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|  | Technical Specification  ***Laptop*** |

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| --- | --- |
|  | Date |

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| --- | --- | --- | --- |
| Reference | **Technical Specification LAPTOP** | | |
| Summary |  | | |
| Project | **Laptop (SEA 6.3.1)** | | |
| System |  | | |
| Document perimeter | **Model** | | |
| Variant |  | | |
| History |  |  |  | |

|  |  |
| --- | --- |
| Approvals |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Validation |  |  |  |  |

|  |  |
| --- | --- |
| Contributors |  |

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# 1. Supervise data

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 01:44:26 | ADD Object | 1. States and Modes[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 1.0]) 2. Standby[Requirement] (#- -> #1.3) 3. Shutdown[Requirement] (#- -> #1.3) 4. Restart[Requirement] (#- -> #1.3) 5. Physical shutdown[Requirement] (#- -> #1.2) 6. Hibernate[Requirement] (#- -> #1.2) 7. CF system protection[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 1.0]) 8. Antivirus update[Requirement] (#- -> #1.3) 9. Antivirus install[Requirement] (#- -> #1.2) | samuel\_eval |
| 2.0 | 2025-08-14 01:57:07 | ADD Object | 1. control component availablity[Requirement] (#- -> #1.1) 2. [Processor Frequency] over 1,5 GHz[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 3. [CoreNumber] equals {1, 2, 4}[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 4. Switch user[Requirement] (#- -> #1.3) 5. Switch ON-OFF the Laptop[Requirement] (#- -> #2.1) 6. Support results stream[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 7. Support power modes[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 8. Support execution of programs[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 9. Support User identification[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 10. Support Man Machine Interface[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 11. Screen size of 15''[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 12. Response time of 20 ms[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 13. Realize [ProcessorFrequency] operation[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 14. Provide support for displaying information to User[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 15. Provide screen interface[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 16. Provide graphic display output[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 17. Processor frequency chosen \_ 1,6GHz nominal, 2,6 GHz max[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 18. Processor core number chosen \_ 2[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 19. Power execution[Requirement] (#- -> #1.3) 20. Personalize session[Requirement] (#- -> #1.3) 21. Performances data to display[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 22. Password protection[Requirement] (#- -> #1.3) 23. Obtain programs results[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 24. Multi-users[Requirement] (#- -> #1.3) 25. Manage heat (see MF4)[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 26. Manage 3D display[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 27. MF1 - provide a mobile support to execute programs[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 28. Improve the thread level parallelism with [CoreNumber][Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 29. Fulfilled processor requirements[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 30. Execute instructions[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 31. Enter data from user[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 32. Ensure a collaborative work between components[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 33. Convert data to display[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 34. Connect the subsystems[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 35. Connect the devices (see MF5)[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 36. Bring power (see MF2)[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 37. [Laptop shall provide feedback to User about start sequence][Refine] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 38. [Laptop shall control that components are available][Refine] (#- -> #1.0 [Release Chain Document: "STEP 1 Charge modification", Rev# 5.0]) 39. [Laptop shall boot quickly][Refine] (#- -> #1.0 [Release Chain Document: "STEP 1 Charge modification", Rev# 5.0]) 40. Provide graphic display output[Refine] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) | samuel\_eval |

