

Projektowanie

mgr inż. Grzegorz Kamiński

grzegorz.kaminski@pw.edu.pl

6 października 2022
Wersja 1.22

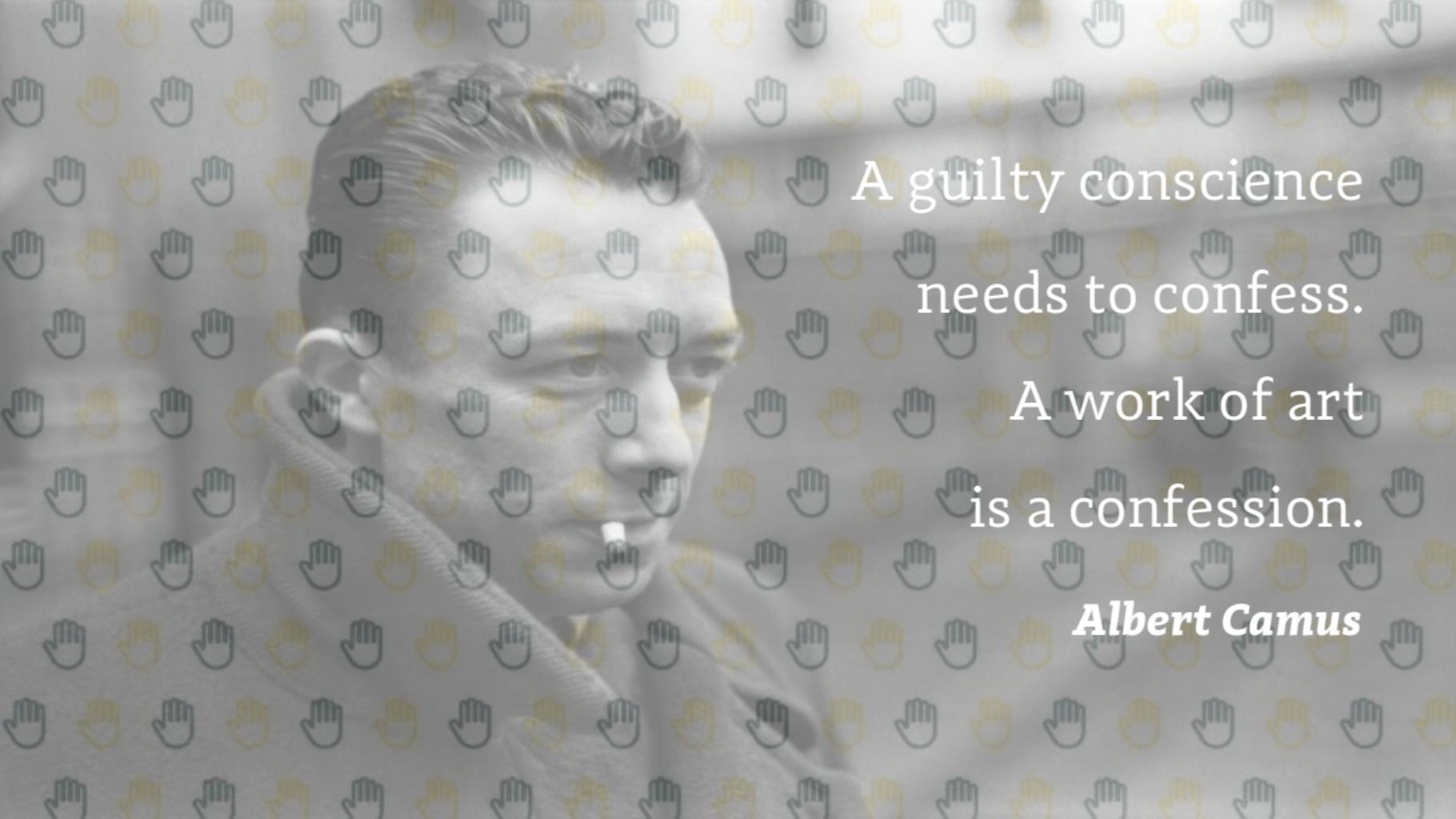


80%

of success

is just showing up.

