

# WorkBench Structure

## Workspace

### Projects

#### Experiments

Process Recipe

Modules

Steps

Commands

Parameters

Wafer  
Flow

Simulator  
Driver

ToolKit

### Libraries

Modules

Tools

Simulator  
Drivers

### Machines

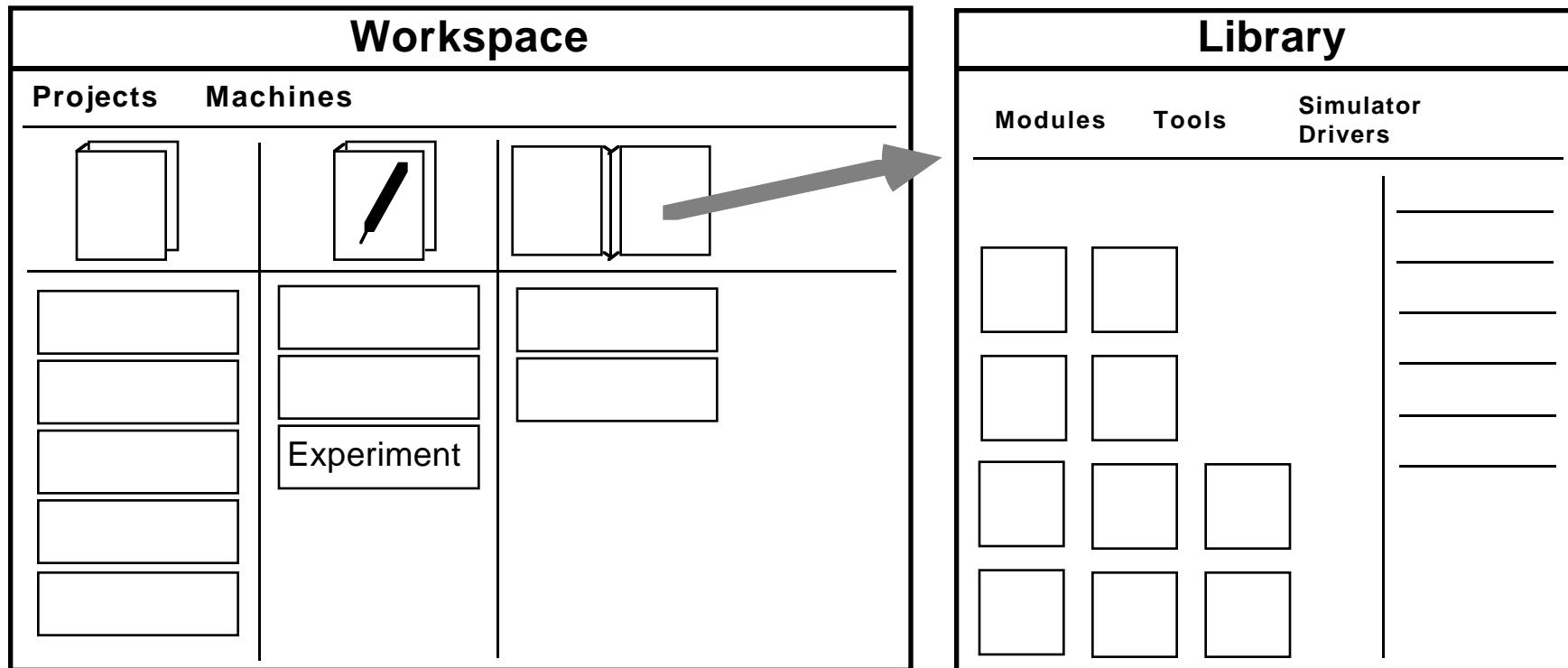
Command  
Builder

Spread  
Sheet

# WorkBench Projects and Libraries

TCAD: Process and Device Simulation

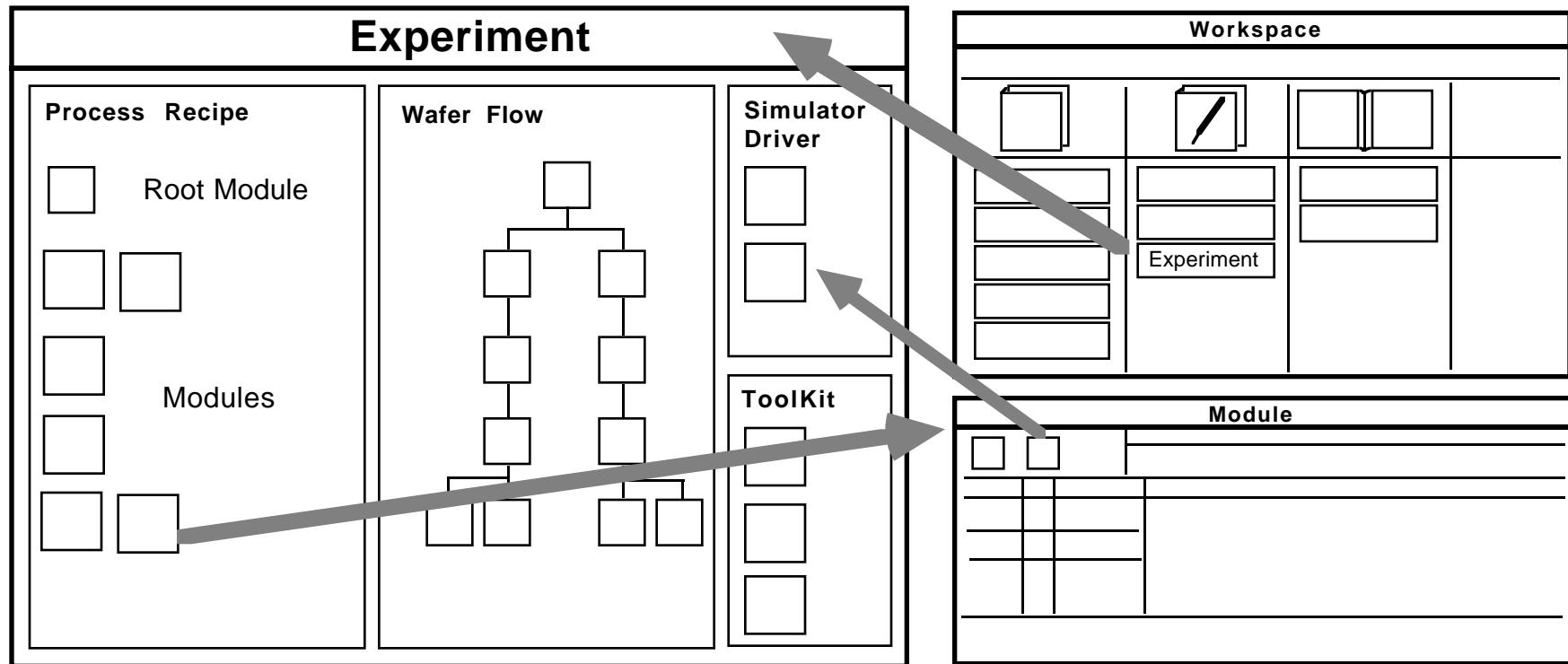
TMA WorkBench: Virtual IC Factory



# WorkBench Experiments

TCAD: Process and Device Simulation

TMA WorkBench: Virtual IC Factory



# WorkBench Modules

Module			
Icon	Driver	Name	
<input type="button" value=""/>	<input type="button" value=""/>	Annotation	
Level	Command	Parameter	
0	Step_1		
1	▽ Step_2		
2.1	Command	Parameter_1	Parameter_2
	▷ Step_3		
<b>Parameter</b> <input type="text"/>			
Label <input type="text"/>		Min <input type="text"/>	Max <input type="text"/> <input type="checkbox"/> Control