## Description

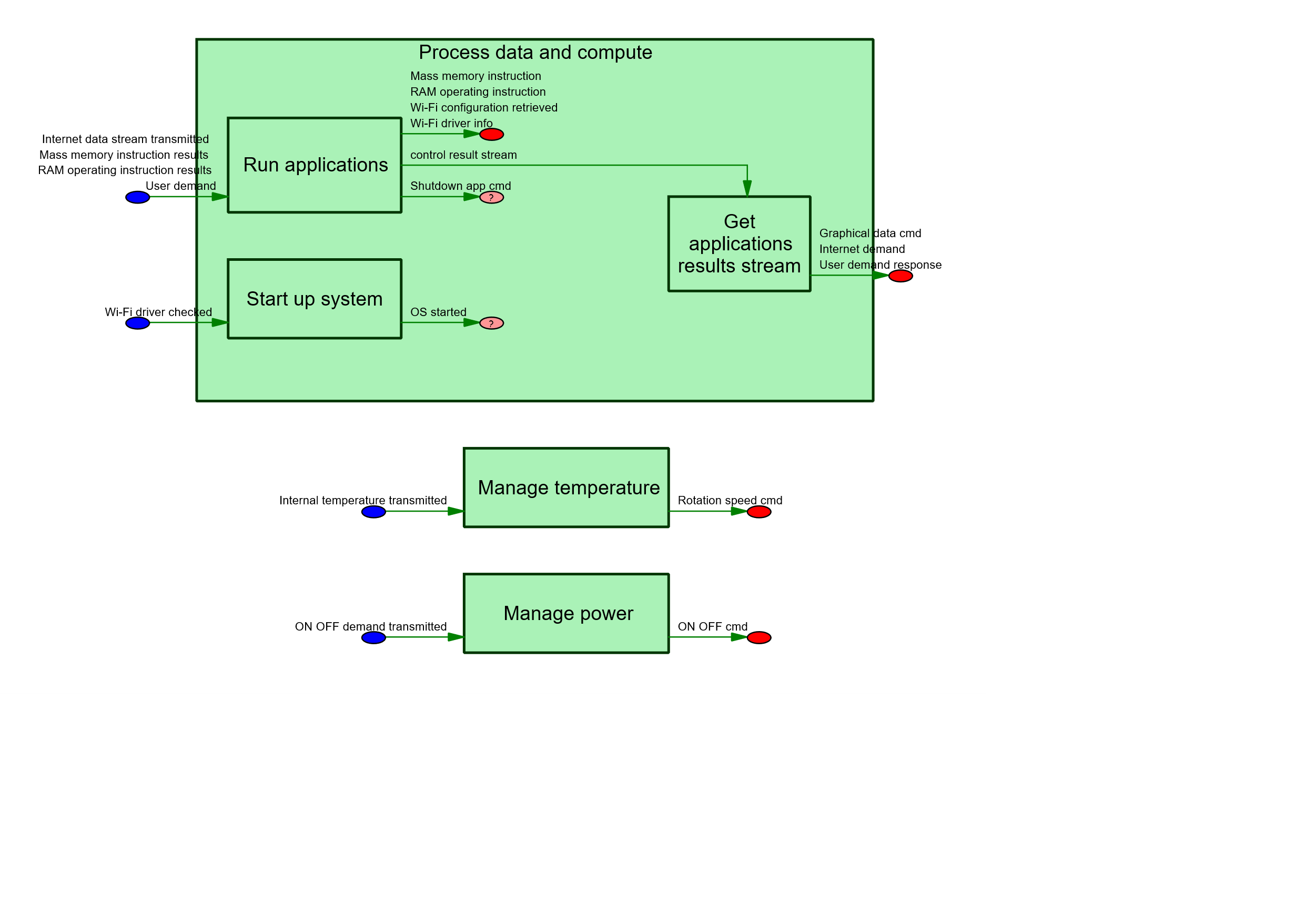
Supervise data

**Description:**  
This function is responsible for supervise data. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | | | **Type** | **Rev** | **Description** |
| 1. Supervise data | | | | | | Flow Chain | 2.0 |  |
|  | CF system protection | | | | | Requirement | 1.0 |  |
|  |  | Antivirus install | | | | Requirement | 1.2 | The LapTop shall warn user he should install another antivirus |
|  |  | Antivirus update | | | | Requirement | 1.3 | The antivirus shall be updated automatically |
|  | MF1 - provide a mobile support to execute programs | | | | | Requirement | 1.0 |  |
|  |  | Ensure a collaborative work between components | | | | Requirement | 1.0 |  |
|  |  |  | Connect the devices (see MF5) | | | Requirement | 1.0 |  |
|  |  |  | Connect the subsystems | | | Requirement | 1.0 |  |
|  |  | Enter data from user | | | | Requirement | 1.0 |  |
|  |  | Provide support for displaying information to User | | | | Requirement | 1.0 |  |
|  |  |  | [Laptop shall provide feedback to User about start sequence] | | | Refine | 1.0 | None |
|  |  |  | Convert data to display | | | Requirement | 1.0 |  |
|  |  |  |  | Performances data to display | | Requirement | 1.0 |  |
|  |  |  | Provide graphic display output | | | Requirement | 1.0 |  |
|  |  |  |  | Provide graphic display output | | Refine | 1.0 | None |
|  |  |  | Provide screen interface | | | Requirement | 1.0 | The system shall provide a screen interface |
|  |  |  |  | Response time of 20 ms | | Requirement | 1.0 | The system shall have a response time for displaying the result screen lower than 20 ms |
|  |  |  |  | Screen size of 15'' | | Requirement | 1.0 | The system shall have a screen size of 15'' |
|  |  | Support execution of programs | | | | Requirement | 1.0 |  |
|  |  |  | control component availablity | | | Requirement | 1.1 |  |
|  |  |  |  | [Laptop shall control that components are available] | | Refine | 1.0 | None |
|  |  |  | Execute instructions | | | Requirement | 1.0 |  |
|  |  |  |  | Fulfilled processor requirements | | Requirement | 1.0 |  |
|  |  |  |  |  | Processor core number chosen \_ 2 | Requirement | 1.0 |  |
|  |  |  |  |  | Processor frequency chosen \_ 1,6GHz nominal, 2,6 GHz max | Requirement | 1.0 |  |
|  |  |  |  | Improve the thread level parallelism with [CoreNumber] | | Requirement | 1.0 |  |
