

# Using Chivo fonts with LaTeX\*

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## Abstract

This package provides the necessary files to use the Chivo fonts with LaTeX. Chivo is a set of eighteen fonts provided by Héctor Gatti & Omnibus-Type Team under the Open Font License (OFL).

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# 1 Introduction

Chivo<sup>1</sup> is a set of eighteen fonts created by Héctor Gatti & Omnibus-Type Team and provided by Omnibus-Type under the SIL Open Font License, Version 1.1. From the readme:

“Chivo (‘goat’ in Spanish) is the first Omnibus-Type neo-grotesque typeface family. It has 9 weight variants, plus matching italics. Its solidness and balanced strokes give Chivo both elegance and practicality. Chivo Regular works perfectly in long-reading texts, while Chivo Black is ideal for headlines, banners and highlights. Developed by Héctor Gatti, this is an indispensable ally for any designer.”

The fonts were obtained from Omnibus-Type GitHub repository<sup>2</sup> (v2.002, 18 fonts, 877 glyphs each).

# 2 Installation

I suggest you use MikTeX or TeXlive and wait until the fonts are distributed for your TeX installation via their package manager.

# 3 Usage

The fonts can be used with traditional (pdf)TeX engine and newer XeTeX and LuaTeX engines which can access OTF fonts directly. They are described below. In general, this bundle tries not to be smart and loads only kvoptions.sty and fontaxes.sty or fontspec.sty, depending on the used engine. As the result, some work must be done by the user.

## 3.1 Engine independent options

A package Chivo.sty is provided which can be loaded in the preamble as usual:

```
\usepackage{Chivo}
```

Loading the package changes the document’s sans serif font to Chivo. The package offers some options.

`thin | extralight | light`    The default font series is set with one of thin, extralight, light, regular | medium regular or medium – regular is the default. It can be changed like this:

```
\usepackage[medium]{Chivo}
```

`semibold | bold`    The default bold series is set with one of semibold, bold, extrabold or bold | extrabold | black black – bold is the default.

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1. Copyright © 2019, Omnibus-Type (<https://www.omnibus-type.com>).  
2. <https://github.com/Omnibus-Type/Chivo>

`lining` | `oldstyle`     The alignment and style for the figures of the document are set by the options `lining` or `oldstyle` and `proportional` or `tabular`. `lining` and `proportional` are the defaults. Short aliases `lf`, `osf`, `prop` and `tab` are also available. Being boolean options, following example results in proportional oldstyle figures:

```
\usepackage [lining=false, tabular=false]{Chivo}
```

`familydefault`     The main font of a document can be switched to Chivo with package option `familydefault` or `familydefault=true`, e.g.:

```
\usepackage [familydefault]{Chivo}
```

`opentype` | `type1`     If the automatic engine detection fails, it can be specified by the user with one of `opentype` or `type1`. Note that these option do not take a boolean value `true` or `false`.

`scale` | `scaled`     The size of the Chivo fonts can be adjusted with the `scale` or `scaled` option, e.g.:

```
\usepackage [scale=0.97]{Chivo}
```

### 3.2 (pdf)LaTeX specific notes

OT1, LY1, T1 and TS1 encodings are supported. Chivo.sty does not load the respective packages, it is up to user to load them, e.g.:

```
\usepackage{Chivo}
\usepackage [T1]{fontenc}
```

Chivo fonts provide a rich set of figures (see table 2). With traditional engines, `fontaxes.sty` is loaded and the command `\fontversion` is available to switch between `lining`, `oldstyle`, `tabular` and `proportional` styles and alignments. For other versions the macros below are provided. Note that the names of these macros used to be `\textsu`, `\textin`<sup>3</sup>, `\textnu` and `\textde`<sup>4</sup>. This is a backward incompatible change in v2.2 of this package:

- `\textsuperior` renders its argument in superior figures.  
`\textsuperior{123}` produces <sup>123</sup>. The corresponding declaration is `\sufigures`.
- `\textinferior` renders its argument in inferior figures.  
`\textinferior{123}` produces <sub>123</sub>. The corresponding declaration is `\infigures`.
- `\textnumerator` renders its argument in numerator figures.  
`\textnumerator{123}` produces <sup>123</sup>/. The corresponding declaration is `\nufigures`.
- `\textdenominator` renders its argument in denominator figures.  
`\textdenominator{123}` produces <sub>123</sub>/. The corresponding declaration is `\defigures`.