## Module Concept

### Module

**“What to do”** (engineering goal)

**Step (compound command)**

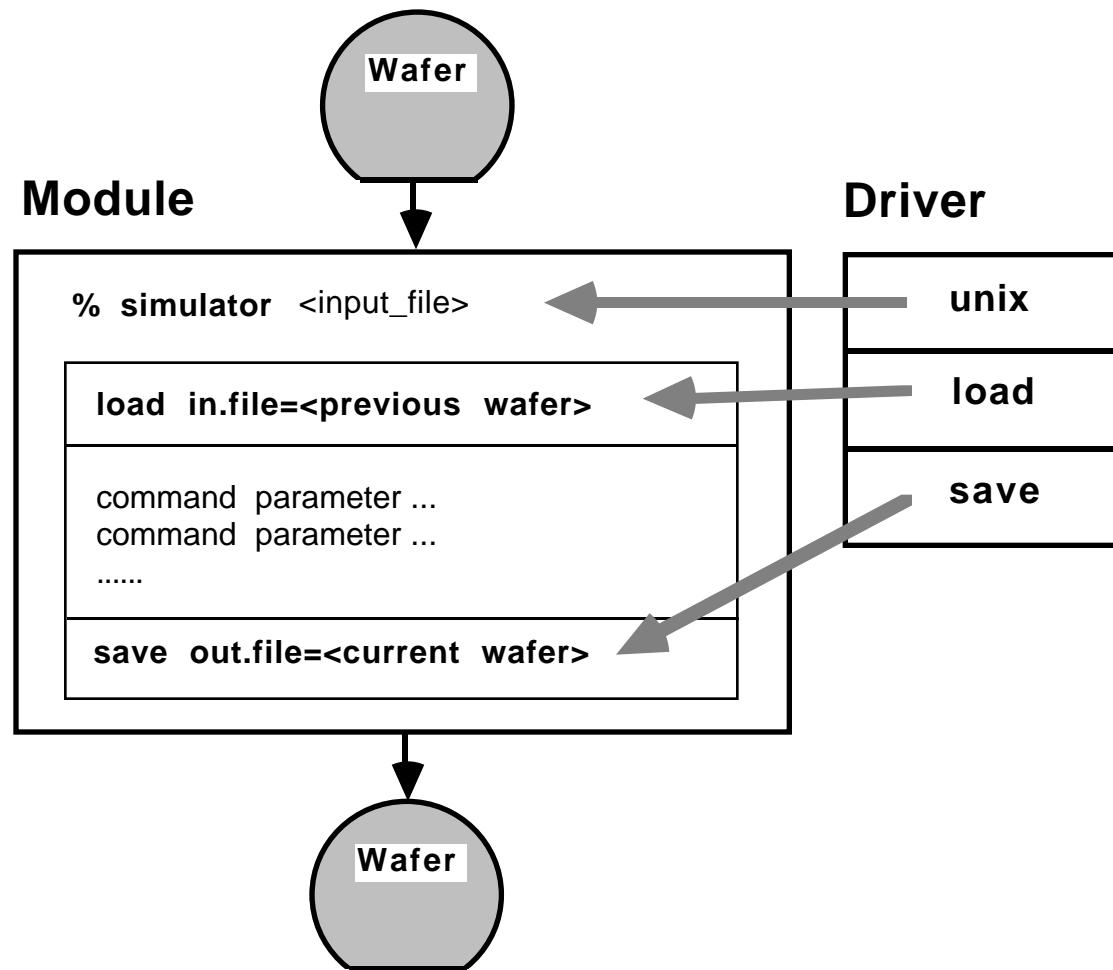
**“How to do it”** (technology specific)

