



ASeCo v2.0

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1.About

ASeCo is an abbreviation for "**A**utomatic **S**erver **C**ontrol". And that's what it does. ASeCo is a "brother" of FAST, which was developed to save records driven on servers in a global database. Soon it got spread through the community and players began to modify it.

ASeCo should combine the power that the new dedicated server provides with the functionality of FAST. But that's not possible in every case... I had to make some compromises.

For example this version is not compatible with the in game server of the TM games.

You also can use ASeCo to administer your server in game, which means you can manage it by typing commands into the chat. "/admin nextmap" will skip the current track and force the server to load the next challenge. There aren't only admin functions, players can have their fun, too!

For more see the chapter "Chat Documentation".

Note: Because the new style manialinks are used for all popup input and window display, this version only works for Trackmania United Forever and Trackmania Nations Forever.

2. Requirements

You will need following things to run ASeCo on your server:

- Dedicated Server (Apr 18, '08), better (03/28/06) (www.tm-forum.com in the Toolbox forum)
- PHP version 5.2 or above (www.php.net)
- Net connect of 1024Mbps+
- MySQL Server 5.x or above (Local record storing)

3. Installation

3.1 Dedicated Server

As mentioned before, ASeCo needs to connect to a dedicated server. It may work with an in game Forever (United Or Nations), but it hasn't been tested that way.

You can download the latest version here: [download TMF Dedicated Server](#)

This version is compatible with TM Forever (United and Nations) only.

A tutorial (by Blahitis) how to configure/use the Dedicated Server you'll find here: [How To Configure the Dedicated Server](#)

3.2 PHP

ASeCo is completely written in PHP, that means that you, the admin, can modify it as you want. Be creative - build up your own server!
You need to have PHP 5.2 or later installed

If you don't have one of the supported versions, then you can download the latest one here: [download PHP](#)

To install PHP just decompress the content of the archive into any folder (i.e.: "C:\Program Files\PHP")

Alternatively you can use your Web server PHP version. As long as it's 5.2+

3.3 ASeCo

a) Download

Since you're reading this, it seems you already have a version of ASeCo. If you don't, but want to check for updates, or want to look for some plugins or tell me something that's important for the future development, then you can visit the project's website here: <http://sourceforge.net/projects/ASeCo>

b) Configure

Note: If this is your first installation of ASeCo then you'll have to copy the files from the "newinstall" directory into the root folder first.

Configure "config.xml"

ASeCo reads its settings out of the config.xml, which lies in the root directory of where you extracted the files of the package to (i.e.: "C:\Programs\ASeCo\config.xml").

```
6   <admins>
7     <tmlogin>$000der$f00f1o/192.168.1.33:2351</tmlogin>
8   </admins>
```

If you want to be able to use ingame administration you have to tell ASeCo who the administrators are!

Replace the black text with your TM login name.

If you connect to your server over LAN then the dedicated server will use following login for you: "*nickname/ip:port*".

Tip: If you want to have more than one admin then you can add additional ones by copying the line "<tmlogin></tmlogin>" and put your login between the two tags as you already did for the first one.

```
9   <colors>
10    <emotic>$fa0</emotic>
11    <record>$0f3</record>
12    <message>$39f</message>
13    <status>$ff0</status>
14    <server>$ff0</server>
15    <highlite>$fff</highlite>
16    <welcome>$f00</welcome>
17  </colors>
```

Here ASeCo reads the colors used when writing into chat. You can define colors by modifying the black text or creating a new one. The syntax is always the same "<colorname>colorcode</colorname>".

```

18 <messages>
19 <startup>{#status}*** Aseco {#highLite}v{1}{#status} running on {#hi
20 <welcome>{#welcome>Welcome {#highLite}{1}{#welcome} - This server us
21 <record_new>{#server}>> {#highLite}{1}{#record} took the {#highLite}
22 <record_current>{#server}>> {#message}Current record on {#highLite}{
23 <record_none>{#server}>> {#message}Currently no record on {#highLite}
24 <record_error>{#server}>> {#error}Could not get records from databas
25 <ranking>{#server}>> {#message}Record rankings after this round:</ra
26 <ranking_record>{#highLite}{1}{#message}. {#highLite}{2}{#message} [ {#
27 <ranking_none>{#server}>> {#message}Record rankings after this round
28 </messages>

```

You can modify the messages ASeCo uses to tell players who drove a new record or how to welcome joining players.

