Advanced Local Linkage is among the most powerful features provided in Doors.NET when applied to Mercury Powered NXT and authentic Mercury hardware. It is a toolbox for customers to be able to build custom linkage macros to automatically manage or respond to different scenarios without the need for any additional custom software. It is essentially a whiteboard for determining IF (this happens) conditions to execute any THEN (perform these) actions.

- Customize the application to perform and automate almost any task
- Built in tools allow for design of “on the fly” action sequences
- Any hardware input(s) can trigger any hardware output(s) within a controller
- Most system software events can also be used as triggers
- Triggers can also execute software based actions
- Thousands of triggers and procedures per system
- Multiple triggers can execute the same procedure
- Time delays may be incorporated and can be used to cancel a procedure if another procedure is executed
- Procedures may differ depending upon the active time schedules and when the trigger event occurs
- Variable trigger logic may be employed using Boolean logic for complex conditional actions

The IF conditions can be referred to as triggers. A trigger condition is simply a system transaction that meets a specified criteria. When the system sees the trigger that has been defined, it will execute a procedure that was also defined. The trigger condition can be anything that the hardware or software is able to detect, for instance; an input going active or secure, an access granted or access denied message, a time schedule going active, a controller or reader going offline, a tamper input going active/secure, or something very specific, like; an access granted, at the rear door, by one of the cleaning crew, on the weekend, when another employee has already entered the building.

The THEN conditions can be referred to as procedures, which are the taking of an action or series of actions. The procedures are executed when a trigger condition is met, and can be virtually anything that the hardware or software is able to do. A trigger could execute several procedures and each procedure can have several actions. Procedures can even be used as triggers to execute other procedures.
The linkage macros are created within the toolbox by designating physical inputs or software events as triggers to initiate procedures which involve the activation of any output(s) or an action taken by the software. Any input(s) on a Mercury Powered NXT controller and its connected NXT-4X4 or GIOX boards can be used as a trigger to execute procedures, whether they be the dedicated door inputs or auxiliary inputs. System software-based events may also be used as triggers, such as an access granted by an individual or specific group of people, operator log in, alert message, etc. Execution or failed execution of procedures can even be used as a trigger. The decision making and execution of hardware-based linkages is performed by the controller itself, with no reliance on the Doors.NET Server being online.

* For simple hardware I/O linking, customers can use the Link Actions function built into Doors.NET.

** Advanced Local Linkage may also be used with authentic Mercury hardware and works within a controller and its downstream door and I/O modules.

Procedures are action sequences that are created to automate a task, in this case the control of a physical output.

Triggers are events that occur on the hardware or in the software that initiate the execution of a procedure(s).

For complex conditions to initiate a procedure, variable trigger logic using Boolean algorithms may be used.