**Command**

**“How”** (simulator specific)

List of parameters

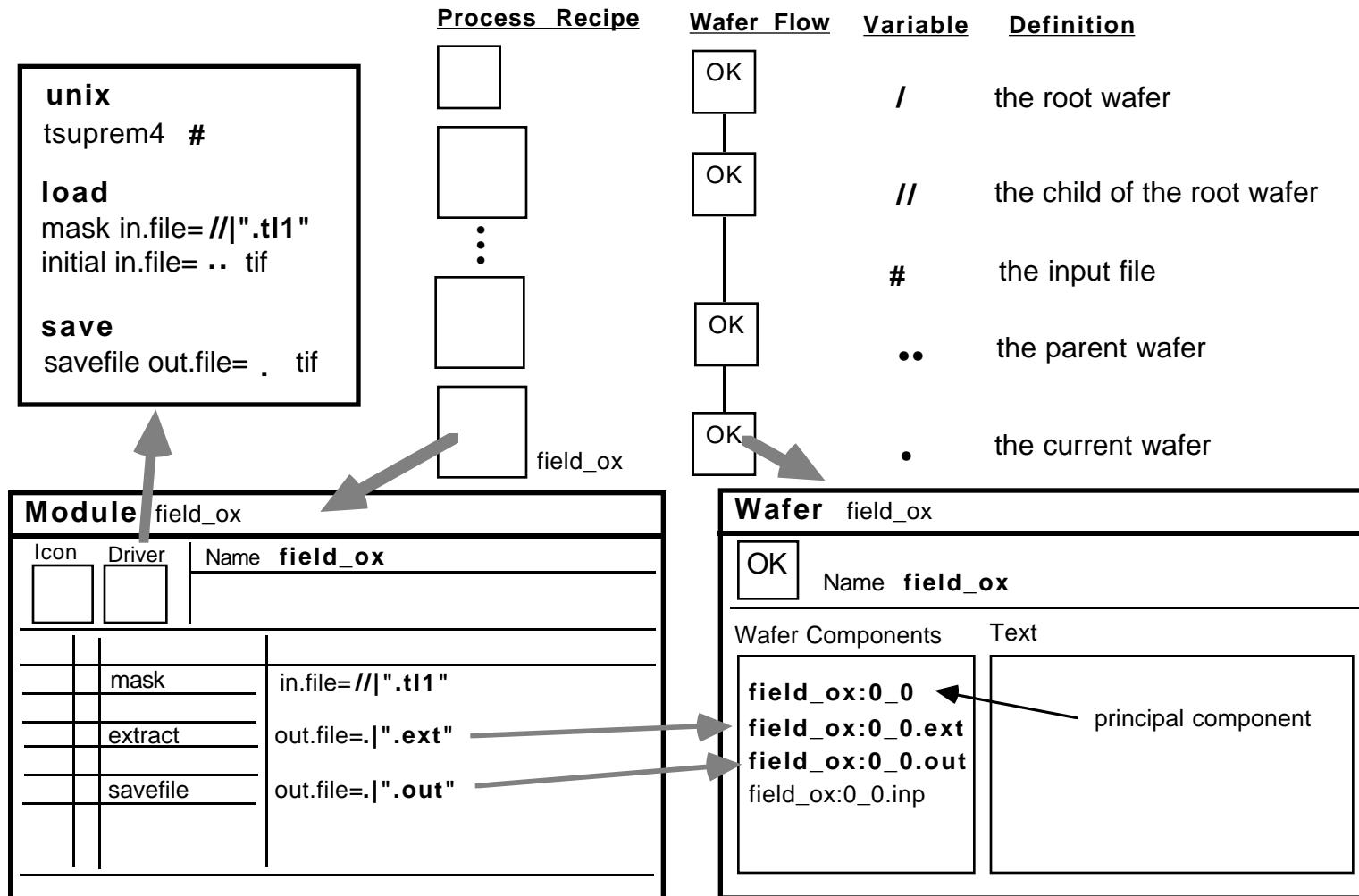
# WorkBench Drivers



# WorkBench Variables and Wafer Components

TCAD: Process and Device Simulation