Here you can use the colors , which you defined above.

"{#colorname}" will be replaced by the content of

"<colorname>\$fff</colorname>".

A little example: "{#colorname} hello" will be converted to "\$fff hello".

"{1}" will be replaced by a parameter. You don't need to worry about what gets filled into the "{1}", but you should know that if you change the position of this parameter you will change the position of the specified information which will replace it.

For instance: "{#colorname} hello {1}" will become "\$fff hello Flo".

If "{1}" stands for the player's name you can move it where you want to change the meaning of the sentence.

You can't add new messages without changing the ASeCo source code. This is only for experienced PHP users.

Configure "aseco.bat"

The last step is to configure how the script is run. This .bat file will run ASeCo.php in the console, which is much more practical than just running it in the web browser!

You will have to set the directory you installed Php into here:

```
set INSTPHP=C:\Programme\Apache2\Php5
```

replace the bold text with the absolute path to your Php folder.

Choose a Database solution

When you start ASeCo now it will not be able to save records driven on your server. You will always get a message that there's no record on the current track.

To enable record storing you will have to activate at least one database plug-in in the plugins.xml file. You can enable both plug-ins, for example: you want to have a website that displays the statistics of your server only, and also want to compete with players all over the world and not only those on your server.

The public database is easy to use for everyone. I don't see why you shouldn't be able to use it. Enabling it is recommended, and easy.

Local database setup is not for everyone, and should be used by experienced users only. You will have to set up a mysql server before it will work. If you want to use the RASP plugins for server ranking, this is a required item.

The next section shows how to install each of the plug-ins.

4. Public Database Plugin

4.1 About

The Public Database is the one you can use if you aren't able to do a local database. When you enable this plugin all the records driven on your server will be stored on the ASeCo server in the internet.

4.2 Installation

a) Account Creation

To configure the public database plug-in you need to create an account on <http://www.floschnell.de/ASeCo>. This will make it easier for us to remove wrong inserted records from the database to keep it clean.

b) Configure

Now edit pubdb.xml in your ASeCo root folder. Enter your account information here, just by replacing the stars with the text you entered on the ASeCo website when creating your account.

```
<?xml version="1.0" encoding="utf-8" ?>
<settings>
  <!-- MySQLi server settings -->
  <server_host>www.floschnell.de</server_host>
  <server_login>*****</server_login>
  <server_password>*****</server_password>
  <!-- Do you want Aseco to display the records? -->
  <display>True</display>
</settings>
```

The last step is to enable "plugin.pubdb.php" in your plugins.xml, otherwise ASeCo won't load it. Read Section 6 for information on how to "Enable a plugin".

5. Local Database

5.1 About

The "plugin.localdb.php" which is copied to the plug-ins folder already, is something for users that are a bit experienced with databases. It makes it possible to store records on your own database and prevent them from being mixed up with records from servers all over the world of Trackmania. You can use this database then to fill your website with some statistics, records driven on your server and so on!

In every case you'll need to install a MySQL server which will be used to write records to the database and read out of them.

The database will contain all the records, players, votings etc.

You can download the latest MySQL server here: [download MySQL 5](#)

On Windows computers you will get an easy setup which will guide you through the installation process.

5.2 Install

The MySQL server you've installed now will need a structure to know how to store records, players, votes etc. That's why there's a folder in your ASeCo root directory called "localdb". It contains a file named "ASeCo.sql" which will tell your server how to organize the many information ASeCo is going to put into the database.

To import this file go to the command line and browse into a folder called "bin", which is located in your MySQL directory, using the "cd" command:

```
cd "C:\Program Files\MySQL5\bin"
```

Now we are going to log onto the MySQL server:

```
mysql -u login -p
```

Replace "login" with your MySQL login, then you should be asked for your password.

