Printing Unicode Characters from SAP System

User Manual

For SATO GT4e Series Printers

Edition 02
September 2023

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Contact Information

Access the following site and select the region/country nearest to you.
https://www.sato-global.com/about/locations.html

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Overview 1

This document is to explain how to print **Unicode characters** from SAP system with SAPscript (ITF file upload method) to SATO **GT4e series** printers.

The following languages will be explained in the following section:
- European languages
- Chinese (Simplified and Traditional)
- Thais
- Korean
- Japanese

Please refer to the following document on how to use NiceLabel Pro to create the ITF file:
https://www.sato-global.com/files/Integration_Options/SAP/SAPscript/Label_Printing_from_SAP_using_SAPscript_Technology.pdf

Note:
1) It is assumed the Unicode characters are entered on the Text Editor or read from database in the SAP environment. NiceLabel Pro is not able to create ITF file containing foreign languages characters.
2) It is also assumed that the SAP system is Unicode Compliant, or at least supports inputting and displaying of all European languages, Simplified Chinese, Traditional, Chinese, Thais, Korean and Japanese.

Configuration at SAP Environment

2

The SATO device type “ZLB_SAT.pri” is using codepage 1103 (IBM PC Multilingual 850). This codepage is not able to support Unicode character set.

Codepage **4110**, Unicode UTF 8 has to be used in order to print the Unicode characters.

