

FIXVISION.

THE SOLVAY SOLUTION

Start Game

THE SOLVAY SOLUTION

MANUAL

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Immersive Escape room Solvay Solution Manual

This document provides all the necessary information for playing the Immersive Escape room Solvay Solution: starting up, the overall story and setup of the game, the various minigames featured, and how to adjust the content.

- **Story**

Solvay Solution is an exciting and immersive escape room experience.

Players receive some background information about the ruins of Solvay Castle through a video. They then accidentally travel back in time to 1927, moments before a mysterious explosion occurs at Solvay Castle.

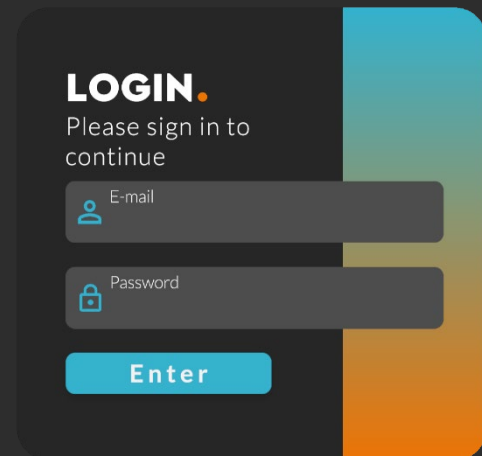
Upon arrival, they discover that the time machine is broken: several essential parts are missing. These parts can be obtained by exploring different rooms, finding various objects, and playing associated minigames. In each minigame, players can also win batteries.

The goal of the game is to collect enough batteries and the missing time machine parts within the given time to return to the present. The escape room is guided by Edmund Solvay, the voice-over of a fellow player, and text pop-ups.

• Starting & Virtual Room

Login screen

When starting the game, you will be asked to enter your login details. Use the keyboard to fill in these details in the indicated fields. Information about your account, licenses, and password details can be found at: <https://www.login.fixvision.nl>

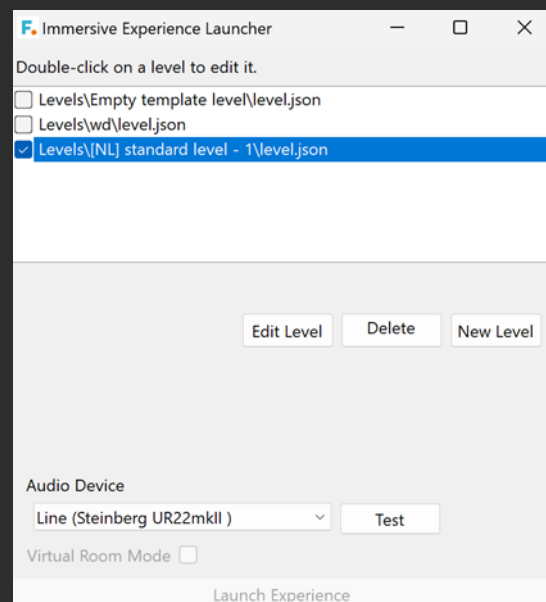


Virtual room

The virtual room mode is developed to enable the escape room to be used on a non-immersive computer. This way, you can also create levels at home or on the go.

Note: The Solvay Solution is only available for Windows OS.

1. Start the experience by clicking on 'LevelEditor.exe' in the folder.
2. In the window that opens, you will see all available levels.
3. With the 'New Level,' 'Delete,' and 'Edit Level' buttons, you can respectively create a new level, permanently delete a level, or edit a level.
4. Check the 'Virtual room mode' option to play the game on a non-immersive computer.
5. Select a level to play and click 'Launch Experience' at the bottom.
6. The virtual room mode can also be toggled on and off with the Ctrl + R key combination.
7. In this mode, you can move forward and backward with the 'W' and 'S' keys, and left and right with the 'A' and 'D' keys.
8. You can look around by holding the right mouse button and moving the mouse.