In the last step we import the database structure from the file (replace the text written in italic font after your own needs):

```
mysql> source "D:\ASeCo\localdb\aseco.sql"
```

5.3 Configure

Most of the bigger plugins use their own xml file for to hold their configuration. Open the localdb.xml which is located in the folder where you installed ASeCo:

```
<?xml version="1.0" encoding="utf-8" ?>
<settings>
  <!-- MySQL Server Settings -->
  <mysql_server>127.0.0.1</mysql_server>
  <mysql_login>root</mysql_login>
  <mysql_password></mysql_password>
  <mysql_database>asecol21</mysql_database>
  <!-- Do you want aseco to display the records? -->
  <display>True</display>
  <messages>
    <record_error>{#server}>> {#error}Could not get Server Records from
database... No records this round!</record_error>
  </messages>
  <honors>
  [...]
  </honors>
</settings>
```

localdb.xml

mysql_server: is the address your MySql server is running on (probably "127.0.0.1" which is the address of your local computer).

mysql_login: the login ASeCo should use to connect to the server.

mysql_password: has to match the **mysql_login**.

mysql_database: is the database you imported the aseco.sql into.

messages: you can modify all messages the plugin writes into the ingame chat.

display: do you want the local records to be displayed? If you're running the local and public database plugins, you could hide one of them... It may disturb players to have too many information in the chat.

honors: you can define messages that are sent on the x. win of a player.

6.Plugins

You can use plug-ins to customize your version of ASeCo. PlugIns in general will add new functionality to your server. All plug-ins are located in the same folder ("plugins\"). If you copy a plug-in into that folder it will not be included automatically. You first will have to tell ASeCo to load that plug-in. ASeCo will read a configuration file ("plugins.xml") in the root folder to know which files to include.

```
<?xml version="1.0" encoding="utf-8" ?>
<ASeCo_plugins>

  <!-- Database Plugins -->
  <!-- <plugin>plugin.localdb.php</plugin> -->
  <!-- <plugin>plugin.publicdb.php</plugin> -->

  <!-- Standard Plugins -->
  <plugin>plugin.tmxlinker.php</plugin>
  <plugin>plugin.about.php</plugin>
  <plugin>plugin.statusbar.php</plugin>
  <plugin>plugin.stats.php</plugin>
  <plugin>plugin.records.php</plugin>
  <plugin>plugin.vote.php</plugin>
  <plugin>plugin.score.php</plugin>
  <plugin>plugin.example.php</plugin>
  <plugin>plugin.help.php</plugin>
  <plugin>plugin.emotics.php</plugin>
  <plugin>plugin.admin.php</plugin>
  <plugin>plugin.plugins.php</plugin>

  <!-- RASP -->
  <!-- <plugin>rasp/plugin.matchesave2.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_jukebox.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_karma.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_autotime.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_chat.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_players.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_cptimes.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_adminmsg.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_chatbot.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_shownext.php</plugin> -->
  <!-- <plugin>rasp/plugin.rasp_ms.php</plugin> -->

</ASeCo_plugins>
```

plugins.xml

6.1 Install a new plugin

If you want to add a new plug-in you have to copy the plug-in-file into the plug-ins directory first - if it is not copied into it already.

Now you have to modify the plug-in-list ("plugins.xml").

Create a new line above the one which says "</ASeCo_plugins>".

Then you will have to write the file-name of your plugin (i.e.:

"plugin.localdb.php") and put a "<plugin>" in front and a "</plugin>" behind it.

It's possible the plugin is already in plugins.xml, but it's commented out.

Search for the plugin name and remove the "<!--" and "-->" from the beginning and end of the line.

```
[...]
<plugin>plugin.localdb.php</plugin>
</ASeCo_plugins>
```

plugins.xml

When you launch ASeCo now it should say something like that:

```
[ASeCo] Load plugin [plugin.localdb.php] [Name:LocalDb] [Version:1]
```

ASeCo.bat

6.2 Remove a plugin

There are two ways to delete a plugin.