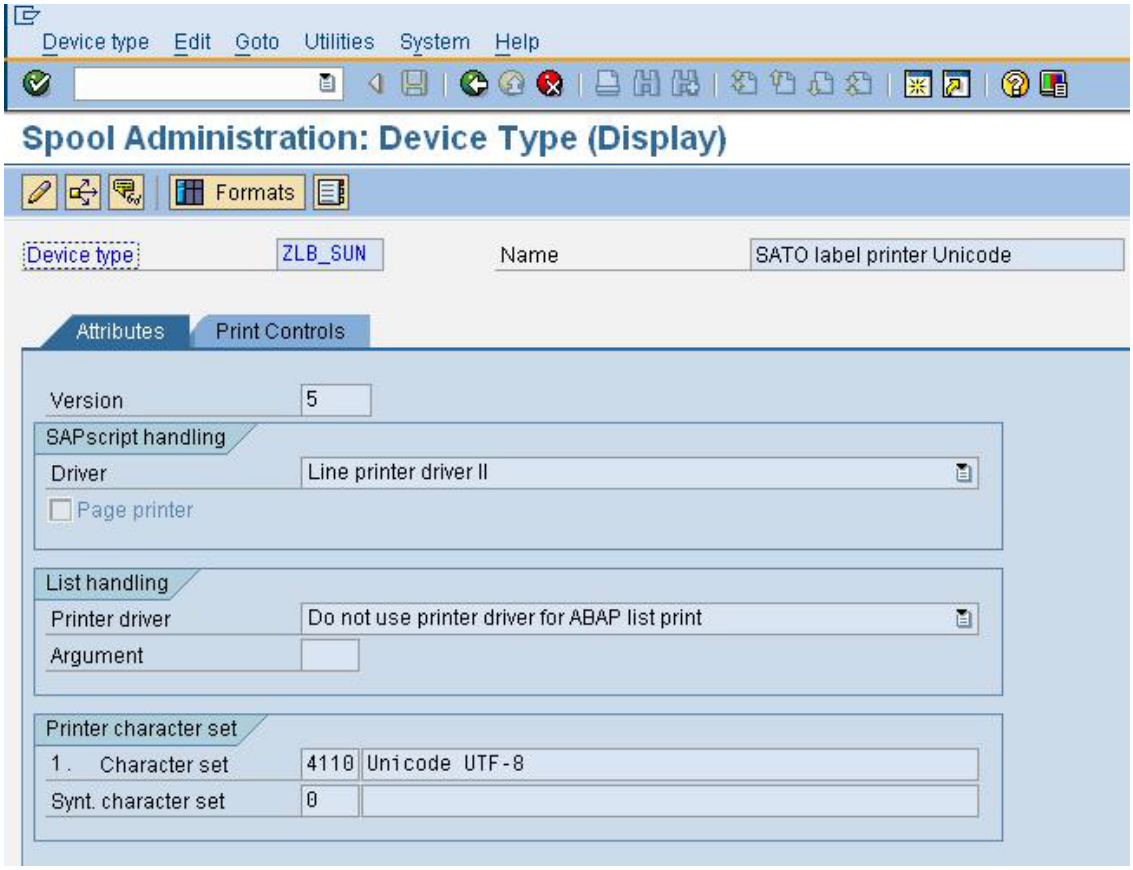

Figure 1 Using 4110 Codepage to support Unicode character set

3 Using SATO Firmware with Unicode Character Set

The following firmware has to be downloaded to the GT4e series printer in order to print the Unicode characters:
Firmware version 13.24.00.00
If you have any inquiries submit a request form at (https://sato-globalhelp.zendesk.com/hc/en-001/requests/new).

Note: For GT4e series printers, the language cartridge has to be inserted to the printer to print the required language.

The following commands are to be used to print the Unicode characters:

Command	Descriptions
RDt	Printing European languages such as Greece, Spain and Arabic.
RDT	Printing Thais
RDc	Printing Traditional Chinese
RDC	Printing Simplified Chinese
RDK	Printing Korean
RDJ	Printing Japanese

Table 1 Commands to print Unicode characters

Please refer to the appendix for the detail description of the commands.

Example 4

Please find the command specifications from the appendix.