|  |  |  |  |  | [CoreNumber] equals {1, 2, 4} | Requirement | 1.0 | The system shall improve the thread level parallelism with a core number equals to [CoreNumber] |
|  |  |  |  | Power execution | | Requirement | 1.3 | User shall be able to manage Laptop power consumption and manage OS start/stop |
|  |  |  |  |  | Bring power (see MF2) | Requirement | 1.0 |  |
|  |  |  |  |  | Support power modes | Requirement | 1.0 |  |
|  |  |  |  |  | Hibernate | Requirement | 1.2 | the Laptop shall be able to hibernate |
|  |  |  |  |  | Physical shutdown | Requirement | 1.2 |  |
|  |  |  |  |  | Restart | Requirement | 1.3 | Laptop shall be able to restart |
|  |  |  |  |  | Shutdown | Requirement | 1.3 | Laptop shall be able to shutdown |
|  |  |  |  |  | Standby | Requirement | 1.3 | The Laptop shall have a standby state |
|  |  |  |  | Realize [ProcessorFrequency] operation | | Requirement | 1.0 |  |
|  |  |  |  |  | [Processor Frequency] over 1,5 GHz | Requirement | 1.0 | The system shall realize a number of operation by second higher than [ProcessorFrequency] |
|  |  |  | Manage heat (see MF4) | | | Requirement | 1.0 |  |
|  |  |  | Obtain programs results | | | Requirement | 1.0 |  |
|  |  |  | Support results stream | | | Requirement | 1.0 |  |
|  |  |  | Switch ON-OFF the Laptop | | | Requirement | 2.1 |  |
|  |  |  |  | [Laptop shall boot quickly] | | Refine | 1.0 | None |
|  |  | Support Man Machine Interface | | | | Requirement | 1.0 |  |
|  |  |  | Manage 3D display | | | Requirement | 1.0 | The system shall manage 3D images displaying it correctly |
|  |  | Support User identification | | | | Requirement | 1.0 |  |
|  |  |  | Multi-users | | | Requirement | 1.3 | The Laptop shall support multiple users |
|  |  |  |  | Password protection | | Requirement | 1.3 | each user shall be able to protect his data with a password |
|  |  |  |  | Personalize session | | Requirement | 1.3 | each user shall be able to personalize his session |
|  |  |  |  | Switch user | | Requirement | 1.3 | From within one users session, Laptop shall allow to switch to another user's session |
|  | States and Modes | | | | | Requirement | 1.0 |  |
|  |  | Hibernate | | | | Requirement | 1.2 | the Laptop shall be able to hibernate |
|  |  | Physical shutdown | | | | Requirement | 1.2 |  |
|  |  | Restart | | | | Requirement | 1.3 | Laptop shall be able to restart |
|  |  | Shutdown | | | | Requirement | 1.3 | Laptop shall be able to shutdown |
|  |  | Standby | | | | Requirement | 1.3 | The Laptop shall have a standby state |

