#### **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	GET_PROFIL_JOUR	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	GET_PROFIL_JOUR	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

```
"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":{
"h
                                   "heure": 23,
                                   "minute": 0
                         }
                    ]
                },
                Autre profil
          ]
    }
}
```

### 3. Set profil jour

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	SET_PROFIL_JOUR	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

```
{
    "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
                        },
```

# 4. Remove profil Jour

#### Request

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

### 5. Get profils Semaine

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	GET_PROFIL_SEMAINE	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	GET_PROFIL_SEMAINE	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

```
"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	SET_PROFIL_SEMAINE	1
"data"	"response"	Response data	N/a	1
"nomProfil"	"data"	Nom du profil	String	1
"jours"	"data"	Liste des profils jours	String Array	7

## 7. Remove profil Semaine

#### • Request

Tag	Parent	Description	Type/Value	Cardinali ty
"request"	None	Root element	N/a	1
"type"	"request"	Message type	RM_PROFIL_SEMAINE	1
"data"	"response"	Response data	N/a	1
"nomProfil"	"data"	Nom du profil	String	1

```
{
    "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	GET_PIECES	1

#### Example:

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

#### Response

Tag	Parent	Description	Type/Value	Cardinality
"response"	None	Root element	N/a	1
"type"	"response"	Response type	GET_PIECES	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

# 9. Add objet pièce

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	ADD_OBJET_PIECE	1
"data"	"response"	Response data	N/a	1
"nomPiece"	"data"	Nom de la pièce	String	1
"objet"	"data"	Nom de l'objet	String	1

# 10. Remove objet pièce

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	RM_OBJET_PIECE	1
"data"	"response"	Response data	N/a	1
"nomPiece"	"data"	Nom de la pièce	String	1
"objet"	"data"	Nom de l'objet	String	1

```
{
    "request":{
        "type": "RM_OBJET_PIECE",
        "data":{
            "nomPiece": "Chambre Arthur",
            "objet": "radiateur 1"
        }
    }
}
```

# 11. Remove pièce

#### Request

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

# 12. Get objets

### • Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	GET_OBJETS	1

# Example:

### • Response

Tag	Parent	Description	Type/Value	Cardinality
"response"	None	Root element	N/a	1
"type"	"response"	Response type	GET_OBJETS	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
"inconnu"	"data"	Objet nouveau découvert sur le réseau	Boolean	1
"connecte"	"data"	Etat de l'objet	Boolean	1
"instanceNum"	"data"	Instance de l'objet zwave	Integer	1
"deviceId"	"data"	Id de l'objet zwave	Integer	1
"Tconfort"	"jours"	Température de confort en degré celsius	Integer	0-1
"Teco"	"jours"	Température économique en degré celsius	Integer	0-1

```
"response":{
           "type": "GET_OBJETS",
"data":{
    "objets":[
                      {
                           "nomObjet":"Prise 1",
                           "planning":"Semaine normale",
                           "typeObjet": "CHAUFFAGE",
"inconnu": false,
                           "connecte": true,
                           "instanceNum": 0,
                           "deviceId": 5,
                           "Tconfort": 21,
                            "Teco": 15
                      }
                ]
          }
    }
}
```

### 13. Set objet

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	SET_OBJET	1
"data"	"response"	Response data	N/a	1
"nomObjet"	"data"	Nom de la pièce	String	1
"planning"	"data"	Planning semaine	String	1
"typeObjet"	"data"	Nom de l'objet	CHAUFFAGE PRISE	1
"inconnu"	"data"	Objet nouveau découvert sur le réseau	Boolean	1
"connecte"	"data"	Etat de l'objet	Boolean	1
"instanceNum"	"data"	Instance de l'objet zwave	Integer	1
"deviceId"	"data"	Id de l'objet zwave	Integer	1
"Tconfort"	"data"	Température de confort en degré celsius	Integer	0-1
"Teco"	"data"	Température économique en degré celsius	Integer	0-1

# 14. Remove objet

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	RM_OBJET	1
"data"	"response"	Response data	N/a	1
"nomObjet"	"data"	Nom de l'objet	String	1
"instanceNum"	"data"	Instance de l'objet zwave	Integer	1
"deviceId"	"data"	Id de l'objet zwave	Integer	1

## 15. New objet

#### Request

Tag	Parent	Description	Type/Value	Cardinality
"request"	None	Root element	N/a	1
"type"	"request"	Message type	NEW_OBJET	1
"data"	"request"	Response data	N/a	1
"typeObjet"	"data"	Type de l'objet	String: CHAUFFAGE PRISE	1
"nomObjet"	"data"	Nom de l'objet par défaut	String	1
"instanceNum"	"data"	Instance de l'objet zwave	Integer	1
"deviceId"	"data"	Id de l'objet zwave	Integer	1

```
{
    "request":{
        "type": "NEW_OBJET",
        "data":{
            "typeObjet":"PRISE",
            "nomObjet":"AN158",
            "instanceNum": 0,
            "deviceId": 5
        }
    }
}
```