



(for IBM z/OS users)









Welcome to Mobile Workers!

The very first and only PC(OSX,Windows) & tablet & iPHONE tool Which gives you REAL added VALUES thanks to integration of all major COMPONENTS like HSM, RMM, CA1, CATALOGS, PARMLIB etc.

Remember: All dataset ENTRIES have a related RACF profile!

www.ra2fm.com www.racfra2.com

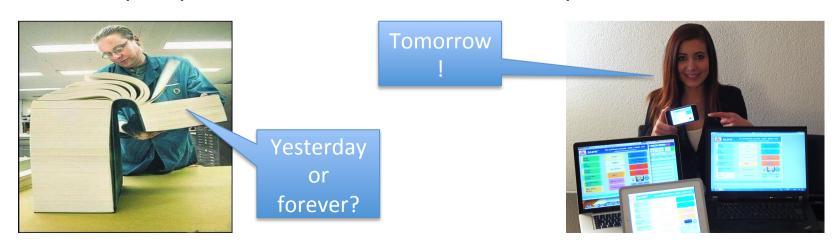
Origin of the RA2FM software: Switzerland & USA The international copyright law applies automatically – to concept and design.

Purpose:

- View RACF from <u>different angles</u> as it is 'linked/used' by many software components
- Reduce it ALL to a common denominator = RACF PROFILES
- Taking advantage of <u>new technologies</u> e.g. tablets; iPHONES

ALL-in-ONE - the most sophisticated "ADD-ON" tool yet for:

- Auditors
- Administrators
- Anybody who has to deal with RACF security

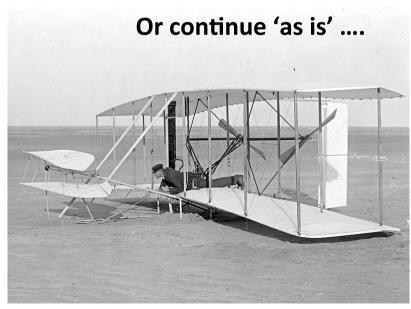




It's a capital crime to exceed your allotted time

Now is the time to move on to take advantage of the new technologies

GO MOBILE











A brand NEW software tool for corporate auditors, security administrators, IBM Systems Engineers

NOW supporting iOS/OSX/Windows TABLETS too.

YES - It supports <u>multiple (z/OS) RACF databases plus</u> <u>HFS/ZFS, HSM, RMM, CA1, CATALOGS,</u> STIG issues etc. .

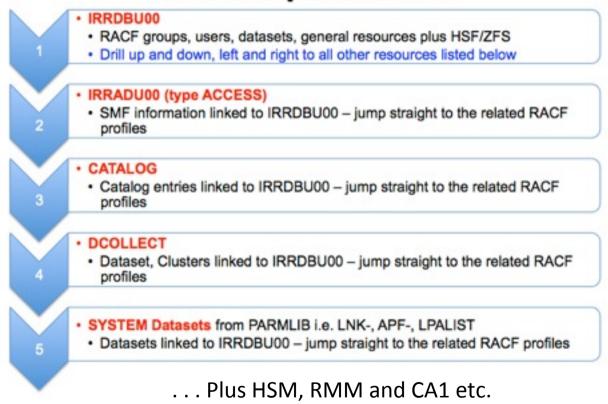
IBM trademarks – please refer to: http://www.ibm.com/legal/us/en/copytrade.shtml



- Just another PC/Server tool? NO!
 - Get bare bone tools for free from IBM <u>without (much) logic</u> in relation to the REAL world on the host:
 <u>http://www-03.ibm.com/systems/z/os/zos/features/racf/downloads/</u>
- DBU2MSXL, a set of scripts which loads the output of the RACF
 Database Unload Utility (IRRDBU00) into Microsoft® Excel spreadsheet.
- DBU2MSAC, a set of scripts which loads the output of the RACF Database Unload Utility (IRRDBU00) into Microsoft Access.
- Is offloading the data to a PC & TABLET a security concern?
 - If YES you are stuck with batch reports and e.g. 3270 tools
 - Your productivity is limited / slowed DOWN by your hardware options

There is more to it than just basic RACF profiles . . .

Get the picture . . .



Your IRRDBU00 knows NOTHING from which SYSTEM the data is extracted. A design flaw! BUT - RA2FM knows it!







RA2FM©
SIX steps
to SUCCESS







Paris

London to SUCCESS

Frankfurt

Zurich

NewYork

1

• Offload RACF© DB(s) and optionally relevant infos e.g. DCOLLECT, RMM, CA1 etc. (there are no passwords involved etc.)

• RA2FM host component prepares the offloaded files & extracts other system info's e.g. PARMLIB entries (APF-, LINK-, LPA-list, Catalogs, RMM, CA1, HSM)

2

• Merge offloaded files if required / update & download (FTP) all files in ASCII format

• FTP files to another the local datacenter & merge files if required or have for each data center a RA2FM PC/OSX copy installed

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• Login to your RA2FM & Import all data on your PC or MAC. <u>Optionally</u> install it on your iPAD/iPhone via iTUNES©. **It's RUNTIME software – no additional SW licenses**.

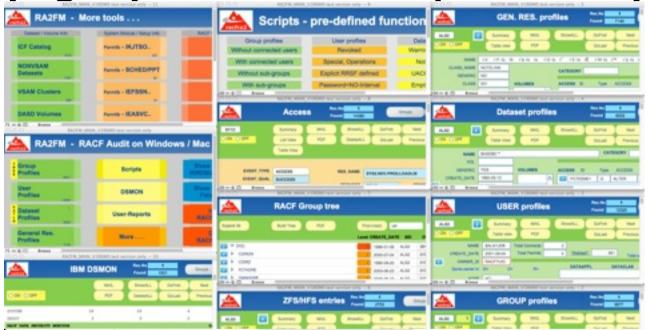
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• That's all to it. No programming, DB2, SPUFI, SQL, QMF, EXCEL etc. to learn.



Fast and VERY easy to use!

RA2FM beats 3270 and DB2 or EXCEL apps by light-years in terms of productivity?



- Have as many screens open as you like!
 - Compare/view items side by side!
 - Drill up and down left and right!

Key features

- Works on iPAD (iOS), OSX and Windows (no need for purchasing any Filemaker license(s)!)
- Supports multiple RACF databases
- Search on anything related to any RACF profile type
- Outperforms any other solution i.e. DB2 solution
- Most flexible and secure from unauthorized access
- Productivity increase in excess of 1000% versus standard solutions
- Minimal learning curve
- The quickest way to get to know your RACF environment i.e. ideal as well for any novice. Best training tool?

- Very easy to use
- Ideal tool as well for a novice in RACF© to learn about your security setup/implementation
- Each user has his own RA2FM on a PC/iPad - hence no interference with anybody else e.g. file missing; data has changed; server not available etc.
- Reduces paper reports saving costs
- The whole solution is <u>now portable</u> -<u>NOT TRANSPORTABLE</u> i.e. by using an iPAD



Welcome to Mobile Workers!

Key features

- Drill up and down, left and right where applicable links exists (click on "i" icon)
- All relevant information (all segments) on one screen(=window)
- Access lists pertaining to a group or user profile are on the same screen - no screen switching required
- Guess work concerning profile fields or segments vastly reduced to zero
- Analyze critical information on the fly
- Identify easily problems i.e. UACC not NONE, WARNING = YES etc.
- View profiles side by side any combination possible - no way with i.e. 3270 screens/DB2 etc.
- Improve security
- RACF® Command generation
- VISIO® template generation



- You can view multiple RACF databases by limiting the search to a given system i.e. by the SMFID
- You can install as many RA2FM's on any supported system e.g. for each RACF DB one - an ideal solution for corporate auditors
- Profiles can be tagged for i.e. further investigation / follow up. Simply issue a search on tagged profiles (on or off)
- Once profiles have been loaded no more IBM Host resources are required
- No complex DB2® SQLs or DB2 knowhow etc. is anymore required by the end-user
- Any "FINDs" can be stored for future references - a feature of supplied database
- Overall one of the very best solution for all auditors, RACF administrators and IBM Host Systems Engineers. We claim it is superior than any ACCESS© or EXCEL© or some DB2© etc. solutions, as it runs on multiple platforms.

Now the technical part . . .