# 2. Ensure cooling management

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 02:01:59 | ADD Object | 1. Provide cold for Laptop[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 2. Monitor the temperature[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 3. Measure the processor temperature[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 4. Manage Laptop subsystems cooling[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 5. MF4 - Enable thermal management[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 6. Have sufficient airflow to cool the processor[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 7. Get airflow to cool the system[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 8. Evacuate heat to environment[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 9. Evacuate heat excess[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) 10. Battery heating[Requirement] (#- -> #1.0 [Release Chain Document: "2. Ensure cooling management", Rev# 1.0]) | samuel\_eval |

## Description

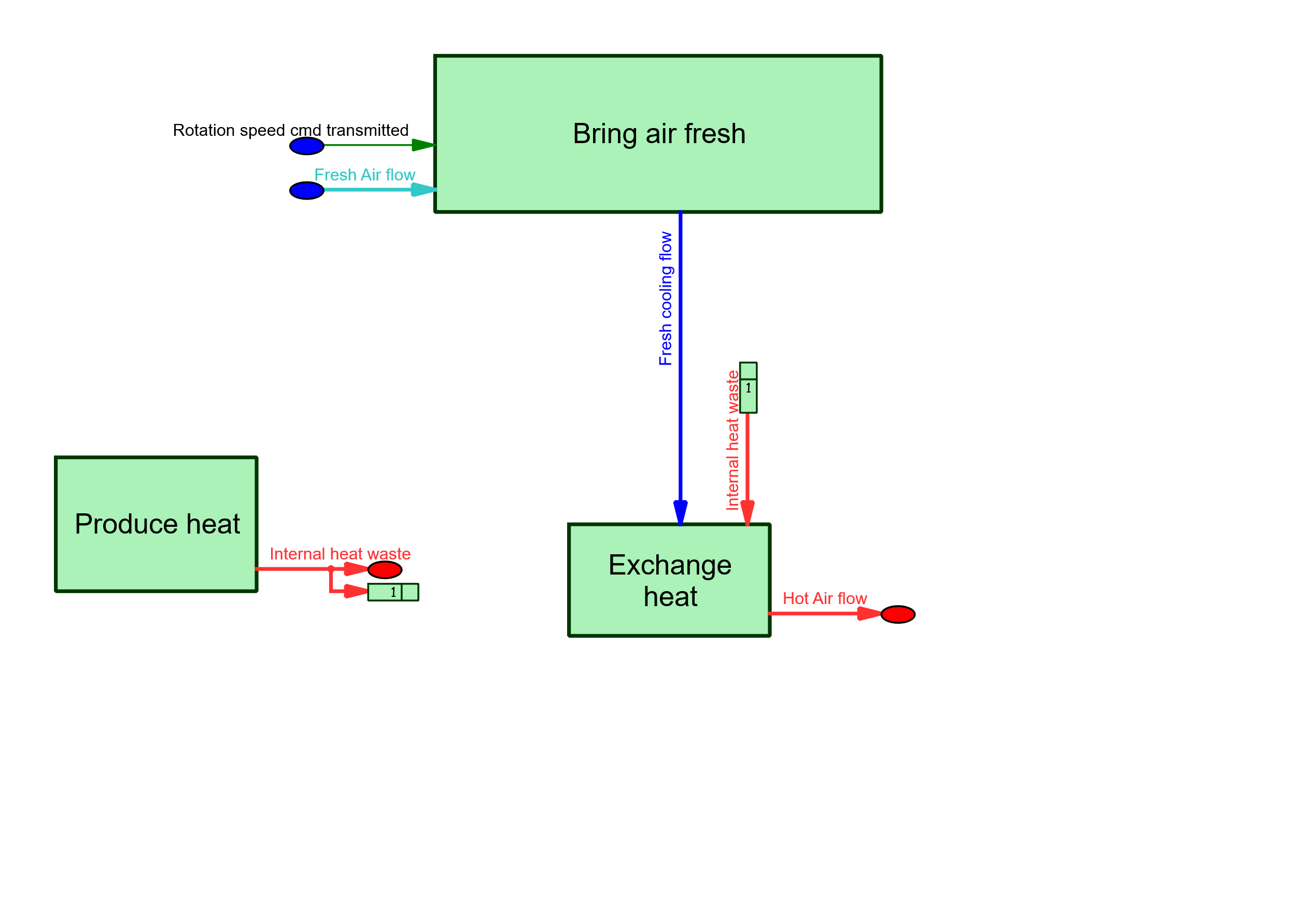
Ensure cooling management

**Description:**  
This function is responsible for ensure cooling management. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | **Type** | **Rev** | **Description** |
| 2. Ensure cooling management | | | | Flow Chain | 1.0 |  |
|  | MF4 - Enable thermal management | | | Requirement | 1.0 |  |
|  |  | Battery heating | | Requirement | 1.0 | Battery shall not overheat |
|  |  | Evacuate heat excess | | Requirement | 1.0 |  |
|  |  |  | Evacuate heat to environment | Requirement | 1.0 | The system shall evacuate the heat that it produces to the environment. |
|  |  |  | Get airflow to cool the system | Requirement | 1.0 |  |
|  |  |  | Provide cold for Laptop | Requirement | 1.0 |  |
|  |  | Manage Laptop subsystems cooling | | Requirement | 1.0 |  |
|  |  |  | Have sufficient airflow to cool the processor | Requirement | 1.0 |  |
|  |  | Monitor the temperature | | Requirement | 1.0 |  |
|  |  |  | Measure the processor temperature | Requirement | 1.0 |  |

# 4. Manage MMI

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 02:08:19 | ADD Object | 1. Provide start and stop interface[Requirement] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) 2. Provide keyboard interface[Requirement] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) 3. Provide Mouse Interface[Requirement] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) 4. Provide Interface for User Requests[Requirement] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) 5. MF5 - Enable Users interaction[Requirement] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) 6. [User shall have an interface to power on the Laptop][Refine] (#- -> #1.0 [Release Chain Document: "4. Manage MMI", Rev# 1.0]) | samuel\_eval |
| 2.0 | 2025-08-14 02:12:28 | MODIFY Object | 1. Provide keyboard interface[Requirement] (#1.0 -> #2.0 [Release Chain Document: "4. Manage MMI", Rev# 2.0]) | samuel\_eval |
| 3.0 | 2025-08-14 02:13:57 | MODIFY Object | 1. Provide Mouse Interface[Requirement] (#1.0 -> #2.0 [Release Chain Document: "4. Manage MMI", Rev# 3.0]) | samuel\_eval |

