

# Remedy License Management



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# Misi Mladoniczky

- 12 years of AR System development
- Remedy Approved Instructor since version 2.1
- RAC certified (former)
- Founder of RRR Scandinavia AB [www.rrr.se](http://www.rrr.se)



# How does AR System licensing work

- AR System

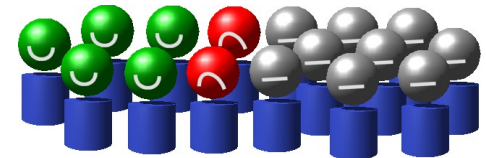
- Server Licenses (includes 3 fixed user licenses)



- AR System Fixed User Licenses



- AR System Floating User Licenses



- Applications

- Server Licenses

- Application User Fixed Licenses

- Application User Floating Licenses



# Read, Write or Restricted Read?



## **Read** - Submitter of requests

- End Customer (the submitter of requests)
- Reporting and monitoring



## **Write** (fixed or floating) - Modify records

- HelpDesk
- 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> line



## **Restricted Read** - Shared accounts, multiple IP

- Submitting anonymous web-surveys
- Anonymous reporting and statistics



# Read, Write or Restricted Read?

	Write	Read	Restricted Read
 Search for records	✓	✓	✓
 View records	✓	✓	✓
 Create new records	✓	✓	✓

## Modify Records:

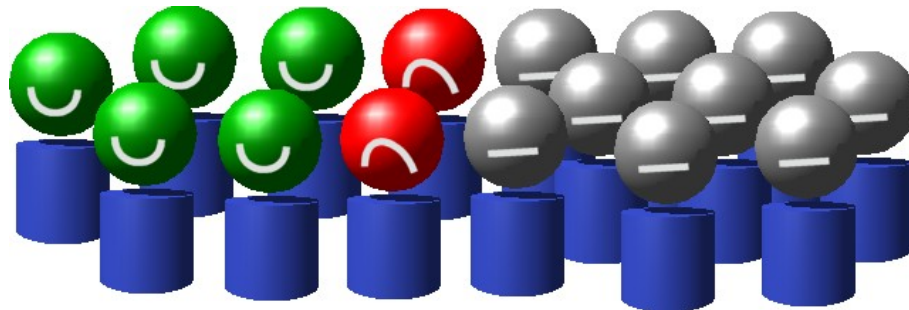
 All	✓	✓ *	✗
 Created by the user	✓	✓ *	✗
 Created by others	✓	✓ *	✗

**\***) If **submitter mode** is set to **locked** and ('Submitter' = \$USER\$)



# Floating Licenses

When no more **Floating Tokens** are available, the user is assigned a **Read License** instead.



 5 floating licenses owned

 16 registered floating users

  7 logged in users

 5 write licenses

 2 read licenses




# News in version 7.1

- Nothing has changed
- License key handling has been simplified
  - Accessible through BMC Remedy User only
  - Licenses stored in the database
  - You can import your old license file
- No keys for user licenses, just specify any number you like, and then submit a Purchase-Order to your Remedy Partner!!!



# Adding user licenses in 7.1

BMC - Remedy AR System 

**Add or Remove Licenses** Current Host ID: 112233445566

License Type	Number of Licenses	Expiration Date	Key
AR Server	1		GBR-817696
AR Migrator	1		
Remedy Developer Plus	1		

License Type\* **2** AR User Fixed  Number of Licenses\* **3** 1234

License Qualifier   Key

Expiration Date

**1**    **4**





# Adding user licenses in 7.1

The screenshot shows the 'AR System Licenses' window in BMC software. An information dialog box is overlaid on top, displaying a license agreement. The main window shows a table of licenses and configuration options.

