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Subject CS453

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Parser Tree

Drive=Door+Window+Brake+Throttle+Trans

Drive = open + window +off + pump +1

Drive = Drive + Close Door	Door = open | close
Drive = Drive + window	window = UP | Down
Drive = Drive + Brake	Brake = on | off
Drive = Drive + Throttle	Throttle = pump / Relese
Drive = Drive + Trans	Trans = 0 | 1 | 2 | 3 | 4

Stack	Input string	Action
$	open + window +off + pump +1	shift open
$ open	+ window + off + pump +1	reduce open → Door
$ Door	+ window + off + pump +1	shift open
$ Door +	window + off + pump +1	shift window
$ Door + window	+ off + pump + 1	shift +
$ Door + window +	off + pump + 1	shift off
$ Door + window + off	+ pump + 1	reduce off → Brake
$ Door + window + Brake	+ pump + 1	shift +
$ Door + window + Brake +	pump + 1	shift pump
$ Door + window + Brake + pump	+ 1	reduce pump → Throttle
$ Door + window + Brake + Throttle	+ 1	shift +
$ Door + window + Brake + Throttle +	1	shift 1
$ Door + window + Brake + Throttle + 1	$	reduce 1 → Trans
$ Door + window + Brake + Throttle + Trans	$	reduce All → Drive
$ Drive	$	Accepted

1.

Drive

Drive + Close

Drive + window

UP   Down

Drive + Brake

On   OFF

Drive + Throttle

Pump   Relese

Drive + Trans

Drive

Drive

Drive + Close

↓

Window

UP Down ↓

Brake

On OFF ↓

Throttle

PUMP Relese ↓

trans

0 1 2 3 4