3. This macro is defined by the `hyperref` package.

4. These macros have a great potential to clash with `\babeltags` definitions.

**Table 1.** Chivo font features

---

aalt	Access All Alternates
case	Case-Sensitive Forms
ccmp	Glyph Composition/Decomposition
csp	Capital Spacing
dnom	Denominators
frac	Fractions
kern	Kerning
liga	Standard Ligatures
lnum	Lining Figures
mark	Mark Positioning
mkmk	Mark to Mark Positioning
numr	Numerators
onum	Oldstyle Figures
ordn	Ordinals
pnum	Proportional Figures
sinf	Scientific Inferiors
subs	Subscript
sup	Superscript
tnum	Tabular Figures
zero	Slashed Zero

---

### 3.3 XeLaTeX and LuaLaTeX specific notes

These engines can access OTF fonts directly. The standard interface for this purpose is `fontspec.sty`<sup>5</sup>. `Chivo.sty` detects if XeLaTeX or LuaLaTeX are used and passes options given to the package to `\setsansfont` via `\defaultfeature`. Other `fontspec.sty` options can be set with `\defaultfeature+`:

```
\usepackage{fontspec}
\usepackage{Chivo}
\defaultfontfeatures+[Chivo]{
  Scale = MatchLowercase ,
  Color = blue
}
```

Table 1 contains a list of available font features.

LaTeX font selection macros like `\fontseries` work with these engines as well.

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5. <https://ctan.org/pkg/fontspec>

## 4 OT1 encoding font table

	0	1	2	3	4	5	6	7	
00x	0	Δ 1	2	3	4	5	6	7	~0x
01x	8	9	Ω 10	11	fi 12	fl 13	14	15	
02x	l 16	J 17	` 18	' 19	˘ 20	˙ 21	˚ 22	° 23	~1x
03x	˘ 24	β 25	æ 26	œ 27	ø 28	Æ 29	Œ 30	Ø 31	
04x	˘ 32	! 33	" 34	# 35	\$ 36	% 37	& 38	' 39	~2x
05x	( 40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	~3x
07x	8 56	9 57	: 58	; 59	i 60	= 61	¿ 62	? 63	
10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	~4x
11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	~5x
13x	X 88	Y 89	Z 90	[ 91	" 92	] 93	^ 94	· 95	
14x	' 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	~6x
15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	
16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	~7x
17x	x 120	y 121	z 122	- 123	— 124	" 125	~ 126	¨ 127	
20x	ff 128	ffi 129	ffl 130	131	132	133	134	135	~8x
21x	136	137	Ł 138	139	140	141	142	143	
24x	160	161	162	163	164	165	166	167	~Ax
25x	168	169	† 170	171	172	173	174	175	
	~8	~9	~A	~B	~C	~D	~E	~F	

