

DOWNLOADS INDEX

ANIMATIONS Folder

AVI, Working Model, and Matlab files by Sid Wang

These files are self-cataloging. Run the master catalog file *Animation.html* to access and run these animations. Most have AVI movie files in addition to their native file formats. The native Working Model files also can be accessed directly from the Working Model Files folder listed below.

CUSTOM PROGRAMS

Programs by R. L. Norton

- PROGRAM DYNACAM
- PROGRAM LINKAGES
- PROGRAM MATRIX

These are available from the author's website at www.designofmachinery.com. Print-book users can register on my website as a student or professor, and I will send a password to access a protected site where they can download the latest versions of these programs. Student or professor registration will also allow print-book users to download all the files listed in this index. Digital book users will have access to the downloadable files in the Video Contents and in this Index, and the computer programs through the publisher's website.

Note that I personally review each of these requests for access to my protected site and will approve only those that are filled out completely and correctly according to the provided instructions. I require complete information and accept ONLY university email addresses for both you and your instructor. (No Gmail, Yahoo, Naver, etc.) So be sure to follow the instructions exactly, or your request will be denied.

Run the *Install.exe* file to install the program.

EXAMPLES AND FIGURES Folder

Data files for Norton's custom programs that match some examples and figures in text.

Chapter 2 Subfolder

F02-19b.5br

Chapter 3 Subfolder

Cognate1.4br
Cognate2.4br
Cognate3.4br
F03-01a.4br
F03-01b.4br
F03-04.4br
F03-06.4br
F03-07b.6br
F03-07c.6br
F03-08.4br
F03-09c.6br
F03-12.4br
F03-13a.6br
F03-17b.4br
F03-18.4br
F03-24.4br
F03-28a.4br
F03-28b.5br
F03-29a.4br
F03-29c.4br
F03-29d.4br
F03-29e.4br
F03-29f.4br
F03-31c.6br
F03-34.6br
F03-35.6br
FP03-07.4br
Straight.5br

Chapter 4 Subfolder

F04-11.5br
F04-15.4br

Chapter 5 Subfolder

E05-01.4br
E05-02a.mtr
E05-02b.mtr
E05-02.4br
E05-03.4br

Chapter 6 Subfolder

F06-14.4br
F06-15a.4br

KEY TO FILENAME SUFFIXES

DYNACAM	.CAM
ENGINE*	.ENG
FIVEBAR*	.5BR
FOURBAR*	.4BR
LINKAGES	.BAR
MATLAB	.M
MATRIX	.MTX
SIXBAR*	.6BR
SLIDER*	.SLD
TKSOLVER	.TKW
WORKING MODEL	.WM2D, WM3

* Program LINKAGES will open these files.

F06-15b.4br
F06-17b.4br

Chapter 8 Subfolder

E08-03.cam
E08-04.cam
E08-05.cam
E08-06.cam
E08-07.cam
E08-08.cam
E08-09a.cam
E08-09b.cam
E08-10a.cam
E08-10b.cam
E08-10c.cam
E08-11.cam
E08-12.cam

Chapter 11 Subfolder

E11-01.mtr
E11-02.mtr
E11-03.mtr
E11-03.4br
F11-06.4br

Chapter 12 Subfolder

F12-05.4br

Chapter 14 Subfolder

BMWV12.eng
F14-12.eng
F14-14.eng
F14-18.eng
F14-24.eng

Chapter 15 Subfolder

E15-01.cam
E15-02.cam

Appendix A Subfolder

F_A-05.4br
F_A-11.5br

LINKAGE ATLASES Folder

Contains PDF file of atlases of coupler curves for fourbar and geared fivebar linkages.

Hrones and Nelson Fourbar Atlas

Zhang et al. Geared Fivebar Atlas

PDF PROBLEM WORKBOOK Folder

Contains PDF files of all the figures needed to solve the text's end-of-chapter problems. Each PDF file contains one problem figure and all of the problem statements associated with it. They are grouped in subfolders by chapter and their filenames are the same as the figure number or problem number involved. These files provide the student with a printable workbook of illustrated problems in which graphical problem solutions can be directly worked out or analytical solution results recorded.