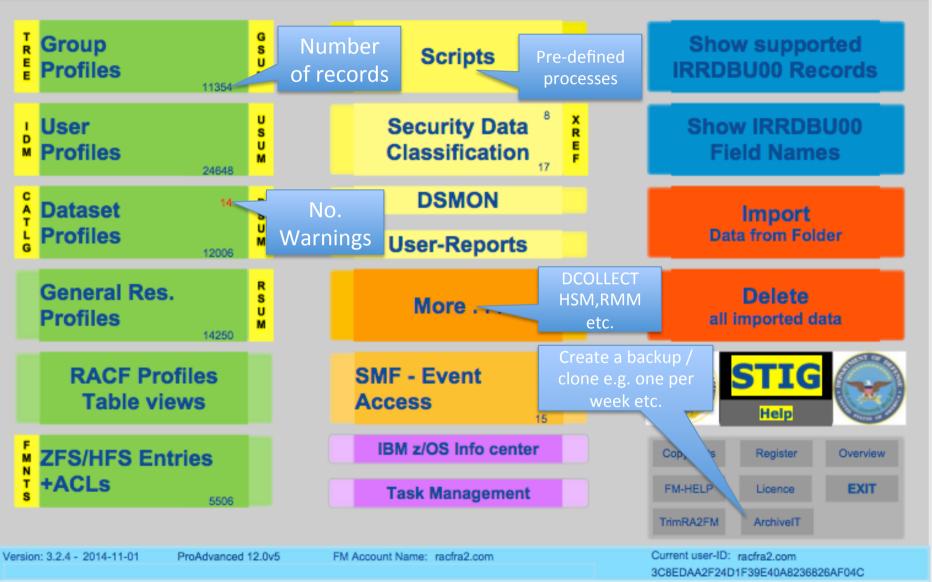


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Browse

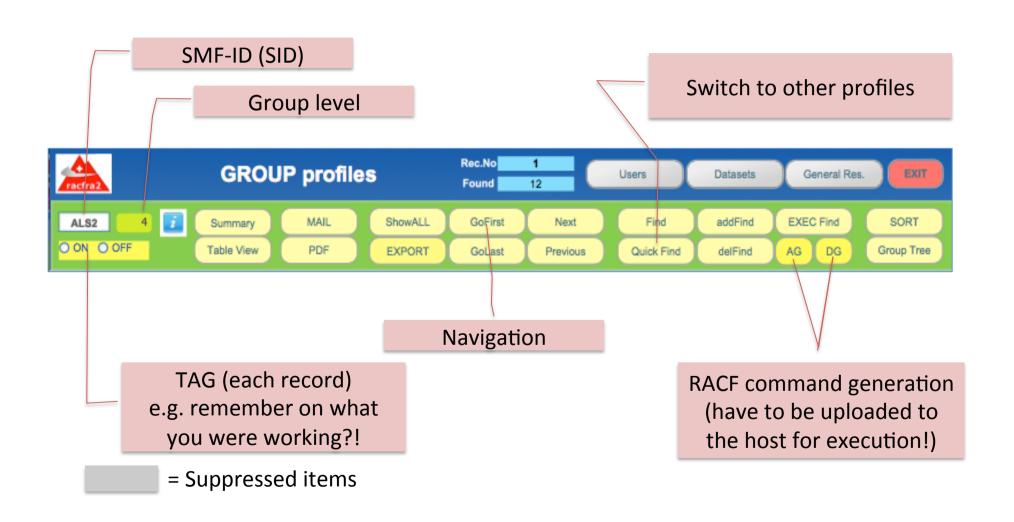
RA2FM®

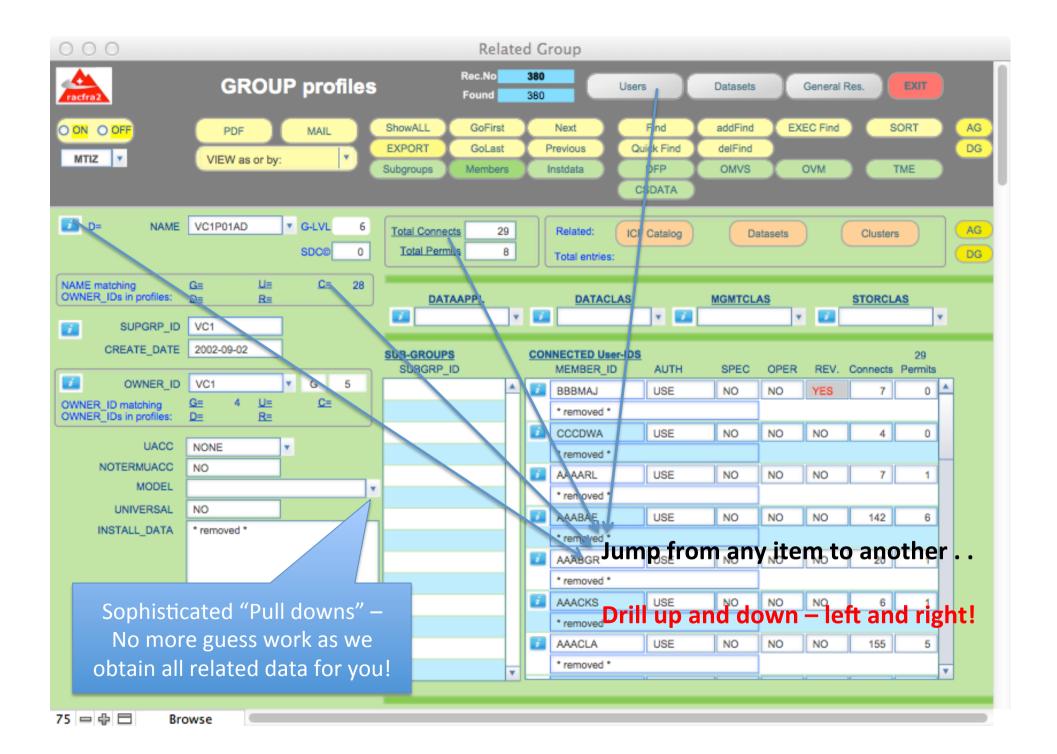
The mainframe security Audit / Admin tool

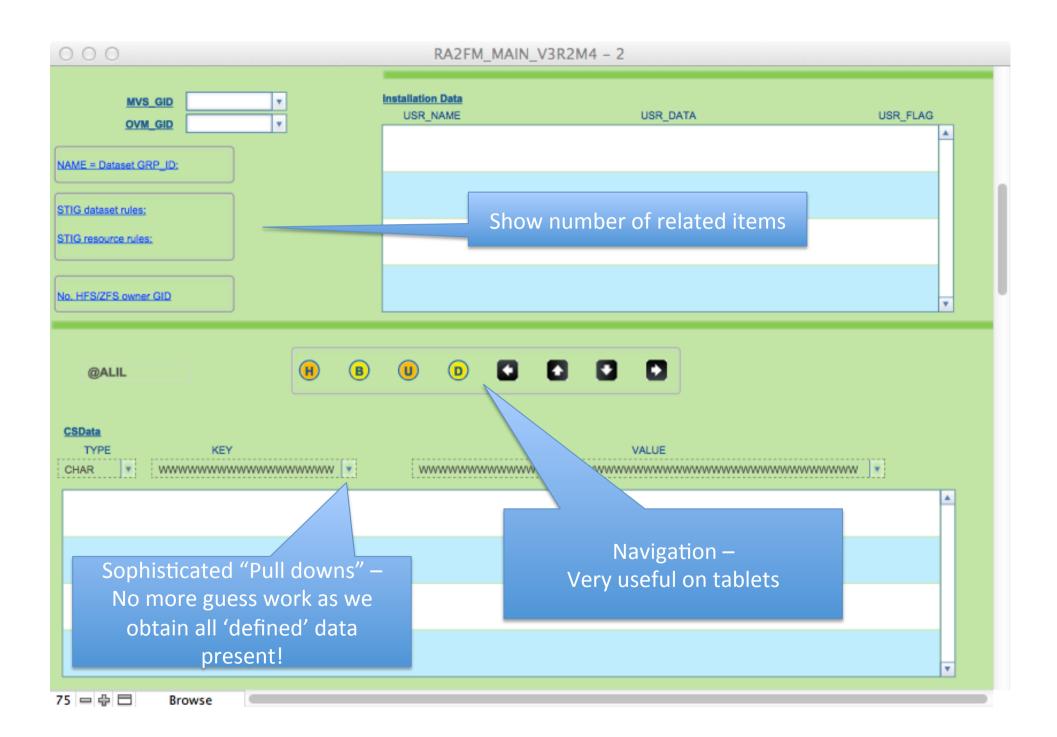


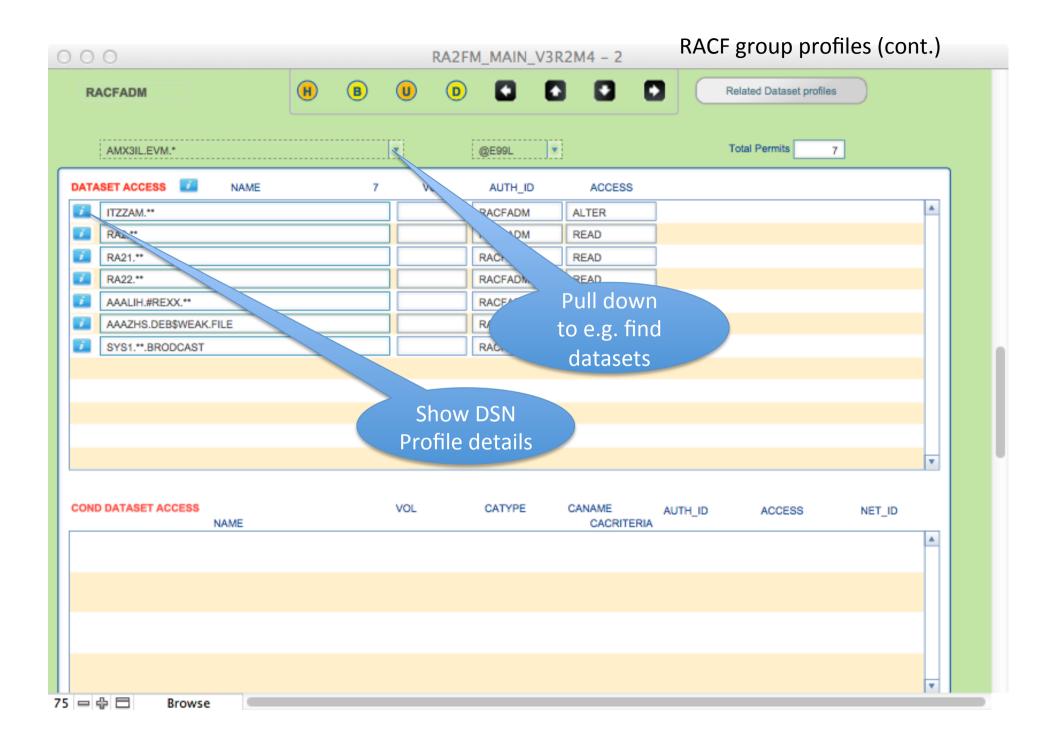
RACF group profiles

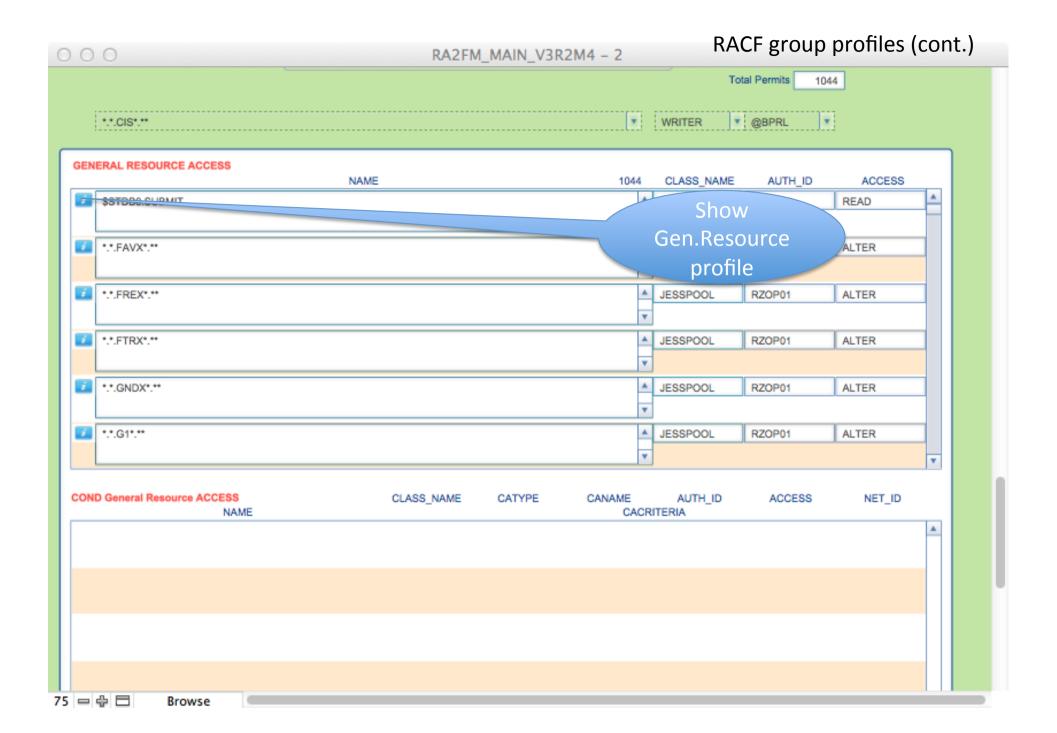
(ALL information on ONE screen!)