## Description

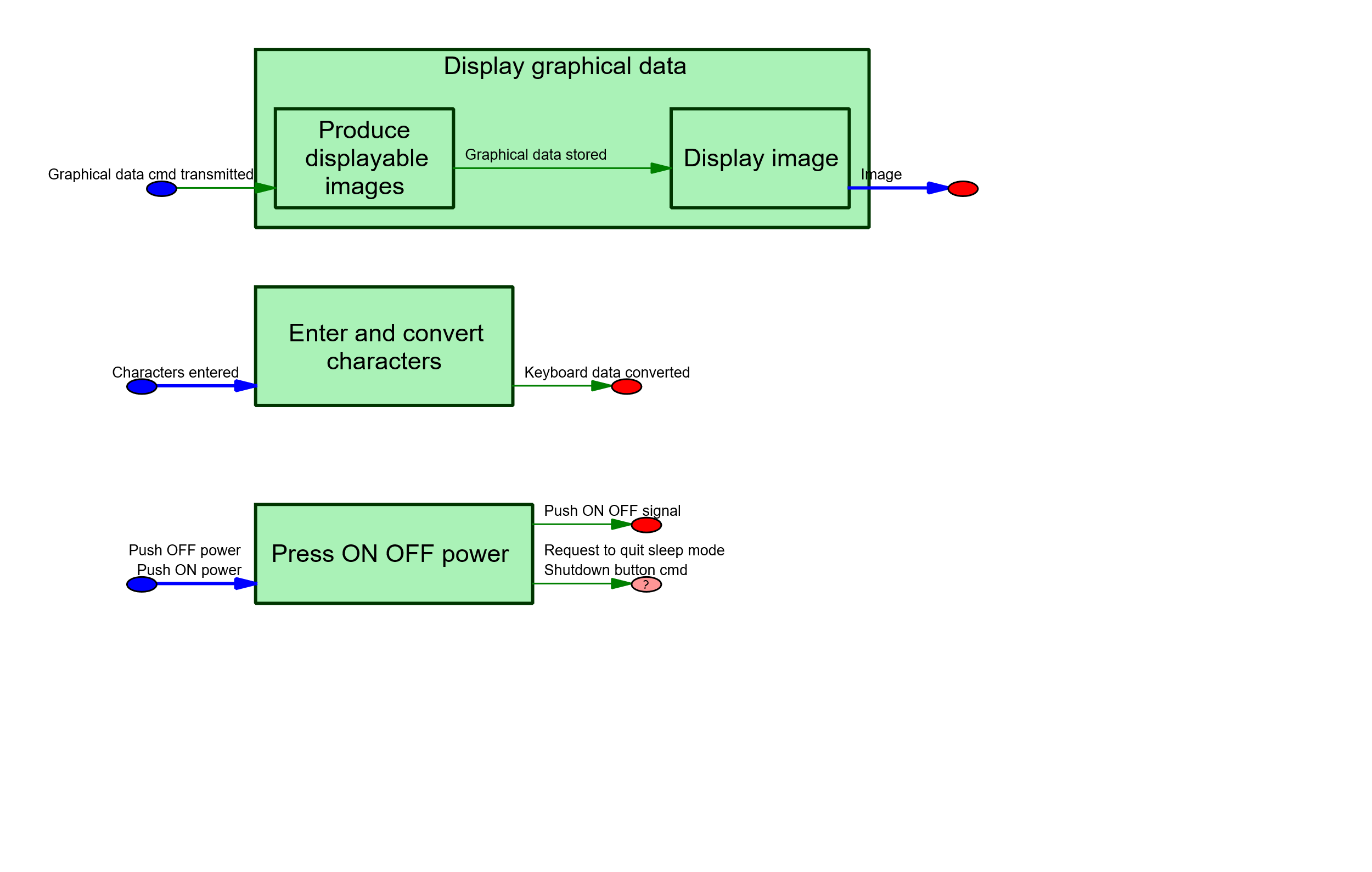
Manage MMI

**Description:**  
This function is responsible for manage mmi. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | **Type** | **Rev** | **Description** |
| 4. Manage MMI | | | | Flow Chain | 3.0 |  |
|  | MF5 - Enable Users interaction | | | Requirement | 1.0 |  |
|  |  | Provide Interface for User Requests | | Requirement | 1.0 |  |
|  |  |  | [User shall have an interface to power on the Laptop] | Refine | 1.0 | None |
|  |  |  | Provide keyboard interface | Requirement | 2.0 | no desc |
|  |  |  | Provide Mouse Interface | Requirement | 2.0 | no desc |
|  |  |  | Provide start and stop interface | Requirement | 1.0 |  |

# 5. Communicate

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 02:15:53 | ADD Object | 1. Support wired internet connection[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 2. Support internet signal[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 3. Support execution of Browsers[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 4. Support Wi-Fi connection[Requirement] (#- -> #1.3) 5. Support Ethernet connection[Requirement] (#- -> #1.2) 6. Manage internet data[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 7. MF3 - Enable browsing on the Internet[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 8. Enable http communication[Requirement] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 9. Area network - wifi[Refine] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) 10. Area network - ethernet[Refine] (#- -> #1.0 [Release Chain Document: "5. Communicate", Rev# 1.0]) | samuel\_eval |