PROBLEM SOLUTIONS Folder

Data files that solve selected problems in the text.

Chapter 3 Subfolder

P03-14.4br
P03-22.4br
P03-23.4br
P03-36.4br
P03-42.4br

Chapter 4 Subfolder

P04-21.4br
P04-23.4br
P04-25.4br
P04-26.4br
P04-29.4br
P04-30.4br

Chapter 5 Subfolder

P05-08.4br
P05-11.4br
P05-15.4br
P05-19.4br
P05-26.4br

Chapter 6 Subfolder

P06-47.4br
P06-48.4br
P06-49.4br
P06-51.4br
P06-62.4br

Chapter 7 Subfolder

P07-04a.4br
P07-04c.4br
P07-04e.4br

P07-04g.4br
P07-04i.4br
P07-04k.4br
P07-04m.4br
P07-39.4br
P07-40.4br
P07-41.4br
P07-42.4br
P07-44.4br

Chapter 10 Subfolder

P10-04a.mtr
P10-04b.mtr

Chapter 11 Subfolder

P11-03a.sld
P11-03c.sld
P11-03e.sld
P11-03g.sld
P11-04a.tkw
P11-05a.tkw
P11-05a.4br
P11-05c.4br
P11-05e.4br
P11-05g.4br
P11-06a.tkw
P11-06c.tkw
P11-06e.tkw
P11-06g.tkw
P11-07a.4br
P11-07c.4br
P11-07e.4br
P11-12.4br
P11-13.4br

Chapter 12 Subfolder

P12-09.4br

Chapter 13 Subfolder

P13-11.eng
P13-14.eng
P13-19a.eng
P13-19b.eng

PROGRAM MANUAL Folder

Contains a PDF file of the user manual for programs LINKAGES, DYNACAM, and MATRIX.

TKSOLVER FILES Folder**TKSolver model files.**

The TKSolver program is needed to run these files and is not included with this text. See www.uts.com.

Gears.tk Subfolder

Compound.tkw
Revert.tkw
Triple.tkw

Linkages.tk Subfolder

3 position FixPivots.tkw

3 position.tkw
Cognate.tkw
Coupler.tkw
DragSlider.tkw
Eq04-02.tkw
Ex11-04.tkw
Figure P05-05.tkw
Fivebar.tkw
Fourbar.tkw
Inverted slider-crank.tkw
SCCA.tkw
Slider_Cmpr.tkw
Slider.tkw
Soni Cognate.tkw
Symmetric.tkw
Transport.tkw
Virtual Work.tkw

Misc.tk Subfolder

CamCalc.tkw
Constrnt.tkw
Cubic.tkw
Cycloid.tkw
F04-18.tkw
Pressang.tkw
SCCA.tkw
Student.tkw

VIDEOS

See the Video Contents.

VIRTUAL LABS

See the Video Contents.

WORKING MODEL FILES Folder**Chapter 2** SubfolderWorking Model 2D Files

02-10b.wm2d - Scotch Yoke
02-12a.wm2d - Geneva
02-12b.wm2d - Ratchet and Pawl
02-12c.wm2d - Linear Geneva
02-13.wm2d - Slider-Crank
02-14abc.wm2d - Stephenson Inversion
02-14de.wm2d - Watt Inversions
02-15.wm2d - Grashof Inversions
02-16.wm2d - Non-Grashof Inversions
02-19b.wm2d - Geared Fivebar
02-20.wm2d - Desk Lamp
P2-01f.wm2d - Overhead Valve
P2-03.wm2d - Front End Loader
P2-04c.wm2d - Radial Engine
P2-04d.wm2d - Walking Beam
P2-04e.wm2d - Drafting Arm
P2-04g.wm2d - Drum Brake
P2-04h.wm2d - Compression Chamber
P2-05a.wm2d - Chebyshev Mechanism
P2-05b.wm2d - Kempe SL Mechanism
P2-07.wm2d - Throttle Mechanism

