



DRIVESAFETY™

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SIMCLINIC™

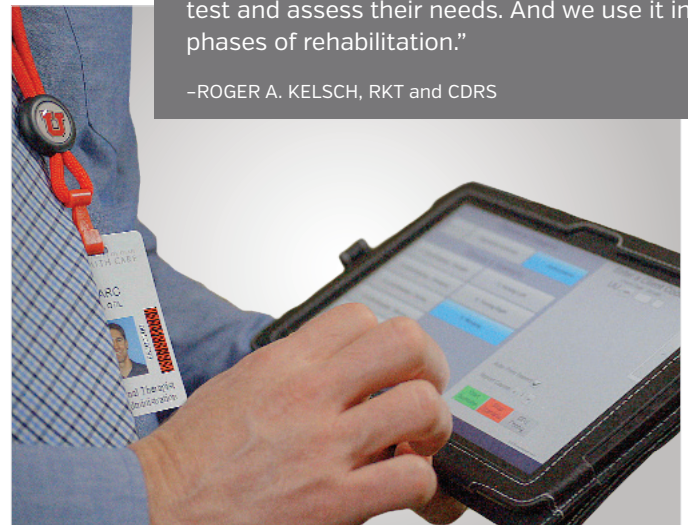
POWERFUL SOFTWARE AT THE CORE OF OUR ADVANCED CLINICAL DRIVING SIMULATORS

SimClinic from DriveSafety is the robust software library of therapist-inspired patient activities used to help exercise and measure many areas of functional performance. There are currently over 40 activities to choose from including those that are appropriate for general Occupational Therapy practices, as well as advanced driving scenarios that are appropriate for clinics with driving rehabilitation programs.

SimClinic provides Occupational Therapists with exercises and scenarios proven to help assess and improve physical strength, reaction time, control, endurance, cognitive skills in attention, memory, problem solving and anticipatory thinking, visual perception and information processing, visual-motor integration, visual field testing, neuromuscular reeducation of movement, coordination and proprioception.

“We use the product with every patient to screen, test and assess their needs. And we use it in all phases of rehabilitation.”

—ROGER A. KELSCH, RKT and CDRS



To help provide the best patient outcomes, the SimClinic™ library is comprised of clinician-inspired activities organized into the following four progressive phases.

Phase I: Pre-Driving Clinical Exercises, Basic Functional Abilities

This phase provides exercise and measurement of pre-driving functional abilities. Scenarios include exercises for visual information processing, coordinated movements, regulation of physical inputs, strength and range of motion, memory, anticipation and planning, and so on.

Steering Static: Simple upper-extremity strength, range of motion and control of physical inputs

Pedals Static: Simple lower-extremity strength, range of motion and simple control of physical inputs

Steering Chase: More dynamic-upper extremity strength, range of motion and control of physical inputs

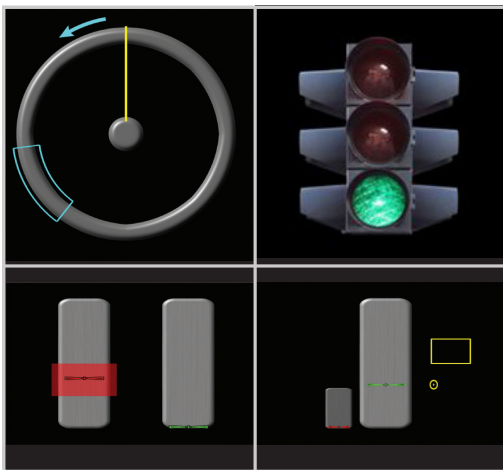
Pedals Chase: More dynamic-lower extremity strength, range of motion and control of physical inputs

Stoplight & Steering: Visual information processing [speed and accuracy] and coordinated muscle movements

Combined Controls: Visual-motor integration, fine motor control

Copy Cat: Working memory, coordinated muscle movements

Slider: Motor planning, anticipatory thinking



Interactive Exercises



Phase II: More Functional Abilities in the Context of Simple Driving

This phase introduces lane keeping and speed control, reaction timers, and very powerful Functional Object Detection.