**AR System User - Note**

BMC Software hereby grants licensee a non-exclusive, non-transferable License in accordance with the terms and conditions set forth in the AR System Product Family Software Licensing Agreement. (ARNOTE 47000)

OK

**AR System**

**Licenses** Current Host ID: 112233445566

License Type	Number of Licenses	Expiration Date	Key
AR Server	1		GBR-817696
AR Migrator	1		
Remedy Developer Plus	1		
AR User Fixed	1234		

License Type\*  Number of Licenses\*

License Qualifier  Key

Expiration Date

- We now have 1234 + 3 fixed licenses in our system



# Multiple Servers in 7.1

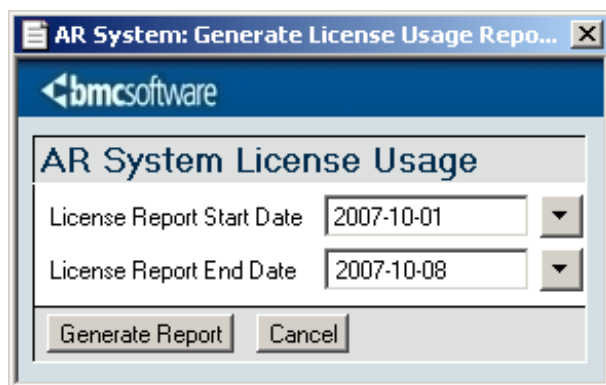
- You can add the licenses for all servers that will connect to the same database, for example a server group or hot backup server
- The Host-ID is not needed when submitting licenses, it is only needed when you request license keys from BMC
- Do not worry about the *"ARWARN [469] Warning, this key is not valid for this server"* message, the key will be picked up by the correct server
- This screen shot shows all you need to enter:

License Type*	AR Server	▼	Number of Licenses*	1
License Qualifier	MULTISERVER;ID=1125308082;	...	Key	YGR-137499
Expiration Date				