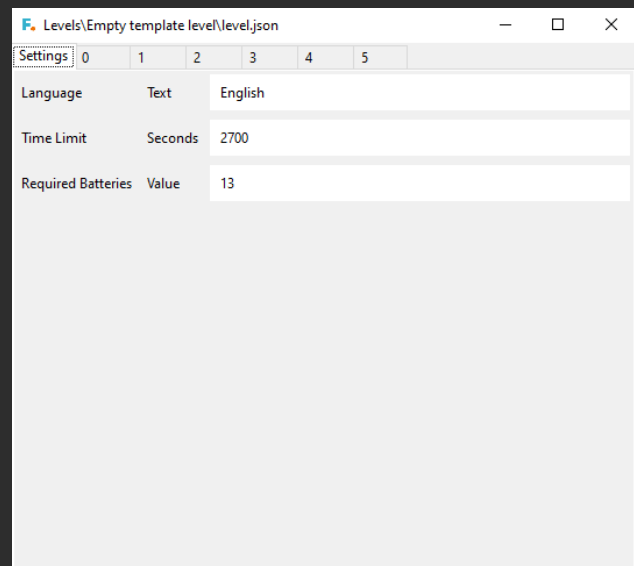


● Adjusting Content

Adjusting Content As described in the previous section, you can adjust the content of a level by selecting a level in the level editor and clicking 'Edit Level.' This takes you to the menu shown below.

The menu is divided into several tabs, one for each room (0-5).

In the tabs, you will find sub-tabs for the different minigames (1-1, 1-2, etc.). When there is a third level of tabs available after selecting a minigame, it means that there is a message displayed after the minigame. This is specifically intended for, and only visible when, a wrong answer is given.



| Settings | | 0 | 1 | 2 | 3 | 4 | 5 |
|--------------------|---------|---------|---|---|---|---|---|
| Language | Text | English | | | | | |
| Time Limit | Seconds | 2700 | | | | | |
| Required Batteries | Value | 13 | | | | | |

To adjust the questions and answers of a minigame, it is strongly recommended to gather all necessary images beforehand and place them in the respective level folder. You can find this folder by clicking on the 'Levels' shortcut in the game folder and then opening the folder of the level to be edited.

In the level's Settings tab, you can adjust several parameters:

- **Language:** Enter 'English' for an English-spoken game, or 'Dutch' for a Dutch-spoken game.
- **Time limit:** How long the participants have to complete the game in total, in seconds.
- **Required Batteries:** How many 'batteries' the players need to collect in the game to win. Batteries are explained further in the manual.

- **General Information**

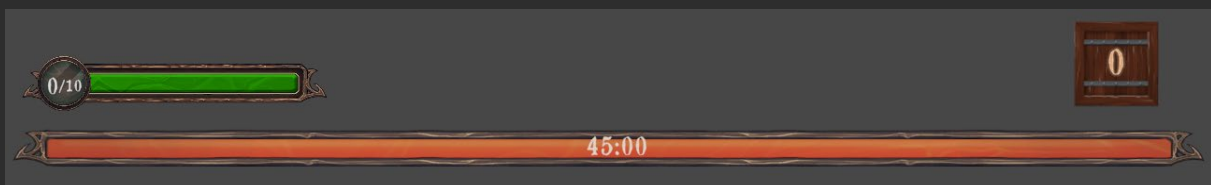
There are several general rules that apply throughout the game.

Time

Players are given a preset time limit to complete the game. The time is indicated by an orange bar. If they do not complete it in time, the game proceeds to the 'loser' ending.

Progress Bar

In each room, there are several objects that players need to find. The green 'progress bar' shows how many objects need to be found and how many have already been found.



Batteries

Batteries can be won with correct answers in each minigame. At the end of the game, players need a customizable number of batteries. The number of batteries is displayed in the wooden box shown at the bottom right of the screen.

Objects

In each room, there are several objects that players need to find. These objects must be found in a specific order, which is indicated by hints. Most objects are associated with minigames. If players have difficulty finding the next object, it will be highlighted with a white glowing outline. When clicking on the objects, players have two options: 'inspect' or 'close.'