Woody Allen

A black and white photograph of a man in profile, facing right. He has light-colored hair and is wearing a light-colored, possibly white, shirt. His right hand is raised to his face, with his fingers near his eye. The background is a light color with a repeating pattern of various hand icons in shades of gray and yellow.

A guilty conscience

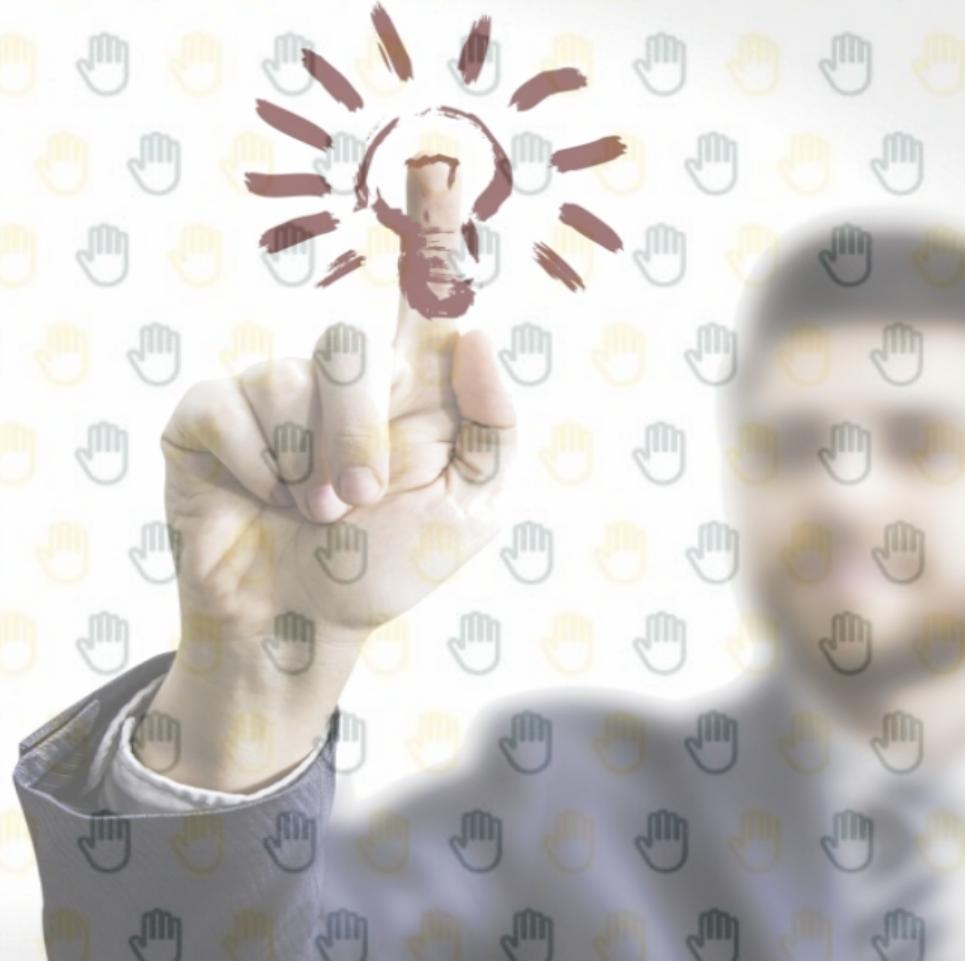
needs to confess.

A work of art

is a confession.

Albert Camus

WORK AT HOME



WARNING

Deadlines are much closer

than they appear!