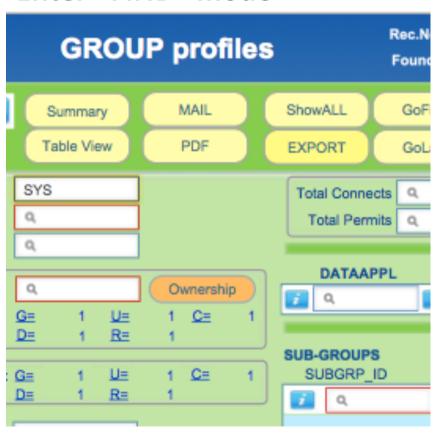






How to perform "FIND items"

Enter *FIND" mode



- You can find any item in a group
- A find works as well for related items e.g. you can find a dataset, UACC, PERMIT(accessID) etc. pertaining to a group e.g. access list(s)
- Multiple finds are supported
- Finds can be stored for future reference!

Table view 1...

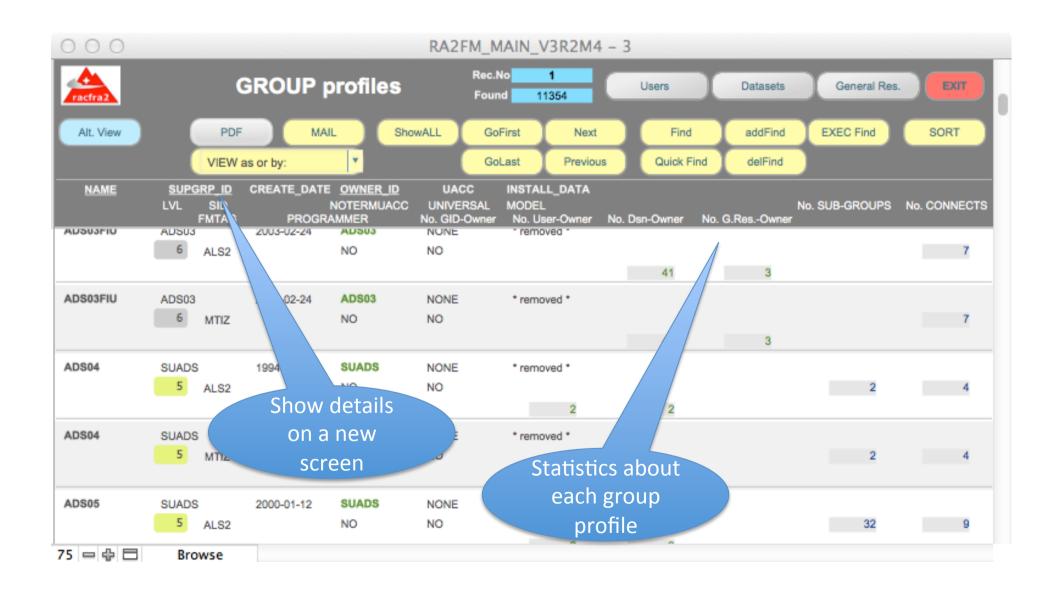
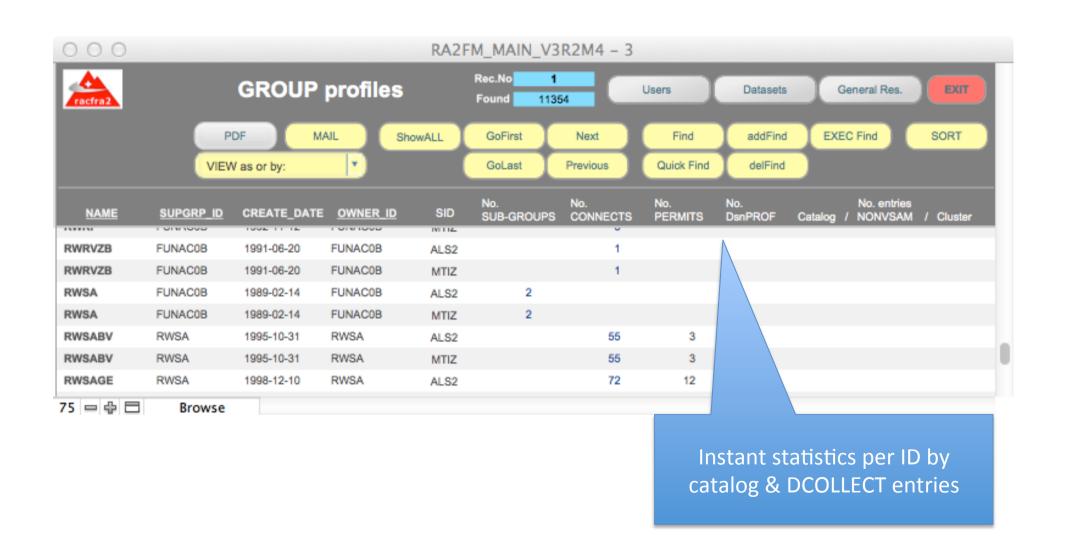
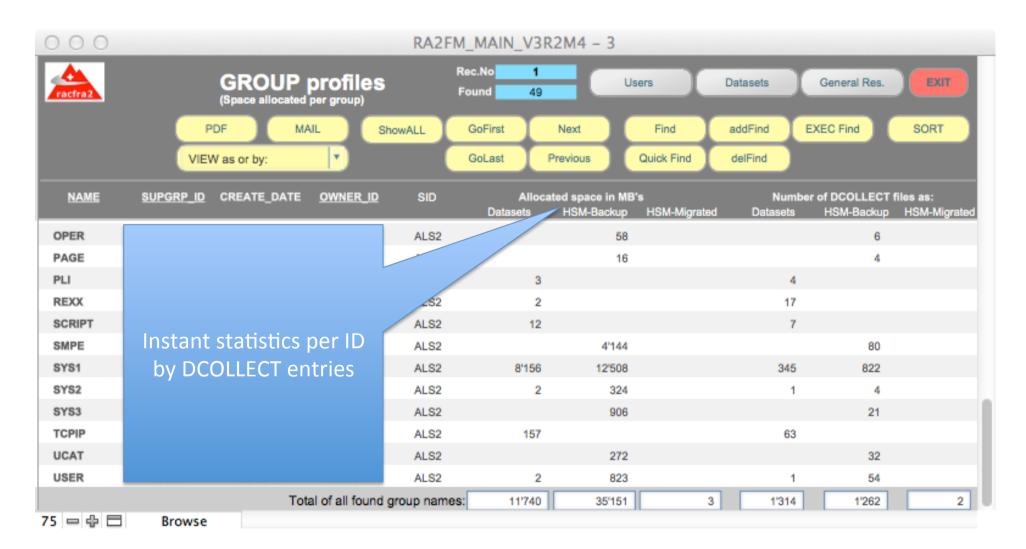
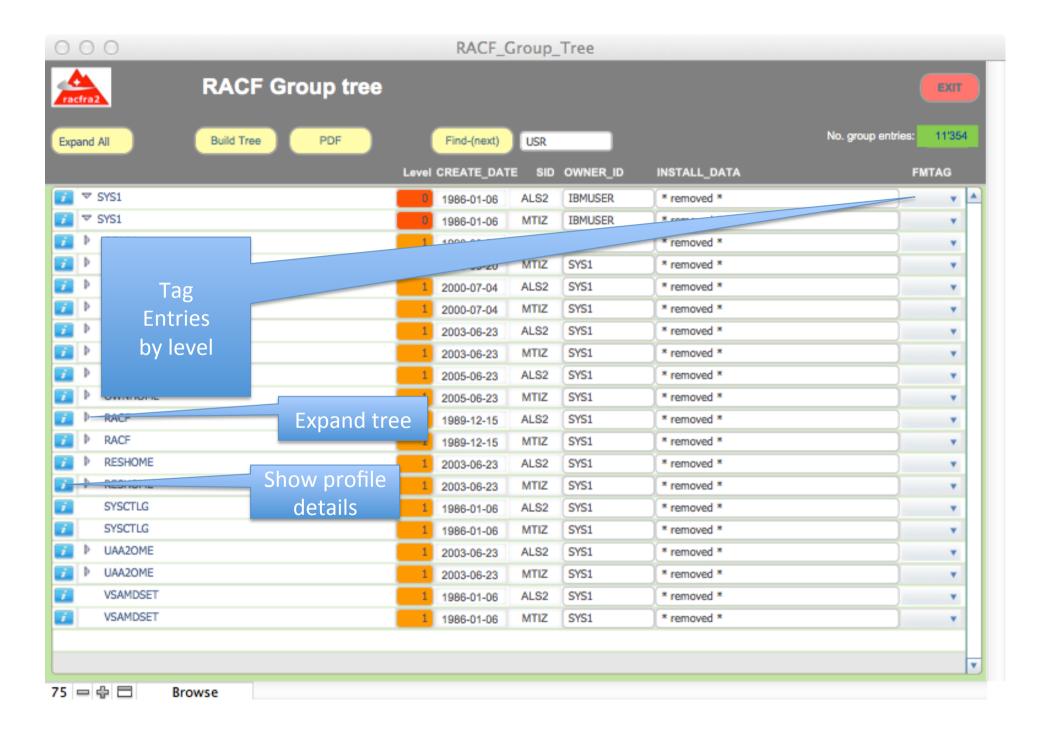


Table view 2 . . . (cont.)

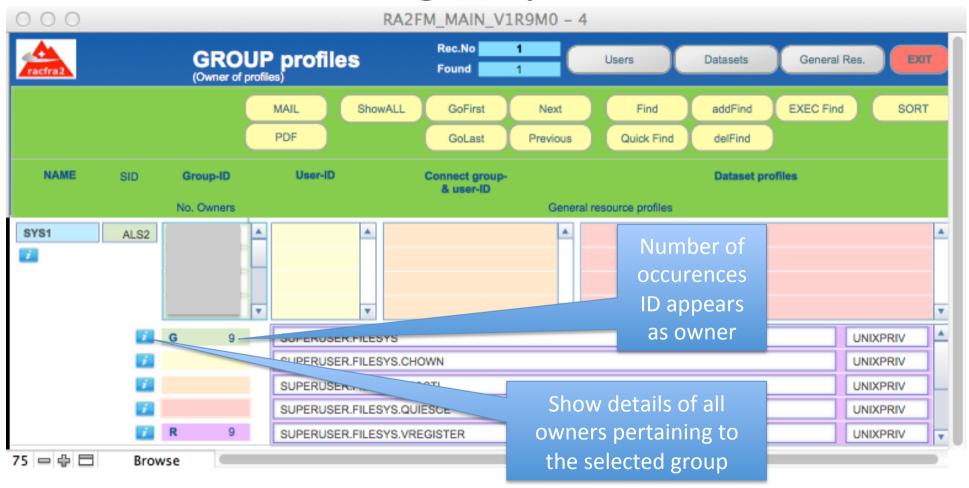


RACF group profiles (cont.)

