

# NEW FEATURES in NX 7.5

## BIHLER SOFTWARE bNX

### TOOL LAYOUT MODULE

#### MADIS

- Central data management in MADIS (to be defined in config file)
- Material number input field expanded to 132 characters (e.g. for materials with different tensile strength values)

#### NEW NX feature „one-step formability analysis“

- Unbending of complex sheet-metal or non sheet-metal parts
- Complete or step-by-step unbending
- Simple and rapid creation of the flat blank geometry
- Graphical representation of tension, elongation and thinning

#### STRIP LAYOUT

- Improved procedure for flat blank arrangement
- Simplified assembly structure
- Enhanced feature to mirror the punch contour
- Feature allowing the punch type to be changed subsequently

### KINEMATICS MODULE

#### FEED

- Design of special control cams for eccentricity = 0
  - > Small override travels and speeds
  - > Special solution for critical applications producing excessive noise
  - > For small feed lengths and feed angles less than 100 degrees

#### ENGINEERING TOOLS

- New GSE KS1 implemented
- Extended range of available threads (fine threads and UNF threads)

#### TIMING CHART

- New ways of calculating kinetic parameters for
  - > drum cam with slider
  - > groove-controlled cam with slider
- Travel definition: additional display of angle and time
  - > Important for time-controlled movements
  - > Time display can be changed in config file
- NC units: new kinetic law of „5th order polynomial“
- Bidirectional data transfer between CAD and VC 1 control system
  - > Easy data transfer between CAD and VC 1
  - > Running profiles are stored in XML format
  - > Supported types: rest-at-rest movements with the kinetic laws of „5th order polynomial“, „inclined sine curve“ and „speed trapeze“
- New configuration limits for cam-controlled units to monitor the unit load (RM 40K prototype solution)

#### CAM

- New cam type: groove-controlled cam

#### SIMULATION

- Simulation of complex tool movements
  - > Linear and rotary movements can be combined freely
  - > Taper sliders, oscillating punches, GSE, MSE and NC transport systems
- Simple simulations can be run without timing chart
- Display of complex motion sequences
  - > Function to hide/unhide solid bodies at specific angles