

API

The API is the entry point for any application needing to communicate with to the server to get information about the home automation box.

1. Protocol

The exchanges are made over a TCP connection in JSON format.

The communication can be initiated by the application or the server and must follow the same canvas.

- *Request message format*

Each message must be enclosed in a "request" tag and must include a type. It can additionally contain other data contained in the data tag.

| Tag | Parent | Description | Type/Value | Cardinality |
|-----------|-----------|--------------|------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Request type | String | 1 |
| "data" | "request" | Request data | N/a | 0-1 |

- *Response message format*

Response messages follow the same structure. Their type should be the same as the message they are responding to.

| Tag | Parent | Description | Type/Value | Cardinality |
|------------|------------|---------------|------------|-------------|
| "response" | None | Root element | N/a | 1 |
| "type" | "response" | Response type | String | 1 |
| "data" | "response" | Response data | N/a | 1 |

2. Get profils Jour

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-----------|-----------|--------------|------------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>GET_PROFIL_JOUR</i> | 1 |

Example :

```
{
  "request":{
    "type": "GET_PROFIL_JOUR"
  }
}
```

- *Response*

| Tag | Parent | Description | Type/Value | Cardinality |
|----------------|------------|--|------------------------|-------------|
| "response" | None | Root element | N/a | 1 |
| "type" | "response" | Response type | <i>GET_PROFIL_JOUR</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "jours" | "data" | Liste de profils | Liste de profils | 0-N |
| "nomProfil" | "jours" | Nom du profil | String | 1 |
| "creneaux" | "jours" | Créneaux de consommation | Créneaux Array | 0-N |
| "autorisation" | "creneaux" | Autorisation de prise en main par le système sur la durée du créneau | Boolean | 1 |
| "debut" | "creneaux" | Début du créneau | N/a | 1 |
| "heure" | "debut" | Heure de début | Integer, 0-24 | 1 |
| "minute" | "debut" | Minute de début | Integer, 0-59 | 1 |
| "fin" | "creneaux" | Fin du créneau | N/a | 1 |
| "heure" | "fin" | Heure de fin | Integer, 0-24 | 1 |
| "minute" | "fin" | Minute de fin | Integer, 0-59 | 1 |

Example :

```
{
  "response":{
    "type": "GET_PROFIL_JOUR",
    "data":{
      "jours":[
        {
          "nomProfil": "vacances",
          "creneaux":[
            {
              "autorisation" : true,
              "debut":{
                "heure": 18,
                "minute": 30
              },
              "fin":{
                "heure": 22,
                "minute": 30
              }
            },
            {
              "autorisation" : false,
              "debut":{
                "heure": 17,
                "minute": 15
              },
              "fin":{
                "heure": 23,
                "minute": 0
              }
            }
          ]
        },
        {
          "nomProfil": "Autre profil"
        }
      ]
    }
  }
}
```

3. Set profil jour

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|----------------|------------|--|------------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>SET_PROFIL_JOUR</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomProfil" | "data" | Nom du profil | String | 1 |
| "creneaux" | "data" | Créneaux de consommation | Créneaux Array | 0-N |
| "autorisation" | "creneaux" | Autorisation de prise en main par le système sur la durée du créneau | Boolean | 1 |
| "debut" | "creneaux" | Début du créneau | N/a | 1 |
| "heure" | "debut" | Heure de début | Integer, 0-24 | 1 |
| "minute" | "debut" | Minute de début | Integer, 0-59 | 1 |
| "fin" | "creneaux" | Fin du créneau | N/a | 1 |
| "heure" | "fin" | Heure de fin | Integer, 0-24 | 1 |
| "minute" | "fin" | Minute de fin | Integer, 0-59 | 1 |

Example :

```
{
  "request":{
    "type": "SET_PROFIL_JOUR",
    "data":{
      "nomProfil": "vacances",
      "creneaux":[
        {
          "autorisation" : true,
          "debut":{
            "heure": 18,
            "minute": 30
          },
          "fin":{
            "heure": 22,
            "minute": 30
          }
        },
        {
          "autorisation" : false,
          "debut":{
```

```
    "heure": 17,  
    "minute": 15  
  },  
  "fin": {  
    "heure": 23,  
    "minute": 0  
  }  
}  
]  
}  
}
```