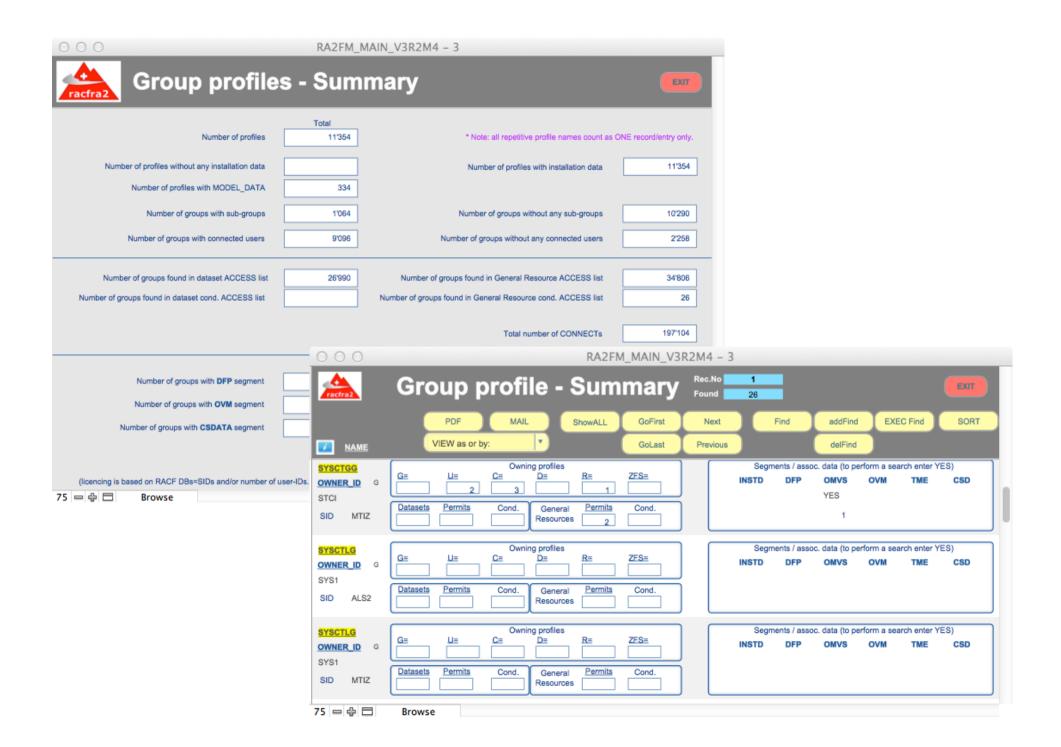




Find all group owners

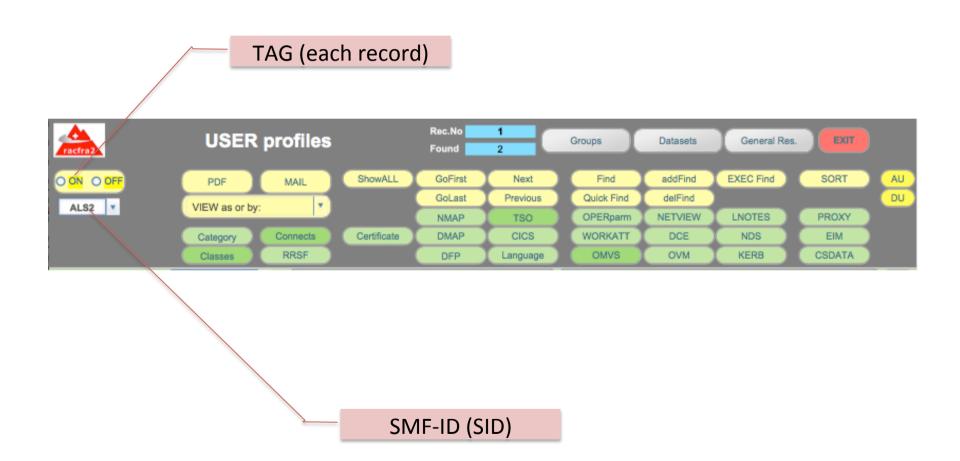


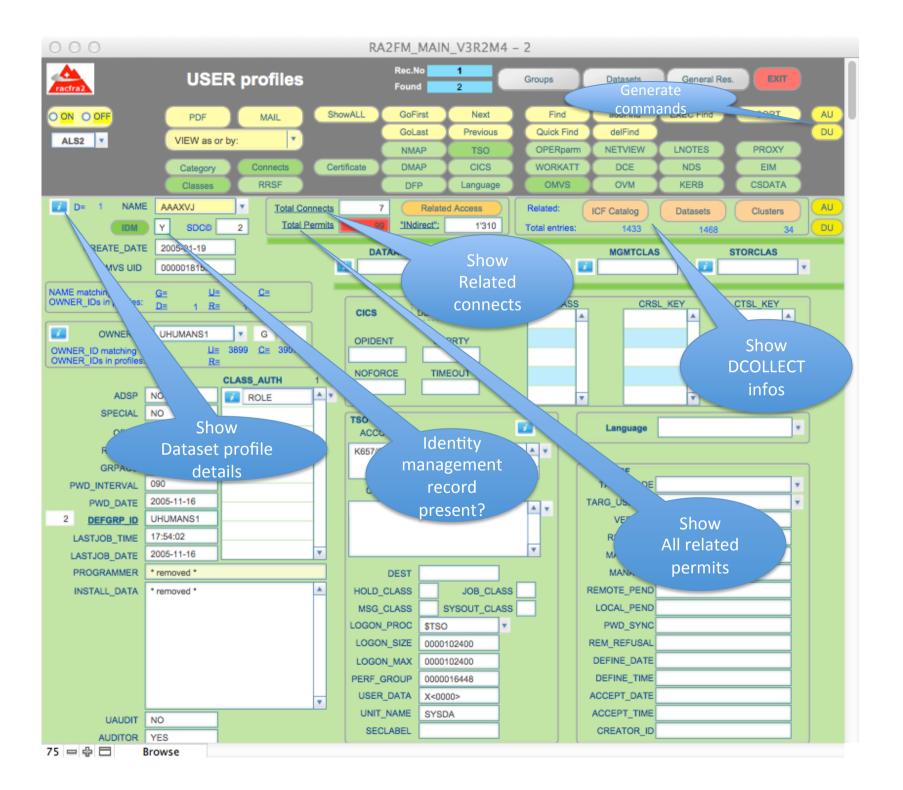


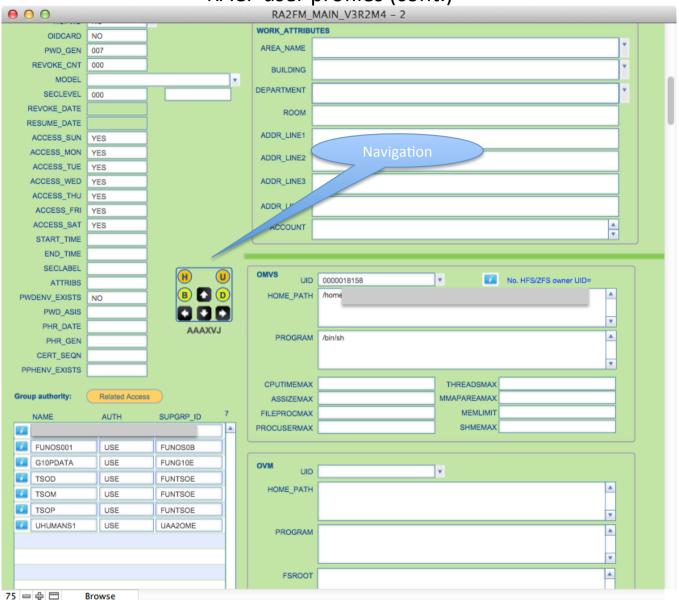


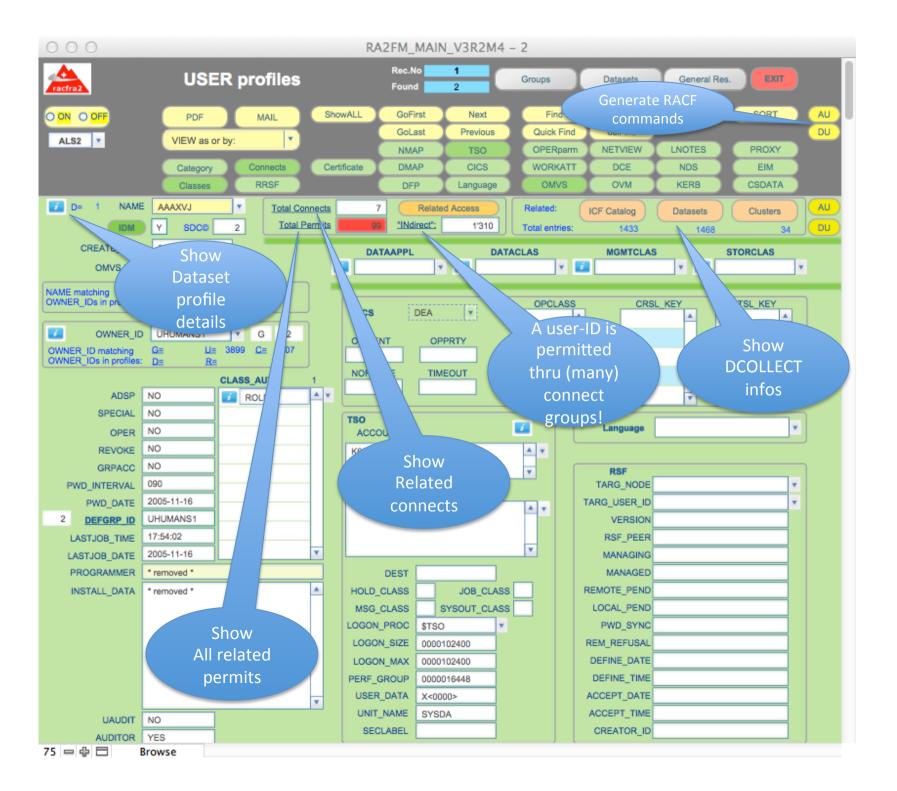
RACF user profiles

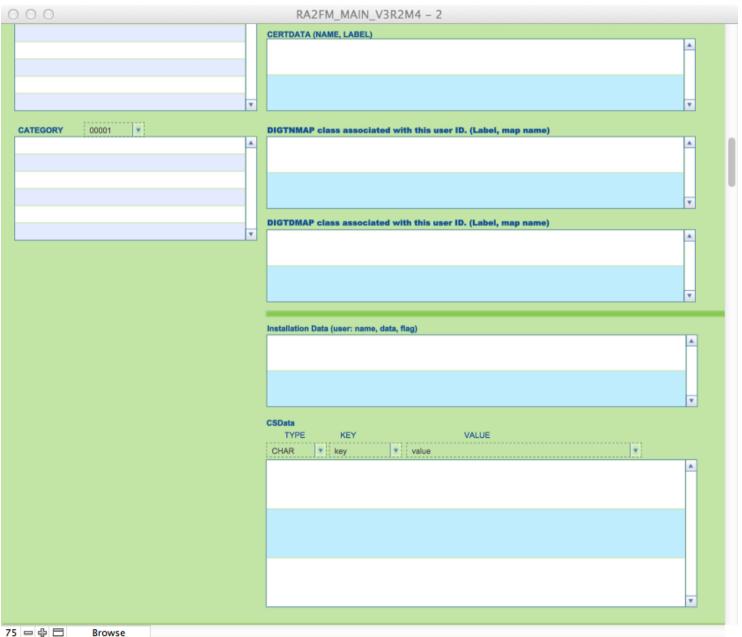
(ALL information on ONE screen!)