## 5 LY1 encoding font table

	'0	'1	'2	'3	'4	'5	'6	'7	
'00x	ff <sub>0</sub>	€ <sub>1</sub>	ffi <sub>2</sub>	ffl <sub>3</sub>	/ <sub>4</sub>	· <sub>5</sub>	" <sub>6</sub>	˘ <sub>7</sub>	~0x
'01x	<sub>8</sub>	<sub>9</sub>	<sub>10</sub>	<sub>11</sub>	fi <sub>12</sub>	fl <sub>13</sub>	<sub>14</sub>	<sub>15</sub>	
'02x	l <sub>16</sub>	j <sub>17</sub>	` <sub>18</sub>	' <sub>19</sub>	ˇ <sub>20</sub>	ˇ̇ <sub>21</sub>	- <sub>22</sub>	° <sub>23</sub>	~1x
'03x	˘ <sub>24</sub>	ß <sub>25</sub>	æ <sub>26</sub>	œ <sub>27</sub>	ø <sub>28</sub>	Æ <sub>29</sub>	Œ <sub>30</sub>	Ø <sub>31</sub>	
'04x	<sub>32</sub>	! <sub>33</sub>	" <sub>34</sub>	# <sub>35</sub>	\$ <sub>36</sub>	% <sub>37</sub>	& <sub>38</sub>	' <sub>39</sub>	~2x
'05x	( <sub>40</sub> )	) <sub>41</sub>	* <sub>42</sub>	+ <sub>43</sub>	, <sub>44</sub>	- <sub>45</sub>	. <sub>46</sub>	/ <sub>47</sub>	
'06x	0 <sub>48</sub>	1 <sub>49</sub>	2 <sub>50</sub>	3 <sub>51</sub>	4 <sub>52</sub>	5 <sub>53</sub>	6 <sub>54</sub>	7 <sub>55</sub>	~3x
'07x	8 <sub>56</sub>	9 <sub>57</sub>	: <sub>58</sub>	; <sub>59</sub>	< <sub>60</sub>	= <sub>61</sub>	> <sub>62</sub>	? <sub>63</sub>	
'10x	@ <sub>64</sub>	A <sub>65</sub>	B <sub>66</sub>	C <sub>67</sub>	D <sub>68</sub>	E <sub>69</sub>	F <sub>70</sub>	G <sub>71</sub>	~4x
'11x	H <sub>72</sub>	I <sub>73</sub>	J <sub>74</sub>	K <sub>75</sub>	L <sub>76</sub>	M <sub>77</sub>	N <sub>78</sub>	O <sub>79</sub>	
'12x	P <sub>80</sub>	Q <sub>81</sub>	R <sub>82</sub>	S <sub>83</sub>	T <sub>84</sub>	U <sub>85</sub>	V <sub>86</sub>	W <sub>87</sub>	~5x
'13x	X <sub>88</sub>	Y <sub>89</sub>	Z <sub>90</sub>	[ <sub>91</sub>	\ <sub>92</sub>	] <sub>93</sub>	^ <sub>94</sub>	_ <sub>95</sub>	
'14x	' <sub>96</sub>	a <sub>97</sub>	b <sub>98</sub>	c <sub>99</sub>	d <sub>100</sub>	e <sub>101</sub>	f <sub>102</sub>	g <sub>103</sub>	~6x
'15x	h <sub>104</sub>	i <sub>105</sub>	j <sub>106</sub>	k <sub>107</sub>	l <sub>108</sub>	m <sub>109</sub>	n <sub>110</sub>	o <sub>111</sub>	
'16x	p <sub>112</sub>	q <sub>113</sub>	r <sub>114</sub>	s <sub>115</sub>	t <sub>116</sub>	u <sub>117</sub>	v <sub>118</sub>	w <sub>119</sub>	~7x
'17x	x <sub>120</sub>	y <sub>121</sub>	z <sub>122</sub>	{ <sub>123</sub>	<sub>124</sub>	} <sub>125</sub>	~ <sub>126</sub>	¨ <sub>127</sub>	
'20x	ł <sub>128</sub>	' <sub>129</sub>	, <sub>130</sub>	f <sub>131</sub>	„ <sub>132</sub>	… <sub>133</sub>	† <sub>134</sub>	‡ <sub>135</sub>	~8x
'21x	^ <sub>136</sub>	% <sub>137</sub>	š <sub>138</sub>	‹ <sub>139</sub>	Œ <sub>140</sub>	ž <sub>141</sub>	∧ <sub>142</sub>	— <sub>143</sub>	
'22x	† <sub>144</sub>	' <sub>145</sub>	' <sub>146</sub>	" <sub>147</sub>	" <sub>148</sub>	• <sub>149</sub>	— <sub>150</sub>	— <sub>151</sub>	~9x
'23x	~ <sub>152</sub>	™ <sub>153</sub>	š <sub>154</sub>	› <sub>155</sub>	œ <sub>156</sub>	ž <sub>157</sub>	~ <sub>158</sub>	ÿ <sub>159</sub>	
'24x	<sub>160</sub>	ı <sub>161</sub>	č <sub>162</sub>	£ <sub>163</sub>	□ <sub>164</sub>	¥ <sub>165</sub>	ı <sub>166</sub>	§ <sub>167</sub>	~Ax
'25x	¨ <sub>168</sub>	© <sub>169</sub>	ª <sub>170</sub>	« <sub>171</sub>	¬ <sub>172</sub>	- <sub>173</sub>	® <sub>174</sub>	- <sub>175</sub>	
'26x	° <sub>176</sub>	± <sub>177</sub>	² <sub>178</sub>	³ <sub>179</sub>	' <sub>180</sub>	μ <sub>181</sub>	¶ <sub>182</sub>	· <sub>183</sub>	~Bx
'27x	˘ <sub>184</sub>	¹ <sub>185</sub>	º <sub>186</sub>	» <sub>187</sub>	¼ <sub>188</sub>	½ <sub>189</sub>	¾ <sub>190</sub>	ı <sub>191</sub>	
'30x	À <sub>192</sub>	Á <sub>193</sub>	Â <sub>194</sub>	Ã <sub>195</sub>	Ä <sub>196</sub>	Å <sub>197</sub>	Æ <sub>198</sub>	Ç <sub>199</sub>	~Cx
'31x	È <sub>200</sub>	É <sub>201</sub>	Ê <sub>202</sub>	Ë <sub>203</sub>	Ì <sub>204</sub>	Í <sub>205</sub>	Î <sub>206</sub>	Ï <sub>207</sub>	
'32x	Ð <sub>208</sub>	Ñ <sub>209</sub>	Ò <sub>210</sub>	Ó <sub>211</sub>	Ô <sub>212</sub>	Õ <sub>213</sub>	Ö <sub>214</sub>	× <sub>215</sub>	~Dx
'33x	Ø <sub>216</sub>	Ù <sub>217</sub>	Ú <sub>218</sub>	Û <sub>219</sub>	Ü <sub>220</sub>	Ý <sub>221</sub>	Þ <sub>222</sub>	ß <sub>223</sub>	
'34x	à <sub>224</sub>	á <sub>225</sub>	â <sub>226</sub>	ã <sub>227</sub>	ä <sub>228</sub>	å <sub>229</sub>	æ <sub>230</sub>	ç <sub>231</sub>	~Ex
'35x	è <sub>232</sub>	é <sub>233</sub>	ê <sub>234</sub>	ë <sub>235</sub>	ì <sub>236</sub>	í <sub>237</sub>	î <sub>238</sub>	ï <sub>239</sub>	
'36x	ð <sub>240</sub>	ñ <sub>241</sub>	ò <sub>242</sub>	ó <sub>243</sub>	ô <sub>244</sub>	õ <sub>245</sub>	ö <sub>246</sub>	÷ <sub>247</sub>	~Fx
'37x	ø <sub>248</sub>	ù <sub>249</sub>	ú <sub>250</sub>	û <sub>251</sub>	ü <sub>252</sub>	ý <sub>253</sub>	þ <sub>254</sub>	ÿ <sub>255</sub>	
	~8	~9	~A	~B	~C	~D	~E	~F	