# How is licensing enforced?

You can be requested to generate a license report by BMC Remedy Support



AR System: Generate License Usage Report

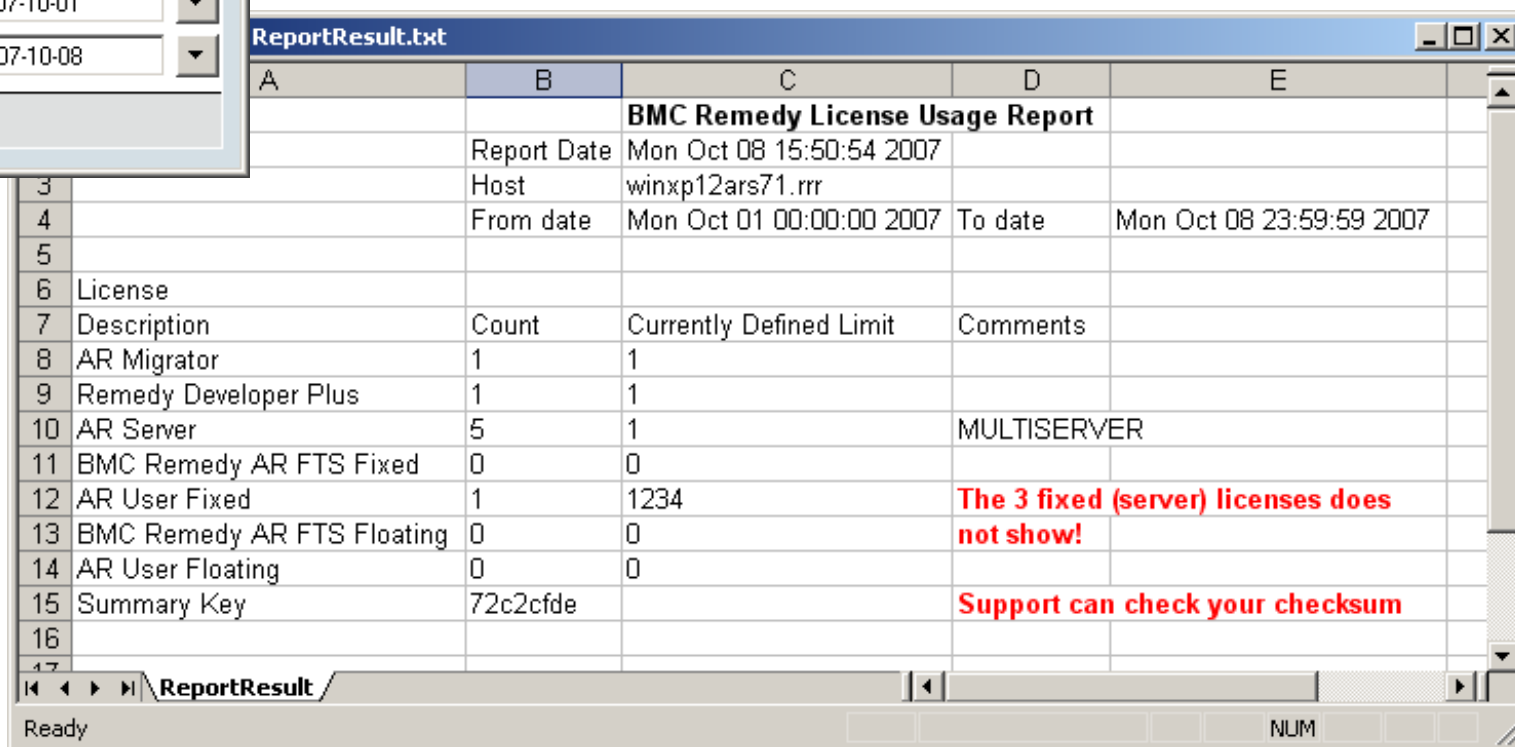
bmcsoftware

AR System License Usage

License Report Start Date: 2007-10-01

License Report End Date: 2007-10-08

Generate Report Cancel



A	B	C	D	E
		<b>BMC Remedy License Usage Report</b>		
	Report Date	Mon Oct 08 15:50:54 2007		
	Host	winxp12ars71.rrr		
	From date	Mon Oct 01 00:00:00 2007	To date	Mon Oct 08 23:59:59 2007
3				
4				
5				
6	License			
7	Description	Count	Currently Defined Limit	Comments
8	AR Migrator	1	1	
9	Remedy Developer Plus	1	1	
10	AR Server	5	1	MULTISERVER
11	BMC Remedy AR FTS Fixed	0	0	
12	AR User Fixed	1	1234	<b>The 3 fixed (server) licenses does not show!</b>
13	BMC Remedy AR FTS Floating	0	0	
14	AR User Floating	0	0	
15	Summary Key	72c2cfde		<b>Support can check your checksum</b>
16				
17				

ReportResult

Ready NUM



# Bad for the license "buffer"

- Event-triggered Active-Links that access the server
- Users configuring Auto-Refresh
- Users not logging out when they are done
- Web users closing their browser (instead of logging out)
- A shortage of licenses will make your user protective of the license they have managed to grab

***10 timeouts per day, at the one hour timeout setting,  
will cost you 1 Floating License!***



# Strategy "in a nutshell"

- A user who works **more** should have a **Fixed**
- A user who works **less** should have a **Floating**
- A user **not** requiring a **Write** license should have a **Read** instead of a **Fixed** or **Floating**



# Strategy "advanced"

- Identify your peak hours
- Measure individual user activity during your peak hours
- Assign your **Fixed** licenses to the highest rating users
- A Fixed License costs only 40% of a Floating License. Base your license distribution on this number.



