Synthetic Dataset Nursery Home: a user-guide

Why use this webpage?

Our website offers an innovative framework specifically designed for the effective and efficient description and simulation of routines. Through our intuitive and user-friendly environment, users can:

- **Design custom routines:** Enables users to easily describe complex routines through an interface where you build daily routines writing the time slots and physical location for each interval

- **Simulate in a realistic way routines:** You can obtain a simulation of a routine by means of a labelmap, which consists of a file where, for each day, there are 1140 location annotations, one for each minute of the day.

- **Analyze and visualize the described routine:** You can modify in a user-friendly way a randomness parameter, used to achieve more realism in the location time intervals. Also, you can visualize in real time what is the result of the labelmap and, if you are satisfied, download the corresponding routine simulation

You have a complete video demo at the following link:

https://youtu.be/rur1-0Pibx0

Quick navigation guide

Welcome to our interactive platform, where simplicity meets functionality. Our website is crafted to ensure that you have a seamless experience while navigating through the various sections. Here's a guide to help you navigate our website:

Header and Footer Navigation

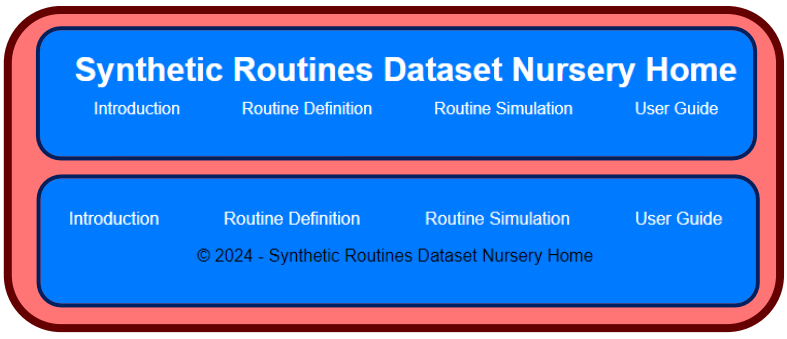
Across all pages of the website, you will find a consistent navigation structure both at the top (header) and at the bottom (footer) of the page. This includes:

a) Introduction: This is the welcome page, where you begin your journey. It gives you an overview of what the platform is about and how it can benefit you.

b) Routine Definition: Here is where you interactively define your routines. It's a user-friendly interface designed to make the process as intuitive as possible.

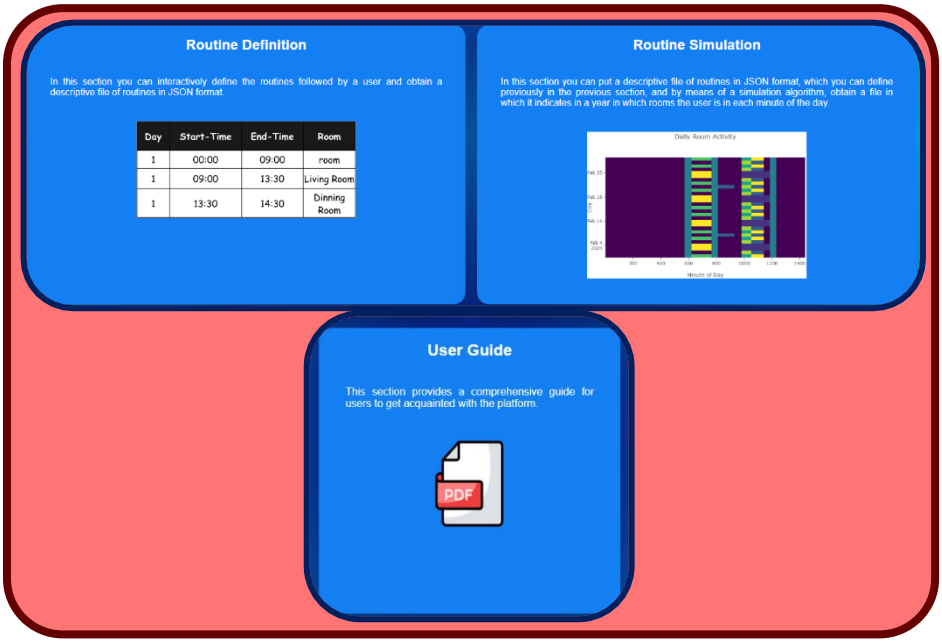
c) Routine Simulation: After defining your routines, you move on to this section to obtain the simulation file. Our sophisticated algorithm will simulate the routines based on the definitions you provided.

d) User Guide: Lastly, we have a comprehensive user guide available for you. It is recommended to read this guide to familiarize yourself with all the features and functionalities of our platform.



Welcome Page Navigation

On the Introduction page, you will encounter three key elements that facilitate direct navigation to other parts of the website:



- **Routine Definition:** By clicking on this element, you will be redirected to the section where you can begin creating and defining your routines interactively.

- **Routine Simulation:** Selecting this element will take you to the page where you can generate simulation files from the routines you have defined, providing a visual and data-driven outlook on your routines.

