Technical Data Sheet: rSpace 2.00

Software for Kinexus Systems

At a Glance – Highlights of rSpace 2.00

Measurement and Evaluation
Software available in Chinese, English, French, German, Russian, and Japanese language
Main sequences ("Toolkit sequences" and "System sequences") available in Chinese, English, French, German, Russian, and Japanese language
"Sequences" are composed of a series of elemental and pre-defined "actions
New action "Switch to page", allows to switch to a particular page in the live display
Custom data format for export, conversion to csv possible
Pre-defined sequences can be edited and adapted to the needs of the user
The user has the freedom to define individual sequences by selecting actions from the palette
User-defined parameters can be stored
Vast selection of accessories
The simulation mode is a hazard-free function to become familiar with rSpace
TeamViewer Support via rSpace available
Extended service support: watchdog timers for instrument maintenance, on-screen notification of service events

System Requirements, General Data of the Software

System Requirements	Recommended	Minimal
Operating systems	WINDOWS 11, WINDOWS 10 (64 bit) (as of version 19.09 or later)	WINDOWS 11, WINDOWS 10 (64 bit) (as of version 19.09 or later)
PC requirements	Desktop PC or laptop; Intel Core i5, at least 3.0 GHz, RAM 8 GB, 50 GB free hard disk space	Desktop PC or laptop; Intel Core i3, at least 2.0 GHz, RAM 4 GB, 5 GB free hard disk space

General Information on rSpace 2.00	
Graphical user interface	Via keyboard or mouse, toolbar
Commmunication interface	2 USB ports (one for communication with Kinexus, one for the import of geometries)
Software scope of delivery	USB stick
Compatibility	Ultra+, Pro+, Lab+, DSR+, DSR, DSR-E, DSR-III
Software languages	Chinese, English, French, German, Russian, Japanese

Creation of User Sequences	
Programming style	No programming language required. Place the symbols for the actions in the desired order. Room for your notes to the actions is provided.
Programming time and effort	Less effort as sequences can call other sequences, reducing programming time

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Main Features of the Software

Measurements (Selection Only)	
Creep and recovery	Creep measurements reveal the visco-elastic response of materials over different timescales. Creep tests can also be utilized to mimic gravitational effects and therefore find applications in predicting effects such as sedimentation, sagging and leveling. Upon removal of the stress, the strain will gradually recover.
Instrument setting	Automatic detection of geometries and cartridges
Live data	As a rule, you can inspect the data (both visually and as tabulated data) in rSpace as they are gathered from the Kinexus
Material database	The pre-defined material database can be extended
Oscillation	Exerting a fixed value of either shear stress or shear strain at fixed frequency allows to study the rheology of a sample as a function of time or during a temperature ramp.
Relaxation	A set strain generates a gradually decaying stress
Set gap / Normal Force	Regulate the gap or the normal force exerted on the sample
Set rotational position	Set a defined rotational position, e.g., a particular deflection in rad
Temperature control	Temperature control of the sample temperature, e.g., isothermal temperature, temperature table or temperature ramp
Viscometry	Viscosity deduced from a ramp in either shear rate or shear stress, or expose the sample to a constant controlled value of shear stress or shear rate to track process conditions or the change of state of a sample as a function of time (e.g., due to chemical or environmental conditions) or as a function of temperature.

Analysis (Selection Only)	
Calculate value	Compute a value based on results obtained in prior actions
Curve analysis	▪ Find value with interpolation ▪ Crossover point where G' = G" ▪ Peak and valley analysis: extrema in data sets ▪ Tangent to a data curve ▪ Area calculation under a curve or between curves ▪ True / false testing
Model fitting	20 pre-defined models commonly employed in rheology
Smoothing	Smoothing of data sets
Statistics	Curve statistics and point statistics
Superposition	Time-Temperature Superposition

NGB · Technical Data Sheet SW rSpace 2.00 · EN · 1222 · Technisca. Specifications are subject to change.

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Basic Function (Selection Only)	
Enter values	The user can define values during runtime
Export data	rSpace RDF format, conversion to Excel®-compatible CSV format possible
Import data	To analyze data from prior measurements or external data
Loop	Code once, rerun sections of the sequences with user-set exit conditions
Merge results	Merge previously gathered data to the current data set
Modify value	Vast selection of options to modify a value
Print report	RPT Format, export to pdf within rSpace possible. An individual logo can be inserted (max. 120 x 60 px).
Prompts	Guiding the user through the sequence
Questions	Choose questions Yes / No questions
Raw rata	Allows for recording raw data from Kinexus
Sample details	Assign a material class, a sample name, batch number and arbitrary notes in a free-format field
Set event time	Setting a timer for curing, mixing, etc.
Switch to page	Switches to a page in the live display. The respective page can be defined by the user.

Documentation	
rSpace	The majority of the sequences comes with an abstract that explains the purpose and function of the sequence (some only available in English). From the rSpace search tool "rFinder": ▪ Application notes and handling notes (pdf available in English only) ▪ Integrate help (available in English onle) ▪ Chart templates ▪ Table templates
NETZSCH Homepage	Additional Application Notes and White Papers for free download (available in English only)

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