## 6 T1 encoding font table

	'0	'1	'2	'3	'4	'5	'6	'7	
'00x	` 0	' 1	^ 2	~ 3	¨ 4	˘ 5	° 6	ˇ 7	~0x
'01x	˘ 8	ˉ 9	˙ 10	˚ 11	˛ 12	, 13	ˆ 14	˜ 15	
'02x	“ 16	” 17	„ 18	« 19	» 20	– 21	— 22	23	~1x
'03x	ff 24	l 25	j 26	ffi 27	fi 28	fl 29	ffi 30	31	
'04x	˘ 32	! 33	" 34	# 35	\$ 36	% 37	& 38	' 39	~2x
'05x	( 40	) 41	* 42	+ 43	, 44	- 45	. 46	/ 47	
'06x	0 48	1 49	2 50	3 51	4 52	5 53	6 54	7 55	~3x
'07x	8 56	9 57	: 58	; 59	< 60	= 61	> 62	? 63	
'10x	@ 64	A 65	B 66	C 67	D 68	E 69	F 70	G 71	~4x
'11x	H 72	I 73	J 74	K 75	L 76	M 77	N 78	O 79	
'12x	P 80	Q 81	R 82	S 83	T 84	U 85	V 86	W 87	~5x
'13x	X 88	Y 89	Z 90	[ 91	\ 92	] 93	^ 94	_ 95	
'14x	' 96	a 97	b 98	c 99	d 100	e 101	f 102	g 103	~6x
'15x	h 104	i 105	j 106	k 107	l 108	m 109	n 110	o 111	
'16x	p 112	q 113	r 114	s 115	t 116	u 117	v 118	w 119	~7x
'17x	x 120	y 121	z 122	{ 123	124	} 125	~ 126	- 127	
'20x	Ǻ 128	Ǻ 129	Ć 130	Č 131	Ď 132	Ě 133	Ě 134	Ǻ 135	~8x
'21x	Ǻ 136	Ǻ 137	Ǻ 138	Ǻ 139	Ǻ 140	Ǻ 141	Ǻ 142	Ǻ 143	
'22x	Ǻ 144	Ǻ 145	Ǻ 146	Ǻ 147	Ǻ 148	Ǻ 149	Ǻ 150	Ǻ 151	~9x
'23x	Ǻ 152	Ǻ 153	Ǻ 154	Ǻ 155	Ǻ 156	Ǻ 157	Ǻ 158	Ǻ 159	
'24x	Ǻ 160	Ǻ 161	Ǻ 162	Ǻ 163	Ǻ 164	Ǻ 165	Ǻ 166	Ǻ 167	~Ax
'25x	Ǻ 168	Ǻ 169	Ǻ 170	Ǻ 171	Ǻ 172	Ǻ 173	Ǻ 174	Ǻ 175	
'26x	Ǻ 176	Ǻ 177	Ǻ 178	Ǻ 179	Ǻ 180	Ǻ 181	Ǻ 182	Ǻ 183	~Bx
'27x	Ǻ 184	Ǻ 185	Ǻ 186	Ǻ 187	Ǻ 188	Ǻ 189	Ǻ 190	Ǻ 191	
'30x	Ǻ 192	Ǻ 193	Ǻ 194	Ǻ 195	Ǻ 196	Ǻ 197	Ǻ 198	Ǻ 199	~Cx
'31x	Ǻ 200	Ǻ 201	Ǻ 202	Ǻ 203	Ǻ 204	Ǻ 205	Ǻ 206	Ǻ 207	
'32x	Ǻ 208	Ǻ 209	Ǻ 210	Ǻ 211	Ǻ 212	Ǻ 213	Ǻ 214	Ǻ 215	~Dx
'33x	Ǻ 216	Ǻ 217	Ǻ 218	Ǻ 219	Ǻ 220	Ǻ 221	Ǻ 222	Ǻ 223	
'34x	Ǻ 224	Ǻ 225	Ǻ 226	Ǻ 227	Ǻ 228	Ǻ 229	Ǻ 230	Ǻ 231	~Ex
'35x	Ǻ 232	Ǻ 233	Ǻ 234	Ǻ 235	Ǻ 236	Ǻ 237	Ǻ 238	Ǻ 239	
'36x	Ǻ 240	Ǻ 241	Ǻ 242	Ǻ 243	Ǻ 244	Ǻ 245	Ǻ 246	Ǻ 247	~Fx
'37x	Ǻ 248	Ǻ 249	Ǻ 250	Ǻ 251	Ǻ 252	Ǻ 253	Ǻ 254	Ǻ 255	
	~8	~9	~A	~B	~C	~D	~E	~F	