- **User Guide:** Clicking on this will open up the user guide, a document designed to help you understand and navigate the platform efficiently.

Each of these elements is visually represented on the Introduction page (as seen in the attached image) and acts as a gateway to the respective sections, ensuring that you have a direct and hassle-free route to the tools you need.

Routine Definition

Introduction to Routine Definition

The Routine Definition section of our website is a crucial component where you lay the groundwork for your simulation study. It is meticulously designed to be user-centric, facilitating the creation of detailed and precise routine schedules that reflect real-world scenarios. This section is divided into three distinct parts, each with its own purpose and functionality:

Part One: Room Selection for the Study

The first step in defining your routine is the selection of rooms. This foundational part allows you to tailor the environment to your specific study by choosing the spaces that will be included. Whether you are looking at a residential, office, or any other setting, you can customize the room selection to match the exact layout of the environment you are analyzing.

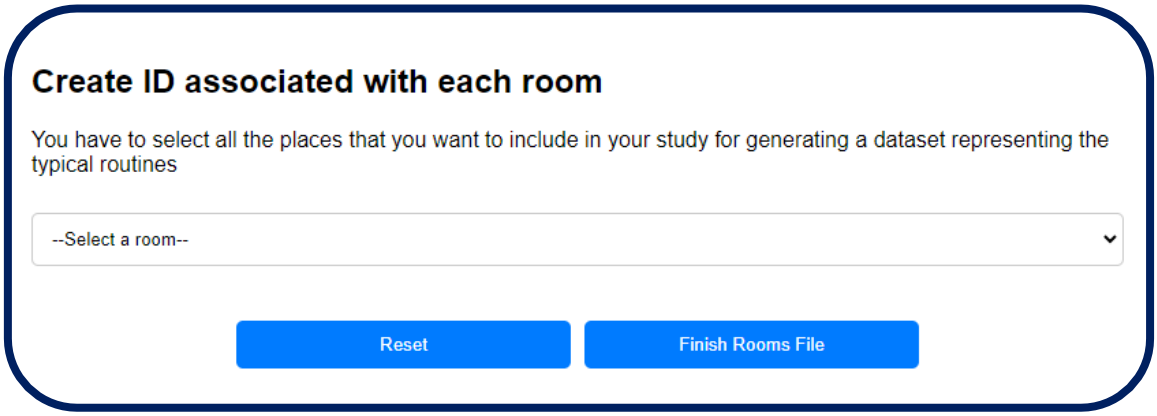


Figure 1 Visualization of the room selection section

The initial stage of defining your routine involves the crucial step of room selection, which sets the stage for the activities you will later simulate. The interface for this part, as shown in the attached image, is designed to be straightforward and user-friendly.

Selecting Rooms

At the heart of this section is a dropdown list that displays all available rooms. Here's how you can interact with it:

Figure 2 Dropdown of rooms

- **Selecting a Room:** Click on the dropdown menu labeled "--Select a room--" to view the list of available rooms. As you select a room, it will be removed from the dropdown list to avoid duplication and ensure each room is unique to your study.

- **Table of Selected Rooms:** Upon selection, a table will automatically generate and expand, listing all the rooms you have chosen. This visual representation allows you to review and confirm that the correct rooms are being included in your study.

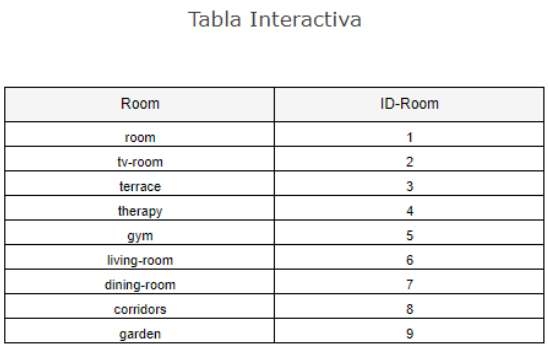


Figure 3 Autofilled table with selected rooms

Managing Your Selection

To give you control over this process, two buttons are provided:

Reset Button: If at any point you wish to start over or correct an error in the selection process, the 'Reset' button allows you to clear all selected rooms. This will refresh your list, and all rooms will reappear in the dropdown menu for you to begin the selection process again.

Finish Rooms File Button: After you have completed your selection, the 'Finish Rooms File' button is used to conclude this part of the process. Clicking this will finalize your choices and it will redirect you to the next section.

Part Two: Writing Daily Routines

Once your rooms are selected, you will move on to the second part, which is the creation of daily routines. This involves detailing the activities within each chosen room, segmented by time slots. Here, you will input the location for each part of the routine, specifying the duration and the room in which each activity takes place. This granular approach allows for a comprehensive breakdown of the day's activities, providing clear insight into how spaces are utilized over time.