# When to measure - don't forget...

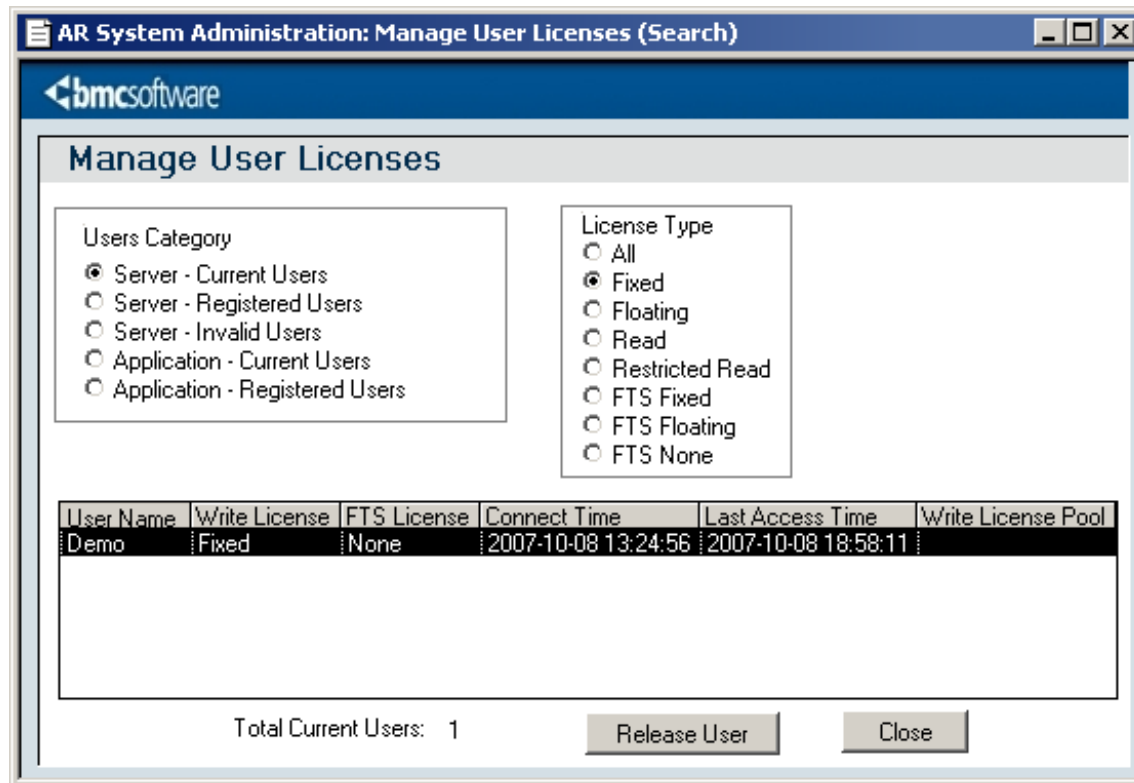
- Users in multiple timezones
- Holiday season
- Variations in activity at start or end of month
- Vacations for individual users
- External problems or events that affect user access to your system

*Measure at least 4-6 weeks during “standard” conditions*



# How to measure - AR User/Admin

- By looking at the current user list in AR Admin (< 7.x) or AR User (in version 7.x)



- a lot of manual work
- difficult to draw conclusions
- + you can manually release users if there is a shortage





# How to measure - User Log File

```
<USER> /* sept 30 2007 08:58:24.1379 */ FLOAT GRANT WRITE morhun01 (74 of 81 write)
<USER> /* sept 30 2007 08:58:25.7325 */ FLOAT NO WRITE FREE micmac04 (all 81 write in use)
<USER> /* sept 30 2007 08:58:33.4837 */ READ RELEASE kerrin03
<USER> /* sept 30 2007 08:58:44.3420 */ FIXED GRANT WRITE livyok01
```

- + Everything is here, but it is - hard to read manually
- Difficult to draw conclusions
- License Pool information is missing
- + Very detailed statistics per individual user
- + Historical data
- + Very accurate (except, in my experience, when using server groups)

