

# Special Training

## Script and COM Interface

## 2 Live Stream Sessions

The screenshot displays the KISSsoft software interface. On the left, there is a 'Modules' tree with categories like 'System modules', 'Base modules', 'Gears', and 'Other gears'. Below it is an 'Examples' list. The main area is a 'Script Editor' containing a VBA-style script for gear analysis. A 'Graphic' window on the right shows a scatter plot of 'PPTE [µm]' versus '2\*Amplitude [µm]', with a red line for the 'Mean value' and a blue shaded area for the '97.5 % Percentile'. A 'Script output' window at the bottom shows the execution results of the script.

```

1 // WARNING: This is a generated comment to declare for which module and version this was generated. SKRIPMODULE=2012; SKRIPNAME=;
2 SKRIPVERSION=01.0; SKRIPDESIGNER=;
3
4 write("Start: Version 4")
5 write("Actual limitations: Only for Gear 1; easy to upgrade")
6 write("Actual limitations: Only Variation of profile waviness; easy to upgrade")
7 write("Graphic only for PPTE; other graphics must be made in Excel using the *.csv which is produced; ; easy to upgrade")
8 // To do:
9 // Selection of which gear - actually just for gear 0)
10 //
11 //
12 string Text
13 number El = -1
14
15 number Ans = size(ZR[0].Corr.recths)
16
17 if Ans > 0 then
18   for i=0 to Ans-1
19     Text = "i:" + i + " " + ZR[0].Corr.recths[i].type
20     write(Text)
21     if ZR[0].Corr.recths[i].type == 33 then
22       El = i
23     end
24 next
25 end
26
27 if El == -1 then
28   write("type 33 will be added")
29   El = Ans
30   ZR[0].Corr.recths[Ans].type = 33
31   write("type 33 added in ZR[0].Corr.recths")
32   ZR[0].Corr.recths[El].activeForVariant = 1
33   ZR[0].Corr.recths[El].active = 1
34 else
35   Text = "type 33 in : (" + El + ")"
36   write(Text)
37   ZR[0].Corr.recths[El].activeForVariant = 1
38   ZR[0].Corr.recths[El].active = 1
39 end
40

```

**Script output:**

```

23.11.2023 08:41:09: i: 2; 6 (-90); 19.828; 1025; 1122; 14430
23.11.2023 08:41:10: i: 12; 9 (-180); 23.327; 1015; 947; 16409
23.11.2023 08:41:10: i: 18; 0 (90); 20.536; 1042; 976; 16209
23.11.2023 08:41:11: i: 18; 4.5 (0); 27.755; 1070; 910; 20488
23.11.2023 08:41:12: i: 18; 9 (-90); 25.237; 1054; 928; 19228
23.11.2023 08:41:13: i: 18; 13.5 (-180); 15.362; 1027; 985; 12132
23.11.2023 08:41:13: i: 24; 0 (90); 25.149; 1108; 928; 18072
23.11.2023 08:41:14: i: 24; 6 (0); 24.627; 1122; 928; 17844
23.11.2023 08:41:15: i: 24; 12 (-90); 15.18; 994; 966; 11636
23.11.2023 08:41:15: i: 24; 18 (-180); 15.685; 975; 970; 12036
23.11.2023 08:41:15: Mean Values: PPTE 20.812; sigt 1065.86
23.11.2023 08:41:15: Standard deviation: PPTE 4.565;
23.11.2023 08:41:15: 97.5% percentile: PPTE 11.864 - 29.759;
23.11.2023 08:41:15:
23.11.2023 08:41:15: Deactivate
23.11.2023 08:41:15: Note: Manufacturing deviation, which were created, are now deactivated.
23.11.2023 08:41:15: Finished script: directly

```

## General information

- Use of Meta-variables
- Calculation file comparison in an editor
- Explanation of report templates and label structure

## COM interface

- Server registration and access from VBA Excel
- Difference between the general and version-specific COM interface, maintenance
- Basic and Expert COM interface
- Possibilities and limitations
- Various function calls in VBA Excel with examples

## Script

- Handling of Script editor and files
- Explanation of Script events
- Script programming (variable declaration, statements, operations, function calls) with examples
- Difference between local and Meta-variables
- User interface with Script

```
Dim ksoft As CKISSsoft
Set ksoft = New CKISSsoft

Call ksoft.GetModule("Z012", True)

Call ksoft.LoadFile("../01 Spur (ISO 6336).Z12")

Call ksoft.SetVar("ZR[0].b", "50")
Call ksoft.SetVar("ZR[1].b", "50")

Call ksoft.Calculate

SF1 = ksoft.GetVar("ZPP[0].Fuss.SFnorm")
SF2 = ksoft.GetVar("ZPP[1].Fuss.SFnorm")
SH1 = ksoft.GetVar("ZPP[0].Flanke.SH")
SH2 = ksoft.GetVar("ZPP[1].Flanke.SH")

Call ksoft.ReleaseModule

End Sub
```

	Gear 1	Gear 2	
Number of teeth	z 25	76	
Facewidth	b 50	50 mm	+
Profile shift coefficient	x 0.2485	-0.2485	← → ↻
Quality (ISO 1328:2013)	A 6	6	↻

Gear 1	Case hardening steel	18CrNiMo7-6, case-hardened, ISO 6336-5 Figure 9/10 (MQ), Core hardness >=25HRC Jominy J=12mm<HRC28	+
Gear 2	Case hardening steel	18CrNiMo7-6, case-hardened, ISO 6336-5 Figure 9/10 (MQ), Core hardness >=25HRC Jominy J=12mm<HRC28	+
Lubrication	Oil bath lubrication	Klüberoil GEM 1-220 N with details about wear coefficient kw	↻ +