DO NOT CROSS



Laptop or PC



VS



Backup



Computer Aided Design



PTC®
Creo® Parametric



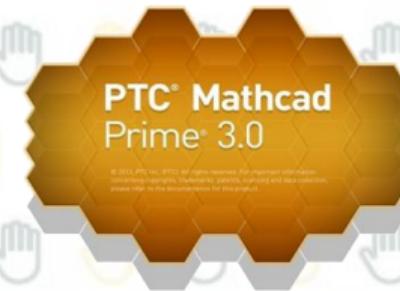
 SOLIDWORKS

 CATIA

Politechnika
Warszawska

 AUTODESK®
INVENTOR®

Computer Aided Engineering



Wolfram *Mathematica*



Final Raport



LATEX



2

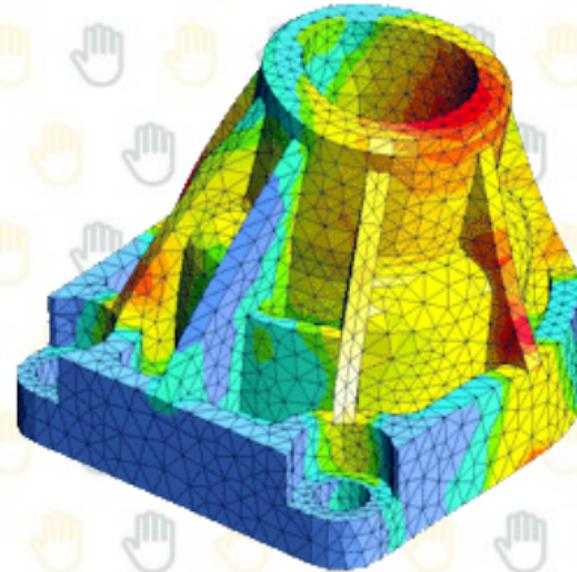
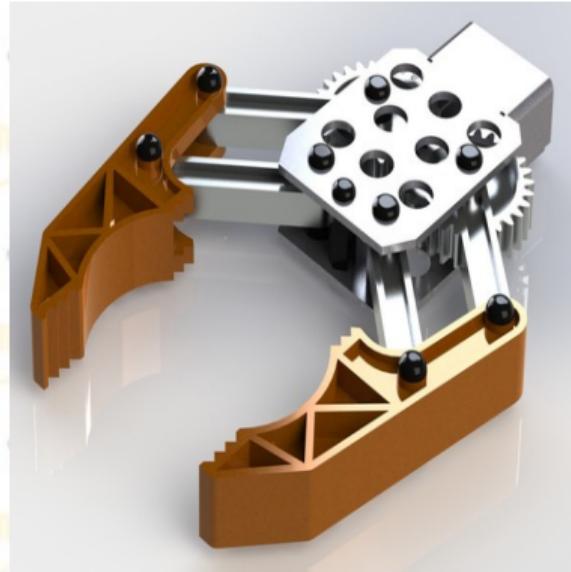
CAE