You can either fully remove it by deleting the file-name out of the plugins directory and cut the line with the plugin name out of the plugins.xml.

Or you just open the plugins.xml and comment the line which defines the specific plugin.

By putting a "<!--" before and a "-->" behind the plugin you can tell ASeCo to jump over that line and resume reading at the next one.

```
[...]
<!-- <plugin>plugin.localdb.php</plugin> -->
</ASeCo_plugins>
```

plugins.xml

7. Customize

7.1 Writing plug-ins

This part has been completely rewritten for version 1.0.0. Since now plugins are handled as objects and not as a bundle of functions.

There was the possibility that plug-ins which used the same function names prevented each other from working.

Now only plug-ins with same names aren't working.

This is how a plugin could look like, I will explain the most important parts of the code now:

```
<?php
class Emotics extends Plugin {
    function doMe($command) {

        // replace parameters ...
        $message = formatText('{1} {#emotic}{2}',
            $command['author']->nickname,
            $command['params']);

        // replace colors ...
        $message = $this->ASeCo->formatColors($message);

        // send the message ...
        $this->sendServerMessage($message);
    }
}

$_PLUGIN = new Emotics();
$_PLUGIN->setAuthor('Florian Schnell');
$_PLUGIN->setVersion(1.0);
$_PLUGIN->addChatCommand('me', 'doMe', 'use this to express your
emotions!');
$_PLUGIN->setDescription('Gives players the ability to express
emotions.');
```

plugins.xml

Okay, so first we are creating a class that is named like our plugin, so if we want to write a plugin that is used to display emotions of players we perhaps would give it the name "Emotics".

This class needs to be an extension of the "Plugin" class, otherwise it will not be recognized as a plug-in and some basic functions are missing, which are really helpful or save a lot of work.

```
<?php
class Emotics extends Plugin {
    // that's our class ...
}
?>
```

After creating this class you have to instantiate an object of it. This object has to be named `$_PLUGIN` so that ASeCo can find it.

Now use the different methods to configure your plugin:

`$_PLUGIN->setAuthor(string author)` : use this to set you as the author of the plugin.

`$_PLUGIN->setVersion(string version)` : use this to set the version of the plugin, this is important if another plug-in is dependent from yours.

`$_PLUGIN->setDescription(string description)` : the description can be seen when typing `/plugin (name)` into chat when ASeCo is running. Or by clicking onto the plug-in name when `/plugins` was executed.

`$_PLUGIN->addChatCommand(string command, string callback_func, string description)` : use this to link a method of your plug-in class with a chat command. Every time this command is entered in the chat the specified method will be executed.

`$_PLUGIN->addEvent(string event, string callback_func)` : Executes the `callback_func` every time the specific event is thrown.

Will look like this:

```
<?php
class Emotics extends Plugin {
    function doMe($command) {
        // will be called when /me is entered into chat ...
    }
}

$_PLUGIN = new Emotics();
$_PLUGIN->setAuthor('Florian Schnell');
$_PLUGIN->setVersion(1.0);
$_PLUGIN->addChatCommand('me', 'doMe', 'use this to express your
emotions!');
$_PLUGIN->setDescription('Gives players the ability to express
emotions.');
```

Most important features of the "Plugin" class are:

`$this->ASeCo` : is a reference to the main ASeCo object, you will need that to get ASeCo settings, currently played track, any of the players on the server or even to access/interact with other plug-ins.

Examples:

```
$this->ASeCo->getPlugin('Emotics'); // would return a reference to the
plug-in itself

$this->ASeCo->server->challenge; // would return a reference to the
currently played track

$this->ASeCo->server->players->getPlayer('hans'); // would return a
reference to the player's object with the login "hans"
```

`$this->createWindowToPlayerFramework` : will create a manialink window on the player's framework. Each player has its own framework, because each of them can open different windows.