4. Remove profil Jour

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|---------------|-----------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>RM_PROFIL_JOUR</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomProfil" | "data" | Nom du profil | String | 1 |

Example :

```
{
  "request":{
    "type": "RM_PROFIL_JOUR",
    "data":{
      "nomProfil": "vacances"
    }
  }
}
```

5. Get profils Semaine

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-----------|-----------|--------------|---------------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>GET_PROFIL_SEMAINE</i> | 1 |

Example :

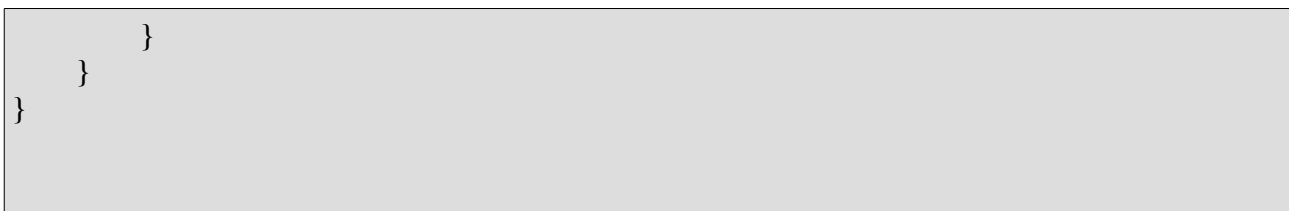
```
{
  "request":{
    "type": "GET_PROFIL_SEMAINE"
  }
}
```

- *Response*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|-------------------------|---------------------------|-------------|
| "response" | None | Root element | N/a | 1 |
| "type" | "response" | Response type | <i>GET_PROFIL_SEMAINE</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "semaines" | "data" | Lise de semaines | Liste de profils semaine | 0-N |
| "nomProfil" | "semaines" | Nom du profil | String | 1 |
| "jours" | "semaines" | Liste des profils jours | String Array | 7 |

Example :

```
{
  "response":{
    "type": "GET_PROFIL_SEMAINE",
    "data":{
      "semaines":[
        {
          "nomProfil":"Semaine normale",
          "jours":[
            "travail",
            "travail",
            "travail",
            "travail",
            "travail",
            "week-end",
            "week-end"
          ]
        }
      ]
    }
  }
}
```



6. Set profil semaine

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|----------------------------|---------------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>SET_PROFIL_SEMAINE</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomProfil" | "data" | Nom du profil | String | 1 |
| "jours" | "data" | Liste des profils jours | String Array | 7 |

Example :

```
{
  "request":{
    "type": "SET_PROFIL_SEMAINE",
    "data":{
      "nomProfil":"Semaine normal",
      "jours":[
        "travail",
        "travail",
        "travail",
        "travail",
        "travail",
        "week-end",
        "week-end"
      ]
    }
  }
}
```

7. Remove profil Semaine

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|---------------|--------------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>RM_PROFIL_SEMAINE</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomProfil" | "data" | Nom du profil | String | 1 |

Example :

```
{
  "request":{
    "type": "RM_PROFIL_SEMAINE",
    "data":{
      "nomProfil": "Semaine normale"
    }
  }
}
```

8. Get pièces

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-----------|-----------|--------------|-------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>GET_PIECES</i> | 1 |

Example :

```
{
  "request":{
    "type": "GET_PIECES"
  }
}
```

- *Response*

| Tag | Parent | Description | Type/Value | Cardinality |
|------------|------------|-----------------|-------------------|-------------|
| "response" | None | Root element | N/a | 1 |
| "type" | "response" | Response type | <i>GET_PIECES</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "pieces" | "data" | Liste pièces | Liste de pièces | 0-N |
| "nomPiece" | "data" | Nom de la pièce | String | 1 |
| "objets" | "data" | Nom des objets | Liste de string | 0-N |

