

Rules-device

Preliminary

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This paper is published in <https://github.com/dk1ri> as well

Introduction

This paper describes some ideas for the rules-device
For more details of the MYC system please check the reference.

Definitions and formats

see <https://dk1ri.de/myc/Definitions.txt> or <https://dk1ri.de/myc/Definitions.pdf>

Some explanation

For details of rules see <http://dk1ri.de/myc/Rules.pdf>.

The Rules-device should do the following:

- Provide “R”-rules for dependencies between different devices The rules are created via a appropriate user interface.
- Provide a user management: create “Q” rules, if user management is used.
- Provide system wide commands

The internal storage of rules uses “full commands”.

These “full commands” consist of the I-line of the device and the relative count of the command-token within the device. This is usually the original, not translated command-token of the device. So commands can be identified even if command-token numbering changes.

If a rule is sent, the RU translates the full commands to actual translated command-token.

“R” rules

“R” rules describe the dependencies between different devices and system wide commands.

“Q” rules

Q rules are used for user management.

They are handled by the CR, because the CR knows the interface of the user.

As default the command-router allow all commands on all interfaces but can be changed to disallow all.

The RU has a login command `251;ob,LOGON[,<des>];,mode;<s>,name;<s>,password`

If username and password is accepted, RU send the rules data from the

`<c>;on,LOGIN_DATA;l;3` memory for that user to CR with the translated command-token. The CR will block or allow commands accordingly.

If a user log in with a valid admin user name and password the user management is switched on for that device and the admin user can modify user access.

For that the RU provides a operate / answer string memory for each user to store the user names passwords and rules for access of commands.

The admin user must use the “full commands”. This is very error-prone; therefore this is not recommended.

For details of the login command see http://dk1ri.de/myc/Reserved_tokens.pdf.

User management may be done via a GUI more easy.

System wide commands

These are commands like “switch on all lights in a room “ with one command.

The RU provide these commands by announcement

Others

The RU has the required reserved announcements and three other:

`<c>;ob,LOGIN_DATA;l,name;l,password;l,rules`

This is a tree element string memory with string-length l. Usually written by the GUI but can be written in the admin mode as well.

Command-token send in the admin mode are translated.

`<c>;ab,as<c>` is the corresponding read command.

`<c>;an,RULES;l;m`

This is a m element memory, which hold the rule. L and m should be large enough for a varying number of rules.

Element 0 is used for sending special rules as info, but empty as answer always.

“R”rules can be deleted which result in an empty memory element, and replaced.

The RU will send answer as infos always.

Rules are send request or as infos to the LD and SK (not yet decided) and use the tokens of the actual announce-list.

If the command-tokens are modified the RU must delete the affected rules and replace them. For details see <http://dk1ri.de/myc/Rules.pdf>

Editing the rules and user-management should be done by a GUI. Nothing defined yet. Perhaps something like IFTTT can be used.

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Reference

- [1] <https://dk1ri.de/myc/MYC.pdf> (german)
- [2] https://dk1ri.de/myc/MYC_en.pdf
- [3] <https://dk1ri.de/myc/Description.txt> or <https://dk1ri.de/myc/Description.pdf>
- [4] <https://dk1ri.de/myc/commands.txt> or <https://dk1ri.de/myc/commands.pdf>
- [5] https://dk1ri.de/myc/Reserved_tokens.txt or https://dk1ri.de/myc/Reserved_tokens.pdf
- [6] <https://dk1ri.de/myc/Rules.txt> or <https://dk1ri.de/myc/Rules.pdf>

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