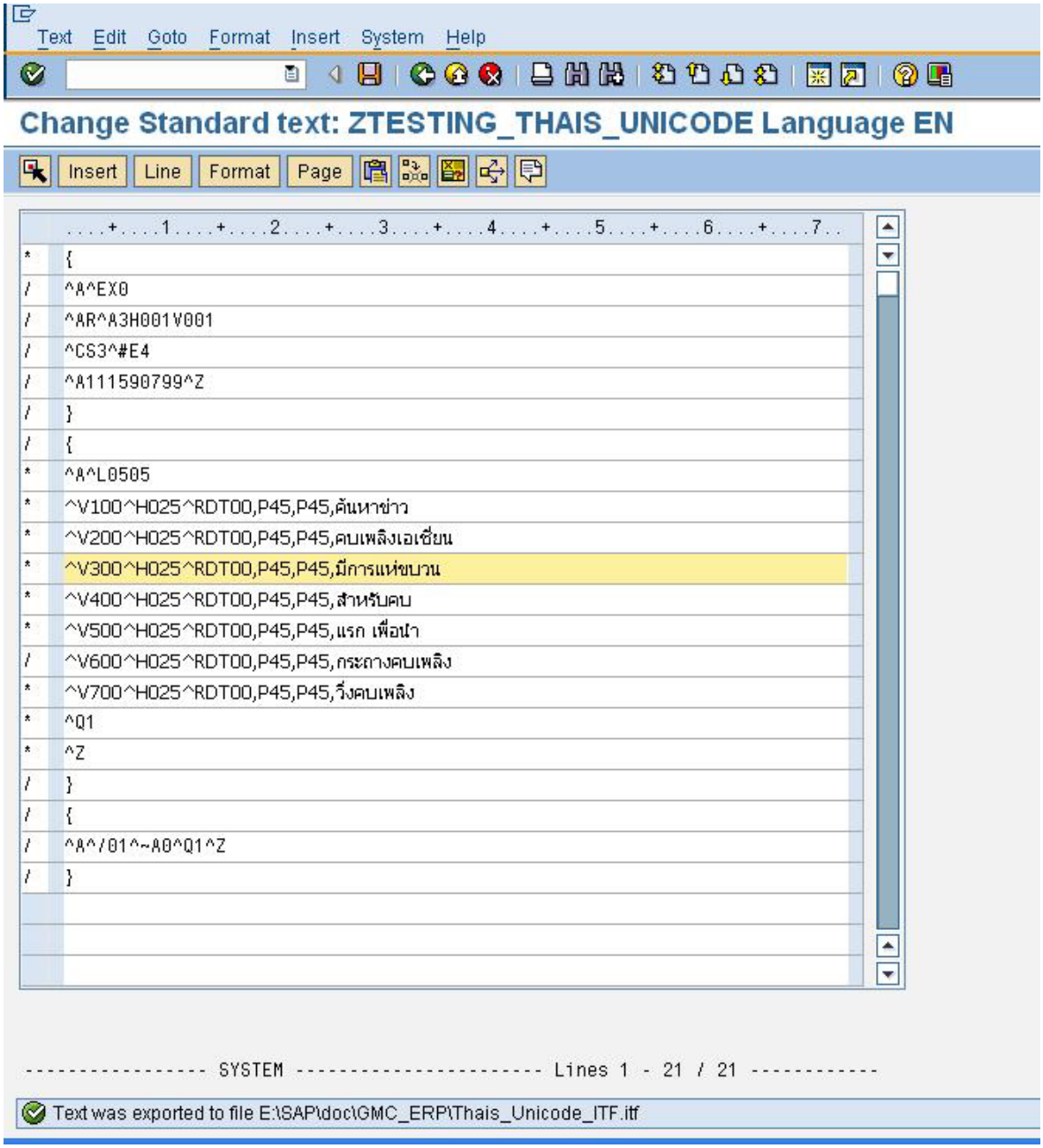

Figure 2 ITF file with Thais

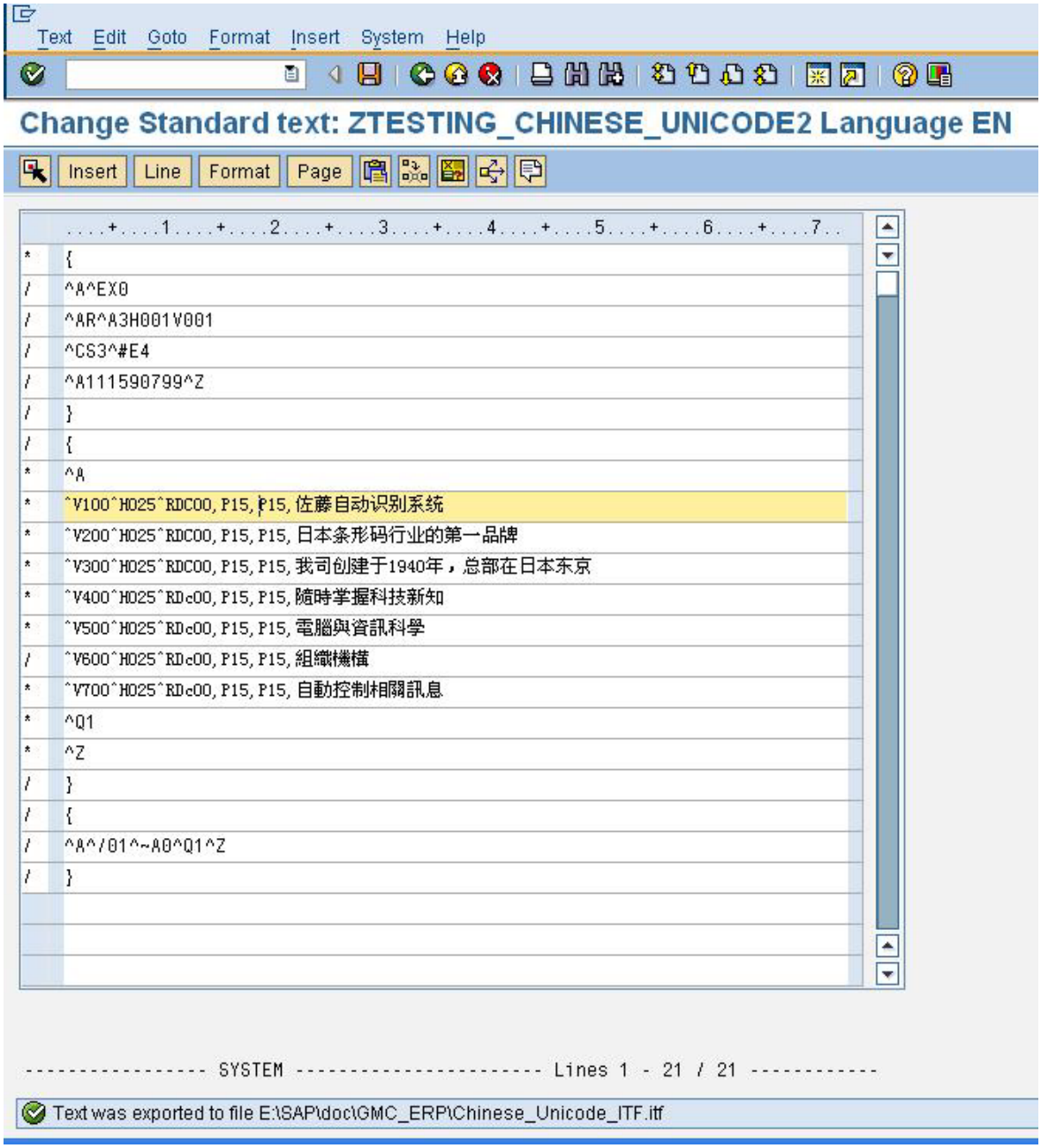

Figure 3 ITF file with Simplified and Traditional Chinese

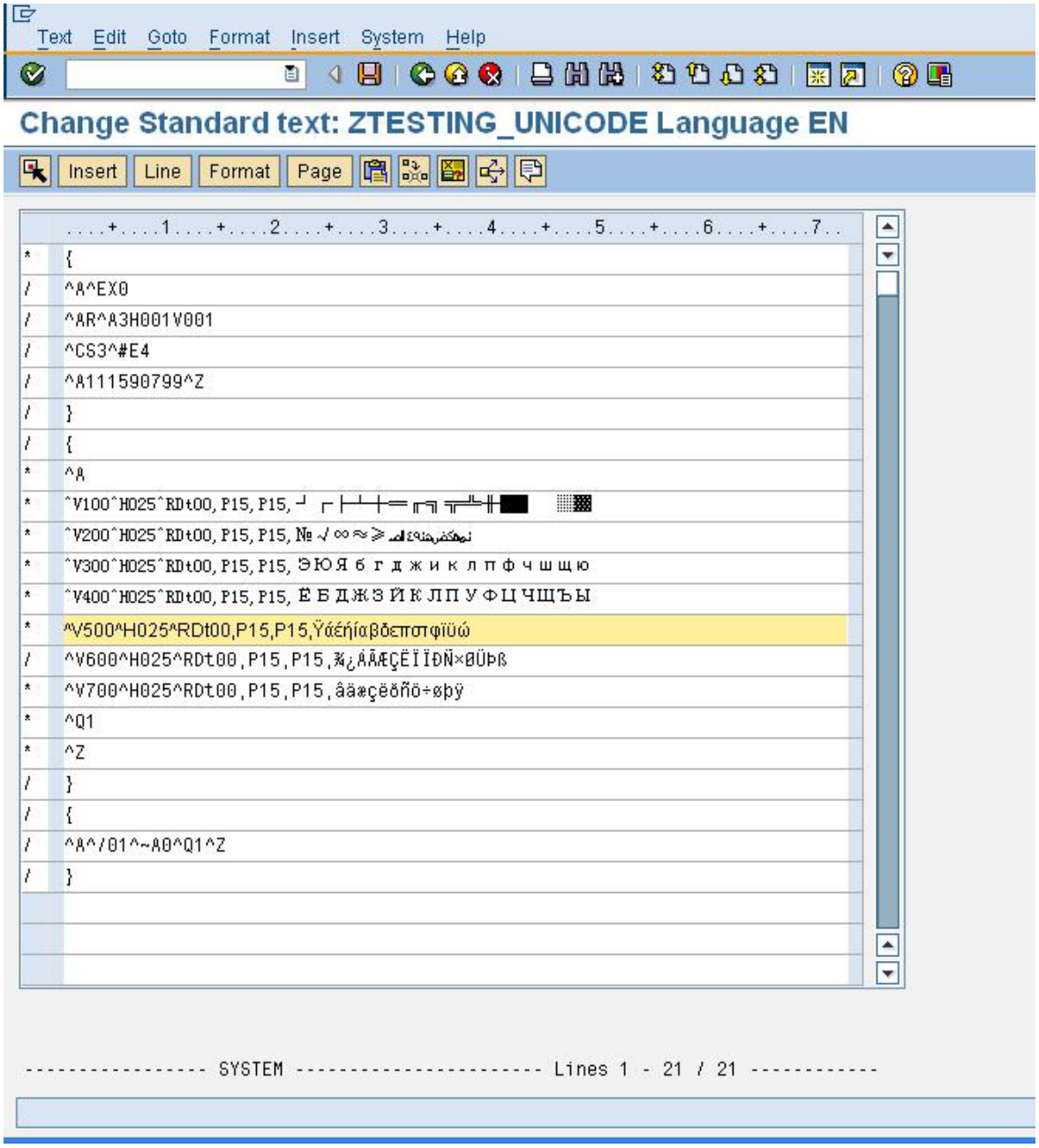

Figure 4 ITF File with European Languages

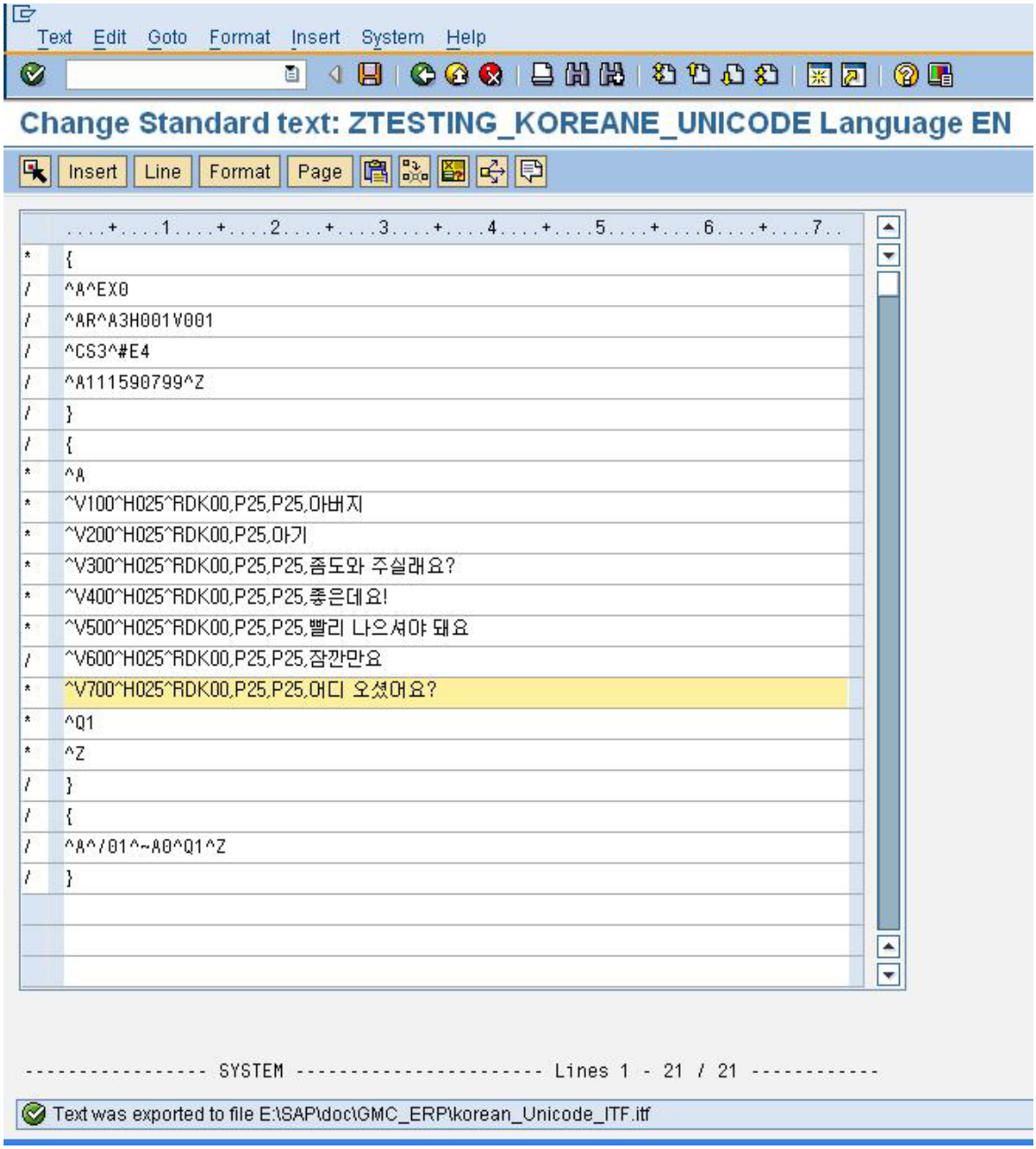

Figure 5 ITF file with Korean