3

CAD

Bells and Whistles



Literature



Politechnika
Warszawska



Types of elements



Details



Standard parts



Merchant parts

Structure of name

AAA-BBB-CC

Structure of name

AAA-BBB-CC

Original project name

Structure of name

AAA-BBB-CC

Original project name

Position
of an assembly
in the project

Structure of name

AAA-BBB-CC

Original project name

Position
of an assembly
in the project

Position of a detail
in the assembly

Structure of name

AAA-BBB-CC

Original project name

Position
of an assembly
in the project

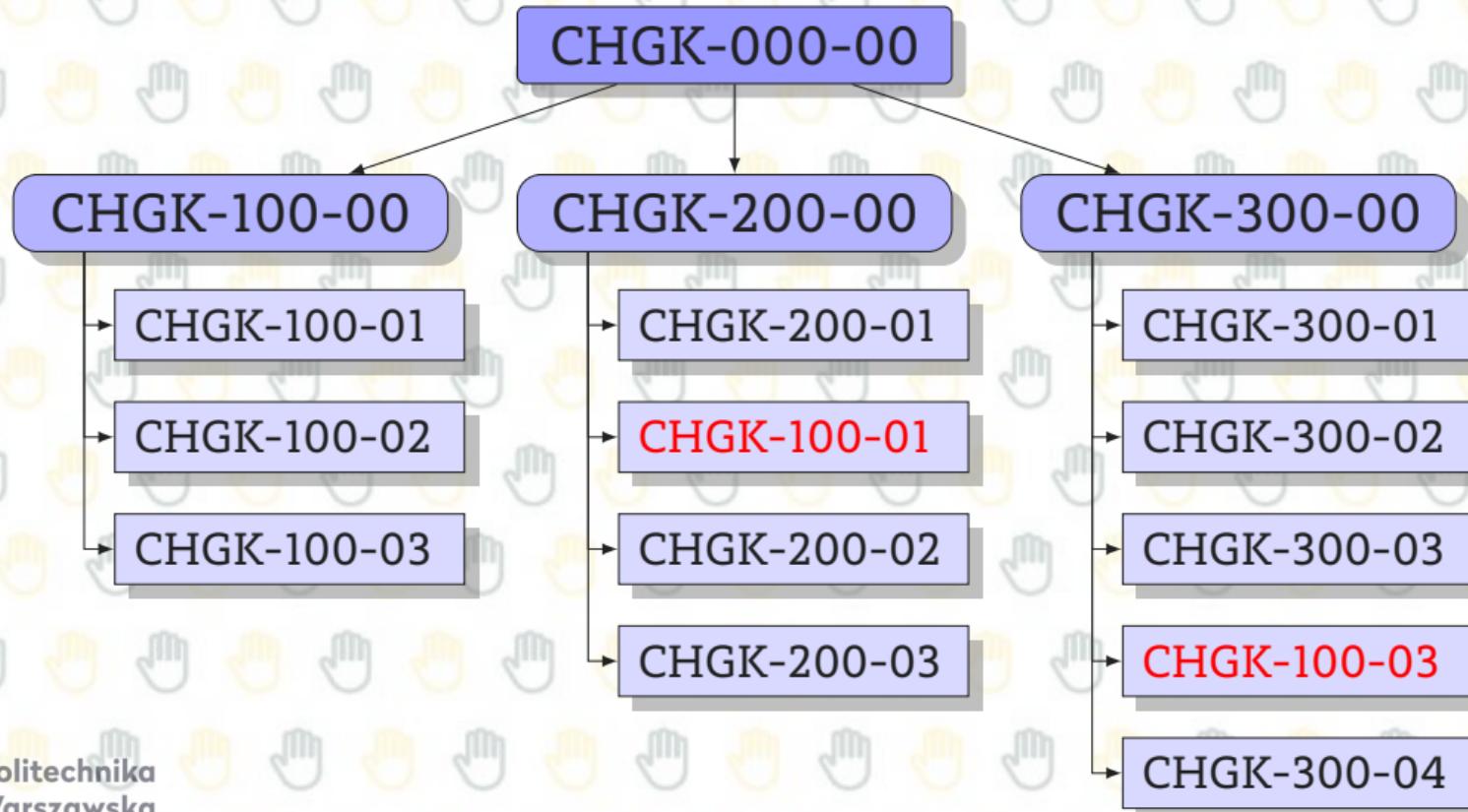
Position of a detail
in the assembly

CHGK

100

01

Structure of project



Detail's naming

File name:

CHGK-100-01

Part name:

Chwytnik

Drawing number:

CHGK-100-01



Merchant part's naming

File name:

DNC-32-50-PPV-A

Part name:

Siłownik pneumatyczny

Drawing number:

DNC-32-50-PPV-A (Festo)



Standard part's naming

File name:

PM~~xx~~

Part name:

Podkładka metryczna M~~xx~~

Drawing number:

PN-EN ISO 7089



Standard part's naming

File name:

PSM~~xx~~

Part name:

Podkładka sprężysta M~~xx~~

Drawing number:

PN 82008



Standard part's naming

File name:

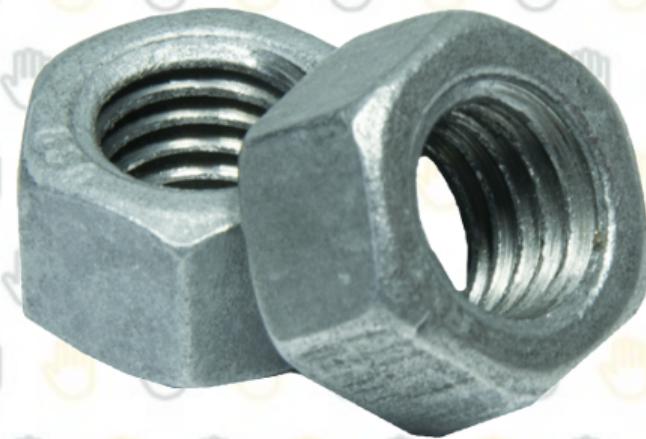
NM~~xx~~

Part name:

Nakrętka sześciokątna M~~xx~~

Drawing number:

PN-EN ISO 4032



Standard part's naming

File name:

PZ~~xx~~

Part name:

Pierścień osadczy
sprzęzynujący Z~~xx~~

Drawing number:

PN 85111



Standard part's naming

File name:

PW~~xx~~

Part name:

Pierścień osadczy
sprzęzynujący W~~xx~~

Drawing number:

PN 85111

Politechnika
Warszawska



Standard part's naming

File name:

SZLDxxxxx_A|B

Part name:

Sworzeń xxxx typ A|B

Drawing number:

PN-EN ISO 2341



Standard part's naming

File name:

ZDxxxxxx

Part name:

Zawleczka xxxx

Drawing number:

PN-EN ISO 1234



Standard part's naming

File name:

SIMxxxxx

Part name:

Śruba imbusowa Mxxxxx

Drawing number:

PN-EN ISO 4762



Standard part's naming

File name:

SM~~XXXXXX~~

Part name:

Śruba sześciokątna M~~XXXXXX~~

Drawing number:

PN-EN ISO 4017



Standard part's naming

File name:

MB~~xx~~

Part name:

Podkładka zębata MB~~xx~~

Drawing number:

PN-EN ISO 298



Standard part's naming

File name:

KM~~xx~~

Part name:

Nakrętka łożyskowa KM~~xx~~

Drawing number:

PN-EN ISO 2982





Tasks

- * Kinematic drawing of mechanism
- * Mobility of mechanism

Bibliografia

-  **A. Dziurski, E. Mazanek, and L. Kania.** *Przykłady obliczeń z podstaw konstrukcji maszyn: Łożyska, spręgiła i hamulce, przekładnie mechaniczne. tom 2.* WNT, 2015. isbn: 9788393491360.
-  **L. W. Kurmaz and O. L. Kurmaz.** *Podstawy konstruowania węzłów i części maszyn: podręcznik konstruowania.* Samodzielna Sekcja "Wydawnictwo Politechniki Świętokrzyskiej", 2011. isbn: 9788388906343.
-  **E. Mazanek, A. Dziurski, and L. Kania.** *Przykłady obliczeń z podstaw konstrukcji maszyn: Połączenia, sprężyny, zawory, wały maszynowe. tom 1.* WNT, 2005. isbn: 9788320435528.
-  **W. Starego.** *Poradnik konstruktora przekładni pasowych.*

GRACIAS

ARIGATO

SHUKURIA

JUSPAXAR

GOZAIMASHTA

EFCHARISTO

KOMAPSUMNIDA

MAAKE

LAH

GRAZIE

MEHRBANI

PALDIES

YAQHANYELAY

TASHAKKUR ATU

SUKSAMA

EKHMET

TINGKI

BİYAN

SHUKRIA

THANK

YOU

BOLZİN MERCI

DANKSCHIEEN

SPASSIBO

MUNUM
SNACHALMUYA

CHALTU
WABEEJA MATENKA
TASHAKKUR ATU

HERASTANY
GAEJ THO
FAKUAUE

SAMCO
LAH

AGUT JE

DUZHAYABAD
ATTO

YUSPREGARATAN
HUI

SPASSIBO
DENNAUJA
NEUCHALMUYA

UNALCHEESM
HATUR GUI

EKOJAU
SIMONO

HANETU
HEMONCHIAR