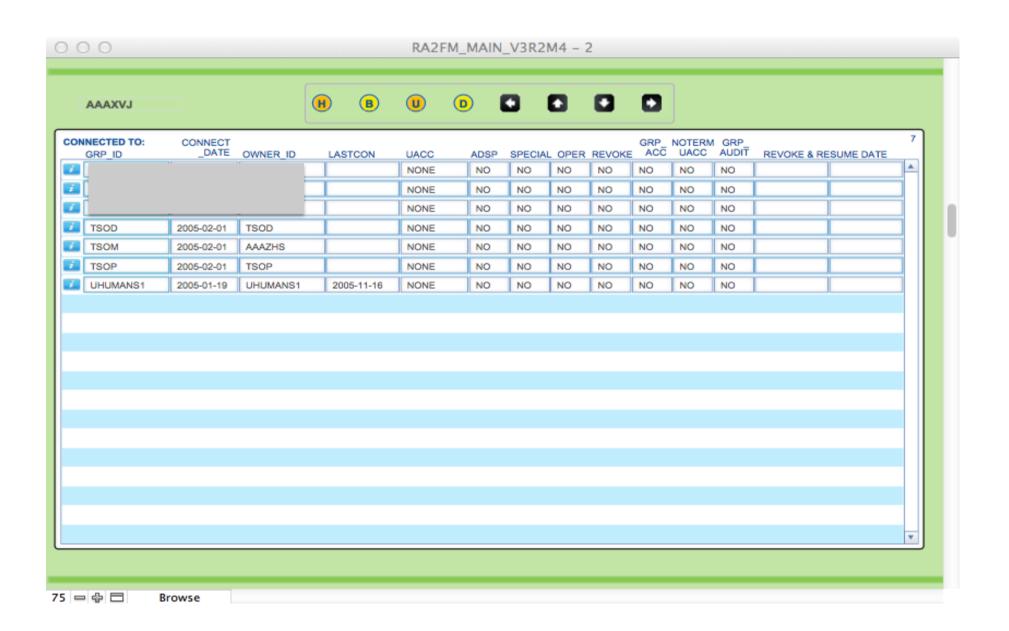


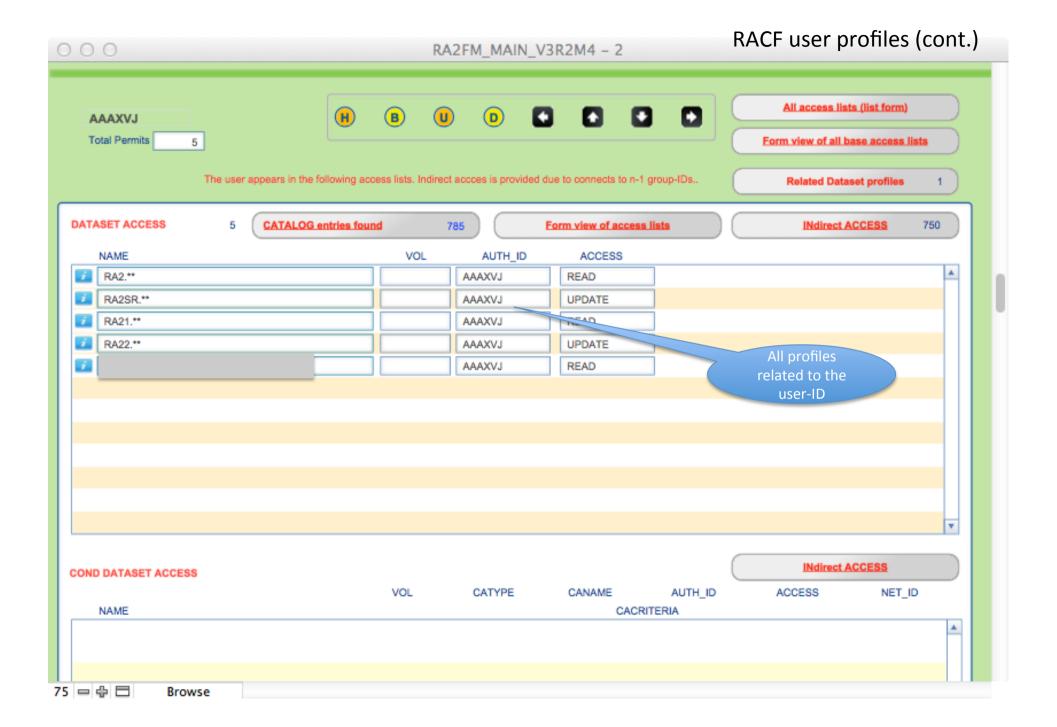




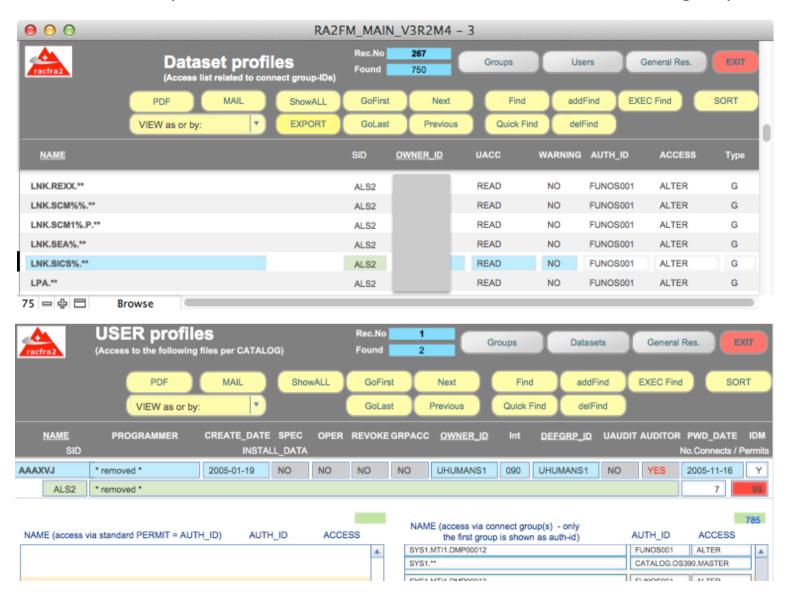


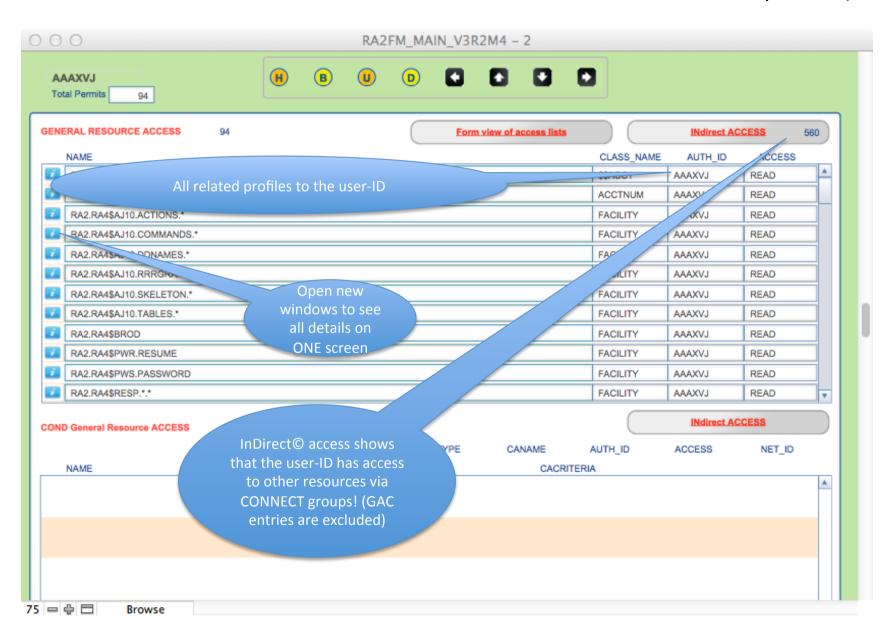




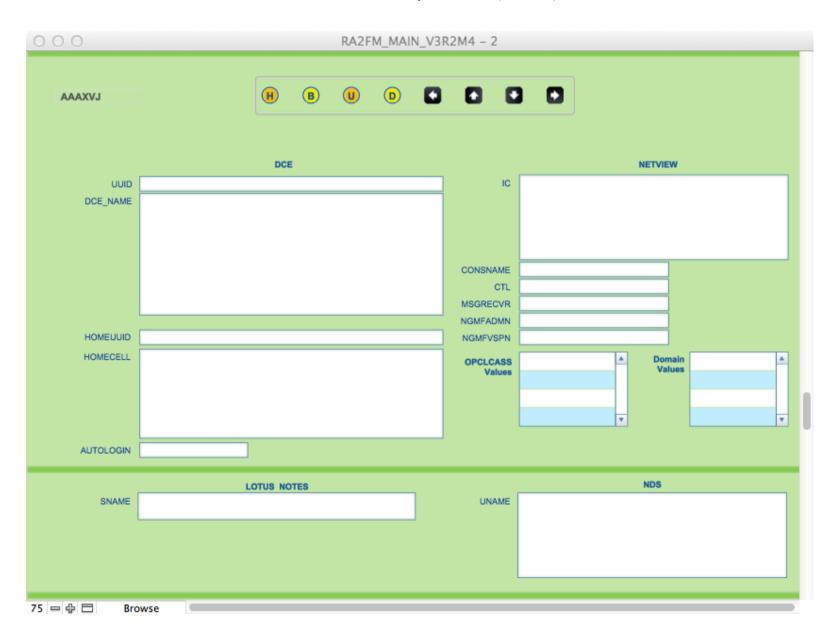


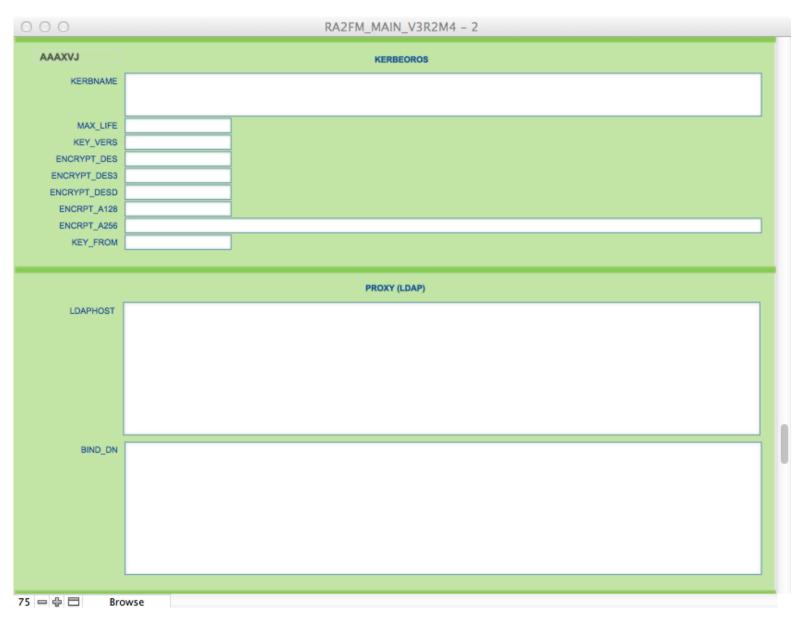
Access related profile information – i.e. related to user-ID/Connect group