*License Pools  
are bad for  
optimization anyway*



# How to measure - Server Statistics

- + Good summary
- + Easy to create reports
- No statistics for individual users

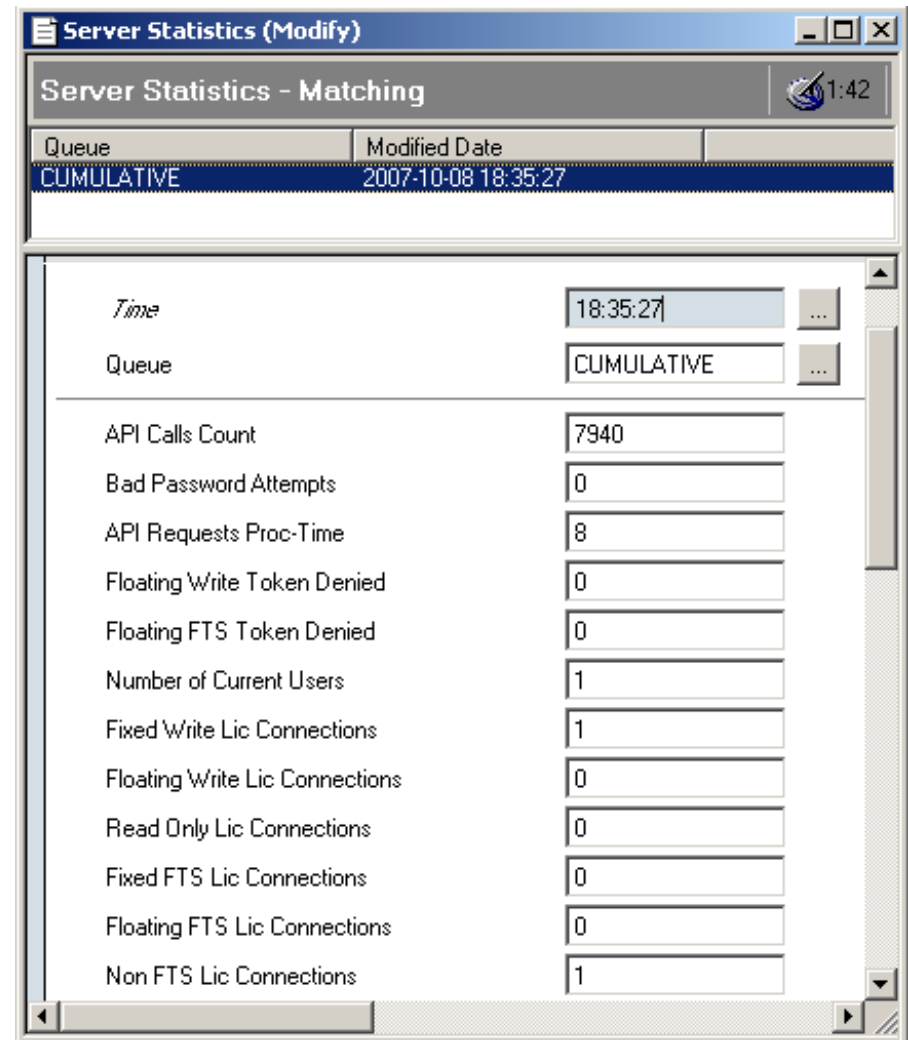
Configured under **Server Information** -> **Advanced**

Server Statistics :

Server Recording Mode  Off  Cumulative Queue  Cumulative and Individual Queue

Recording Interval (seconds):

- *Add a filter to notify you when there is a shortage...*



Queue	Modified Date
CUMULATIVE	2007-10-08 18:35:27

Time	<input type="text" value="18:35:27"/>
Queue	<input type="text" value="CUMULATIVE"/>

API Calls Count	<input type="text" value="7940"/>
Bad Password Attempts	<input type="text" value="0"/>
API Requests Proc-Time	<input type="text" value="8"/>
Floating Write Token Denied	<input type="text" value="0"/>
Floating FTS Token Denied	<input type="text" value="0"/>
Number of Current Users	<input type="text" value="1"/>
Fixed Write Lic Connections	<input type="text" value="1"/>
Floating Write Lic Connections	<input type="text" value="0"/>
Read Only Lic Connections	<input type="text" value="0"/>
Fixed FTS Lic Connections	<input type="text" value="0"/>
Floating FTS Lic Connections	<input type="text" value="0"/>
Non FTS Lic Connections	<input type="text" value="1"/>



# Application Licenses

Very similar to AR System Fixed/Floating Licenses

Example of optimum license assignment for one user

- AR System User Fixed
- BMC:Asset Mgmt Floating
- BMC:Problem Mgmt Floating
- BMC:Incident Mgmt Fixed

*Bob works mostly with  
Incident Mgmt,  
but also needs access to  
Problem Mgmt and Asset Mgmt.*

News in ITSM 7

- Floating Application Licenses are now enforced
- Application Licenses are now logged in the User Log



