

# **Application Note**

C013 Language Files

HA502487C013

AC30 Vx.18.x onwards

© Copyright 2019 Parker Hannifin Manufacturing UK Ltd, a division of Parker Hannifin Ltd.

All rights strictly reserved. No part of this document may be stored in a retrieval system, or transmitted in any form or by any means to persons not employed by a Parker Hannifin Manufacturing UK Ltd company without written permission from Parker Hannifin Manufacturing UK Ltd, a division of Parker Hannifin Ltd. Although every effort has been taken to ensure the accuracy of this document it may be necessary, without notice, to make amendments or correct omissions. Parker Hannifin Manufacturing UK Ltd cannot accept responsibility for damage, injury, or expenses resulting therefrom.

#### WARRANTY

Parker SSD Drives warrants the goods against defects in design, materials and workmanship for the period of 12 months from the date of delivery on the terms detailed in Parker SSD Drives Standard Conditions of Sale IA058393C.

Parker SSD Drives reserves the right to change the content and product specification without notice.



## Requirements

#### **Intended Users**

This Application Note is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

The information given is intended to enable the user to obtain maximum benefit from the equipment.

#### **Application Area**

The equipment described is intended for industrial motor speed control utilising AC induction or AC synchronous machines.

#### Personnel

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices; with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

#### Hazards

Refer to the Safety Information given at the front of the Quick Start Manual supplied with every Parker Hannifin Manufacturing UK Ltd product.

# C013 LANGUAGE FILES

# Abstract

This application note explains how to create user language files on an AC30 drive.

# Introduction

The AC30CustomLanguageManager utility, (Language Manager), allows the user to create alternative text for all the text held in the drive, (predominantly the parameter & menu names). The Language Manager also allows the user to create translations for new parameters created as part of the application. When loaded into the drive the alternative text is used on the Graphical Key Pad, (GKP), and the drive's web page.

## **Creating the Language Files**

## Obtaining the AC30CustomLanguageManager utility

The AC30CustomLanguageManager utility is available from the software downloads page on the parker.com web page. Currently this is available at <u>http://divapps.parker.com/divapps/eme/EME/downloads/EME\_Software.htm</u>.

### Loading text for the standard parameters and menus

On opening the Language Manager for the first time it shows a mostly blank page as shown.

AC30 Cus	tom La	nguage Manager(Desktop App	o) 1.8.0.0			<b>X</b>
File	0	0 ENGLISH	•	1 FRANCAIS		•
String Id	V	Reference String	V	Translation		V
0.0.0.0 0	0				Selected	d Items: (

Under the "File" menu, select "Import Fixed Strings". (To load the text from the drive it is necessary to have PDQ or PDD installed on the PC.)

AC30 Custom Language Manager(Desktop	App) 1.8.0.0		
File 0 ENGLISH		1 FRANCAIS	•
New Language Project Open Language Project Save language Project Import Fixed Strings	A	Translation	4
Language Files			Selected Items: 0

This will bring up the following dialog box. Click on the product corresponding to your AC30 drive then click on "Select". If the version required is not shown, click on "Show All Versions".

Select your AC30 product type	and a second second	
Select		Show All Versio
Product Type	Version	
<ul> <li>AC30PNIO (ProfinetIO)</li> </ul>		
AC30PNIO (ProfinetIO)	4.18.1.1	
<ul> <li>AC30EIPS (EthernetIP)</li> </ul>		
AC30EIPS (EthernetIP)	3.18.1.1	
AC30PD		
AC30PD	2.18.1.1	
AC30V		
AC30V	1.18.1.1	

The Language Manager is now populated with all the text built into the drive firmware.

File	0	0 ENGLISH	1 FRANCAIS	•
String Id	V	Reference String	' Translation	7
	0			
	1	FALSE		
	2	TRUE		
	3	Min		
	4	Max		
	5	PNO		
	6	UP / DOWN to Change	Haut/Bas - changer	
	7	OK to Select	OK pour sélectionner	
	8	DEFAULTS LOADED	DEFAUT CHARGES	
	9	**** TRIPPED ****	**** DECLENCHE ****	
	10	User Parameters		
	11	** ALERT **	** ALERTE **	

## Loading text from the configuration

Use the PDQ or PDD configuration tool to transfer the text from the configuration to the Language Manager. Open the configuration in PDQ, then select "Drive Customization" from the "Tools" menu. Drive Customization is also available in PDD.

