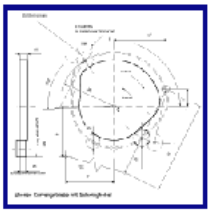
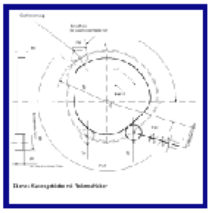
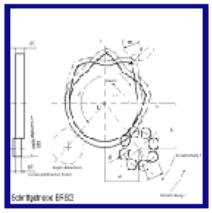
OPTIMUS MOTUS ® Motion Designer

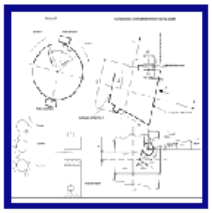


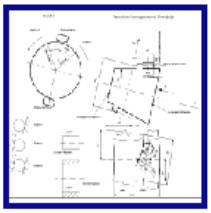
NOLTE NC-Kurventechnik

COMPETENCE IN MOTION DESIGN







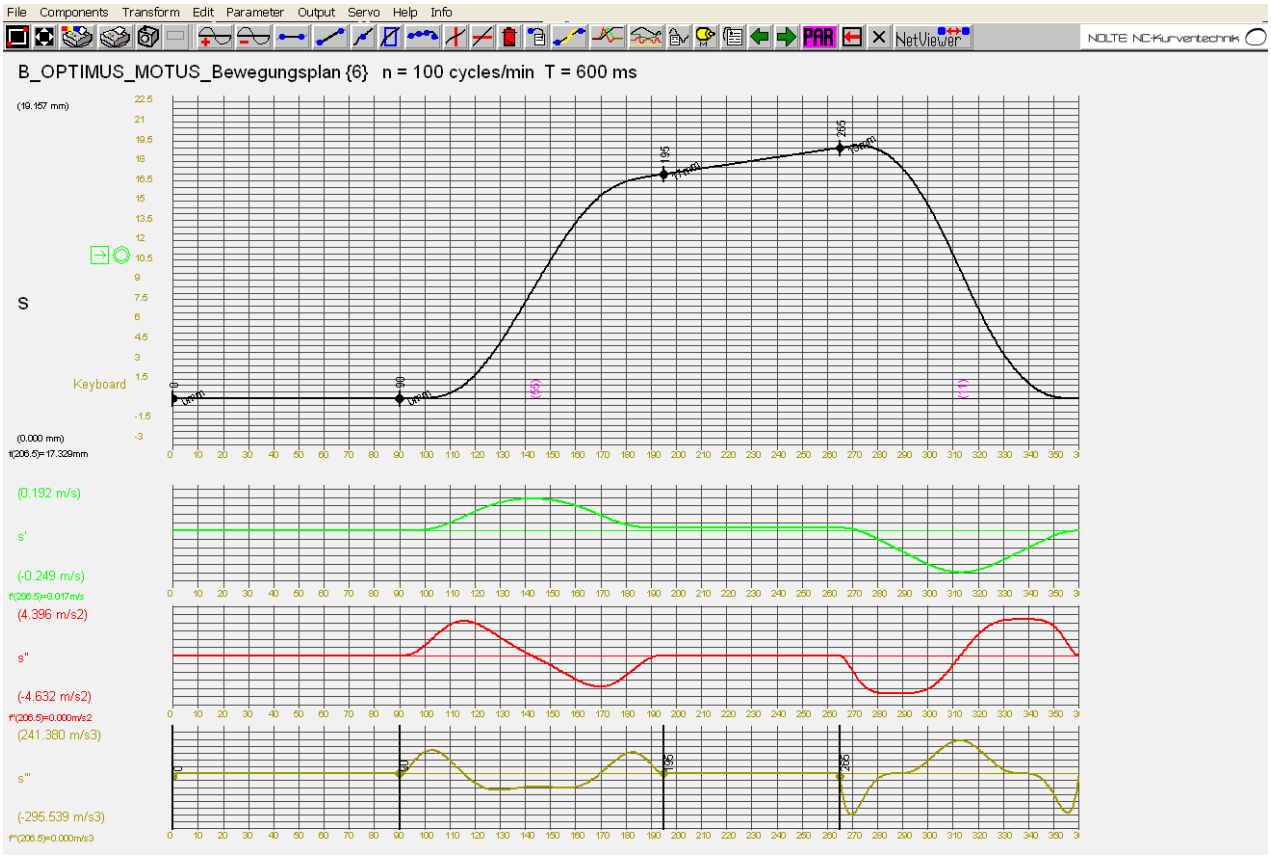


Harmonic motions for servo drives with electronic cams

- **Grafic definition of the complete displacement plan**
- **Automatic generation of an acceleration optimized displacement diagram** from the displacement plan
- **VDI 2143** + polynomial interpolation + polynomial splines+ splines + higher motion laws + fourier synthesis (HS-profiles) + tables + automatic adjustment of boundary values + synchronous regions
- **Application specific formulas**
- Export of **diagrams and lists** for all course magnitudes
- Detailed evaluation with path, velocity, acceleration, course of power, jerk, fourier analysis
- **Dynamic optimization of the motor-gear-combination with an electronic motor- and gear-catalogue**
- **Export of data files in the format of your servo controllers (many export formats available, implementation of a new one included if necessary)**
- German and English user interface

