose the profile you wish to update from the dropdown menu;
- **Make Modifications:** Modify the tag-to-replacement mappings as needed. This may involve adding new tags, changing existing replacements, or removing certain mappings;
- **Save Updates:** After making the changes, save the updated profile. You can either overwrite the existing profile or save the changes as a new profile, depending on your preference;

Note: Overwriting a profile will not reset the profile but update the profile, i.e., newly defined tag-replacement pairs are added and modified pairs overwritten.

## 4.5 Delete a profile

To delete a profile:

- **Select the Profile:** Choose the profile you wish to delete from the dropdown menu;
- **Delete:** Click on the 'Delete' button. This action will remove the profile from your list of available profiles;
- **Confirm Deletion:** You'll be prompted to confirm the deletion. Once confirmed, the profile will be permanently removed.


Note: Always ensure that a profile is no longer needed before deleting it, as this action is irreversible.

## 5 Examples

### 5.1 Basic Use Case

The example below is an import from an Excel file generated using OpenARIANA's itrust processor. The source Excel file can be examined here [2].

You can use the generated document to check that your OpenARIANA instance correctly processes itrust's style tags by importing the source Excel file and verifying that the imported data matches.



Type	Report (REP)
Activity	Open Assistance for Reporting on Information system Audits with Normative Assessment (OpenARIANA)
Title	Use Case (OpenARIANA-UseCase)
Classification	Internal (IN)

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## 1 From Excel: Chapter 1 title

### 1.1 Level 2 Title 1

#### 1.1.1 Section title

Add here your normal text.

Add here text to be marked as Specific (or important).

### 1.2 Level 2 Title: Test of additional formattings

#### 1.2.1 Section title AAA

This is an example of an multilevel bullet list:

- Bullet point list, item on level 1.
  - Bullet point list, item on level 2.
    - ◆ Bullet point list, item on level 3
      - Bullet point list, item on level 4
      - ...

For optional reasons, we suggest adding an small empty paragraph to show the end of an enumeration.

- a. Enumeration L1
  1. Enumeration L2
    - i. Enumeration L3
      - a. Enumeration L4
- b. Enumeration L1
- c. @s With the TAG @s you can restart an enumeration.

When you want to add figures that should be linked to a caption, please use this style:

Caption style for lists and images.

SP-QuoteText style for adding quotes to text.

Text not shown when printing the document

Highlight a few words in a text, or put them in Din bold font.&D1Ed like this.

The following text if for a paragraph marked as being less important.

You can also add enumerations here:

- SP-OtherInfoBulletText style for inserting additional information to the text

An the following is for hidden text inside a paragraph.

This style is planned to be highlighted.

Ref: Documents
Page 2 of 3

### 5.2 Use Case - DORA

TBD.

## 6 Change log

### 6.1.1 [Unreleased]

#### 6.1.2 [0.1.1]

##### 6.1.2.1 Added

- added further options to Settings Menu to allow to
  - Change profile Directory
  - Manage selected profile
  - Open log file

##### 6.1.2.2 Changed

- updated UI: removed or disabled unused buttons
- updated readme and user manual

##### 6.1.2.3 Removed

- removed parsers, writers, and processors working on AST

### 6.1.3 [0.1.0]

##### 6.1.3.1 Added

- implemented tag replacement logic (ProfileManager)
- implemented writers, parsers, and processors to handle import and export
- implemented a basic processor that does not rely on itrust resources
- included Settings Menu to allow for user customization
  - Change tag pattern
  - Change logger verbosity
- implemented a Logger and greatly improved overall error handling and traceability
- implemented custom exception handler
- implemented a File System Manager
- included readme and user manual

##### 6.1.3.2 Changed

- restructured and refactored entire code base
- reworked UI design (Ribbon Menu and Task Pane)
- reworked import process
- reworked the initial import logic to use parser, writer, processor approach. Post-processing to handle inline itrust syntax remained untouched.

##### 6.1.3.3 Removed

- removed all audit elements (Add recommendation, Generate Conclusion) due to immaturity of implementation and concept

#### 6.1.3.4 Fixed

- Task pane toggling behavior issue 6<sup>2</sup>

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<sup>2</sup> <https://gitlab.itrust.lu/rsantos/openariana/-/issues/6>



## Annex A itrust syntax for Excel

itrust defines a syntax to allow for inline style specification.

Tag	Word Style name	Description
*§B1	Bullet L1	Bullet point list, item on level 1.
*§B2	Bullet L2	Bullet point list, item on level 2
*§B3	Bullet L3	Bullet point list, item on level 3
*§B4	Bullet L4	Bullet point list, item on level 4
*§E1	Enumeration L1	Text that should appear in the level 1 of an enumerated list
*§E2	Enumeration L2	Text that should appear in the level 2 of an enumerated list.
*§E3	Enumeration L3	Text that should appear in the level 3 of an enumerated list.
*§E4	Enumeration L4	Text that should appear in the level 4 of an enumerated list.
*§EL	End List	Marks the end of a list.
*§SB1	SP-BulletL1	Bullet point list, item on level 1 inside SP (i.e. highlighted)
*§SB2	SP-BulletL2	Bullet point list, item on level 2 inside SP (i.e. highlighted)
*§SB3	SP-BulletL3	Bullet point list, item on level 3 inside SP (i.e. highlighted)
*§SB4	SP-BulletL4	Bullet point list, item on level 4 inside SP (i.e. highlighted)
*§SE1	SP-EnumL1	Text that should appear in the level 1 of an enumerated list
*§SE2	SP- EnumL2	Text that should appear in the level 2 of an enumerated list.
*§SE3	SP- EnumL3	Text that should appear in the level 3 of an enumerated list.
*§SE4	SP- EnumL4	Text that should appear in the level 4 of an enumerated list.
*§SEL	SP-EndList	Marks the end of a list.
*§C	Caption	Caption style for lists and images.
*§OB	SP-OtherInfoBullet	Text style for inserting additional information to the text
*§QE	SP-Quote	Text style for adding quotes to text.
*§HI	Hidden	Text not shown when printing the document

Table 1: Commonly used style tags

The following tags are defined by both a beginning tag - displayed in the table below - and an ending tag - the tag displayed below appended with "Ed". These tags define only sections of the text as the described styles.

For instance, to mark a section of the text in the SP-Bold style, the text should be between the tags \*&B1 and \*&B1Ed.

Start Tag	End Tag	Word Style name	Description
<b>*&amp;B1</b>	<b>*&amp;B1Ed</b>	SP-Block	Defines a text inside a block in the text
<b>*&amp;D1</b>	<b>*&amp;D1Ed</b>	SP-Bold	Defines a section of the text that should be in bold font.
<b>*&amp;W1</b>	<b>*&amp;W1Ed</b>	SP-Specific1	
<b>*&amp;W2</b>	<b>*&amp;W2Ed</b>	SP-Specific2	
<b>*&amp;HI</b>	<b>*&amp;HIEd</b>	Hidden Char	A sequence of characters that should not appear in the printed version of the document

Table 2 Style tags with end tags.