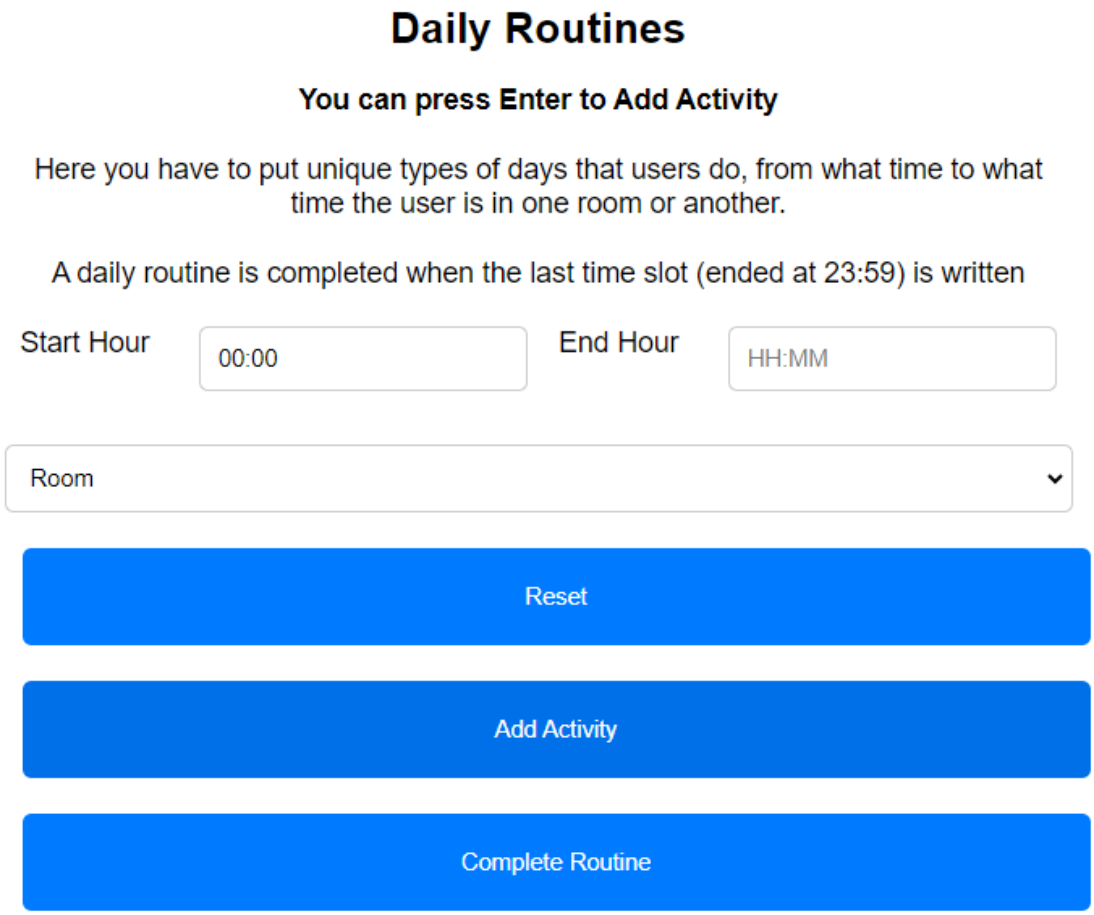


Figure 4 Visualization of the Daily Routines definition section

Inputs for Activity Definition

In this section, you have three main inputs:

a) Start Hour: Automatically filled based on the previous activity's end time, this field represents the beginning of a new activity time slot. It ensures continuity as you build out the day's schedule.

b) End Hour: Here, you manually input the time when the current activity ends, using the HH:MM format. This defines the length of the activity within the time slot.

c) Room Selector: This dropdown list features the rooms you've selected in the first part of the Routine Definition. It allows you to assign each activity to a specific room, bringing structure and location into your daily routine.

Button Functions

Alongside the input fields, there are several buttons designed to streamline the process:

a) **Reset:** By pressing this, you can clear all inputs and start afresh if you need to redefine your daily routine from the beginning.

b) **Add Activity:** Once you've filled out the inputs for a time slot, hitting 'Add Activity' will:

- **Update the Start Hour to the last End Hour entered**, setting up the beginning of the next activity.
- **Clear the End Hour field**, ready for you to input the next activity's ending time.

- **Generate a table that populates with each completed activity**, showing the time interval and the associated room. This gives you a clear overview of how the routine is shaping up throughout the day.

Routines Day 1

Day	Start-Time	End-Time	Room
1	00:00	09:30	room
1	09:30	10:20	dining-room
1	10:20	12:45	gym
1	12:45	13:30	dining-room
1	13:30	17:52	terrace
1	17:52	19:45	room
1	19:45	20:30	dining-room

Figure 5 Example of table autofilled as the the activities are introduced

c) Complete Routine: When all daily activities are entered, and you've input the final End Hour as 23:59, you can press this button. It signifies the completion of a full day's routine. The system will then offer to download the data as a CSV file and prompt you to move on to the next step in the Routine Definition section