System requirements: Windows XP / Vista / 7 / 8 / 10

Updated 13.3.2017



- Graphic definition and optimization of the whole displacement plan
- Automatic generation of an acceleration optimized displacement diagram
- Windows style user interface with icons, popup menus etc.
- Export of motion tables for any servo controller of your choice

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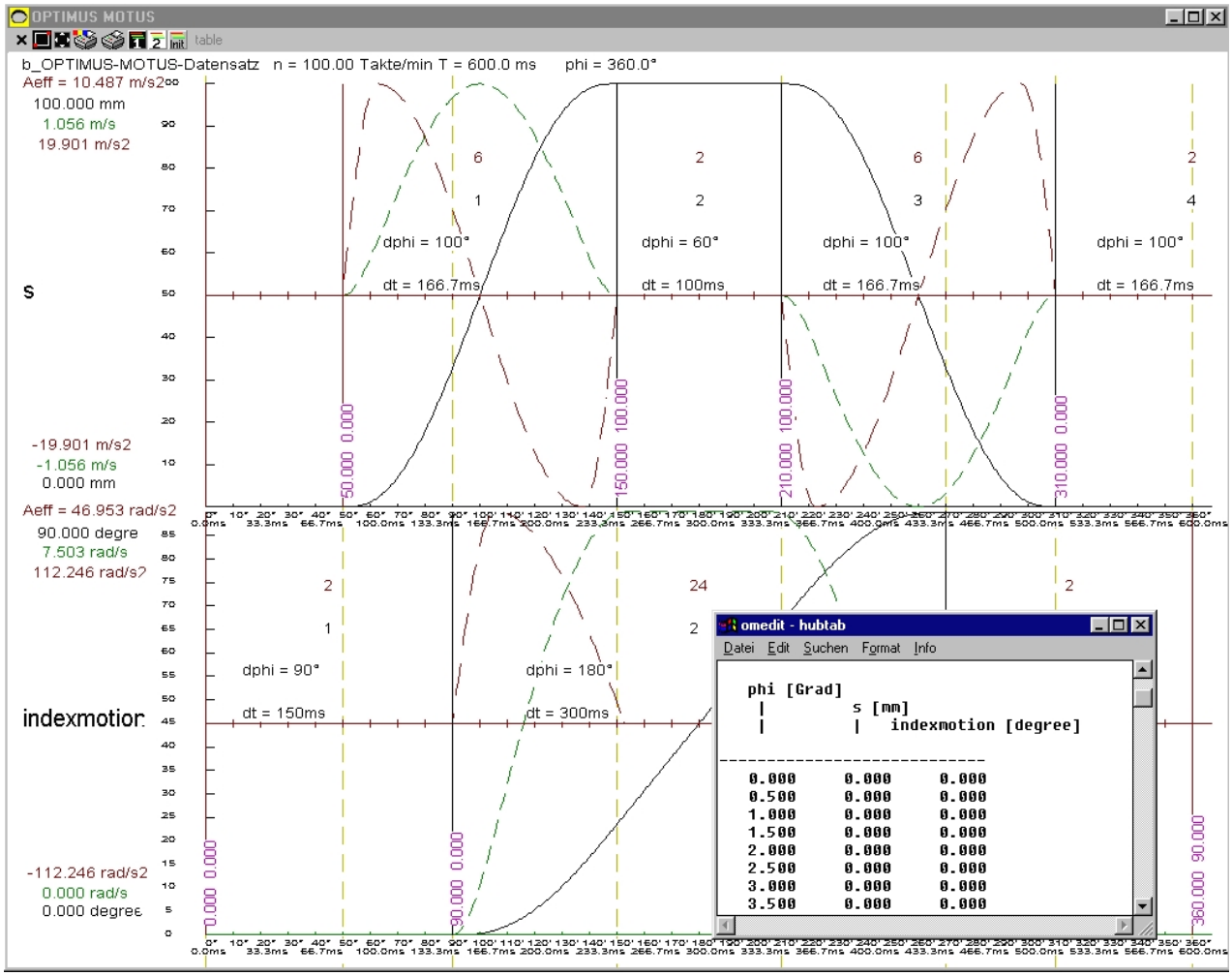
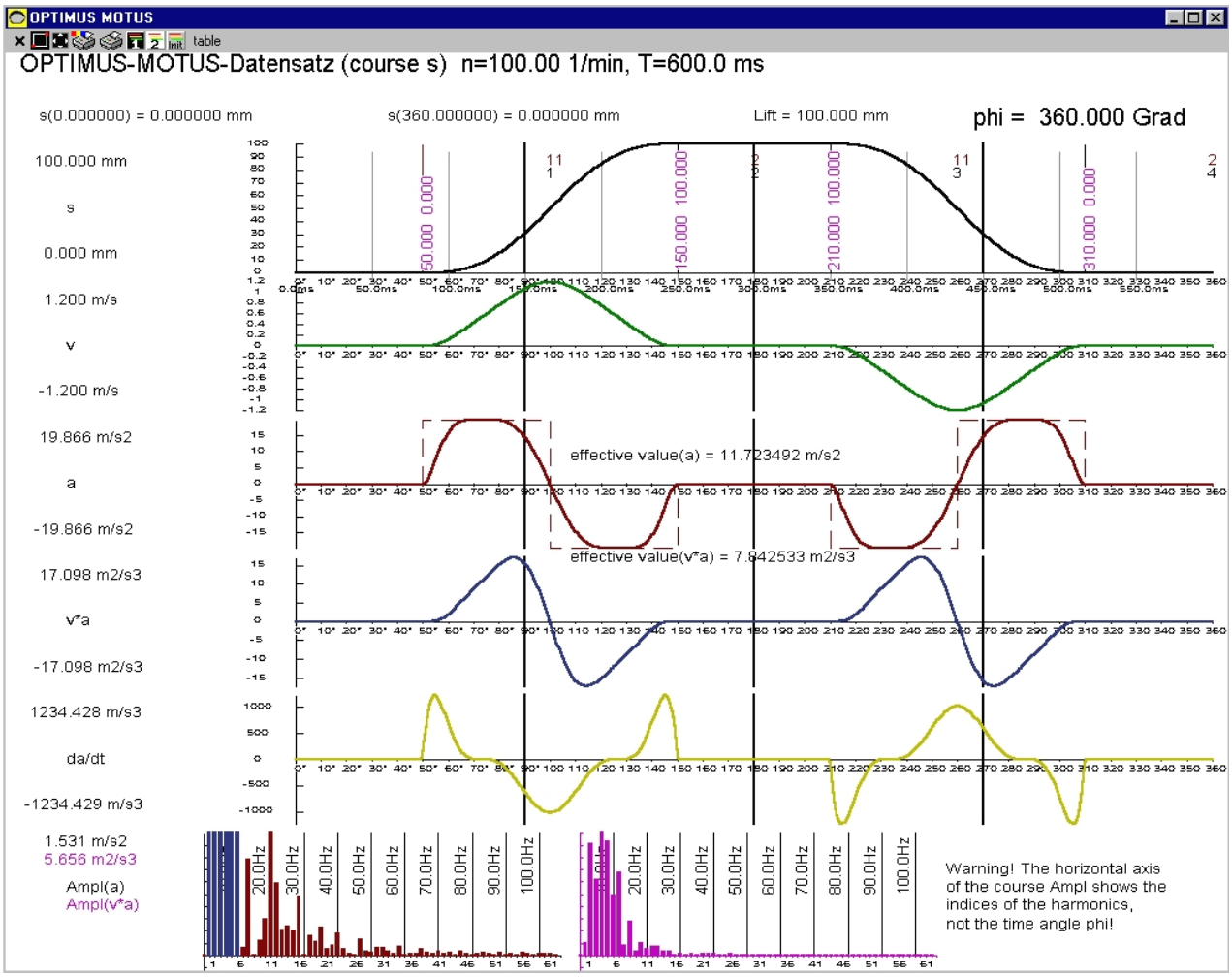
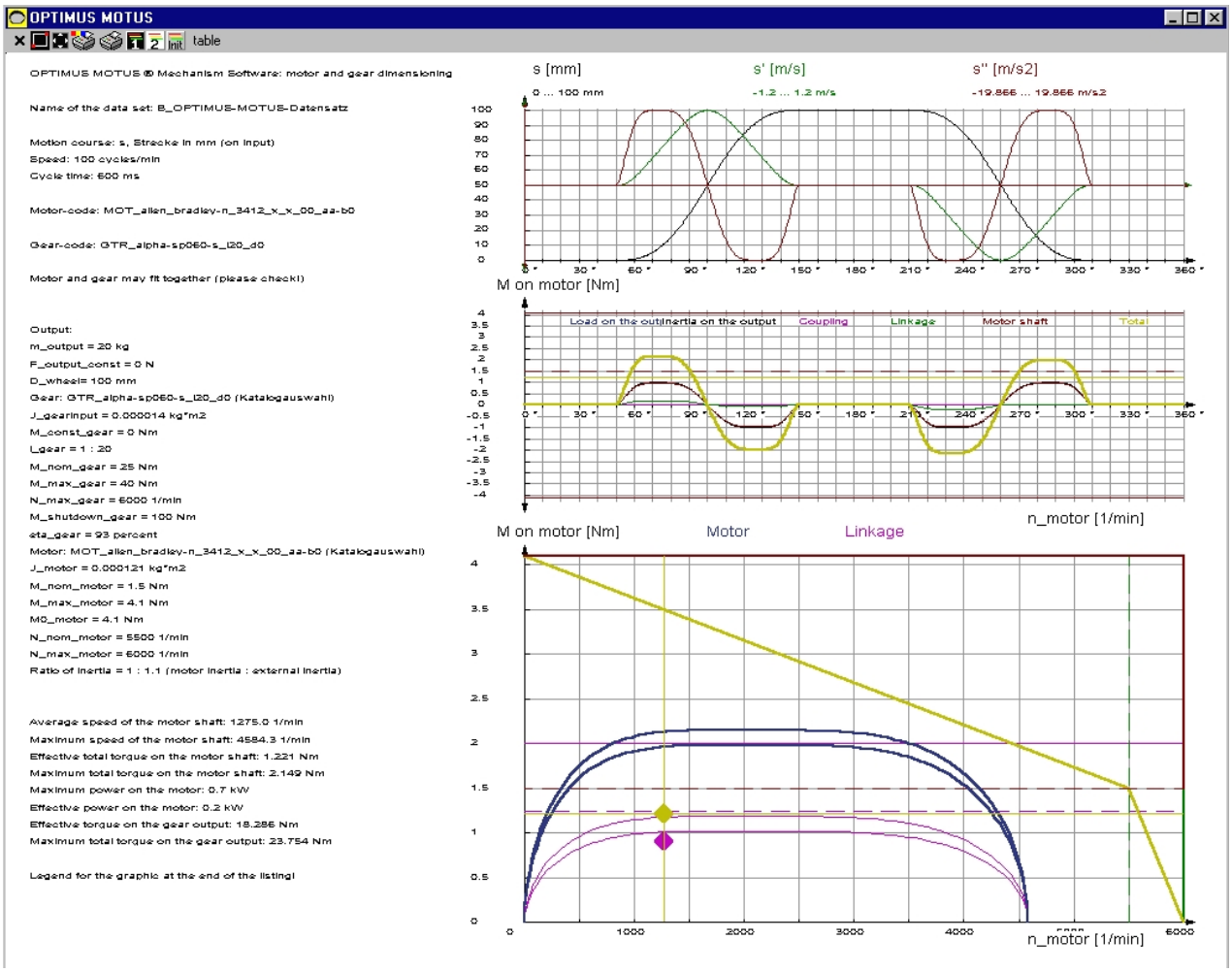


