### REST API (Draft)

Das REST API dient nicht nur dem Geräte-Controller als Interface, sondern kann auch für externe Integrationen (z.B. CRM) verwendet werden.

|  |  |  |
| --- | --- | --- |
| ***URL*** | ***HTTP Method*** | ***Operation*** |
| /api/machines | GET | Returns list of machines |
| /api/machines | POST | Adds a new machine and returns it with mid |
| /api/machines/:mid | GET | Returns the machine with :mid |
| /api/machines/:mid | PUT | Updates the machine with :mid |
| /api/machines/:mid | DELETE | Deletes the machine with :mid |
| /api/machines/:mid/tags | GET | Returns all valid tags for machine with :mid |
| /api/machines/:mid/logs | GET | Returns all logs of machine with :mid |
| /api/machines/:mid/logs | POST | Adds a new log for :mid and returns :lid |
| /api/tags | GET | Returns all valid tags |
| /api/tags | POST | Adds a new tag and returns it |
| /api/tags/:tid | GET | Returns the tag with :tid |
| /api/tags/:tid | PUT | Updates the tag with :tid |
| /api/tags/:tid | DELETE | Deletes the tag with :tid |
| /api/tags/:tid/logs | GET | Returns the logs for the tag with :tid |
| /api/tags/:tid/logs | POST | Adds a new log for tag with :tid and returns :lid |
| /api/tags/:tid/rights | GET | Returns all rights for tag :tig |
| /api/rights | GET | Returns a list of rights (mid <> tid relation) |
| /api/rights | POST | Adds new rights and returns it |
| /api/rights/:rid | GET | Returns the right with :rid |
| /api/rights/:rid | PUT | Updates the right with :rid |
| /api/rights/:rid | DELETE | Deletes the right with :rid |
| /api/events | GET | Returns a list of events |
| /api/events | POST | Adds new event and returns it |
| /api/events/:eid | GET | Returns the event with :eid |
| /api/events/:eid | PUT | Updates the event with :eid |
| /api/events/:eid | DELETE | Deletes the event with :eid |
| /api/logs | GET | Returns a list of logs |
| /api/logs | POST | Adds new log and returns it |
| /api/logs/:lid | GET | Returns the log with :lid |
| /api/logs/:lid | PUT | Updates the log with :lid |
| /api/logs/:lid | DELETE | Deletes the log with :lid |
| /api/timestamp | GET | Returns current timestamp from db server |

Die gelb markierten Zeilen werden vom Geräte-Controller benutzt.

Die grün markierten Felder sind bereits implementiert.

Alle Abfragen, welche Listen zurückliefern, können mit zusätzlichen URL-Parametern Segmentiert werden, d.h. durch anhängen von **?limit=10&offset=29** an die URL werden z.B. nur die Records 30-39 geliefert. Dies ist erforderlich für die seitenweise Ausgabe auf Webformularen, oder damit auch Controller mit beschränktem RAM die Daten verarbeiten können.

Anmerkung: beim benutzen eines Admin tags wird die tid = 0 gesendet, dieses tid soll in der datenbank reserviert sein.

### Rest Datenstruktur

|  |  |  |  |
| --- | --- | --- | --- |
| ***Object*** | ***Field*** | ***Type*** | ***Description*** |
| machines | mid | int | machine id |
| machines | name | varchar(30) | machine name |
| machines | config | varchar(50) | json config string |
| machines | price | decvimal(5,2) | Preis pro Zeiteinheit |
| machines | period | int | Zeiteinheit (Minuen) |
| machines | uid | int | Preiseinheit gemäss price\_units: 1=Stk, 2=Minuten, 3=Std, 4=Tag, 5=Woche, 6=Monat, 7=Jahr |
| machines | min\_periods | int | Min. Anzahl Preiseinheiten |
| machines | offdelay | int | Nachlaufzeit (in Sekunden) nach Logout |
| machines | watchdog | int | Timer für Event 9 (tag\_still\_active) |
| tags | tid | int | tag id |
| tags | uid | varchar(10) | UID (from tag) |
| tags | name | varchar(50) | member name |
| rights | rid | int | right id |
| rights | mid | int | machine id |
| rights | tid | int | tag id |
| rights | start | timestamp | start timestamp |
| rights | end | timestamp | end timestamp |
| logs | lid | int | log id |
| logs | timestamp | timestamp | timestamp (of machine) |
| logs | mid | int | machine id |
| logs | tid | int | tag id |
| logs | eid | int | event id |
| logs | remarks | text | remarks (i.e. error description) |
| logs | iid | int | invoice id (NULL if no invoiced) |
| events | eid | int | event id |
| events | name | varchar(30) | event name |

Folgende Events sind per Default definiert:

|  |  |
| --- | --- |
| ***eid*** | ***name*** |
| 1 | Machine started (tid=NULL) |
| 2 | Machine error (tid=NULL) |
| 3 | Machine shutdown (tid=NULL) |
| 4 | Tag login |
| 5 | Tag logout |
| 6 | Tag error (tid=NULL on unknown tags) |
| 7 | Manual correction |
| 8 | Product sale |
| 9 | Tag still active |