Examples:

```
$window = $this->createWindowToPlayerFramework('Test', 0.5, 0.4, 'Udo');
$window->setContent('<line><cell><text>Hello World!
</text></cell></line>');
$window->setWidth(1.0);
// this will create a window with the title "Test" and the content
"Hello World!" on Udo's framework
```

Note: these codes will only work in an object that extends the "Plugin" class. There are several more methods in the "Plugin" class that make life easier, just take a look into the "types/plugin.class.php".

7.2 Events List

Name	Description
OnChat	A chat message was written. Parameter: (int PlayerUid, string Login, string Text, bool IsRegisteredCmd);
OnStartup	When ASeCo initialized and connected to the server. Doesn't have any parameters.
OnPlayerConnect	A player connected to the server. Parameter is a Player Object.
onPlayerDisconnect	A player disconnected from the server. Parameter is a Player Object.
onPlayerFinish	A player crossed the finish and set up a time. Parameter is a Record Object.
onCheckpoint	A player crossed a checkpoint. Parameter: (int PlayerUid, string Login, int Time, int Score, int CheckpointIndex).
onNewChallenge	New challenge has been loaded. Parameter is a Challenge Object.
onEndRace	Race has ended, players see the rankings now. Parameter is the result array from the dedicated's EndRace callback.
onPlayerWins	A player won a race. Parameter contains the object of the player.
onMainLoop	Will be released every time ASeCo goes another round in the loop, which is about every 20msecs. Doesn't have any parameters.
onStatusChangedToX	Every time the server changes its state this Event is thrown. Doesn't have any parameters.
onServerCrash	Is called when the server is shutting down due to an exception that occurred. Doesn't have any parameters.

It would have been too much work to explain the second parameters in all details...

If you should have problems with the content of any, I suggest to use the function **print_r()** to examine the value of this parameters.

8.Chat Documentation

8.1 Public Commands

Name	Description
/help	Displays all chat commands. You can add a specific chat command as parameter to get a description about it. (/help help)
/me	You can use this command to express emotions. It will replace /me by your NickName and attach the parameter as emotion. (/me is driving too fast)
/recs	Displays TOP 5 records on the current track.
/vote x	Votes for a track, replace 'x' with a number from 0 to 10.
/score	Displays the score of the current track.
/admin	Only available to admin, see 5.2
/stats [login]	Show statistics about oneself or a specific player
/about	Shows a little info message about ASeCo.
/plugins	Displays a list of the plug-ins which are currently loaded. You can click on one to get additional information.
/plugin (name)	Shows additional information to the plugin with the specific name.

8.2 Admin only Commands

Name	Description
/admin setservername	Sets servername to the first parameter attached (/admin setservername ASECO Powerserver)
/admin setmaxplayers	Sets a new maximum of players who can join. (/admin setmaxplayers 17)
/admin nextmap	Skips current track and forces the server to load next challenge.
/admin restartmap	Forces server to restart the curren map.
/admin kick	Kicks a player with the specified login. (/admin kick derflo)
/admin ban	Bans a player with the specified login on server uptime. (/admin ban derflo)

Bug Reporting

You found a bug in ASeCo?

Then go and report it, ASeCo is a sourceforge project now, so please leave some feedback on the project's page:

<http://www.sourceforge.net/projects/aseco>

Or if you have some technical questions/need support, you can find us here:

<http://www.floschnell.de/aseco>

It's always a good idea to check the xml files in the newinstall folder against the ones you're using to see if any new items are there.

9.ASeCo Change Log

Documentation started at version 0.5.3

Version	Changes
2.0	<ul style="list-style-type: none">●RASP plug-in has been merged into ASeCo.●Manialinkframework and pages have been improved.●New in-game design.●Some bugs were fixed.●Public Database interface has been created at http://www.floschnell.de/aseco
1.2.1 – 1.2.4	<ul style="list-style-type: none">●AM fixed some bugs and made ASeCo Forever compatible.●AM wrote a new Public Database which is MUCH more stable!
1.2.0	<ul style="list-style-type: none">●PublicDb plug-in added.●Some stunts mode issues fixed.●Records management improved.●Many bugs fixed.
1.1.1	<ul style="list-style-type: none">●memory management improved (once again).●new TmxLinker plugin which converts track names from the ASeCo chat messages to Tmx links.●Fixed some bugs.
1.1.0	<ul style="list-style-type: none">●Fixed some memory leaks that caused ASeCo to crash after about a day because it has reached Php's memory max.
1.0.1 – 1.0.5	<ul style="list-style-type: none">●Some bugs were fixed.
1.0.0	<ul style="list-style-type: none">●Plugins are object oriented now.●Admin commands are managed by ASeCo.php now.●Several callbacks can be set on the same Chat Command.●The ASeCo base code is completely independent from the plugins code now.

