

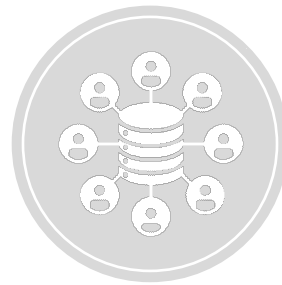
# Introduction to Ngene



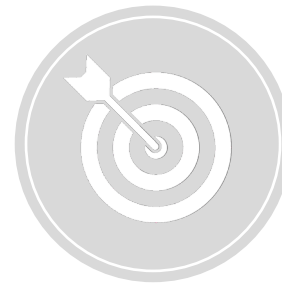
Key concepts  
& study plan



Experimental  
design



Data collection  
& processing



Model specification  
& estimation



Interpretation  
& application

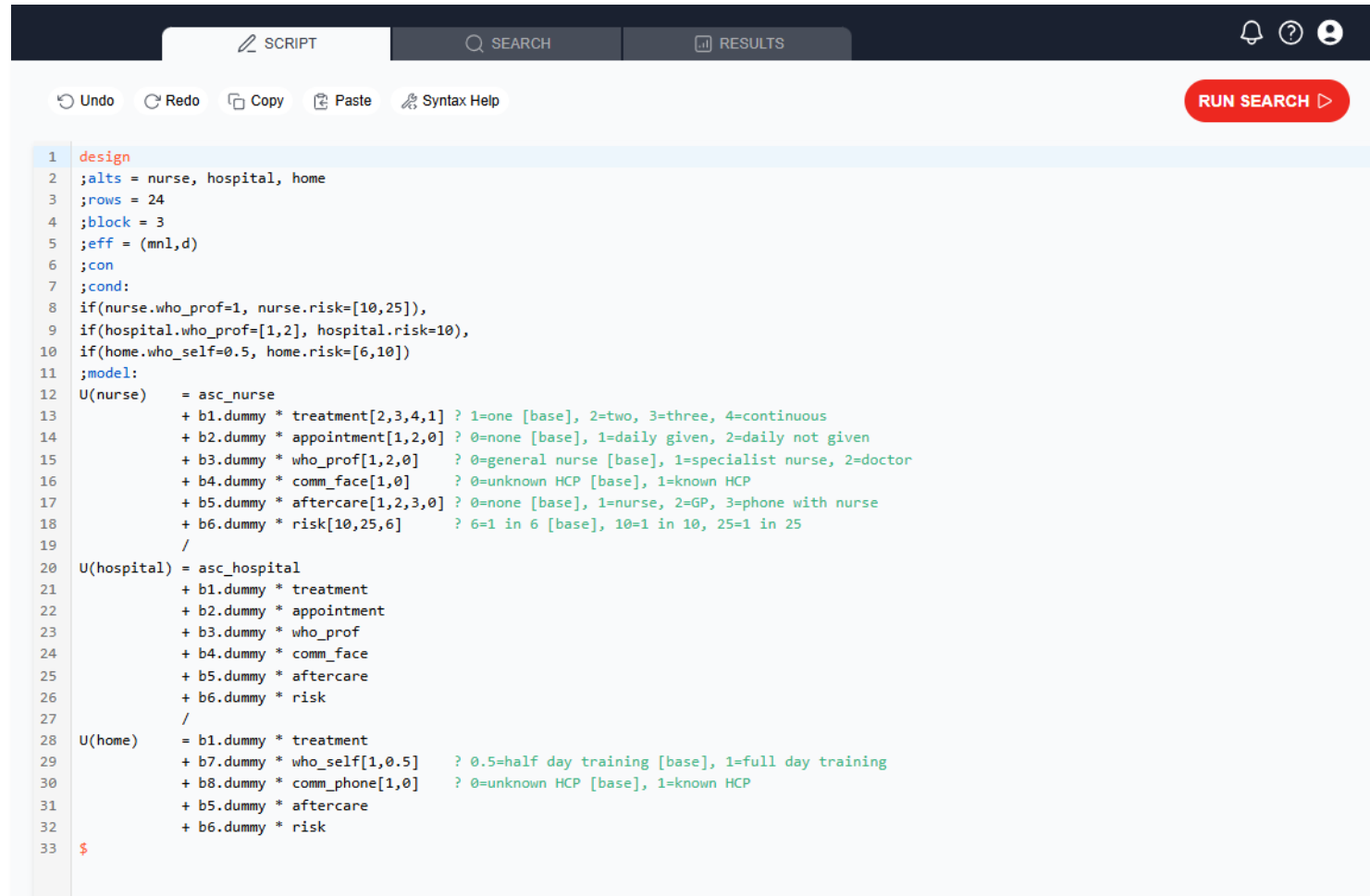
# Introduction to Ngene

## Features

- ❑ Flexibility
- ❑ Ease of use
- ❑ Information maximisation
- ❑ Advanced constraints
- ❑ No silly choice tasks
- ❑ Tailored designs