## 7 TS1 encoding font table

	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	
<i>00x</i>	0	1	2	3	4	5	6	7	~0x
<i>01x</i>	8	9	10	11	12	13	14	15	
<i>02x</i>	16	17	18	19	20	21	22	23	~1x
<i>03x</i>	24	25	26	27	28	29	30	31	
<i>04x</i>	32	33	34	35	36	37	38	39	~2x
<i>05x</i>	40	41	42	43	44	45	46	47	
<i>06x</i>	48	49	50	51	52	53	54	55	~3x
<i>07x</i>	56	57	58	59	60	61	62	63	
<i>12x</i>	80	81	82	83	84	85	86	87	~5x
<i>13x</i>	88	89	90	91	92	93	94	95	
<i>20x</i>	128	129	130	131	132	133	134	135	~8x
<i>21x</i>	136	137	138	139	140	141	142	143	
<i>22x</i>	144	145	146	147	148	149	150	151	~9x
<i>23x</i>	152	153	154	155	156	157	158	159	
<i>24x</i>	160	161	162	163	164	165	166	167	~Ax
<i>25x</i>	168	169	170	171	172	173	174	175	
<i>26x</i>	176	177	178	179	180	181	182	183	~Bx
<i>27x</i>	184	185	186	187	188	189	190	191	
<i>32x</i>	208	209	210	211	212	213	214	215	~Dx
<i>33x</i>	216	217	218	219	220	221	222	223	
<i>36x</i>	240	241	242	243	244	245	246	247	~Fx
<i>37x</i>	248	249	250	251	252	253	254	255	
	~8	~9	~A	~B	~C	~D	~E	~F	

## 8 Text samples

### Regular

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*Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum. Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris. 1234567890*

### Figures

**Table 2.** Figure styles and alignments

Proportional lining	<u>0123456789</u>
Tabular lining	<u>0123456789</u>
Proportional oldstyle	<u>0123456789</u>
Tabular oldstyle	<u>0123456789</u>
Superiors	<sup>0123456789</sup>
Inferiors	<sub>0123456789</sub>
Numerators	$\frac{0123456789}{}$
Denominators	$\frac{}{0123456789}$

## 9 Implementation

Font support files are generated by `autoinst`, invoked with:

```
autoinst \
  --encoding=OT1,T1,LY1 \
  --ts1 \
  --sanserif \
  --nosmallcaps \
  --noswash \
  --notitling \
  --inferiors=subs \
  --fractions \
  --noornaments \
  --ligatures \
  --verbose \
  Chivo-*.otf
```

We don't use the `Chivo.sty` generated by `autoinst` and use our version instead.