## Description

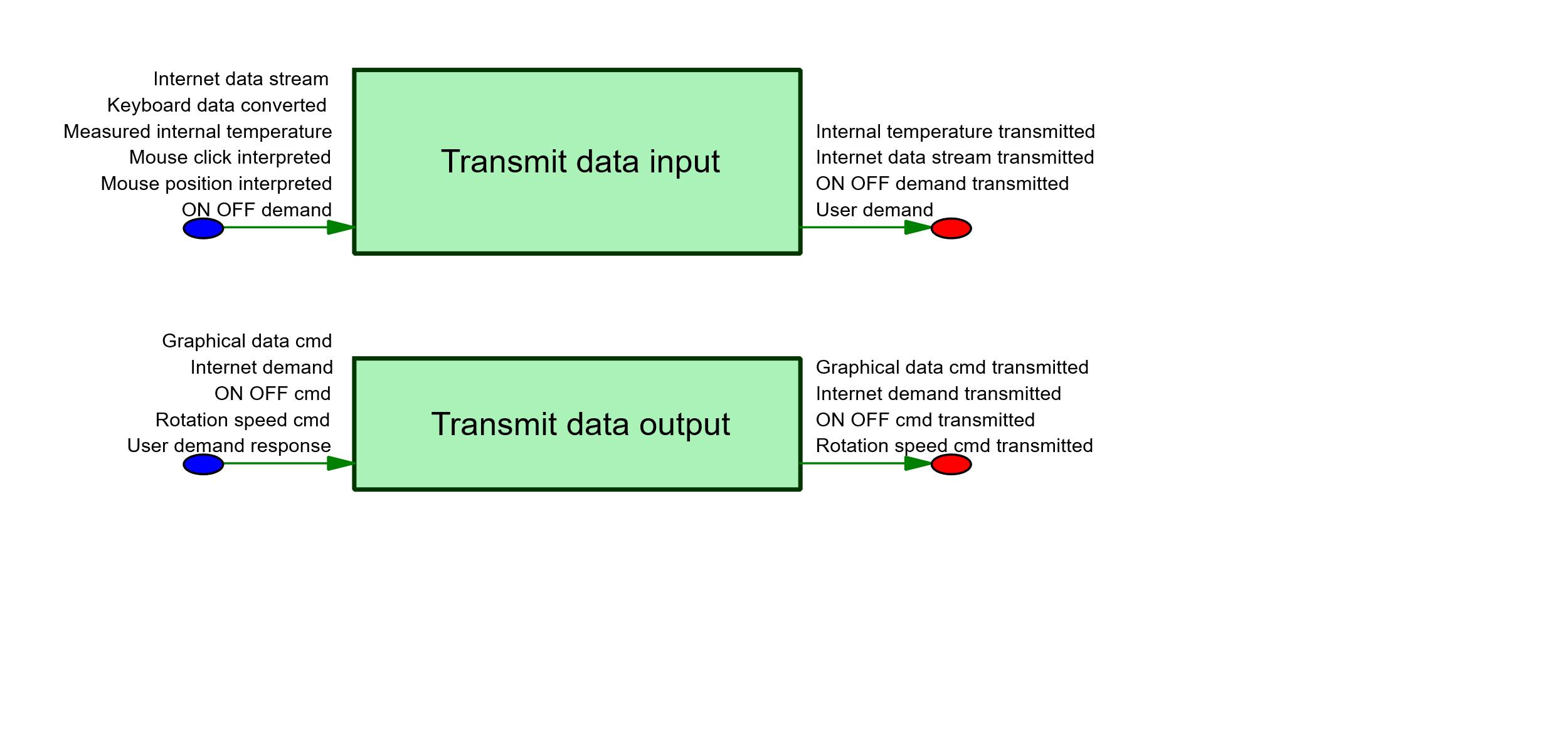
Communicate

**Description:**  
This function is responsible for communicate. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | | **Type** | **Rev** | **Description** |
| 5. Communicate | | | | | Flow Chain | 1.0 |  |
|  | MF3 - Enable browsing on the Internet | | | | Requirement | 1.0 |  |
|  |  | Enable http communication | | | Requirement | 1.0 |  |
|  |  |  | Support Ethernet connection | | Requirement | 1.2 | LapTop has to be able to connect to Network using ethernet cable |
|  |  |  |  | Area network - ethernet | Refine | 1.0 | None |
|  |  |  | Support Wi-Fi connection | | Requirement | 1.3 | LapTop has to be able to connect to WiFi network |
|  |  |  |  | Area network - wifi | Refine | 1.0 | None |
|  |  | Manage internet data | | | Requirement | 1.0 |  |
|  |  |  | Support internet signal | | Requirement | 1.0 |  |
|  |  |  | Support wired internet connection | | Requirement | 1.0 |  |
|  |  | Support execution of Browsers | | | Requirement | 1.0 |  |

# 6. Store data

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 02:17:53 | ADD Object | 1. [RAM\_MemorySize] over 2000[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 2. [RAM\_LatencyTime] below 3[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 3. RAM[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 4. RAM [RAM\_MemorySize][Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 5. RAM [RAM\_LatencyTime][Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 6. Memory quantity[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 7. MF1 - provide a mobile support to execute programs[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 8. Lasting memory[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 9. Lasting memory latency time[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 10. Lasting memory data quantity[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) | samuel\_eval |