- **Minigames**

The entire game features a total of 28 minigames, consisting of 8 types:

- AB Questions
- ABCD Questions
- True/False Questions
- Image Questions
- Word Cloud
- Connect Quiz
- Smartest Person
- Lever Combination Game
- Memory Game

For some games, it is necessary to press the 'check' button after all answers are filled in. It will then indicate whether the answer is correct or incorrect, and possibly display a text pop-up with information about the (correct) answer. If a text pop-up after an answer is desired, it can be filled in the level editor. If not desired, you can leave the field empty.

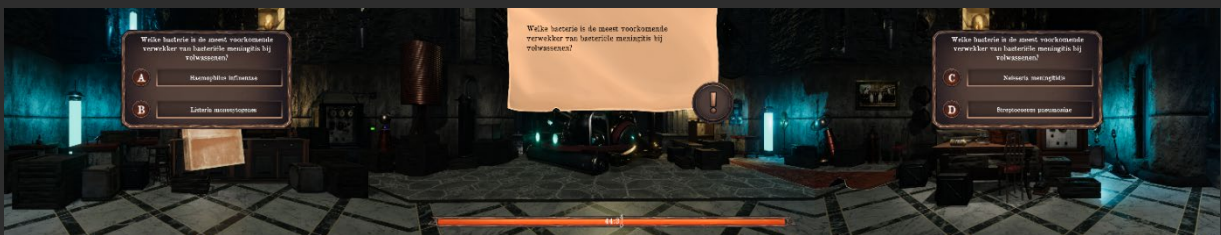
AB Quiz

A question with two possible answers, one of which is correct. This game often consists of a series of multiple AB questions. The player has one chance.



ABCD Quiz

A question with four possible answers, one of which is correct. The player has two chances.



Cryptex Roll

True/False A question/statement with four answers. For each answer, the player must indicate whether it is true or false. The player has three chances.



Image Quiz

A question with four possible answers in the form of images, one of which is correct. The player has three chances.



Word Cloud

A question with multiple correct answers. The number of stars that light up corresponds to the number of correct answers. The player has three chances.



Connect Quiz (2D Quiz)

Connect the color to the correct word. The player has three chances.



Smartest Person

There are several topics with different words displayed. The players must match the correct words to the topics.



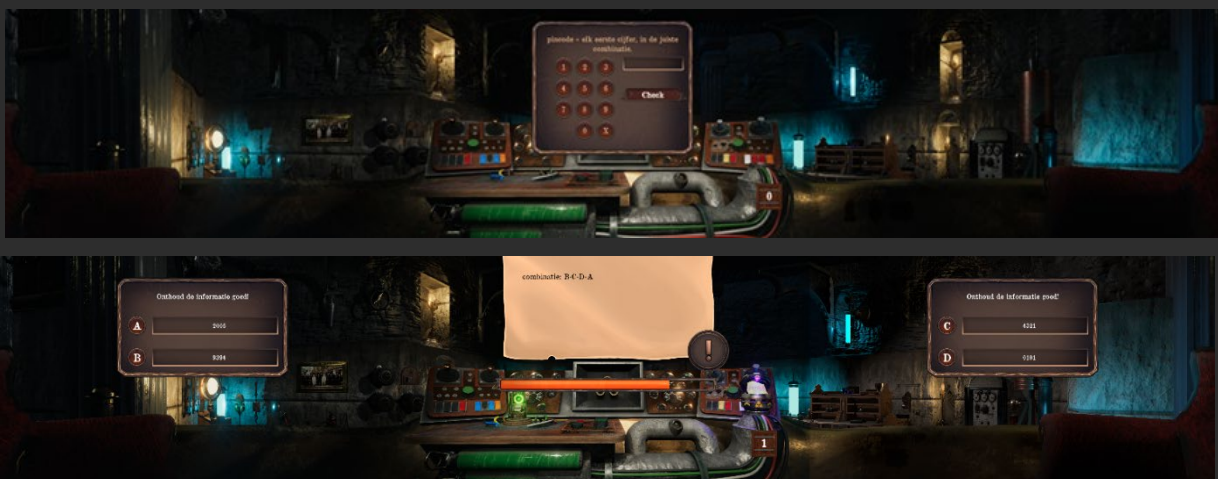
Lever Game

By pulling the different levers, players get a code displayed. Set the levers in the correct position to get the requested number.