### 9.1 Chivo.sty

```
1 ⟨*package⟩
   Require the package iftex.sty:
2 \RequirePackage{iftex}
   First, we need a switch to know which engine is used:
3 \newif\ifChivo@otf
4 \iftutex % we are in XeTeX or LuaTeX
5 \Chivo@otftrue
6 \else
7 \Chivo@otffalse
8 \fi
   Load the packages we rely on: fontspec.sty6 for LuaTeX and XeTeX, or
fontaxes.sty7 for (pdf)LaTeX:
9 \ifChivo@otf
10 \RequirePackage{fontspec}
11 \else
12 \RequirePackage{fontaxes}
13 \fi
   We use kvoptions8 for key handling:
14 \RequirePackage{kvoptions}
Setup the keyval options:
15 \SetupKeyvalOptions{%
16 family = Chivo ,
17 prefix = Chivo@
18 }
```

6. <https://www.ctan.org/pkg/fontspec>

7. <https://www.ctan.org/pkg/fontaxes>

8. <https://www.ctan.org/pkg/kvoptions>

The basic strategy for font and figure version related keys is to declare them as boolean options.

```

19 \DeclareBoolOption{thin}
20 \DeclareBoolOption{extralight}
21 \DeclareBoolOption{light}
22 \DeclareBoolOption{regular}
23 \DeclareBoolOption{medium}
24 \DeclareBoolOption{semibold}
25 \DeclareBoolOption{bold}
26 \DeclareBoolOption{extrabold}
27 \DeclareBoolOption{black}
28 \DeclareBoolOption{lining}
29 \DeclareComplementaryOption{oldstyle}{lining}
30 \DeclareBoolOption{tabular}
31 \DeclareComplementaryOption{proportional}{tabular}

```

Alias keys are defined with `\define@key`. Given values to these keys are passed to the original keys and they are set via `\kvsetkeys`.

```

32 \define@key{Chivo}{lf}[true]{%
33   \kvsetkeys{Chivo}{lining=#1}%
34 }
35 \define@key{Chivo}{osf}[true]{%
36   \kvsetkeys{Chivo}{oldstyle=#1}%
37 }
38 \define@key{Chivo}{tab}[true]{%
39   \kvsetkeys{Chivo}{tabular=#1}%
40 }
41 \define@key{Chivo}{prop}[true]{%
42   \kvsetkeys{Chivo}{proportional=#1}%
43 }

```

scale and scaled keys are special: With (pdf)LaTeX, scale is a string option, scaled is an alias and sets `\Chivo@scale` which is defined by the scale key. With XeLaTeX and LuaLaTeX, they set the macro `\Chivo@otf@scale` which is later used in `\defaultfontfeatures`.

```

44 \ifChivo@otf
45   \newcommand*\Chivo@otf@scale{}
46   \define@key{Chivo}{scale}[1.0]{%
47     \def\Chivo@otf@scale{#1}%
48   }
49   \define@key{Chivo}{scaled}[1.0]{%
50     \def\Chivo@otf@scale{#1}%
51   }
52 \else
53   \DeclareStringOption[1.0]{scale}
54   \define@key{Chivo}{scaled}[1.0]{%
55     \renewcommand*\Chivo@scale{#1}%
56   }
57 \fi

```

familydefault switches the default font to Chivo:

```

58 \DeclareBoolOption{familydefault}

```

The next 2 are for users where the automatic engine detection might fail:

```

59 \DeclareVoidOption{opentype}{\Chivo@otftrue}
60 \DeclareVoidOption{type1}{\Chivo@otffalse}

```

Execute the default options and process the rest.

```

61 \kvsetkeys{Chivo}{regular,bold,lining,proportional}
62 \ProcessKeyvalOptions{Chivo}

```

We need some macros to store the figure alignment and style and font definitions:

```

63 \newcommand*\Chivo@figurestyle{}
64 \newcommand*\Chivo@figurealign{}
65 \newcommand*\Chivo@otf@regular{}
66 \newcommand*\Chivo@otf@italic{}
67 \newcommand*\Chivo@otf@bold{}
68 \newcommand*\Chivo@otf@bolditalic{}