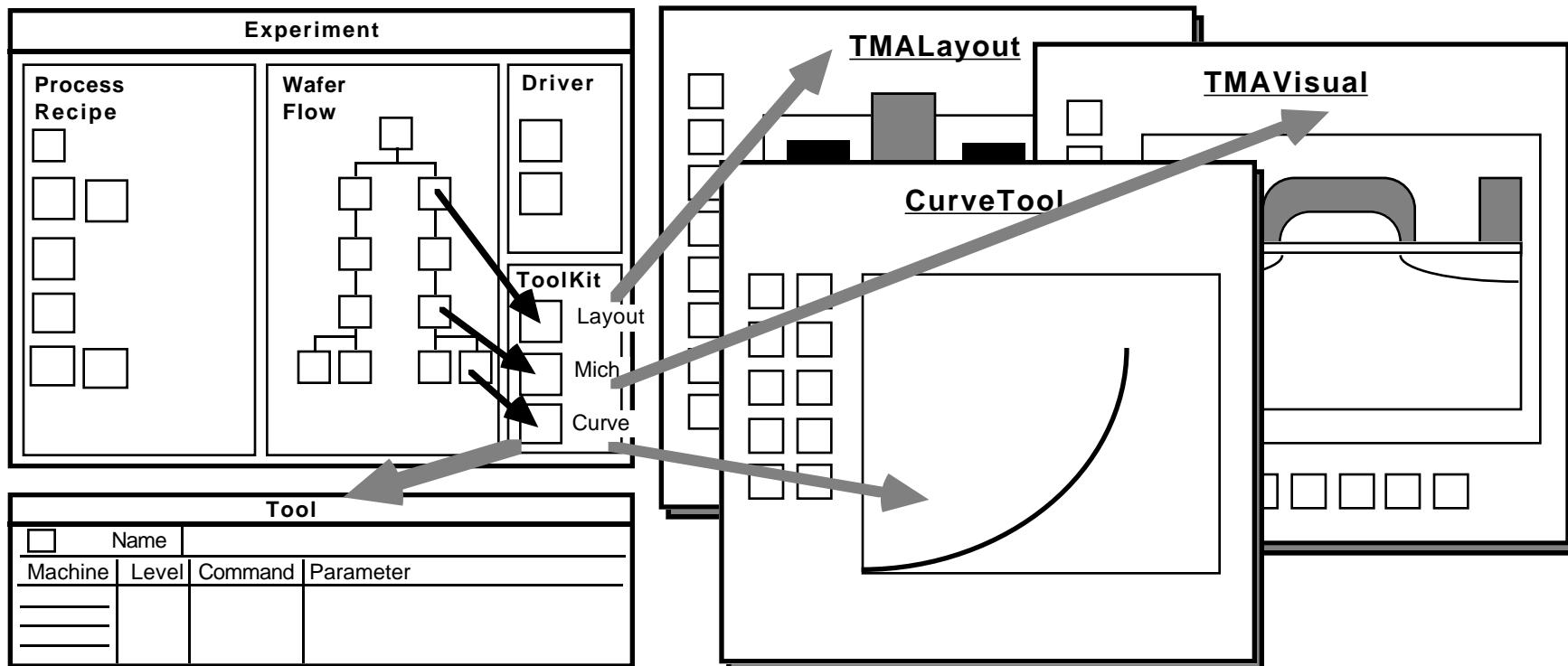
TMA WorkBench: Virtual IC Factory



# WorkBench ToolKit

TCAD: Process and Device Simulation

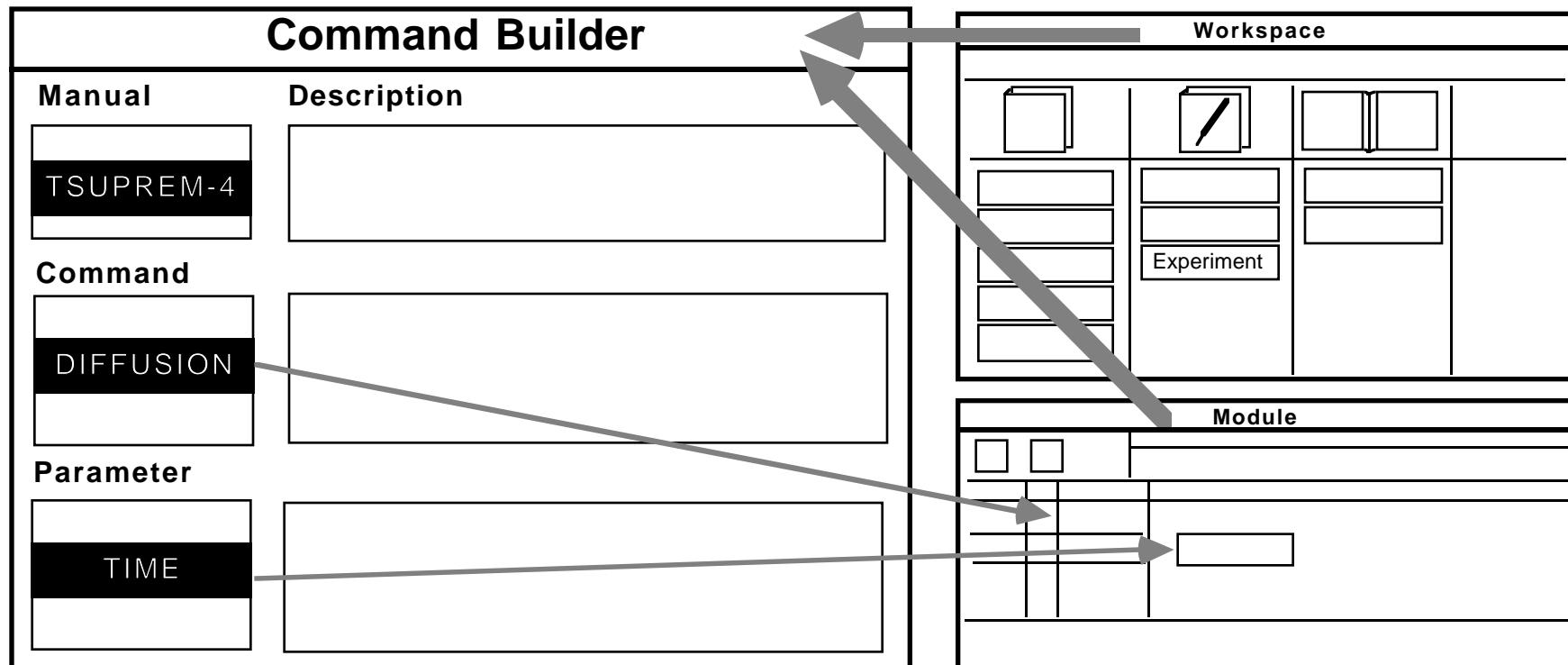
TMA WorkBench: Virtual IC Factory