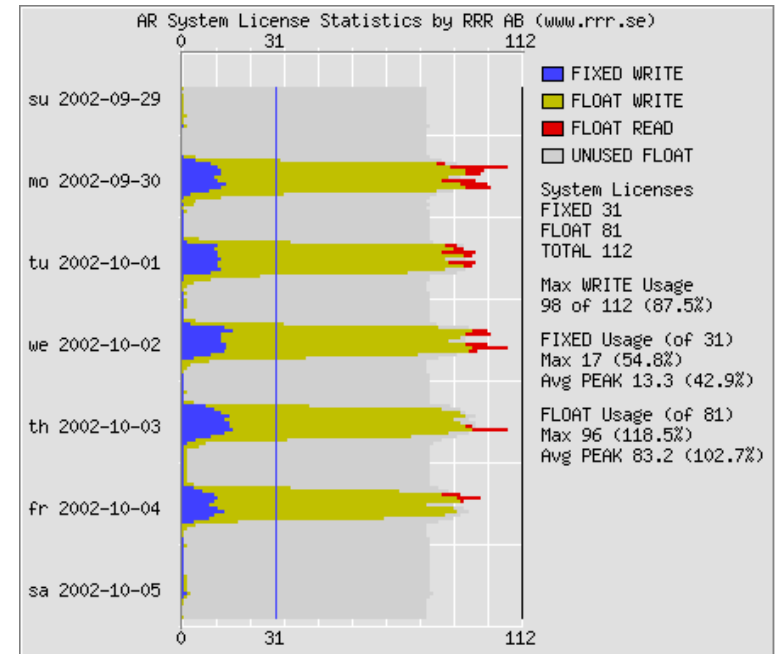
# Application 7 Licenses Tokens

- Forms are "tagged" by the Application they belong to
- Any operation to any form (except opening the form window) will grab the AR System License Token, if one is available
- Any operation to a "tagged" form will grab the Application License Token
- Timeout for an Application License happens when the "tagged" forms have not been accessed during the timeout period



# Case study - RRR License

- Customer had a significant **shortage** of licenses during peak hours
- **Fixed** usage was low
- They had the wrong mix of fixed/floating licenses in their system



- The User Log used was 6 weeks in length
- A shortage of 15 Floating Licenses was turned into a significant License Buffer



# Case Study - File Upload

- A 6-week User Log was uploaded to RRR License
- An ARX-export from the User form was also uploaded
- Some information not contained in these files were entered

**user.log**  
If you want to delete your user.log-file from the server press [delete user.log](#).  
If you have a slow connection, you can compress the file. Supported types are Z, gz and zip.

---

**Make Statistics** [advanced settings](#)

Type Of License	Owned Fixed Licenses
AR System	<input type="text" value="31"/>
BMC:Asset Mgmt	<input type="text" value="5"/>
BMC:Incident Mgmt	<input type="text" value="10"/>
BMC:Problem Mgmt	<input type="text" value="5"/>

Statistics for AR System or Application licenses

(this may take a couple of seconds)



# Case Study - Peak Hours

- Shortage of Floating Licenses during Peak Hours only

These are the peak 20.0% of the logged hours.

<u>Date</u>	<u>Weekday</u>	<u>Hour</u>	<u>Max READ</u>	<u>Max FIXED</u>	<u>Max FLOAT</u>	<u>FIXED+FLOAT</u>
2002-09-30	mo	9	2	12	96	108
2002-09-30	mo	10	1	13	87	100
2002-09-30	mo	11	3	13	86	99
2002-09-30	mo	12	1	11	77	88
2002-09-30	mo	13	1	12	85	97
2002-09-30	mo	14	1	15	86	101
2002-09-30	mo	15	3	13	89	102
2002-10-01	tu	8	2	12	79	91
2002-10-01	tu	9	3	11	82	93
2002-10-01	tu	10	1	12	85	97



# Case Study - User Statistics

- The login percentage during peak hours is calculated for each user
- There are too few Fixed licenses in the system

## User License Tuning Exchangelist

With your current license mix, this is a list of users you should move from **FIXED** to **FLOAT**.

Rank	User	License	Logintime %	Peakttime %	Usage Trend	Sessions	Float Rejects	Timeouts
1	marstr01	FIXED	0.0	0.0	+0.00	0	0	0
21	micmac03	FIXED	16.8	74.7	-0.48	143	0	0
22	deahun01	FIXED	25.5	71.0	+0.13	271	0	0

With your current license mix, this is a list of users you should move from **FLOAT** to **FIXED**.