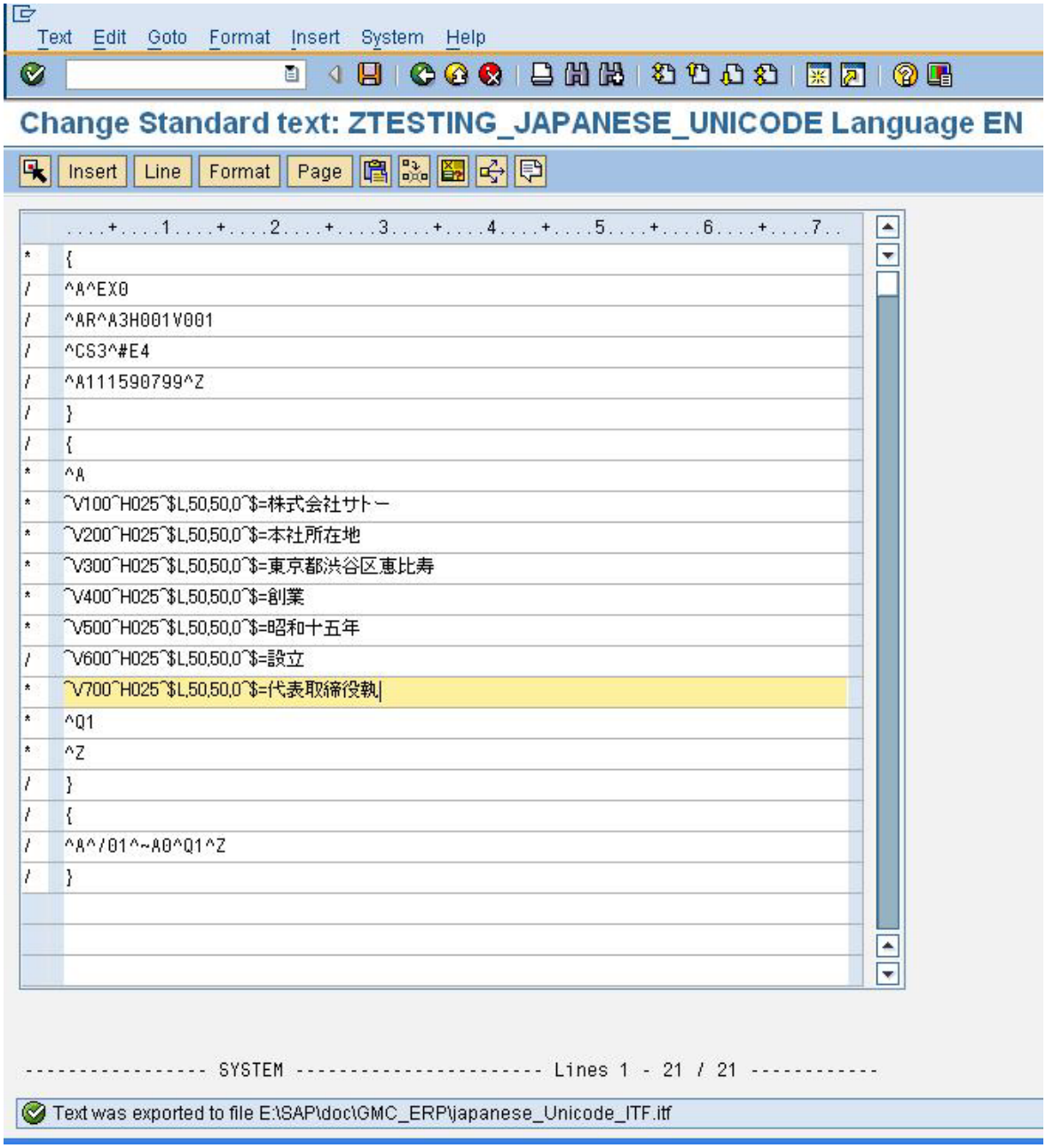

Figure 6 ITF file with Japanese characters

Appendix 5

5.1. Command Specifications

Cartridge built-in TrueType font print command

【Format】

＜ＲＤ＞ａｂｃ，ｄｄｄ，ｅｅｅ，ｎ～ｎ

●Parameter

ａ	「Font type」	=	Ｃ	: 「MKaiSO-Medium-U(simplified)」
			ｃ	: 「MHeiS-Bold-U(traditional)」