Memory Game

Four (ABCD) answers with different numbers are displayed. Players must remember the numbers (together) within a short time. They must then place the numbers in the correct order.



- **Time Machine Parts**

After completing all the minigames, the room is completed and players receive the missing time machine part. This also applies if they did not answer all minigames correctly. The progress of the parts can be seen at the bottom right:

- Time System of Albert Einstein
- Uranium Crystal of Marie Curie
- Navigation System of Werner Heisenberg
- Ignition System of Hendrik Lorentz

- **Scene 1: Start screen, Introduction and Time**

In this scene, players receive a general introduction to the story through a video. They see how they end up in the past and experience the time travel.



- **Scene 2: Arrival and Main Hall**

Players arrive at the castle and are inside a wooden crate. To open the crate, each wall must be touched to 'push' the panels over. The crate falls open, and they find themselves in the main hall. The main hall is the castle's large room. This is the first scene where minigames will be played. They also receive information about various assets: the batteries and the 'progress bar.' In this room, players get some background information about the conference. The goal is to collect batteries and the castle map.



Objects and Minigames

Players must explore the room in a specific order. If they click on an object too early, they can't do anything with it. This is indicated through text pop-ups. In total, 6 batteries can be collected in this room.

| Object | Location | Wall | Minigame | Number | Batteries |
|--------------|--------------|--------|--------------|--------------------|-----------|
| Diary | On the shelf | Left | ABCD | 0-1 | 1 |
| Photo | On the wall | Right | 4x AB | 0-2, 0-3, 0-4, 0-5 | 4 |
| Cryptex roll | On the desk | Left | Cryptex roll | 0-6 | 1 |
| Time Machine | On the floor | Middle | - | - | - |

- **Diary:** Background information about the two days after the conference from Solvay's perspective.
- **Photo:** Four scientists have disappeared from the photo. Players must complete the photo through a minigame.
- **Cryptex Roll:** The cryptex roll contains a map of the castle with the different rooms.
- **Time Machine:** Solvay provides information about the machine, the missing objects, and the further progression of the game.

- **Scene 3: Einstein Room**

Players begin in a dark room. The first task is to turn on the light. The goal of this room is to find the timer system. Once found, it must be charged to get it working.



Objects and Minigames

Players must explore the room in a specific order. If they click on an object too early, they can't do anything with it. This is indicated through text pop-ups. In total, 7 batteries can be collected in this room.

| Object | Location | Wall | Minigame | Number | Batteries |
|--------------|-------------------------------------|-------------|---------------|------------|-----------|
| Desk lamp | On the desk | Left | ABCD | 1-1 | 1 |
| Paintings | On the wall | Left | - | | - |
| Test tubes | 2x red, 1x white, 2x blue | Spread out | 5x Statements | 1-2 to 1-6 | 5x1 |
| Test tubes | On the table | Middle | | | |
| Levers | 1st on the floor 2nd on the wall | Left, right | AB | 1-7 | 1 |
| Timer system | Middle electricity generator | Middle | - | | - |

- **Desk Lamp:** Turn on the lamp on the black desk to illuminate the paintings.
- **Paintings:** The paintings display numbers representing the number of test tubes to be found. The numbers appear by playing the minigames. The numbers are: 2x red, 1x white, and 2x blue.
- **Test Tube Rack:** After finding all the test tubes, they are placed in the rack. Click on the rack to ignite the first electricity generator.
- **Levers:** Pull the levers to ignite the second and third electricity generators. The generator is activated through a minigame.
- **Timer System:** After igniting all generators, the time machine appears. Click on it to go to the next room.