# WorkBench Command Builder

TCAD: Process and Device Simulation

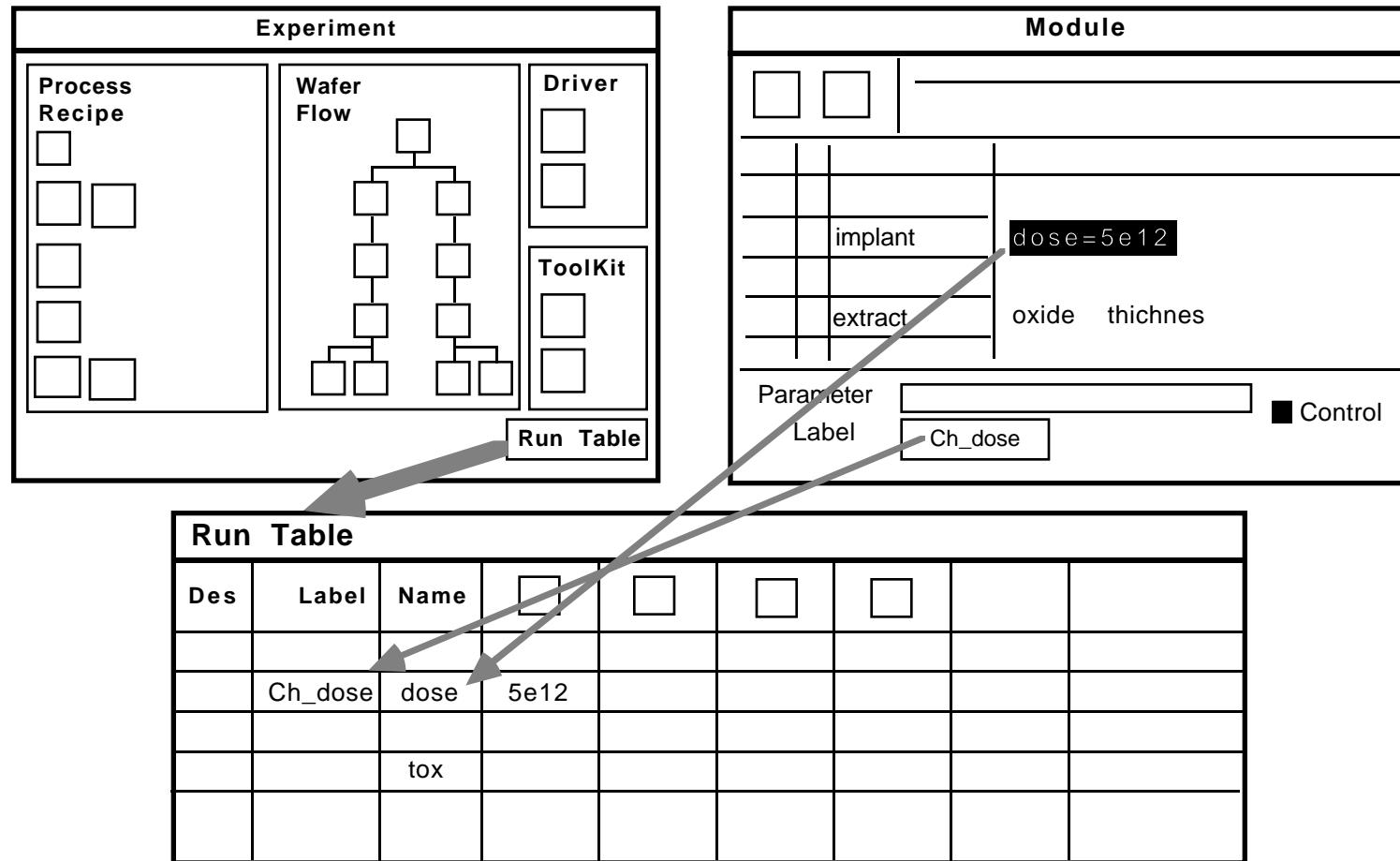
TMA WorkBench: Virtual IC Factory



# WorkBench Run Table

TCAD: Process and Device Simulation

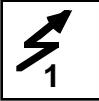
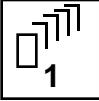
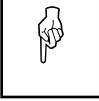
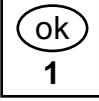
TMA WorkBench: Virtual IC Factory