```

Definition for thin, extralight, light, regular and medium keys for all engines:

```

69 \ifChivo@regular
70   \ifChivo@otf
71     \def\Chivo@otf@regular{Regular}
72     \def\Chivo@otf@italic{Italic}
73   \else
74     \DeclareFontSeriesDefault[sf]{md}{m}
75     \fi
76 \fi
77 \ifChivo@medium
78   \ifChivo@otf
79     \def\Chivo@otf@regular{Medium}
80     \def\Chivo@otf@italic{MediumItalic}
81   \else
82     \DeclareFontSeriesDefault[sf]{md}{medium}
83     \fi
84 \fi
85 \ifChivo@light
86   \ifChivo@otf
87     \def\Chivo@otf@regular{Light}
88     \def\Chivo@otf@italic{LightItalic}
89   \else
90     \DeclareFontSeriesDefault[sf]{md}{l}
91     \fi
92 \fi
93 \ifChivo@extralight
94   \ifChivo@otf
95     \def\Chivo@otf@regular{ExtraLight}
96     \def\Chivo@otf@italic{ExtraLightItalic}
97   \else
98     \DeclareFontSeriesDefault[sf]{md}{el}
99     \fi
100 \fi
101 \ifChivo@thin
102   \ifChivo@otf
103     \def\Chivo@otf@regular{Thin}
104     \def\Chivo@otf@italic{ThinItalic}

```

```

105 \else
106 \DeclareFontSeriesDefault[sf]{md}{ul}
107 \fi
108 \fi

    Definition for semibold, bold, extrabold and black keys for all engines:
109 \ifChivo@bold
110 \ifChivo@otf
111 \def\Chivo@otf@bold{Bold}
112 \def\Chivo@otf@bolditalic{BoldItalic}
113 \else
114 \DeclareFontSeriesDefault[sf]{bf}{b}
115 \fi
116 \fi
117 \ifChivo@semibold
118 \ifChivo@otf
119 \def\Chivo@otf@bold{SemiBold}
120 \def\Chivo@otf@bolditalic{SemiBoldItalic}
121 \else
122 \DeclareFontSeriesDefault[sf]{bf}{sb}
123 \fi
124 \fi
125 \ifChivo@extrabold
126 \ifChivo@otf
127 \def\Chivo@otf@bold{ExtraBold}
128 \def\Chivo@otf@bolditalic{ExtraBoldItalic}
129 \else
130 \DeclareFontSeriesDefault[sf]{bf}{eb}
131 \fi
132 \fi
133 \ifChivo@black
134 \ifChivo@otf
135 \def\Chivo@otf@bold{Black}
136 \def\Chivo@otf@bolditalic{BlackItalic}
137 \else
138 \DeclareFontSeriesDefault[sf]{bf}{ub}
139 \fi
140 \fi

    Definition for figure styles for all engines:
141 \ifChivo@lining
142 \ifChivo@otf
143 \def\Chivo@figurestyle{Lining}
144 \else
145 \def\Chivo@figurestyle{LF}
146 \fi
147 \else
148 \ifChivo@otf
149 \def\Chivo@figurestyle{OldStyle}
150 \else
151 \def\Chivo@figurestyle{OsF}
152 \fi
153 \fi

```

Definition for figure alignments for all engines:

```
154 \ifChivo@tabular
155   \ifChivo@otf
156     \def\Chivo@figurealign{Monospaced}
157   \else
158     \def\Chivo@figurealign{T}
159   \fi
160 \else
161   \ifChivo@otf
162     \def\Chivo@figurealign{Proportional}
163   \else
164     \def\Chivo@figurealign{}
165   \fi
166 \fi
```