- **Scene 4: Curie Room**

In the Curie room, players must collect batteries and complete the production process of the Nuclear Crystal. For this, the reactors need to be heated. When the wooden crate on the left-hand shelf is touched, it falls down and breaks, revealing a shovel. The shovel is needed to fill piles of coal into the reactors. The shovel goes to the first pile of coal and fills the first reactor. There are two more piles that need to be revealed by exploring the room. Once all reactors are filled, the Nuclear Converter appears, and players can proceed to the next room.



Objects and Minigames

Players must explore the room in a specific order. If they click on an object too early, they can't do anything with it. This is indicated through text pop-ups. In total, 4 batteries can be collected in this room.

| Object | Location | Wall | Minigame | Number | Batteries |
|-------------------|--------------|--------|----------------|--------|-----------|
| Crate | Op the shelf | Left | - | | - |
| Shovel | On the floor | Left | Picture Quiz | 2-1 | 1 |
| 3 Coal Containers | On the floor | Right | Picture Quiz | 2-2 | 1 |
| Crowbar | On the floor | Middle | - | | - |
| Shovel | On the floor | Left | Rank the Words | 2-3 | 1 |
| Lever | On the floor | Left | - | | - |
| Shovel | On the floor | Right | Rank the Words | 2-4 | 1 |

- **Wooden Crate with Shovel:** The wooden crate breaks on the floor, revealing a shovel. After answering a Picture Quiz, the first reactor is filled.
- **3 Coal Containers:** More coal is needed for the reactor. Obtain this from the three coal containers by answering a picture quiz.
- **Crowbar:** The crowbar is needed to open the stuck door of the third coal container. The reactor is activated by answering a word cloud.
- **Lever Coal Machine:** Pull the lever for more coal to fill the third reactor.
- **Nuclear Converter:** After filling all reactors, retrieve the converter from the cabinet on the middle screen.

- **Scene 5: Heisenberg Room**

In the Heisenberg room, players must collect batteries and escape by opening the doors. For this, the three switches need to be set to the corresponding positions. Once the doors open, Solvay finds the location of the navigation system.



Objects and Minigames

Players must explore the room in a specific order. If they click on an object too early, they can't do anything with it. In total, 5 batteries can be collected in this room.

Switch 1

| Object | Location | Wall | Minigame | Number | Batteries |
|-------------------|------------------|-------|--------------|--------|-----------|
| Safe | On the floor | Left | - | | - |
| Jar of Brains | Op the desk | Right | Connect Quiz | 3-1 | 1 |
| Safe 1 and Pliers | On the floor | Left | - | | - |
| Burning Book | In the fireplace | Left | - | | - |
| Book | On the floor | Left | ABCD | 3-2 | 1 |
| Switch 1 | On the wall | Right | - | | - |

- **Safe 1:** Investigating the safe prompts you to look around.
- **Jar of Brains:** A code at the bottom of this jar opens safe 1. The code appears by answering a Connect quiz.
- **Safe 1 and Pliers:** Opening the safe reveals pliers.
- **Burning Book:** Use the pliers to retrieve the burning book from the fireplace, then answer an ABC quiz. The book states that the left lever of the doors should be down.

Switch 2

| Object | Location | Wall | Minigame | Number | Batteries |
|-----------|-------------|-------|----------|--------|-----------|
| Wall Safe | On the wall | Right | - | - | - |
| Statue | On the desk | Left | ABCD | 3-2 | 1 |
| Wall Safe | In the wall | Right | ABCD | 3-3 | 1 |
| Switch 2 | On the wall | Right | - | - | - |

- **Wall Safe:** Investigating the safe prompts you to look around.
- **Statue:** A code at the bottom of the statue opens the wall safe.
- **Wall Safe:** After entering the code, answer an ABCD quiz. The safe contains a note stating that the middle lever should be down.