			Ｋ	: 「HYGungSo-Bold」
			Ｊ	: 「Outline-Kanji(Shift-JIS/JIS)」
			Ｔ	: 「AngsanaUPC」
			Ｆ	: 「FuturaIIBook」
			Ｐ	: 「CG Palacio」
			Ｓ	: 「CG Century Schoolbook」
			Ｇ	: 「CG Triumvirate Condensed」
			Ｖ	: 「Univers Medium」
			ｔ	: 「CG Times」
ｂ	「Character set」	=	０	without specifying character set
			１	「Latin1」 ISO 8859/1 Latin 1
			２	「Latin2」 ISO 8859/2 Latin 2
			３	「Latin5」 ISO 8859/9 Latin 5
			４	「Grk」 CP-737 DOSGreek
			５	「Cyr」 CP-855 DOSCyrillic
			６	「Arb」 CP-864 DOSArabic
			７	「Codepage874」 CP-874 Thai
			８	「CP-850」 CP-850 Multilingual
ｃ	「Character style」	=	０	「standard」 Medium
ｄ	「horizontal size」	=	００４～９９９ (dot) ／Ｐ０２～Ｐ９９ (point)	
ｅ	「vertical size」	=	００４～９９９ (dot) ／Ｐ０２～Ｐ９９ (point)	
ｎ	「print data」	=	data	

【Supplementary explanation】

1. When it is specified in [0], specification without character set, the applied character set will be the one for SATO standard.
2. Possible combination of font type and character set is shown in below table.