# Introduction to Ngene

## Step 1: Write a script

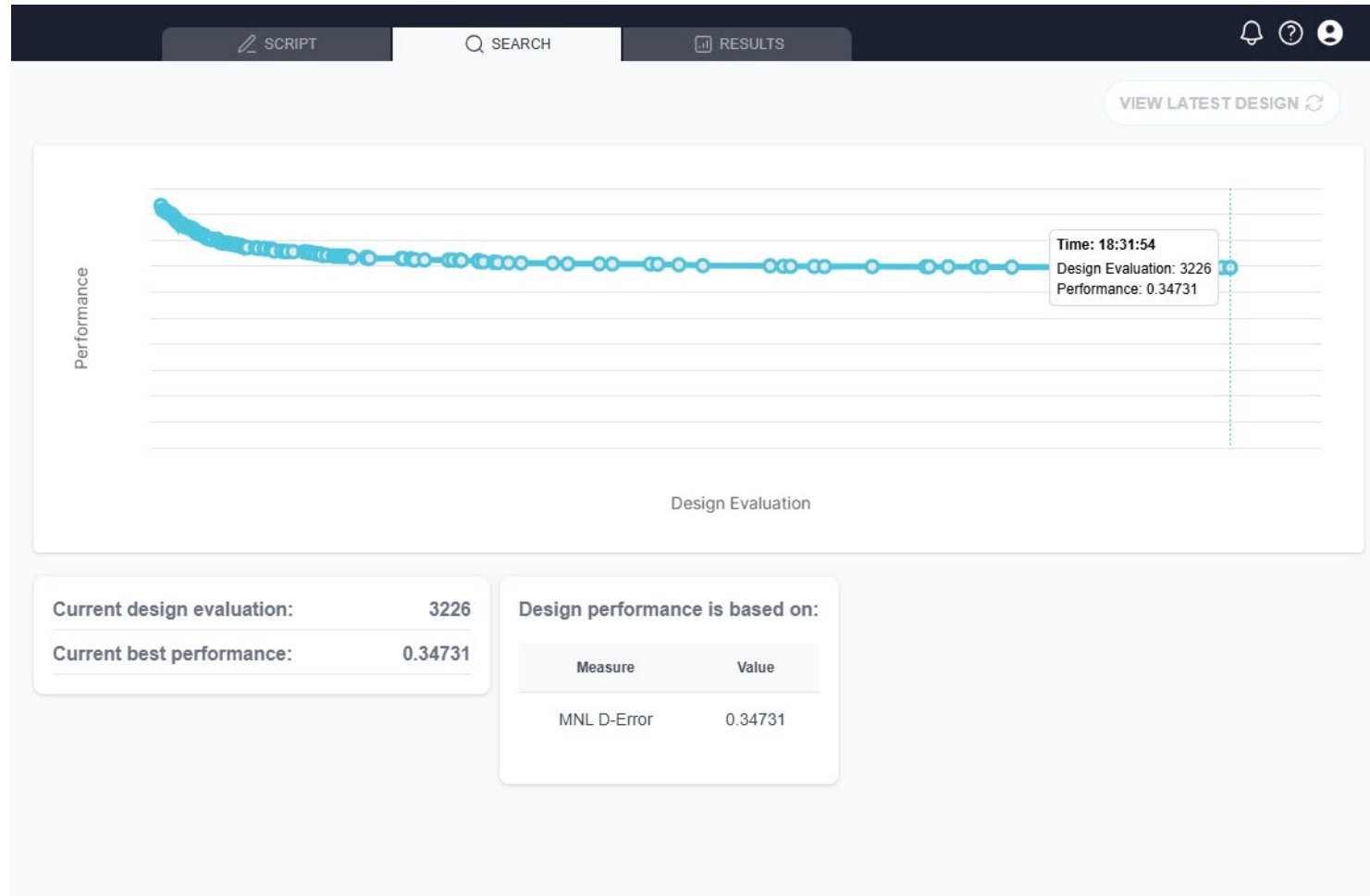


The screenshot shows the Ngene web interface. At the top, there are tabs for 'SCRIPT', 'SEARCH', and 'RESULTS'. Below the tabs, there are icons for 'Undo', 'Redo', 'Copy', 'Paste', and 'Syntax Help'. A red 'RUN SEARCH' button is on the right. The main area contains a script editor with the following code:

```
1 design
2 ;alts = nurse, hospital, home
3 ;rows = 24
4 ;block = 3
5 ;eff = (mnl,d)
6 ;con
7 ;cond:
8 if(nurse.who_prof=1, nurse.risk=[10,25]),
9 if(hospital.who_prof=[1,2], hospital.risk=10),
10 if(home.who_self=0.5, home.risk=[6,10])
11 ;model:
12 U(nurse) = asc_nurse
13           + b1.dummy * treatment[2,3,4,1] ? 1=one [base], 2=two, 3=three, 4=continuous
14           + b2.dummy * appointment[1,2,0] ? 0=none [base], 1=daily given, 2=daily not given
15           + b3.dummy * who_prof[1,2,0] ? 0=general nurse [base], 1=specialist nurse, 2=doctor
16           + b4.dummy * comm_face[1,0] ? 0=unknown HCP [base], 1=known HCP
17           + b5.dummy * aftercare[1,2,3,0] ? 0=none [base], 1=nurse, 2=GP, 3=phone with nurse
18           + b6.dummy * risk[10,25,6] ? 6=1 in 6 [base], 10=1 in 10, 25=1 in 25
19           /
20 U(hospital) = asc_hospital
21             + b1.dummy * treatment
22             + b2.dummy * appointment
23             + b3.dummy * who_prof
24             + b4.dummy * comm_face
25             + b5.dummy * aftercare
26             + b6.dummy * risk
27             /
28 U(home) = b1.dummy * treatment
29           + b7.dummy * who_self[1,0.5] ? 0.5=half day training [base], 1=full day training
30           + b8.dummy * comm_phone[1,0] ? 0=unknown HCP [base], 1=known HCP
31           + b5.dummy * aftercare
32           + b6.dummy * risk
33 $
```

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## Step 2: Search for a design



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## Step 3a: Obtain the design matrix

The screenshot displays the Ngene web application interface. At the top, there is a dark navigation bar with tabs for 'SCRIPT', 'SEARCH', and 'RESULTS'. Below this, the main content area is divided into two sections: 'MATRIX' and 'INSPECT'. The 'MATRIX' section is active, showing a table of design data. Above the table, there are buttons for 'Export to Excel' and 'Export to Design'. To