Switch 3

| Objects | Location | Wall | Minigame | Number | Batterijen |
|-------------------|------------------|--------|----------|--------|------------|
| Record | In the desk | Middle | - | - | - |
| Record Player | Next to the safe | Left | - | - | - |
| Klok | Wall | Middle | ABCD | 3-4 | 1 |
| Switch 3 | On the wall | Right | - | - | - |
| Navigation system | Cabinet | Middle | - | - | - |

- **Record:** Retrieve the record from the desk. It is needed to play on the record player.
- **Record Player:** The record player plays a song mentioning '3 o'clock.'
- **Clock:** Set the clock to 3 o'clock. Then answer an ABCD quiz. The clock contains a note stating that the right lever should be up.
- **Navigation System:** After Solvay enters the room, he points out that the navigation system is in the cabinet under the clock.

- **Scene 7: Lorentz Room**

The goal of this room is to open the secret door on the middle wall and retrieve the ignition system. Players do this by finding two levers and jamming the door.



Objects and Minigames

Players must explore the room in a specific order. If they click on an object too early, they can't do anything with it. In total, 4 batteries can be collected in this room.

| Object | Location | Wall | Minigame | Number | Batteries |
|---------------|------------------|------------|-----------------|----------|-----------|
| Painting | On de Wall | Middle | - | - | - |
| Crates | On the floor | Left | - | - | - |
| 2 Panels | On the Wall | Left | 2x AB | 4-1, 4-2 | 2 |
| Lever 1 | On the Wall | Left | - | - | - |
| Wall Tapestry | Wall | Right | Smartest Person | 4-3 | 1 |
| Lever 2 | Wall | Right | - | - | - |
| Door Lever | On the floor | Middle | - | - | - |
| Large Beam | Against the Wall | Left | Connect Quiz | 4-4 | 1 |
| Lever 1 or 2 | On the Wall | Left/Right | - | - | - |
| Ignition | In the corridor | Middle | - | - | - |

- Painting: Clicking on the painting reveals a message: "To open the secret door, you need to power it up! Find the two power switches."
- Lever 1 (Crates): The first lever is on the left wall, hidden behind some crates. The player must first activate the panels on either side. Then the left light can be turned on.
- Lever 2 (Wall Tapestry): The second lever is on the right wall, hidden behind a wall tapestry. The player must complete a Smartest Person quiz. Then the right light can be turned on.
- Door Lever: After powering up, the door lever can be moved, and the secret door opens. However, it cannot be entered due to water on the floor and the electricity being on. Once the electricity is turned off, the door closes again.
- Large Beam: To enter the room, a blockade is needed to keep the door open. There is a large beam in the room that can be placed under the door.
- Ignition System: Turn off the electricity using one of the levers. Then retrieve the ignition system.

- **Scene 8: Ending**

This scene begins with the installation of the collected parts. Then, the time machine must be started using a startup sequence. This sequence includes the last two minigames. Players can win or lose batteries in these minigames.

After this, all collected batteries are loaded into the time machine. This determines whether players see the good or bad ending.

| Object | Location | Wall | Minigame | Number | Batteries |
|-----------|------------------|--------|-------------|--------|-----------|
| Parts | In the dashboard | Middle | - | - | - |
| Startup 1 | In the dashboard | Middle | Memory Game | 5-2 | +3/-3 |
| Startup 2 | In the dashboard | Middle | Lever Game | 5-1 | +3/-3 |

Situation 1: Successful

In a successful ending, the castle never exploded. The players travel back to the present and stand before the castle, now inhabited by a great-grandson of Solvay.

Situation 2: Failed

In a failed ending, players are trapped in the castle and cannot return. In the present, a breaking news item appears on television. After visiting the ruins of Solvay Castle, six tourists and a guide have disappeared. The mystery of the castle has only deepened.



General Info.

For more information about immersive training and experiences for Immersive Rooms and VR glasses, visit: www.fixvision.nl

- **Updates**

Fixvision updates manuals from time to time. Check the website for the most recent version of the manual.

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