Standard setup for fontaxes.sty. This is only relevant for (pdf)LaTeX:

```
167 \ifChivo@otf \else
168   \fa@naming@exception{figures}{{superior}{proportional}}{Sup}
169   \fa@naming@exception{figures}{{superior}{tabular}}{Sup}
170   \def\sufigures{\@nomath\sufigures
171     \fontfigurestyle{superior}\selectfont}
172   \DeclareTextFontCommand{\textsuperior}{\sufigures}
173
174   \fa@naming@exception{figures}{{inferior}{proportional}}{Inf}
175   \fa@naming@exception{figures}{{inferior}{tabular}}{Inf}
176   \def\infigures{\@nomath\infigures
177     \fontfigurestyle{inferior}\selectfont}
178   \DeclareTextFontCommand{\textinferior}{\infigures}
179
180   \fa@naming@exception{figures}{{numerators}{proportional}}{Numr}
181   \fa@naming@exception{figures}{{numerators}{tabular}}{Numr}
182   \def\nufigures{\@nomath\nufigures
183     \fontfigurestyle{numerators}\selectfont}
184   \DeclareTextFontCommand{\textnumerator}{\nufigures}
185
186   \fa@naming@exception{figures}{{denominators}{proportional}}{Dnom}
187   \fa@naming@exception{figures}{{denominators}{tabular}}{Dnom}
188   \def\defigures{\@nomath\defigures
189     \fontfigurestyle{denominators}\selectfont}
190   \DeclareTextFontCommand{\textdenominator}{\defigures}
191 \fi
```

For XeLaTeX/LuaLaTeX, we define the font features depending on the given package options:

```
192 \ifChivo@otf
193   \defaultfontfeatures [Chivo]{%
194     Extension      = .otf                ,
195     Ligatures      = {TeX,Common}       ,
196     Scale          = \Chivo@otf@scale    ,
197     UprightFont    = *-\Chivo@otf@regular ,
198     ItalicFont     = *-\Chivo@otf@italic  ,
199     BoldFont       = *-\Chivo@otf@bold    ,
200     BoldItalicFont = *-\Chivo@otf@bolditalic ,
```

```

201 FontFace      = {ul}{n}{*-Thin}           ,
202 FontFace      = {ul}{it}{*-ThinItalic}   ,
203 FontFace      = {el}{n}{*-ExtraLight}     ,
204 FontFace      = {el}{it}{*-ExtraLightItalic} ,
205 FontFace      = {l}{n}{*-Light}           ,
206 FontFace      = {l}{it}{*-LightItalic}    ,
207 FontFace      = {m}{n}{*-Regular}        ,
208 FontFace      = {m}{it}{*-Italic}         ,
209 FontFace      = {medium}{n}{*-Medium}     ,
210 FontFace      = {medium}{it}{*-MediumItalic} ,
211 FontFace      = {sb}{n}{*-SemiBold}       ,
212 FontFace      = {sb}{it}{*-SemiBoldItalic} ,
213 FontFace      = {b}{n}{*-Bold}           ,
214 FontFace      = {b}{it}{*-BoldItalic}     ,
215 FontFace      = {eb}{n}{*-ExtraBold}      ,
216 FontFace      = {eb}{it}{*-ExtraBoldItalic} ,
217 FontFace      = {ub}{n}{*-Black}         ,
218 FontFace      = {ub}{it}{*-BlackItalic}   ,
219 Numbers       = {\Chivo@figurestyle,\Chivo@figurealign}
220 }
221 \fi

```

Switch the sans serif font to Chivo. With fontspec, we delay the `\setsansfont` until `AtBeginDocument` so that user can provide additional features with `\defaultfontfeatures+`.

```

222 \ifChivo@otf
223   \AtBeginDocument{%
224     \setsansfont{Chivo}%
225   }
226 \else
227   \renewcommand*\sfdefault{%
228     Chivo-\Chivo@figurealign\Chivo@figurestyle
229   }
230 \fi

```

Switch the default font if the respective key is given:

```

231 \ifChivo@familydefault
232   \ifChivo@otf
233     \AtBeginDocument{%
234       \setmainfont{Chivo}%
235     }
236   \else
237     \renewcommand*\familydefault{\sfdefault}
238   \fi
239 \fi

```

Also set the TS1 subset supported by the fonts. LaTeX kernel sets this as well, but we put it here for the sake of completeness:

```

240 \ifChivo@otf \else
241   \DeclareEncodingSubset{TS1}{Chivo-*}{4}
242 \fi
243 \end{package}

```

## Change History

v1.0		fonts, 843 glyphs each . . . . .	1
	General: Initial version . . . . .	Use NFSS scheme for fonts mapping . . . . .	1 1
v2.0	General: Add the 'scaled' key as requested by FMI . . . . .		1 1
	Rewrite major part of the code supporting 14 fonts. Harmonize the usage of package options over different TeX engines . . . . .		1 1 1
	Update OTF fonts to version 1.007 now consisting of 14		1
		v2.1	
		General: Fix a bug in handling of alias keys . . . . .	1
		v2.2	
		General: Rename the macros \textin, \textsu, \textnu and \textde . . . . .	1
		Update the fonts to v.2.0, adjust the package . . . . .	1