the right of the table, there is a sidebar with a 'Design' section containing a 'Choice tasks' toggle (which is turned on) and a 'Correlations' toggle (which is turned off). Below the 'Design' section is a 'Model' section with a red 'MNL' button and several other toggles: 'Design properties' (turned on), 'Covariance matrix' (turned off), 'Fisher matrix' (turned off), 'Probabilities' (turned off), and 'Utilities' (turned off). The table itself has columns for 'Choice situation', 'Block', 'nurse.treatment', 'nurse.appointment', 'nurse.who\_prof', 'nurse.comm\_face', 'nurse.aftercare', and 'nurse.risk'. It contains 10 rows of data.

Choice situation	Block	nurse.treatment	nurse.appointment	nurse.who_prof	nurse.comm_face	nurse.aftercare	nurse.risk
1	1	3	2	0	1	2	25
2	1	4	2	1	1	0	10
3	1	1	0	2	0	2	6
4	1	3	2	1	0	2	10
5	1	3	0	0	1	0	6
6	1	3	1	0	0	1	6
7	1	1	1	1	0	2	10
8	1	1	1	2	1	3	25
9	2	4	0	1	0	3	25
10	2	1	1	1	0	0	25

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## Step 3b: Inspect the choice tasks

The screenshot displays the Ngene software interface, specifically the 'INSPECT' tab. The interface features a dark blue header with 'SCRIPT', 'SEARCH', and 'RESULTS' tabs, along with notification, help, and user icons. Below the header, the 'INSPECT' tab is active, showing a grid of choice tasks. The grid is organized into three columns: NURSE, HOSPITAL, and HOME. Each column contains six rows of tasks, each with a label and a selected value. At the bottom, there are navigation buttons: 'PREV', '1/24', 'NEXT', 'FORMAT SELECTED CELL', 'REMOVE EMPTY ROW', and 'ADD EMPTY ROW'.

NURSE	HOSPITAL	HOME
Treatment per day <b>Three</b>	Treatment per day <b>Two</b>	Treatment per day <b>Continuous pump</b>
Appointment times <b>Daily not given</b>	Appointment times <b>Daily given</b>	
Who gives IV drip <b>General nurse</b>	Who gives IV drip <b>Doctor</b>	Who gives IV drip <b>You (half day training)</b>
Healthcare prof communication <b>Known HCP</b>	Healthcare prof communication <b>Unknown HCP</b>	Healthcare prof on phone <b>Unknown HCP</b>
Aftercare <b>GP</b>	Aftercare <b>None</b>	Aftercare <b>Nurse in hospital</b>
Risk of infection <b>1 in 25 chance</b>	Risk of infection <b>1 in 10 chance</b>	Risk of infection <b>1 in 6 chance</b>

Navigation buttons: PREV, 1/24, NEXT, FORMAT SELECTED CELL, REMOVE EMPTY ROW, ADD EMPTY ROW