Parker Drive Quicktool 3.9.39.1 (Based on CoDe	eSyS V3.5.9.1)
Drive File Build Debug	Tools 😋 😋 🔸 🔳
Application BASIC SPEED CONTROL	Project Device Manager Project Library Manager
======================================	Project Settings
	Drive Customization
	Edit GVLs (Global Variables)
ANIN 01 (X11/01) SPEED SETPOINT ANIN 02 (X13/02) SPEED TRIM	Regenerate CFC Toolbox
analog_input_01_1 0 Analog_Input_01	ADD 2 Skip_frequencies_1 3
Value	-Band_1

This opens the "Soft Parameter Editor". In this editor, select "Advanced" then "Export Repository".

Soft	Parameter	Editor									
	< Edit										Advanced
	Edit Del	Tag	Name	Description	Units	Туре	Mapped Variable	Alias View Write Format	Default	Min	Export Repositor
ers		1900	Selected Application			ENUM		1090 😑	0		Import Repositor
net		1901	RL Ramp Time	Rate of change of the Output. Defined a		TIME	raise_lower_1.Ramp_Time	X.X	T#10s	T#0s	December Coff
arar		1902	RL Reset Value	The value Output is set to when the Res	%	REAL	raise_lower_1.Reset_Value	X.X	0	-500	Regenerate Soft
ď		1903	RL Maximum Value	The maximum value to which Output w	%	REAL	raise_lower_1.Maximum_Value	X.X	100	-500	Display Language
		1904	RL Minimum Value	The minimum value to which Output wi	%	REAL	raise_lower_1.Minimum_Value	X.X	-100	-500	Clear All Value Po
		1905	Raise Lower Output	The ramp output monitor. Output is pre	%	REAL	raise_lower_1.Output	X.X	0	-500	
		1906	Minimum Speed Val	Specifies the minimum output value.	%	REAL	minimum_speed2_1.Minimum	X.X	-100	-100	
ture		1907	Minimum Speed Mo	This is either proportional with minimur		ENUM	minimum_speed2_1.Mode		0		
2		1908	Skip Freq Band 1	The width of skip band 1 in Hz.	Hz	REAL	skip_frequencies_1.Band_1	X.X	0	0	1
u St		1909	Skip Frequency 1	The centre frequency of skip band 1 in I	Hz	REAL	skip_frequencies_1.Frequency_1	X.X	0	0	1
len		1910	Skip Freq Band 2	The width of skip band 2 in Hz.	Hz	REAL	skip_frequencies_1.Band_2	X.X	0	0	1
2		1911	Skip Frequency 2	The centre frequency of skip band 2 in I	Hz	REAL	skip_frequencies_1.Frequency_2	X.X	0	0	1
atio		1912	Skip Freq Band 3	The width of skip band 3 in Hz.	Hz	REAL	skip_frequencies_1.Band_3	X.X	0	0	1
olici		1913	Skip Frequency 3	The centre frequency of skip band 3 in I	Hz	REAL	skip_frequencies_1.Frequency_3	X.X	0	0	1
Api		1914	Skip Freq Band 4	The width of skip band 4 in Hz.	Hz	REAL	skip_frequencies_1.Band_4	X.X	0	0	1
		1915	Skip Frequency 4	The centre frequency of skip band 4 in I	Hz	REAL	skip_frequencies_1.Frequency_4	X.X	0	0	1
		1916	Preset Speed 0	Preset Speed Output when Selected Pr	%	REAL	presets2_1.Input_0	X.X	0	-100	
am		1917	Preset Speed 1	Preset Speed Output when Selected Pr	%	REAL	presets2_1.Input_1	X.X	0	-100	
iag		1918	Preset Speed 2	Preset Speed Output when Selected Pr	%	REAL	presets2_1.Input_2	X.X	0	-100	
C L		1919	Preset Speed 3	Preset Speed Output when Selected Pr	%	REAL	presets2_1.Input_3	X.X	0	-100	
atio		1920	Preset Speed 4	Preset Speed Output when Selected Pr	%	REAL	presets2_1.Input_4	X.X	0	-100	
olice	4										

The configuration text is exported as an xml file. Save this file in a suitable folder, then in the Language Manager select "Import Drive Customization Strings" from the "File" menu.