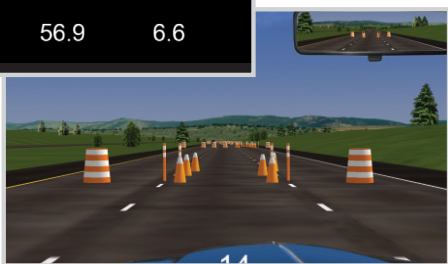
- **Lane Keeping Straight*:** Lane position management on straight roadway
- **Reaction Timer Steering:** Simple reaction timer requiring quick decision and steering inputs when visual stimulus is given
- **Speed Control Straight:** Simple speed control management on straight roadway
- **Reaction Timer Stoplight:** Simple brake reaction timer
- **Lane Keeping Changing Lanes*:** Practice changing lanes, using turn signals on straight road with no traffic
- **Lane Keeping Mirrors*:** Practice using rear and side-view mirrors and judging gaps in adjacent traffic
- **Functional Object Detection:** Divided attention and visual scanning while driving. Excellent test of visual fields and neglect issues

“The simulator at our clinic is used by all of our clinicians. For example, our Speech Therapist can work on the cognitive components of divided attention because the simulator allows her to use a variety of cognitive programs to address issues. Our Occupational Therapist may be working on upper extremity recovery and focus on introducing scenarios that exercise steering skills. Our Physical Therapists may work on a patient’s ability to control their extremities and use the simulator for therapeutic exercise and bill accordingly.”

–MARC ROSELLO,
RKT, CDRS, Driving Rehabilitation Director,
University of Utah Sugarhouse Rehabilitation Clinic

Target Speed	Range	Mean	Standard Deviation
35	34 - 37	35.4	0.9
45	43 - 48	44.8	1.4
55	40 - 69	56.9	6.6

Speed Control



Obstacle Drives

Phase III: Progressive Basic Driving Skills

This phase provides progressive, fundamental driving skills development and evaluation, essential instruction and adaptation drives, plus additional training scenarios suited for basic driving rehabilitation and training.

- **Lane Keeping Curves***: Lane position management on road with curves
- **Pedals And Stopping***: Practice stopping and starting at intersections, an important adaptation step for simulator introduction
- **Following Distance***: Practice maintaining appropriate following (headway) distance
- **Turning Left***: Introduce making left hand turns at intersections
- **Turning Right***: Introduce making right hand turns at intersections
- **Merging***: Introduce merging into freeway traffic
- **Changing Lanes And Braking**: More practice changing lanes and bringing car to a stop
- **Hills And Curves Speed**: More speed management practice with simultaneous hills and curves
- **Hills And Curves Stop**: Continued vehicle control practice including stopping and starting in combined hills and curves
- **Obstacles On Straight**: Cones course exercising vehicle maneuvering and control skills
- **Speed Control Curves**: Speed control with curves
- **Speed Control Hills**: Speed control with hills
- **Training Tracks Scenarios**: Simple paved closed-course tracks to allow easy, non-threatening practice of basic vehicle control.

*Essential Adaptation drives

Phase IV: Advanced Driving Skills & Naturalistic Scenarios.

This phase provides advanced road course drives in diverse driving environments and includes advanced traffic interaction, situational awareness and defensive driving challenges.

- **35-Minute Drive**: Moderate drive through variety of roadway types and mostly well-behaved traffic. A few driver challenges. Some curves, but no turns at intersections.
- **City and Highway**: Advanced “naturalistic” drive along a guided course through dense urban and freeway driving environments. Some advanced traffic interactions and challenges, such as unprotected left turn with oncoming traffic and unexpected incursions by others into drivers’ path of travel.
- **Endurance**: Easy freeway loop that takes about 10 minutes per circuit. Can be driven indefinitely.
- **FOD Advanced**: Powerful clinical exercise combining several configurable secondary tasks with basic driving tasks. Excellent for divided attention and for evaluating visual fields and neglect issues.
- **Level 1 Hazards**: Level 1 of 3 escalating hazard drives on a rural highway. Each drive includes 3 driver challenges or hazards that occur, along with collision avoidance performance measures.
- **Level 2 Hazards**
- **Level 3 Hazards**
- **Residential and Suburban**: Advanced naturalistic drive along a guided course through residential and suburban environments. Some advanced traffic interactions and challenges, such as unexpected pedestrian and cyclist interactions.
- **Town and Country**: Advanced naturalistic drive along a guided course through small town and rural/mountainous road environments. Some advanced traffic interactions and challenges, such as unexpected lane incursions and a police roadside incident the driver encounters.



Naturalistic Driving Scenarios (Road Panorama)