Rank	User	License	Logintime %	Peakttime %	Usage Trend	Sessions	Float Rejects	Timeouts
1	chamla02	FLOAT	32.2	99.3	-0.14	298	2	6
2	diryok02	FLOAT	24.0	95.2	-0.15	222	2	2
3	micwhi02	FLOAT	26.4	94.1	-0.13	209	1	3

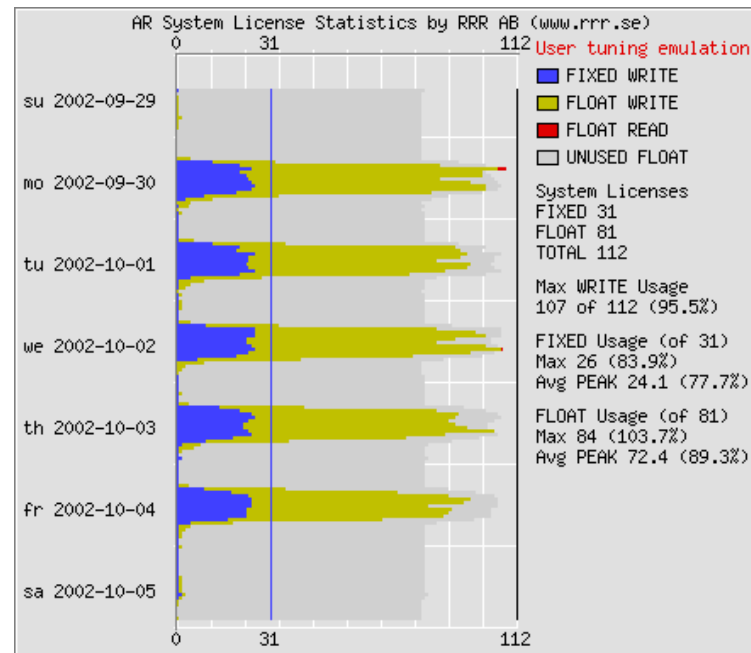
The Pivot-Point is ~**71%**, but should be **40%**.





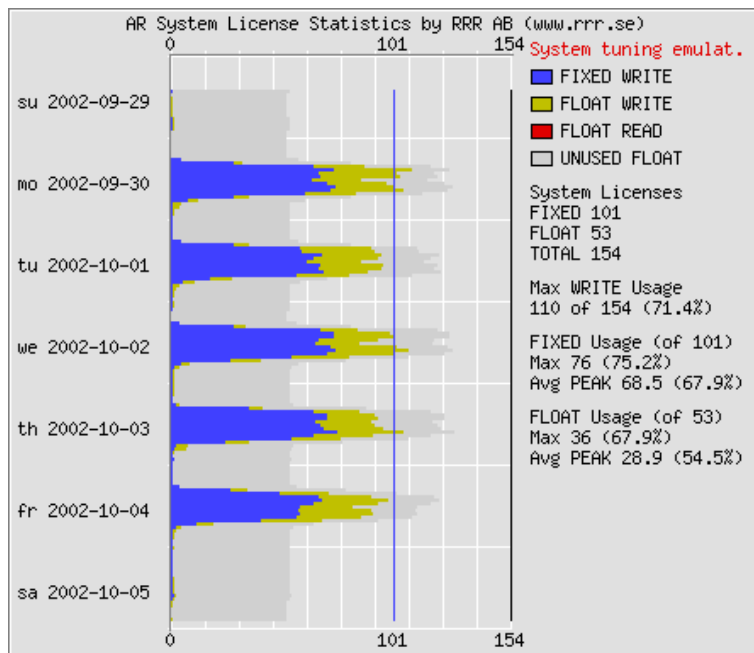
# Case Study - User Exchange Only

- 22 users moved from **Fixed** to **Floating**
- 22 users moved from **Floating** to **Fixed**
- Shortage of 15 Floating has been reduced to a shortage of 3
- High use of the **Fixed** Licenses