File	0	0 ENGLISH	•	1 FRANCAIS	•
New La	ingua	ge Project	V	Translation	V
Open Language Project					
Save language Project					
Import	Fixed	Strings			
Import	Drive	Customization Strings			
				Haut/Bas - changer	
Langua	ige Fil	es 🕨 🕨		OK pour sélectionner	
8 DEFAULTS LOADED 9 **** TRIPPED ****			DEFAUT CHARGES		
			**** DECLENCHE ****		
	10	User Parameters			
	11	** ALEDT **		** ALERTE **	

Navigate to the file "Repository.xml" created in the previous step and open this file.

#### **Project Files**

At this point it is advisable to create a language file Project by selecting "Save language Project" from the "File" menu. The Project file saves all the text imported into the Language Manager and can be used to back up your work.

### Modifying an Existing Language

File	All	0	0 ENGLISH	•	1 FRANCAIS	•	
String	Id	V	Reference String	7	Translation	۷	-

The Language Manager shows three columns, "String ID", "Reference String" and "Translation". To modify an existing Language, select the required language using the drop-down list above the Translation column. To help find a string the rows can be sorted by any of the three columns. When sorting by "String Id" it is helpful to know that text contained in the configuration is given an ID in the range 5000 and above. Text that is always in the drive has an ID less than 5000.

Enter the modified text in the Translation column in the appropriate row. If a row is left empty, then the text used will be that from the English column.

## Creating a new Language

To create a new Language, it is first necessary to give that language a name. Click on the shows the text shown for each language. For example, to create text for Turkish change "L 6" to "TÜRK"

Having created the language, select this as the Translation column and start entering the required translations.

File All 🎑	0 ENGLISH •	6 TÜRK 🔻
String Id 🛛 🏹	Reference String	Translation 🗸
0		
1	FALSE	Yanlış
2	TRUE	Doğru
3	Min	
4	Max	
5	PNO	
6	UP / DOWN to Change	YUKARI / AŞAĞI
7	OK to Select	Seçmek için onay
8	DEFAULTS LOADED	VARSAYILAN YÜKLENDİ
9	**** TRIPPED ****	**** HATA ****

#### Notes

- There are close to 2000 text strings in the drive. It is usually not necessary to translate all of these. Often it is only necessary to provide translations for the top level menus and the parameters defined in the application, (with String IDs in the 5000 range).
- It is possible to "copy and paste" between the Language Manager and other applications such as Excel.
- The GKP can only show 21 characters in each line. If a string is longer than 21 characters it will be truncated on the GKP. While the web page can show longer lines of text it should be noted that having just a few longer lines can dramatically increase the size of a language file. This is due to the simple file format chosen to save the text in the drive.
- Save the Language Manager project regularly when adding or modifying text to avoid loosing work in the case of a problem. It can be a good practice to backup the Project file to a different folder or PC

## **Creating Language Files**

To create the language files, select "Language Files" from the "File" menu. Choose whether to create all languages or just the currently selected translation. The language files are named "language0.lang" to "language9.lang". The files names must be unchanged for the drive to recognise the translation.

## Loading the Language files to the AC30

On the AC30V, language files must be saved on the SD card in a folder called "langfiles". Only the ".lang" files need be copied to the SD card, although it is possible to also save the project and repository files on the SD card for future reference.

On the AC30P, AC30D & AC30A, the language files can be saved as above on an SD card. In addition, the language files can be saved to the internal file store. If the files are saved to both locations the SD card takes precedence. To save the files to the internal file use the AC30 file browser. This is built into PDQ and can be accessed from the PDQ start page under Basic Operations, Open Project from Drive.

