

Figures Appearing in the Book

The book “A Software-Defined GPS and Galileo Receiver: Single-Frequency Approach” is written using $\text{\LaTeX} 2_{\epsilon}$. The included figures are produced in Metapost, in a special picture environment called `pspic`, and in Matlab. Below are listed all figure numbers and their internal file names.

As mentioned three different types of files are used:

1. `sw.*` which are Metapost files created from `sw.mp` by the call

```
mp -tex=latex sw
```

The Metapost file `sw.mp` is included so that any interested reader can study how to code in Metapost and eventually start out on his own.

2. `*.pic`. Any such file contains a collection of drawing commands which are interpreted as postscript code by `pspic.sty` in connection with `dvips`. The `pspic.sty` was originally written by Kresten Krab Thorup and later revised by Kai Borre in the early 1990es. Today, I would alternatively recommend to use Metapost for reasons of portability and compatibility. You activate the package by including

```
\usepackage{pspic}
```

in your preamble.

3. `*.eps`. This is a mixed group of files created in several different ways. A great deal of them are files stored from Matlab figures. In that case we add the name of the creating *M*-file.

Figures 7.5, 7.6, 7.13, and 7.14 are produced from the tracking code. The shown situations are obtained by appropriate settings of the tracking code. The acquired frequency must be very precise, but in several figures the acquired frequency was shifted, to obtain desired tracking loop responses for the modeled situations.

List of Figures

1.1	sw.1	
1.2	swsinc1.eps	sincfig.m
1.3	sw.2	
1.4	swsinc2.eps	sincfig.m
1.5	sw.3	
1.6	swsinc2.eps	sincfig.m
1.7	sw.11	
1.8	sw.12	
1.9	sw.13	
1.10	sw.20	
1.11	sw.14	
1.12	sw.21	

2.1	signalgenerator.eps	
2.2	sw.16	
2.3	gps_sig.eps	gps_sig.m
2.4	prn50.eps	ca_codes.m, plot1.m
2.5	codegenerator.eps	
2.6	ca-code-correlation.eps	ca_codes.m
2.7	discr.eps	discr.m
2.8	corrd1.eps, corrd2.eps	discr.m
2.9	navigationdata.eps	
3.1	sw.5	
3.2	sw.22	
3.3	boc.eps	boc.m
3.4	fig3-3.eps	winkel8.m
3.5	psd_boc.eps	psd_boc.m
3.6	discrFunction-CA.eps, discrFunction-BOC.eps	Scurve.m
3.7	acf_boc1.eps	winkel4.m
3.8	sw.6	
3.9	sw.7	
3.10	sw.10	
4.1	fig4_1.eps	fig41.m
4.2	sw.8	
4.3	sw.9	
4.4	figure-4-4.eps	
4.5	figure-4-5.eps	
4.6	figure-4-6.eps	
4.7	fig4_7.eps	fig47.m
4.8	SiGe_Fig4-7.eps	
5.1	receiver-channel.eps	
5.2	acquisition.eps	same as Figure 6.7
5.3	acquisition2.eps	same as Figure 6.7
5.4	figure-1-1.eps	
6.1	serial-acquisition.eps	
6.2	figure-6-2-a.eps, figure-6-2-b.eps	variables “sinCarr” and “cosCarr” from the function acquisition.m
6.3	figure-6-7-a.eps, figure-6-7-b.eps	plotParalCodeSearch.m
6.4	frequency-acquisition.eps	
6.5	gps_demod.eps	
6.6	figure-6-4-a1.eps, figure-6-4-b1.eps	
6.7	figure-6-8-a.eps, figure-6-8-b.eps	plotParalFreqSearch.m
6.8	convolution-acquisition.eps	
6.9	figure-6-9-a.eps, figure-6-9-b.eps	plotParalCodeSearch.m

7.1	basic-demodulation.eps	
7.2	pll-sandman.eps	
7.3	second-order-filter.eps	
7.4	code-tracking.eps	
7.5	figure-7-22.eps	
7.6	figure-7-23.eps	
7.7	basic-carrier-tracking.eps	
7.8	costas.eps	
7.9	PLL-discriminators.eps	figure_7_pll.m
7.10	sw.4	
7.11	tracking-epl-1.eps, tracking-epl-2.eps	
7.12	code-tracking-iq.eps	
7.13	figure-7-15.eps	
7.14	good-tracking.eps	
7.15	DLL-discriminators.eps	figure_7_pll.m, Tri.m
7.16	m_discr1.eps, m_discr2.eps	m_discr.m
7.17	env.eps	env.m
7.18	figure-2-7.eps	multEnvBOC.m, Tri.m
7.19	nearly-final-tracking.eps	
7.20	final-tracking.eps	
7.21	sw.17	
7.22	sw.18	
8.1	figure-8-2-v2.eps	
8.2	navigationcorrelation.eps	
8.3	words.eps	
8.4	z-count.eps	
8.5	sat5.pic	
8.6	sat3.pic	
8.7	findsubframstart.eps	
8.8	sw.15	
8.9	ell3.pic	
8.10	trans3.pic	
8.11	geoid.eps	geoid.m
A.1	FigA1.eps	
A.2	FigA2.eps	
A.3	FigA3.eps	
A.4	FigA5.eps	
A.5	FigA4.eps	
A.6	FigA6.eps	

- B.1 signalsimulator-satellite.eps
- B.2 counter-all.eps, counter-first.eps
- B.3 ca-all.eps, ca-first.eps
- B.4 signalsimulator.eps
- B.5 galileoSimulink2.eps
- B.6 galileoSpectrum2.eps
- B.7 sw.19