P2-08.wm2d - Scissors Jack
 P2-10.wm2d - Watt's Engine
 P2-13.wm2d - Crimping Tool
 P2-14.wm2d - Pick and Place
 P2-15.wm2d - Power Hacksaw
 P2-16.wm2d - Powder Press
 P2-18.wm2d - Oil Field Pump

Working Model 3D Files

P2-01h.wm3 - Cylindrical Cam

Chapter 3 Subfolder

Working Model 2D Files

03-04.wm2d - Example 3-1
 03-05.wm2d - Example 3-2
 03-07b.wm2d - Example 3-4
 03-09c.wm2d - Example 3-6
 03-11.wm2d - 3-Position Synthesis
 03-12b.wm2d - 4br Quick Return
 03-13a.wm2d - 6br Quick Return
 03-14.wm2d - Quick-Return Shaper
 03-14.*.wm2d - Quick-Return Shaper
 03-15.wm2d - Coupler Curves
 03-17.wm2d - Coupler Curve Atlas
 03-17a.wm2d - Coupler Curve Atlas
 03-18.wm2d - Camera Film Advance
 03-18.*.wm2d - Camera Film Advance
 03-19a.wm2d - Auto Suspensions
 03-19a.*.wm2d - Auto Suspensions
 03-24a.wm2d - Roberts Diagram
 03-25a.wm2d - Roberts Diagram
 03-25b.wm2d - Roberts Diagram
 03-26.wm2d - Chebyshev Cognates
 03-26a.wm2d - Roberts Diagram
 03-26b.wm2d - Chebyshev Cognates
 03-26b.*.wm2d - Chebyshev Cognates
 03-27c.wm2d - Curvilinear Trans.
 03-27d.wm2d - Curvilinear Trans.
 03-28.wm2d - GFBM 4br Cognate
 03-28.*.wm2d - GFBM Cognates (alt.)
 03-29.wm2d - Straight-Line Linkages
 03-29a.wm2d - Watt Straight-Line
 03-29b.wm2d - Watt's Engine
 03-29c.wm2d - Roberts Straight-Line
 03-29d.wm2d - Chebyshev SL
 03-29e.wm2d - Hoeken Straight-Line
 03-29f.wm2d - Evans Straight-Line
 03-29g.wm2d - Peaucellier Strt-Line
 03-31c.wm2d - Single-Dwell—Rocker
 03-31d.wm2d - Single-Dwell—Slider
 03-32.wm2d - Double-Dwell Linkage
 03-34.wm2d - 180° Rocker Output
 03-35.wm2d - Washing Machine
 03-36.wm2d - 360° Rocker Output
 P3-03.wm2d - Treadle Wheel
 P3-07.wm2d - Walking Beam
 P3-08.wm2d - Loom Laybar Drive

Chapter 4 Subfolder

Working Model 2D Files

04-16.wm2d - Double Rocker Toggle
 P4-01.wm2d - Fourbar Analysis
 P4-02.wm2d - Slider-Crank Analysis
 P4-03.wm2d - Inverted Slider-Crank
 P4-05c.wm2d - Radial Engine
 P4-05d.wm2d - Walking Beam
 P4-05e.wm2d - Drafting Machine
 P4-05g.wm2d - Drum Brake
 P4-05h.wm2d - Compression Chamber
 P4-06.wm2d - Pick and Place
 P4-07.wm2d - Power Hacksaw
 P4-09.wm2d - Walking Beam Conveyor
 P4-11.wm2d - Loom Laybar Drive
 P4-14.wm2d - Treadle Wheel
 P4-18.wm2d - Elliptical Trammel