Version	Changes
	<ul style="list-style-type: none"> ●All plugins are rewritten and fixed. ●Applied some bug fixes and performance updates (colorstrip, formattime...) by AssemblerManiac. ●ASeCo will be - and will stay - Php 5, MySQL 4 only ●New Events: onStatusChangedToX, onMainLoop, onServerCrash ●Data is being saved on server crash now, so no player statistics get lost. ●Speed upgrade, reaction time has been decreased from 1sec to 20 milli seconds. (CPU should stay at 0%) ●Stunts mode is supported now!
0.6.1	<ul style="list-style-type: none"> ●Solved some problems with the Master Server. ●TMX support, saving Online World records now! ●Improved database plugins and made them compatible with each other. Can be run parallel now! ●Fixed some bugs with the public database.
0.6.0	<ul style="list-style-type: none"> ●Created an ASeCo Master Server which is the new link between the public database and all ASeCo Clients. Each login can only be used for one server since now! ●Fixed some database and xml bugs which produced a warning like "No records this round!" ●Improved the local database plugin. Now there is a players table. ●Fixed admin chat commands. ●New feature: /stats command. ●5. world record is saved and read from database now.
0.5.4	<ul style="list-style-type: none"> ●New XML parser for better performance.

Version	Changes
	<ul style="list-style-type: none"> ●Fixed chat commands /score, /me and /vote.
0.5.3	<ul style="list-style-type: none"> ●New object type "Server". ●Getting game type from dedicated server now. ●Chat commands /help and /recs were fixed for TMS and TMO. ●fetching all news from data server. ●waiting for server when ASeCo starts, but server hasn't loaded a track yet. ●Modified the formatText(), console() and console_text(). Built in a logfile (but does not log errors yet.)
0.5.0, 0.5.1, 0.5.2	<ul style="list-style-type: none"> ●No documentations.

10.RASP Change History

Documentation started at version 2.3.0

Version	Changes
2.3.0	<ul style="list-style-type: none">●fix – when using tlist and not finding any tracks, the msg was blank, added new item to xml file (TMXLISTFAIL)●new – using new manialink styles for cptime●new – RASP is now part of the ASECO distribution●chg – TMXBADTYPE needs to be changed in your jukebox.xml file, add TMNF to the list of items it supports●new – '/admin replaymap' added, stuffs the current track as next up in the jukebox (basically allows a restart of the track but lets people get their points too)●new - /tlist, search tracks directly on TMX by author, env, name, tmo/tms/tmu/tmnf/tmn●new – '/jukebox list' shows name w/out coloring so it's always readable●new – next track info at intermission will have /admin replaymap info correct

11.Team

11.1ASeCo

Florian Schnell
Assembler Maniac (RASP)

11.2Plugins

Iain Surgey (Eyez)
... famous creator of RASP 0.2 ...

Jfreu
... wrote a nice modification of ASeCo:
[Jfreu's ASeCo Plugin](#)

12.Thanks to ...

- **Assembler Maniac** who made code optimizations, fixed a few bugs, and is now sharing in the developing process
- **ck|cyrus, BL|Timebreaker, ck|2fast4you, Jfreu, DieAxt, Sd|Eroz, Sd|leprechaun, Sd|stoned, |OfuT|Schnake, =Dr.Eile=** and **Sd|Pioneer** who donated a sum of **61,90 €**

... thanks a lot, I'm not sure whether this project would still be alive without people like you.