- Evaluation of the whole displacement diagram with simultaneous layout of the path, velocity and acceleration
- A great variety of 63 motion laws: VDI-directive 2143, higher motion laws, polynomial interpolation, HS-profiles, synchronous regions, tables
- Segments of time angles, fixed lifts, reversal points, shares of straight lines, boundary values, types of motion laws definable by dialog boxes
- Easy optimization of acceleration by dynamic display of extreme values and effective values



- Detailed evaluation of courses of motion with diagrams and lists for path, velocity, acceleration, course of power, jerk and fourier analysis
- Extreme values and effective values for dimensioning the servo drive



- Export of tables for path, velocity, acceleration, jerk
- Extendable catalog of motors and gears
- Automatic selection of the best combination of motor and gear for defined motion and load curves from the catalog
- Motor and gear evaluation considering:
  - Maximum speed
  - Peak torque on motor and gear (limit value and characteristic line)
  - Effective torque on motor and gear (limit value and characteristic line)
  - Permitted maximum speed
  - Minimum and maximum values for path, velocity and acceleration
  - Characteristic line of the efficiency of the gear
  - Gear shock factors

Prove and optimize your design of motor and gear the first time on the screen and not in real life!

The software OPTIMUS MOTUS ® is completed by our services to be a perfect entire solution for the motion requirements of your machines:

+ **software customization**

+ **individual user training**

+ **hotline-service**

+ **update-service**

+ **calculation and optimization as engineering service**

+ **special training on motion design**

+ **software, design and optimization of mechanical cams and linkages**

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