Chapter 6 Subfolder

Working Model 2D Files

06-05c.wm2d - Instant Centers
 06-10b.wm2d - Instant Centers
 06-11.wm2d - Rock Crusher
 06-12.wm2d - Suspension
 06-14a.wm2d - Centroides 1
 06-14b.wm2d - Centroides 2
 06-14c.wm2d - Centroides 3
 06-14d.wm2d - Centroides 4
 06-15a.wm2d - Centroides 5
 06-15b.wm2d - Centroides 6
 06-17a.wm2d - Cycloidal Motion
 P6-01.wm2d - Fourbar Analysis
 P6-02.wm2d - Slider-Crank Analysis
 P6-03.wm2d - Inverted Slider-Crank
 P6-08c.wm2d - Radial Engine
 P6-08d.wm2d - Walking Beam
 P6-08e.wm2d - Drafting Machine
 P6-08g.wm2d - Drum Brake
 P6-08h.wm2d - Compression Chamber
 P6-15.wm2d - Power Hacksaw
 P6-16.wm2d - Pick and Place
 P6-18.wm2d - Powder Press
 P6-19.wm2d - Walking Beam Conveyor
 P6-21.wm2d - Toggle Pliers
 P6-23.wm2d - Surface Grinder
 P6-29.wm2d - Drum Pedal
 P6-30.wm2d - Oil Field Pump
 P6-32.wm2d - Elliptical Trammel

Working Model 3D Files

06-12.wm3 - Bump Steering

Chapter 7 Subfolder

Working Model 2D Files

P7-01.wm2d - Fourbar Analysis
 P7-02.wm2d - Slider-Crank Analysis
 P7-03.wm2d - Inverted Slider-Crank
 P7-08c.wm2d - Radial Engine

P7-08d.wm2d - Walking Beam
 P7-08e.wm2d - Drafting Machine
 P7-08g.wm2d - Drum Brake
 P7-08h.wm2d - Compress Chamber
 P7-15.wm2d - Power Hacksaw
 P7-16.wm2d - Pick and Place
 P7-19.wm2d - Walking Beam
 P7-20.wm2d - Surface Grinder
 P7-24.wm2d - Drum Pedal

Chapter 8 Subfolder

Working Model 2D Files

08-02a.wm2d - Translating Follower
 08-02b.wm2d - Oscillating Follower
 08-03a.wm2d - Roller Follower
 08-03c.wm2d - Flat-Faced Follower
 08-39.wm2d - Cam and Follower
 08-48.wm2d - Radii of Curvature
 E8-02.wm2d - Example 8-2
 E8-03.wm2d - Example 8-3
 E8-04.wm2d - Example 8-4
 E8-07.wm2d - Example 8-7

Working Model 3D Files

08-03a.wm3 - Roller Follower
 08-04.wm3 - Cylindrical Cam

Chapter 9 Subfolder

Working Model 2D Files

09-01b.wm2d - Internal Gearset
 09-04.wm2d - External Gearset
 09-05.wm2d - Involute Curves
 09-06.wm2d - Tooth Engagement
 09-19.wm2d - Rack and Pinion
 09-28.wm2d - Compound Gear Train
 09-33.wm2d - Planetary Gearset

Working Model 3D Files

09-16.wm3 - Helical-Parallel Gears
 09-17.wm3 - Helical-Crossed Gears
 09-18.wm3 - Worm and Worm Gear
 09-21.wm3 - Bevel Gears
 09-30.wm3 - Gear Trains
 09-34.wm3 - Planetary Gearset
 09-44a.wm3 - Transmission - High
 09-44b.wm3 - Transmission - Low
 09-44c.wm3 - Transmission - Reverse
 09-51.wm3 - Drive Train
 P9-02.wm3 - Compound Epicyclic
 P9-03_open.wm3 - Differential
 P9-03_locked.wm3 - Differential

Chapter 10 Subfolder

Working Model 2D Files

10-11a.wm2d - Valve Train

Chapter 13 Subfolder

Working Model 2D Files

13-01.wm2d - Vee-Eight Engine