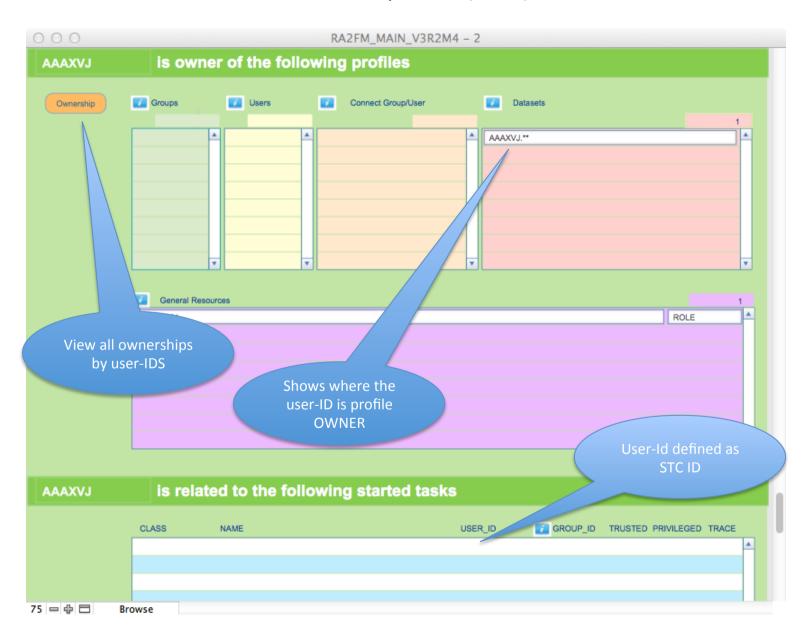


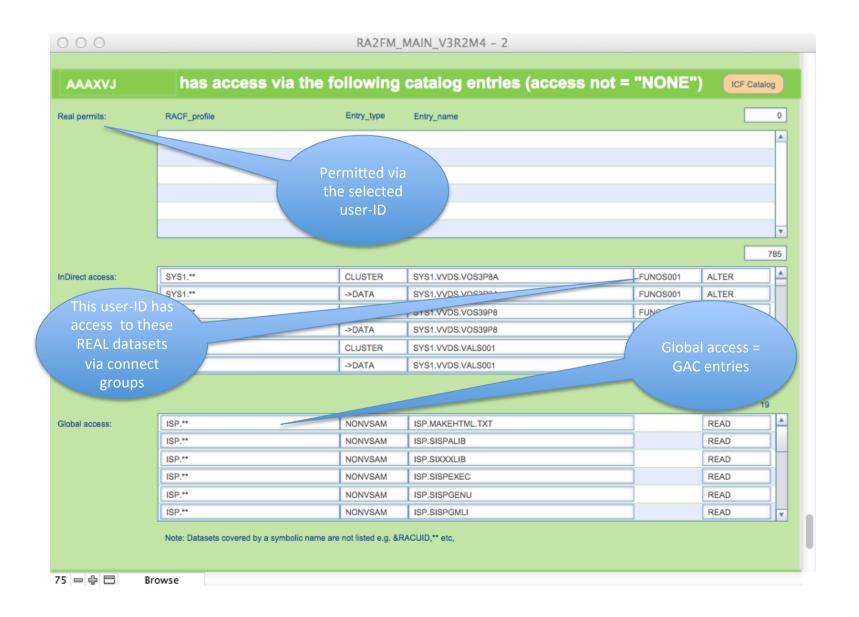




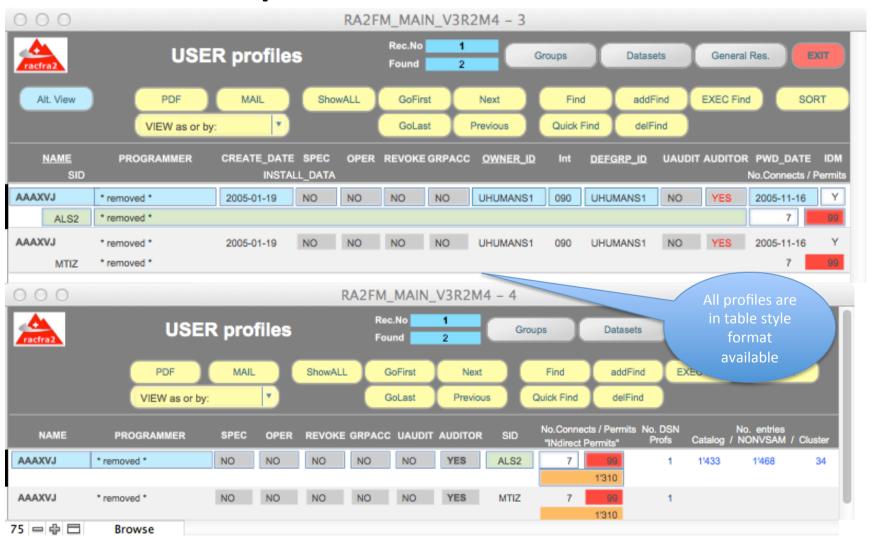




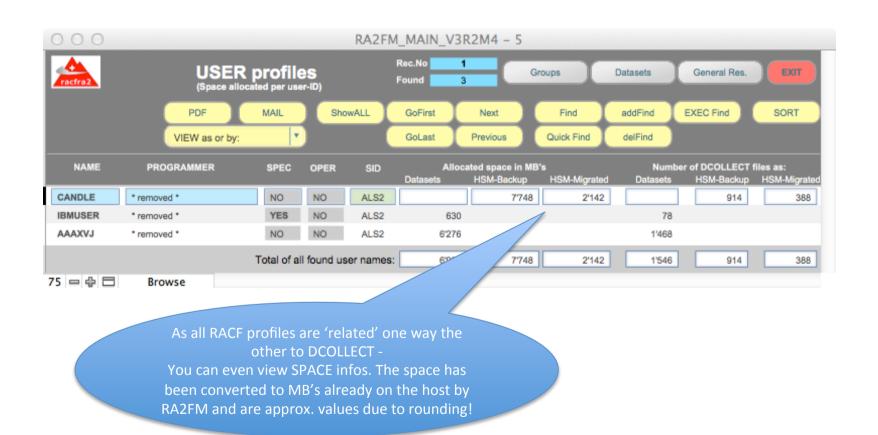




RACF user profiles – table view 1+2



Space infos based on DCOLLECT



SID ALS2

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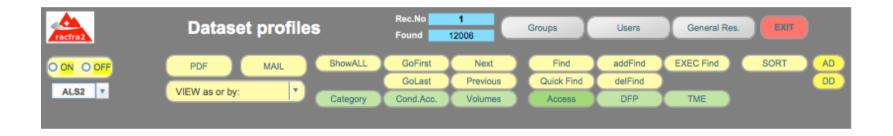
Number of users with PROXY segment