# Wafer State and Simulation Status

TCAD: Process and Device Simulation

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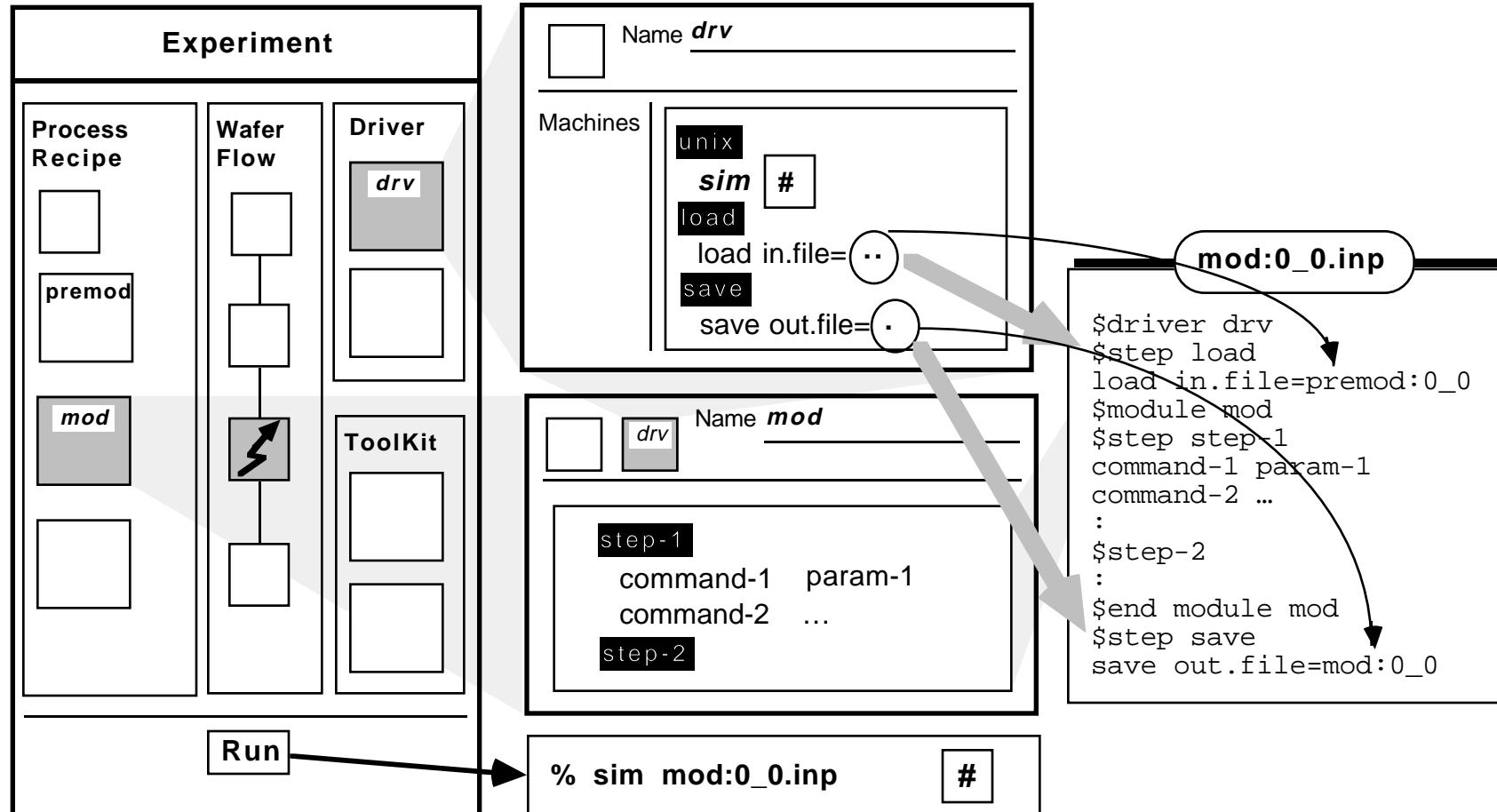
<u>Icon</u>	<u>Color</u>	<u>Simulation Status</u>
	Yellow	Module ready for simulation
	Purple	Module being simulated
	Blue	Module waiting for available CPU to be simulated
	Black	Module simulation failed
	Green	Module completed successfully

- To make a wafer “green”** — at the completion of the Module simulation, a “Principal Component” file with the name “<*module\_name*>:0\_0” must be created

# Creating a Simulator Driver

TCAD: Process and Device Simulation

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# Creating a Tool

TCAD: Process and Device Simulation

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