Example :

```
{
  "response":{
    "type": "GET_PIECES",
    "data":{
      "pieces":[
        {
          "nomPiece":"Chambre Arthur",
          "objets":[
            "radiateur 1",
            "radiateur 2",
            "prise 1"
          ]
        }
      ]
    }
  }
}
```

9. Set pièce

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|------------|------------|-----------------|------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>SET_PIECE</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomPiece" | "data" | Nom de la pièce | String | 1 |
| "objets" | "data" | Nom des objets | Liste de string | 0-N |

Example :

```
{
  "request":{
    "type": "SET_PIECE",
    "data":{
      "nomPiece": "Chambre Arthur",
      "objets":[
        "radiateur 1",
        "radiateur 2",
        "prise 1"
      ]
    }
  }
}
```

10. Remove pièce

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|------------|------------|-----------------|-----------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>RM_PIECE</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomPiece" | "data" | Nom de la piece | String | 1 |

Example :

```
{
  "request":{
    "type": "RM_PIECE",
    "data":{
      "nomPiece": "Chambre Arthur"
    }
  }
}
```

11. Get objets

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-----------|-----------|--------------|-------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>GET_OBJETS</i> | 1 |

Example :

```
{
  "request":{
    "type": "GET_OBJETS"
  }
}
```

- *Response*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|---|--------------------|-------------|
| "response" | None | Root element | N/a | 1 |
| "type" | "response" | Response type | <i>GET_OBJETS</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "objets" | "data" | Liste objets | Liste d'objets | 0-N |
| "nomObjet" | "data" | Nom de la pièce | String | 1 |
| "planning" | "data" | Planning semaine | String | 1 |
| "typeObjet" | "jours" | Nom de l'objet | CHAUFFAGE PRISE | 1 |
| "Tconfort" | "jours" | Température de confort en degré celsius | Integer | 0-1 |
| "Teco" | "jours" | Température économique en degré celsius | Integer | 0-1 |

Example :

```
{
  "response":{
    "type": "GET_OBJETS",
    "data":{
      "objets":[
        {
          "nomObjet": "Prise 1",
          "planning": "Semaine normale",
          "typeObjet": "CHAUFFAGE",
          "Tconfort": 21,
```

```
}  
  }  
    }  
      ]  
        }  
          "Teco": 15
```

12. Set objet

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|------------|---|--------------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>SET_OBJET</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomObjet" | "data" | Nom de la pièce | String | 1 |
| "planning" | "data" | Planning semaine | String | 1 |
| "typeObjet" | "jours" | Nom de l'objet | CHAUFFAGE PRISE | 1 |
| "Tconfort" | "jours" | Température de confort en degré celsius | Integer | 0-1 |
| "Teco" | "jours" | Température économique en degré celsius | Integer | 0-1 |

Example :

```
{
  "request":{
    "type": "SET_OBJET",
    "data":{
      "nomObjet":"Prise 1",
      "planning":"Semaine normale",
      "typeObjet": "CHAUFFAGE",
      "Tconfort": 21,
      "Teco": 15
    }
  }
}
```


13. Remove objet

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|------------|------------|----------------|-----------------|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>RM_OBJET</i> | 1 |
| "data" | "response" | Response data | N/a | 1 |
| "nomObjet" | "data" | Nom de l'objet | String | 1 |

Example :

```
{
  "request":{
    "type": "RM_OBJET",
    "data":{
      "nomObjet": "Prise 1"
    }
  }
}
```

14. New objet

- *Request*

| Tag | Parent | Description | Type/Value | Cardinality |
|-------------|-----------|-----------------|--|-------------|
| "request" | None | Root element | N/a | 1 |
| "type" | "request" | Message type | <i>NEW_OBJET</i> | 1 |
| "data" | "request" | Response data | N/a | 1 |
| "typeObjet" | "data" | Type de l'objet | <i>String:</i> <i>CHAUFFAGE</i> <i>PRISE</i> | 1 |

Example :

```
{
  "request":{
    "type": "NEW_OBJET",
    "data":{
      "typeObjet":"PRISE"
    }
  }
}
```