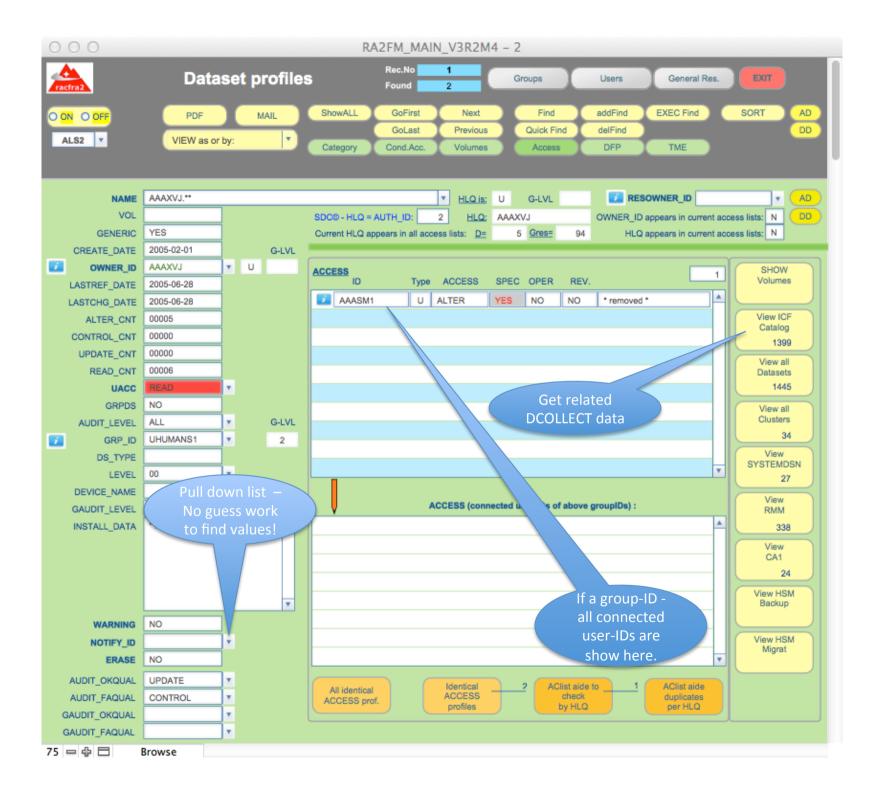
Browse

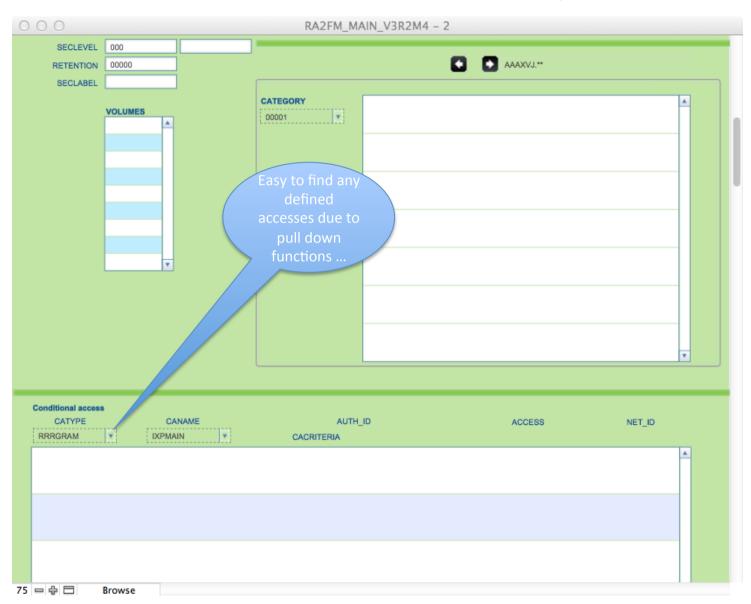
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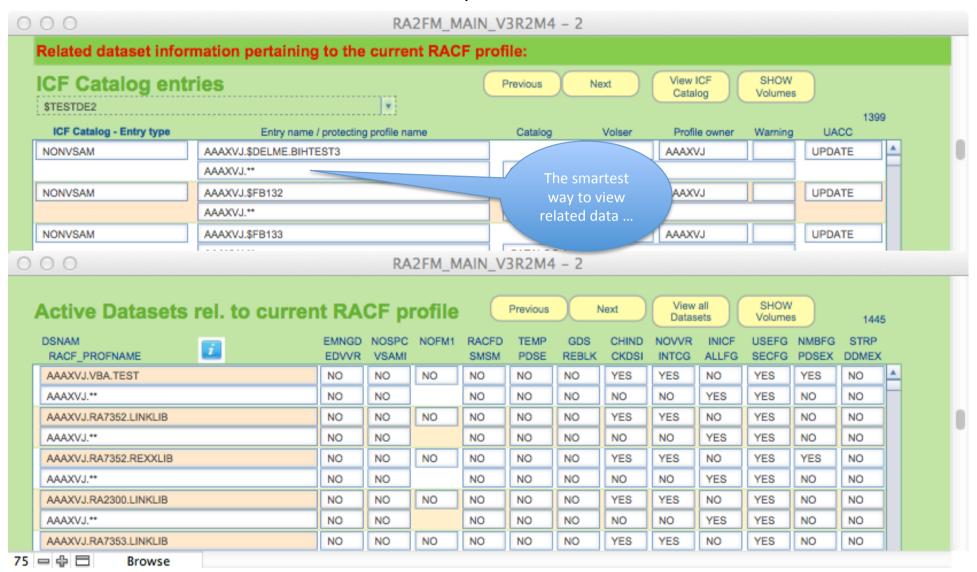
RACF dataset profiles

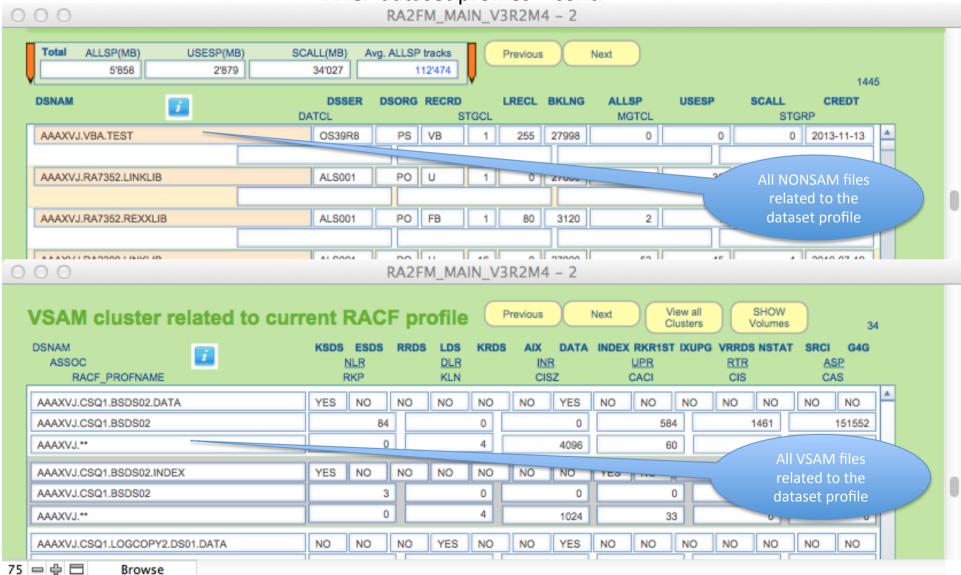
(ALL information on ONE screen!)