## Description

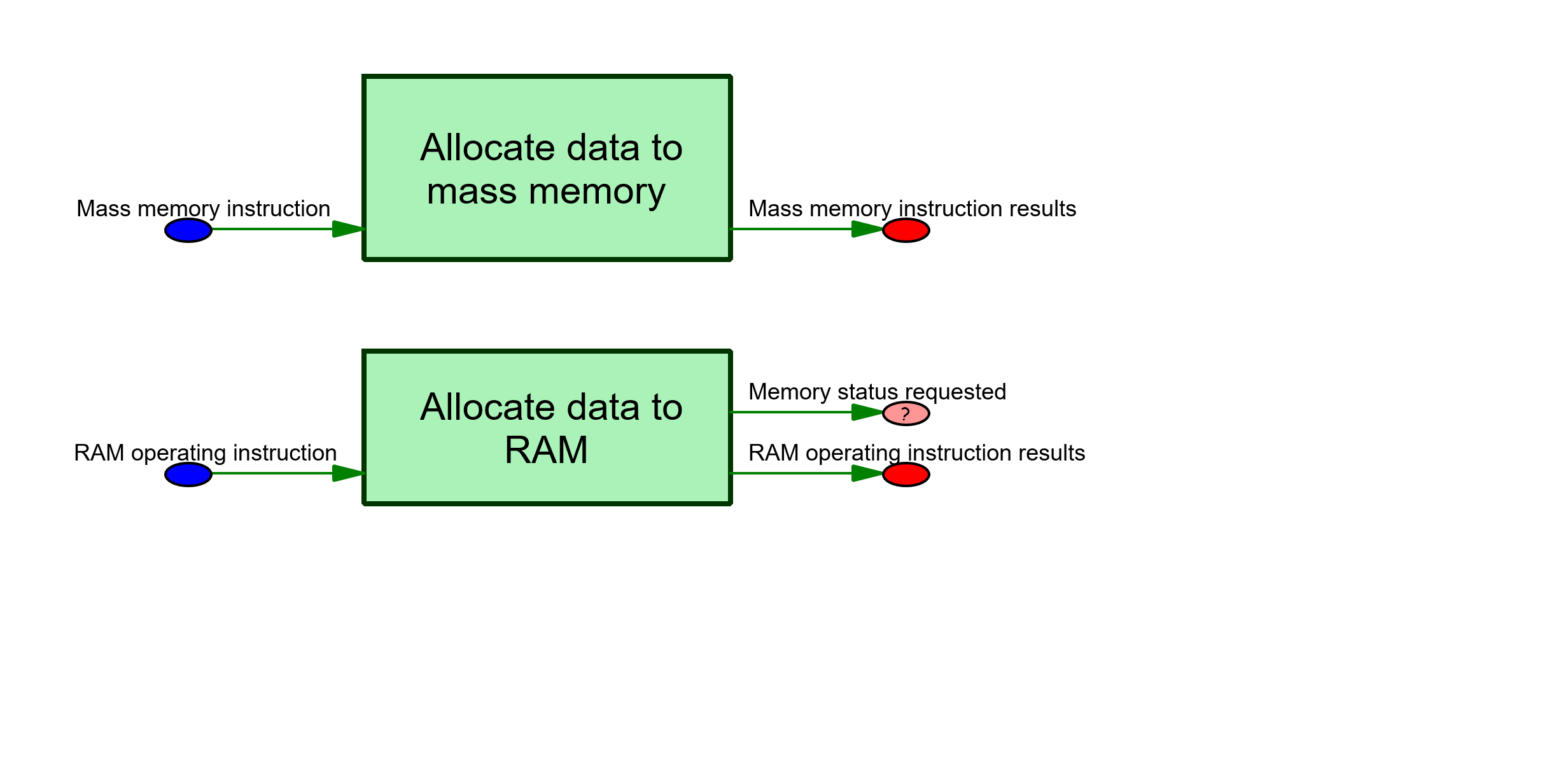
Store data

**Description:**  
This function is responsible for store data. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | | | **Type** | **Rev** | **Description** |
| 6. Store data | | | | | | Flow Chain | 1.0 |  |
|  | MF1 - provide a mobile support to execute programs | | | | | Requirement | 1.0 |  |
|  |  | Memory quantity | | | | Requirement | 1.0 |  |
|  |  |  | Lasting memory | | | Requirement | 1.0 |  |
|  |  |  |  | Lasting memory data quantity | | Requirement | 1.0 | The system shall have a RAM data quantity of some hundreds of Go. |
|  |  |  |  | Lasting memory latency time | | Requirement | 1.0 | The system shall have a RAM latency time (or "access time") of some milliseconds. |
|  |  |  | RAM | | | Requirement | 1.0 | The system shall have a RAM (live memory) |
|  |  |  |  | RAM [RAM\_LatencyTime] | | Requirement | 1.0 | The system shall have a latency time of at least [RAM\_LatencyTime] (10^-6 ). |
|  |  |  |  |  | [RAM\_LatencyTime] below 3 | Requirement | 1.0 |  |
|  |  |  |  | RAM [RAM\_MemorySize] | | Requirement | 1.0 | The system shall have a memory size of at least [RAM\_MemorySize] (Mo). |
|  |  |  |  |  | [RAM\_MemorySize] over 2000 | Requirement | 1.0 | The system shall have a memory size of at least 2000 (Mo). |

# 7. Manage physical parameters

## History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Modification description** | | **Author** |
| 1.0 | 2025-08-14 02:19:45 | ADD Object | 1. [RAM\_MemorySize] over 2000[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 2. [RAM\_LatencyTime] below 3[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 3. RAM[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 4. RAM [RAM\_MemorySize][Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 5. RAM [RAM\_LatencyTime][Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 6. Provide sufficient autonomy[Requirement] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) 7. Provide internet connection (see MF3)[Requirement] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) 8. Memory quantity[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 9. MF1 - provide a mobile support to execute programs[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 10. Lasting memory[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 11. Lasting memory latency time[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 12. Lasting memory data quantity[Requirement] (#- -> #1.0 [Release Chain Document: "6. Store data", Rev# 1.0]) 13. Ensure a collaborative work between components[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 14. Connect the subsystems[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 15. Connect the devices (see MF5)[Requirement] (#- -> #1.0 [Release Chain Document: "1. Supervise data", Rev# 2.0]) 16. CF usage and mission profiles[Requirement] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) 17. CF Diagnostic, reprogramming, configuation[Requirement] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) 18. Air temperature lower than 45°C[Requirement] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) 19. Air temperature range[Refine] (#- -> #1.0 [Release Chain Document: "7. Manage physical parameters", Rev# 1.0]) | samuel\_eval |