# Case Study - Server License Mix

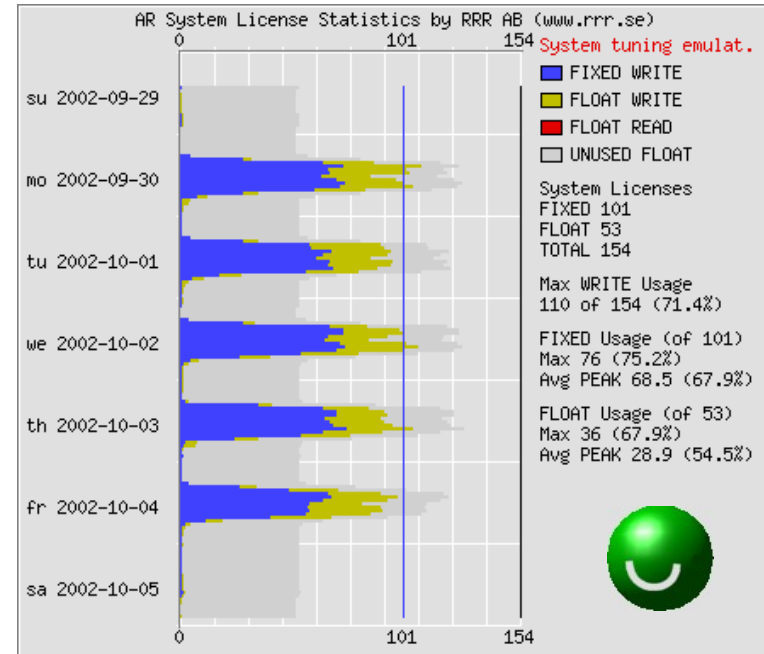
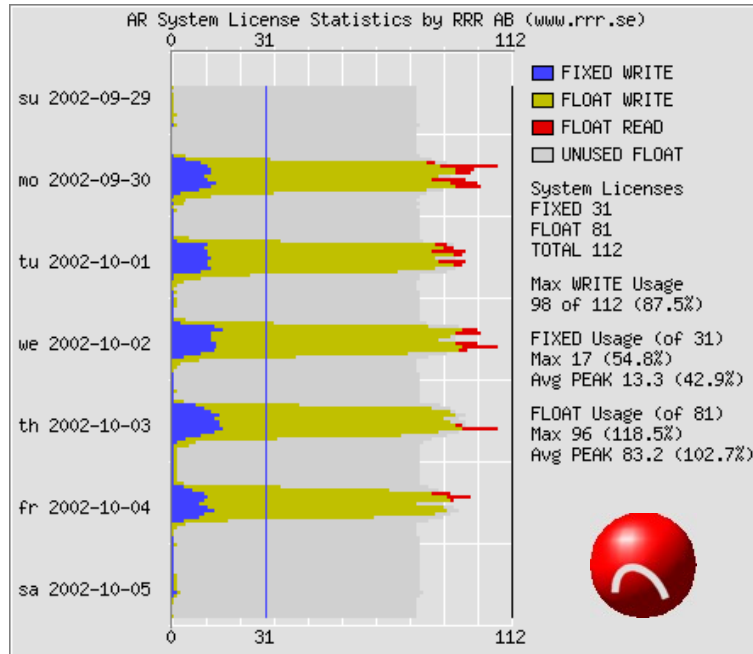
- Fixed and Floating Licenses can typically be exchanged at an exchange rate defined by the current USD price-list
- The rate between Fixed and Floating has been 40% for a long time



- You get 2.5 Fixed Licenses for each Floating
- We moved our **Pivot-Point** to 40% by way of exchanging 28 of the floating licenses to 70 Fixed
- Normal/Optimum **Fixed** usage around 70%



# Case Study - Results



- 2002 before: 31 Fixed, 81 Floating, 434 Users, Shortage 15
- 2002 after: 101 Fixed, 53 Floating, Buffer of 17
- Today 2007: 230 Fixed, 77 Floating, 1220 Users



# Add Users not Licenses!

- Download this presentation at [www.rrr.se/doc](http://www.rrr.se/doc)
- Try the demo version of RRR License to see how your system is tuned
- Online and Offline versions are available



[www.rrr.se](http://www.rrr.se)