Character set	Font type
CP-850	FuturaIIBook CG Palacio CG Century Schoolbook CG Triumvirate Condensed Univers Medium
Codepage874	AngsanaUPC
Latin1	Univers Medium CG Times
Latin2	Univers Medium CG Times
Latin5	Univers Medium CG Times
Grk	Univers Medium CG Times
Cyr	Univers Medium CG Times
Arb	CG Times
No specification	MKaiSO-Medium-U(simplified) MHeiS-Bold-U(traditional) HYGungSo-Bold

Font

Shape of Outline Font

ＥＳＣ＋＄

Hexadecimal code	ESC	$	Parameter
	$<1B>_{16}$	$<24>_{16}$	a,bbb,ccc,d
Initial value	Nil		

Valid range and term of command	When power switch is OFF	The set parameter is not maintained.
	Valid range within items	The set parameter is valid until the next specification is made.
	Valid range between items	The set parameter becomes initial value at the next item <A>.

[Function]
Specifying the type, size, and shape of font.

[Format]
<$>a,bbb,ccc,d
●Parameter

a [Font type specification] = K: Hex character
L: Binary code

b [Font width specification] = Valid range : 24 to 999 dots

c [Font height specification] = Valid range : 24 to 999 dots

d [Font shape specification] = 0: Standard font (Black)
1: Outline font
2: Gray font (Pattern 1)
3: Gray font (Pattern 2)
4: Gray font (Pattern 3)
5: Shaded font
6: Outline and shaded font
7: Mirror rotation font
8: Standard italic font
9: Outline, shaded, and italic font

[Coding Example]
Font type specification: L
Font width specification: 100 dots
Font height specification: 100 dots
Font shape specification: 1

＜Ａ＞
＜Ｖ＞１００＜Ｈ＞１００＜Ｐ＞２
＜＄＞Ｌ，１００，１００，１＜＄＝＞株式会社サトー
＜Ｑ＞２
＜Ｚ＞

[Supplementary Explanation]
1. Shape of Italic font is inclined 15-degree within font width specification
2. Specify this command prior to Print of Outline Font <$=>.
3. If specified dots in 1 ~ 9 of [Font shape specification] are tiny, they may be unrecognizable as font.
4. Font width and height specification up to 24 dots are printable; however, some fonts may be unreadable because of character crowding.

Font

Print of Outline Font

ＥＳＣ＋＄＝

Hexadecimal code	ESC	$=	Parameter
	$<1B>_{16}$	$<24>_{16}<3D>_{16}$	n~n
Initial value	Nil		

Valid range and term of command	When power switch is OFF	The set parameter is not maintained.
	Valid range within items	The set parameter becomes invalid.
	Valid range between items	The set parameter becomes invalid.

[Function]
Specifying the print outline font.

[Format]
<$=>n~n
●Parameter
n [Print data] = Data

[Coding Example]
Print data: SATO

＜Ａ＞
＜Ｖ＞１００＜Ｈ＞１００＜Ｐ＞２
＜＄＞Ａ，１００，１００，１**＜＄＝＞ＳＡＴＯ**
＜Ｑ＞２
＜Ｚ＞

[Supplementary Explanation]
1. Specify Shape of Outline Font <$> prior to this command.
2. Font height specification includes ascender and descender areas. For proportional pitch, letter size width of outline font varies depending on the individual font.
3. Use Character Pitch <P> to specify font pitch.
4. Shape of Italic font is inclined 15-degree within font width specification. Font height specification includes ascender and descender areas.
5. If specified dots in 1 ~ 9 of [Font shape specification] are tiny, they may be unrecognizable as font.
6. In Shape of Outline Font <$>, font width and height specification up to 24 dots are printable; however, some fonts may be unreadable because of character crowding.

[Valid Commands]

Print position	<V>	<H>								
Modification	<P>	<%>	<$>	<F>						
Calendar	<WA>									