## Description

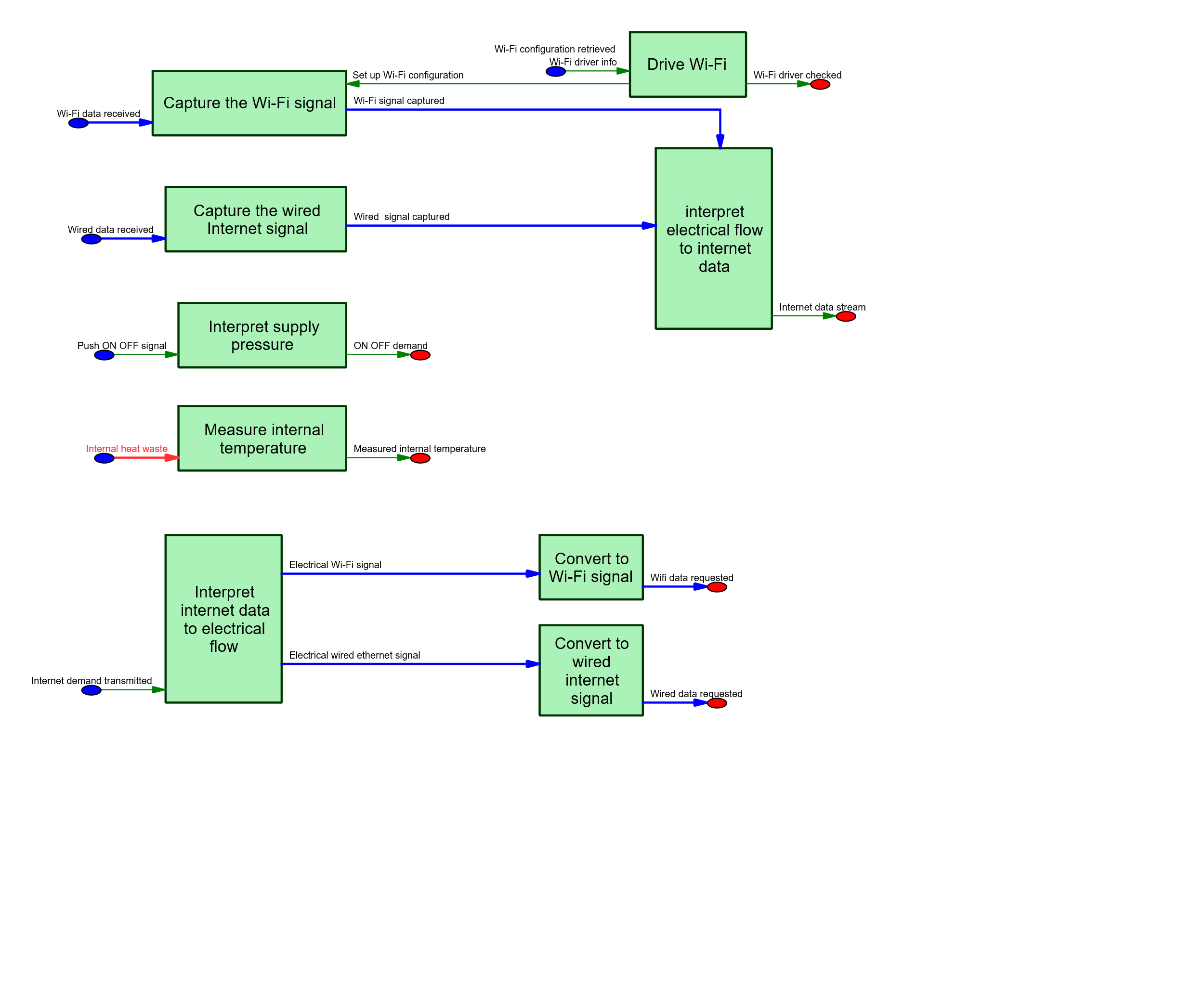
Manage physical parameters

**Description:**  
This function is responsible for manage physical parameters. It plays a key role in the laptop’s overall performance and reliability.

Below is an illustrative image:



## Diagram

**

## Specification

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Levels** | | | | | | **Type** | **Rev** | **Description** |
| 7. Manage physical parameters | | | | | | Flow Chain | 1.0 |  |
|  | CF Diagnostic, reprogramming, configuation | | | | | Requirement | 1.0 |  |
|  | CF usage and mission profiles | | | | | Requirement | 1.0 |  |
|  |  | Air temperature lower than 45°C | | | | Requirement | 1.0 |  |
|  |  |  | Air temperature range | | | Refine | 1.0 | None |
|  | MF1 - provide a mobile support to execute programs | | | | | Requirement | 1.0 |  |
|  |  | Ensure a collaborative work between components | | | | Requirement | 1.0 |  |
|  |  |  | Connect the devices (see MF5) | | | Requirement | 1.0 |  |
|  |  |  | Connect the subsystems | | | Requirement | 1.0 |  |
|  |  | Memory quantity | | | | Requirement | 1.0 |  |
|  |  |  | Lasting memory | | | Requirement | 1.0 |  |
|  |  |  |  | Lasting memory data quantity | | Requirement | 1.0 | The system shall have a RAM data quantity of some hundreds of Go. |
|  |  |  |  | Lasting memory latency time | | Requirement | 1.0 | The system shall have a RAM latency time (or "access time") of some milliseconds. |
|  |  |  | RAM | | | Requirement | 1.0 | The system shall have a RAM (live memory) |
|  |  |  |  | RAM [RAM\_LatencyTime] | | Requirement | 1.0 | The system shall have a latency time of at least [RAM\_LatencyTime] (10^-6 ). |
|  |  |  |  |  | [RAM\_LatencyTime] below 3 | Requirement | 1.0 |  |
|  |  |  |  | RAM [RAM\_MemorySize] | | Requirement | 1.0 | The system shall have a memory size of at least [RAM\_MemorySize] (Mo). |
|  |  |  |  |  | [RAM\_MemorySize] over 2000 | Requirement | 1.0 | The system shall have a memory size of at least 2000 (Mo). |
|  |  | Provide internet connection (see MF3) | | | | Requirement | 1.0 |  |
|  |  | Provide sufficient autonomy | | | | Requirement | 1.0 |  |