**Basic Operations** 

- New Project...
   Open Project from Drive...
- Manuals, User Guide and Application Notes

In the left hand pane of the file browser select the required drive

	Drive	s Found		C C
Drive 📮	Туре	FW	IP Address	
AC30 000D46010C29	AC30V	1.18.1	172.18.176.58	
AC30D 000D460010B4	AC30PD	2.18.1	172.18.176.57	
AC30P 000D460010B2	AC30PD	2.18.1	172.18.176.55	

In the right hand pane, select the "Drive File Browser" tab and ensure the "Internal Flash (C:)" volume is selected. (The SD card is shown as volume A:).

P	Project Archives Drive File Browser		Drive Maint	enance (Ethernet Settings and F	irmware Install)
	AC30P 000D	460010B2 🧰 Interna	l Flash (C:)	/ 🍶 🎝	Ç
		Name	Size	Creation Date	
	archive.prj		1463778	20/12/2018 15:59	
	Archive_1.prj		1466103	19/12/2018 10:14	
	Archive_2.prj		1378501	19/12/2018 10:10	

If a langfiles folder does not already exist, create this by clicking on the <sup>see</sup> icon. The folder must be called "langfiles". Enter the langfiles folder and click on "Browse" to transfer the language files to the drive. Space in the internal file store is limited so it is not recommended to save the language Project file here.

## Text in the AC30 and GKP

The Graphical Keypad, (GKP), is programmed with text corresponding to the parameters and menus that are always present in the drive. The GKP contains this text in English, French, German, Spanish and Italian. To improve the responsiveness of the display the GKP uses its local copy of the text when this available; however, the copy of the text in the GKP is typically for an older version of firmware and may not contain text for newer or updated parameters. For these parameters the GKP obtains the text from the drive firmware.

When the custom language is loaded into the drive the GKP is told to ignore its own copy and to use the text from the drive for all parameters and menus. This check is only performed when the GKP is reset, so it may be necessary to unplug and re-connect the GKP after updating a language file.

# **Trouble Shooting**

Problem	Possible reason
No translations showing	Check the selected language
	• Check the language files are in a folder called langfiles.
	• Check the language files are named language0.lang to language9.lang.
	• If using an SD card, check the value of Parameters->Device Manager-> SD Card->Card State.
Web page only shows text in English, the GKP shows text in the selected language.	On the AC30V only English text is held in the drive. It is likely that the custom language files have not been detected by the drive and the GKP is using a local copy of the selected language text. Check the SD card and language files as above.
New language shown as "L 6" to "L 9".	• Enter the text for the new language in the currently selected language.
	• Force a reset of the GKP by unplugging it.
Some translations will not show on the GKP, (they show correctly on the web page)	Some characters cannot be displayed on the GKP. If a text string contains an unknown character, then it will not be shown on the GKP. This character restriction does not apply to the web page.

# Special Characters Supported by the GKP

Character	Description
à	a grave
è	e grave
ì	i grave
ò	o grave
ù	u grave
á	a acute
é	e acute
í	i acute
ó	o acute
ú	u acute
ý	y acute
â	a circumflex
ê	e circumflex
î	i circumflex
ô	o circumflex
û	u circumflex
ã	a tilde
ñ	n tilde
õ	o tilde
ä	a umlaut
ë	e umlaut
ï	i umlaut
ö	o umlaut
ü	u umlaut

Character	Description
ÿ	y umlaut
ç	c cedille
ß	S sharpe
å	a Nordic
š	s Czech
ž	z Czech
À	A grave
È	E grave
Ì	I grave
Ò	O grave
Ù	U grave
Á	A acute
É	E acute
Í	I acute
Ó	O acute
Ú	U acute
Ý	Y acute
Â	A circumflex
Ê	E circumflex
Î	I circumflex
Ô	O circumflex
Û	U circumflex
Ã	A tilde
Ñ	N tilde

Character	Description
Õ	O tilde
Ä	A umlaut
Ë	E umlaut
Ï	I umlaut
Ö	O umlaut
Ü	U umlaut
Ÿ	Y umlaut
Ç	C cedille
Å	A nordic
Š	S czech
Ž	Z czech
¢	Cent
£	Pound currency
¥	Yen
0	Degrees
<u>±</u>	Plus / Minus
μ	Micro
i	? inverted
i	! inverted
2	2 superscript
3	3 superscript
*	Double chevron left
»	Double chevron right