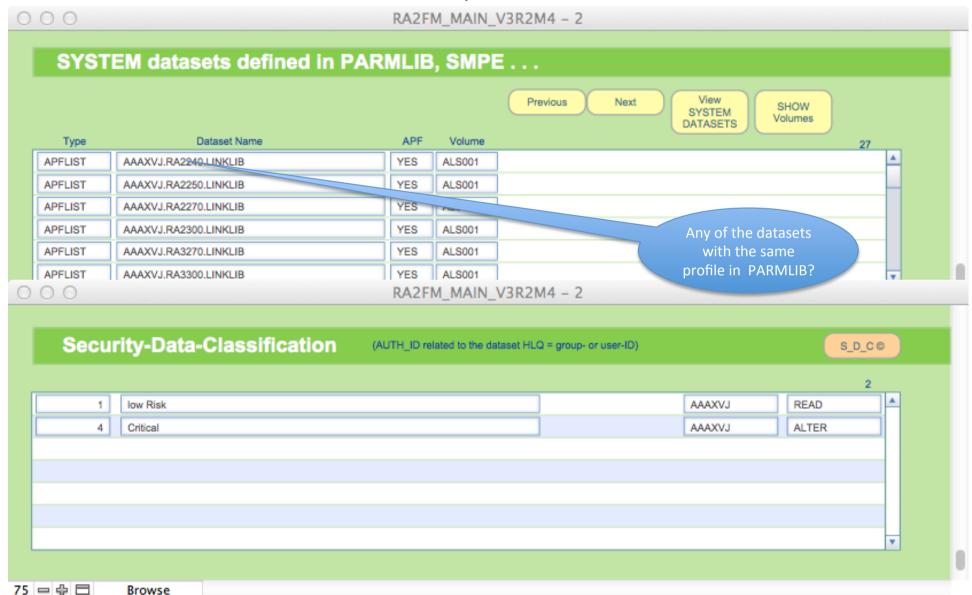




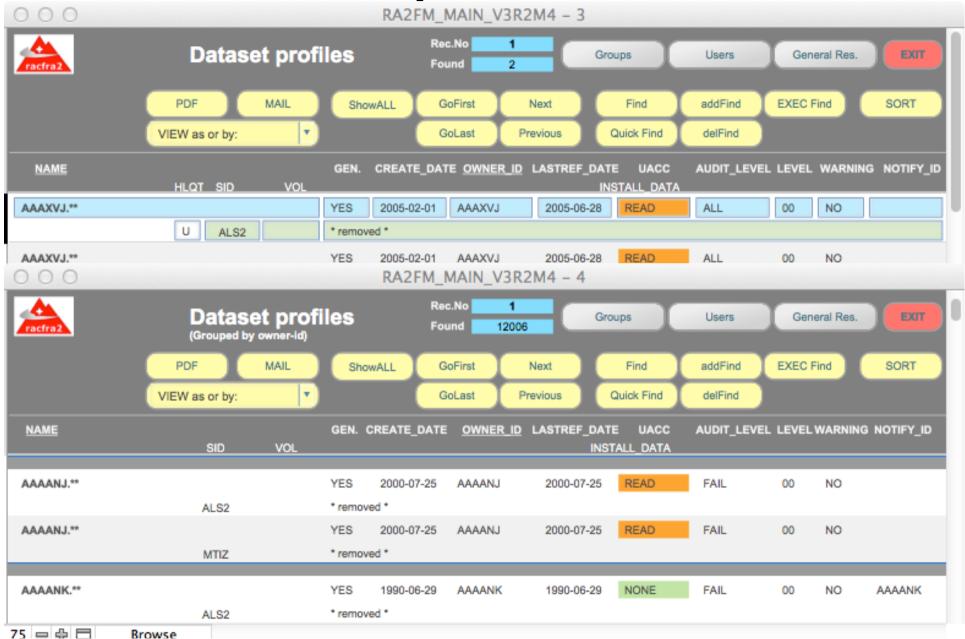




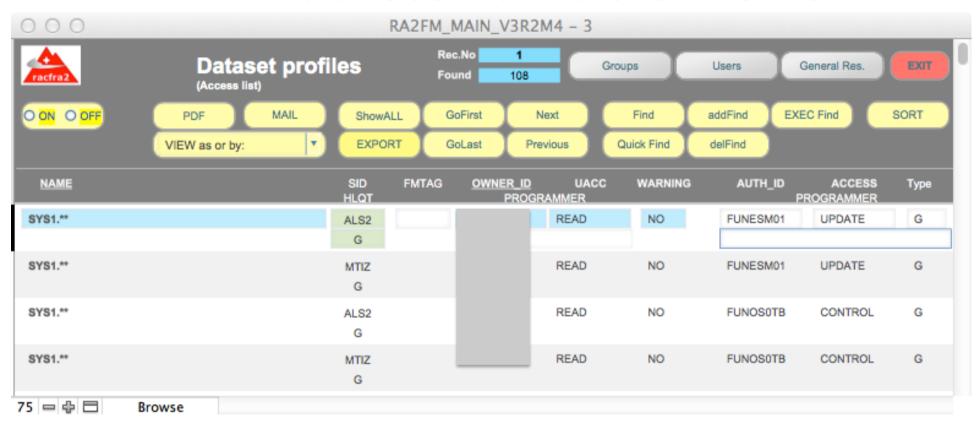




RACF dataset profiles – table view



RACF access list table views







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Browse

Dataset profiles - Summary

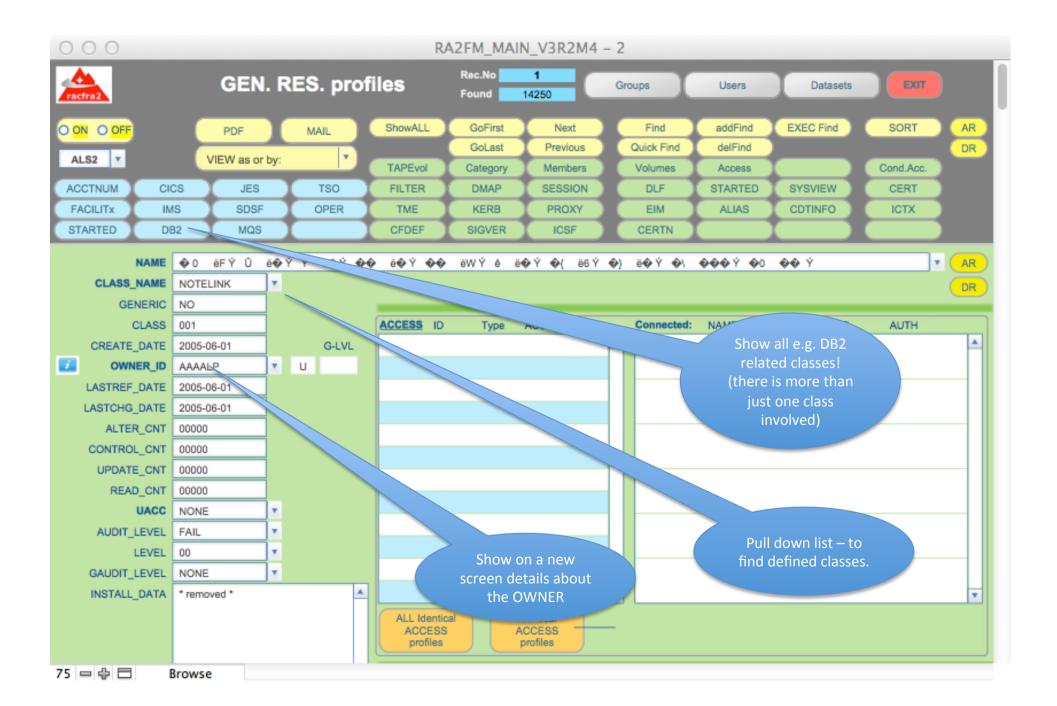
EXIT

Number of profiles	Total 12'006	* Note: all repetitive profile names count as ONE record/entry only.
Number of profiles without any installation data		Number of profiles with installation data 12'006
Number of profiles without any NOTIFY	11'174	Number of profiles with NOTIFY 832
Number of profiles with UACC=NONE	5'358	Number of profiles with UACC=READ 5'946
Number of profiles with UACC=UPDATE	490	Number of profiles with UACC=CONTROL 14
Number of profiles with UACC=EXECUTE		Number of profiles with UACC=ALTER 198
Number of profiles with GENERIC=YES	11'998	Number of profiles with GENERIC=NO 8
Number of profiles with WARNING=YES	14	Number of profiles with WARNING=NO 11'992
Number of profiles with LEVEL=00	12'004	Number of profiles with LEVEL > 00 2
Number of profiles with ERASE=YES	6	Number of profiles with ERASE=NO 12'000
Number of profiles without any SECLABEL	12'006	Number of profiles with SECLABEL
Number of datasets with DFP segment	34	Number of datasets with TME segment RA2FM_MAIN_V3R2M4 - 5
Access list statistic: Number of PERMITS=NONE	58	Rec.No Found PDF MAIL ShowALL GoFirst Next Find addFind EXEC Find VIEW as or by: VIEW as or
Number of PERMITS=UPDATE	3'072	NAME Type OWNER_ID SID Segments HLQ.is.g. 8YS1.** CAT CACC VOL ACC INSTD DFP TME GROUP GROUP
Number of PERMITS=EXECUTE	8	G CWNS1002 ALS2 YES 5 SY81.** G CWNS1002 ALS2 YES STATE OF TIME GROUP
Number of PERMITS=TRUST		G OWNS1002 MTIZ YES 75 □ ⊕ □ Browse

General Resources

(ALL information on ONE screen!)





Cont.

Like for all other RACF profiles (group, user, dataset):

- all segments are displayed/accessible on ONE single screen
- Table style views
- Generate RACF commands



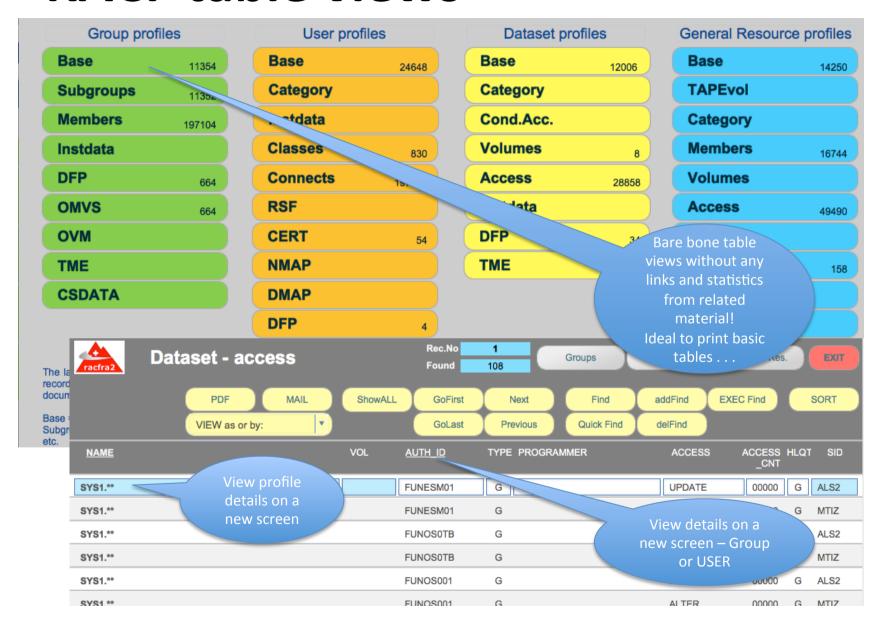


General Resource profiles - Summary

	Total		
Number of profiles	14'250	* Note: all repetitive profile names count as (ONE record/entry only
Number of profiles without any installation data		Number of profiles with installation data	14'250
Number of profiles without any NOTIFY	13'558	Number of profiles with NOTIFY	692
Number of profiles with UACC=NONE	8'320	Number of profiles with UACC=READ	5'638
Number of profiles with UACC=UPDATE	44	Number of profiles with UACC=CONTROL	2
Number of profiles with UACC=EXECUTE		Number of profiles with UACC=ALTER	192
Number of profiles with GENERIC=YES	2'248	Number of profiles with GENERIC=NO	12'002
Number of profiles with WARNING=YES		Number of profiles with WARNING=NO	14'250
Number of profiles with LEVEL=00	14'250	Number of profiles with LEVEL > 00	
Number of profiles without APPL_DATA		Number of profiles with APPL_DATA	14'250
Number of profiles without any SECLABEL	14'250	Number of profiles with SECLABEL	
ber of resources with FILTER DATA segment		Number of resources with DMAP segment	
Number of resources with SESSION segment		Number of resources with DLF segment	
Number of resources with STARTED segment	642	Number of resources with SYSTEMVIEW segment	
Number of resources with CERT segment	6	Number of resources with TME segment	2
Number of resources with KERB segment		Number of resources with PROXY segment	
Number of resources with EIM segment		Number of resources with ALIAS segment	2
Number of resources with CDT segment	4	Number of resources with ICTX segment	
Number of resources with CFDEF segment		Number of resources with SIGVER segment	
Number of resources with ICSF segment			
s list statistic:			201110
Number of PERMITS=NONE	926	Number of PERMITS=READ	38'148
Number of PERMITS=UPDATE	4'718	Number of PERMITS=CONTROL	848
Number of PERMITS=EXECUTE		Number of PERMITS=ALTER	4'844
Number of PERMITS=TRUST	6		

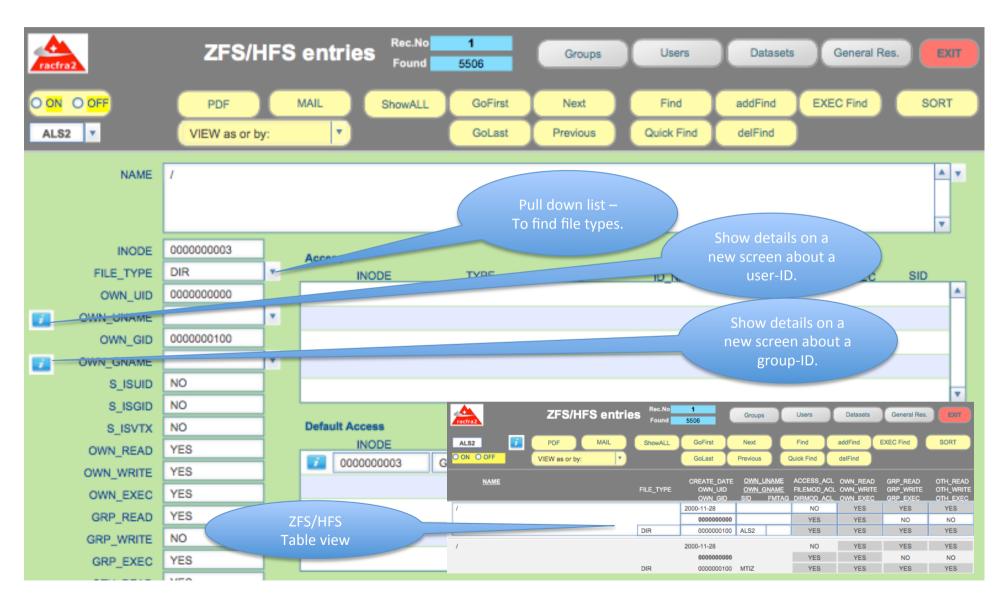
RACF table views

Bare bone views – faster access

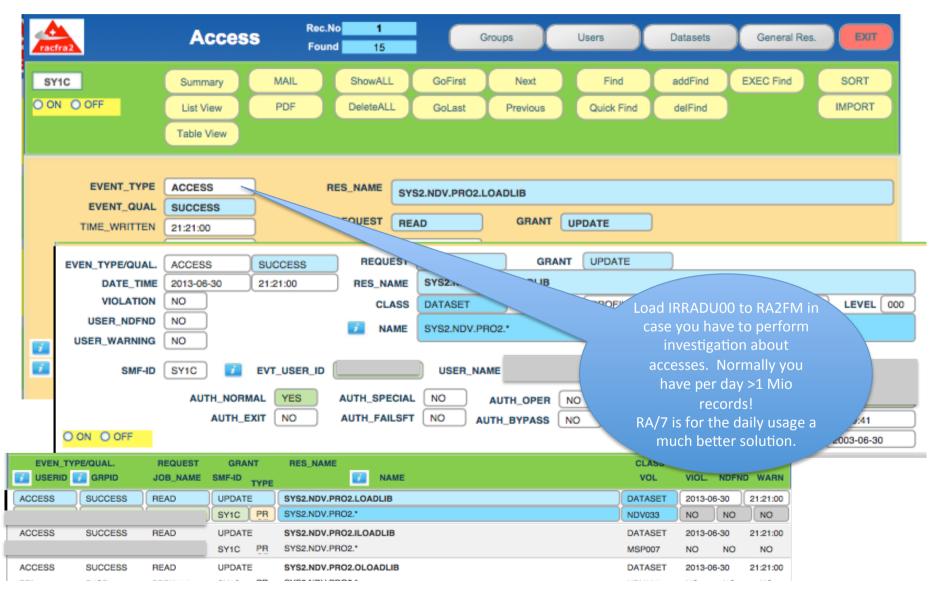


ZFS/HFS

http://www-03.ibm.com/systems/z/os/zos/features/racf/downloads/irrhfsu.html



SMF access information



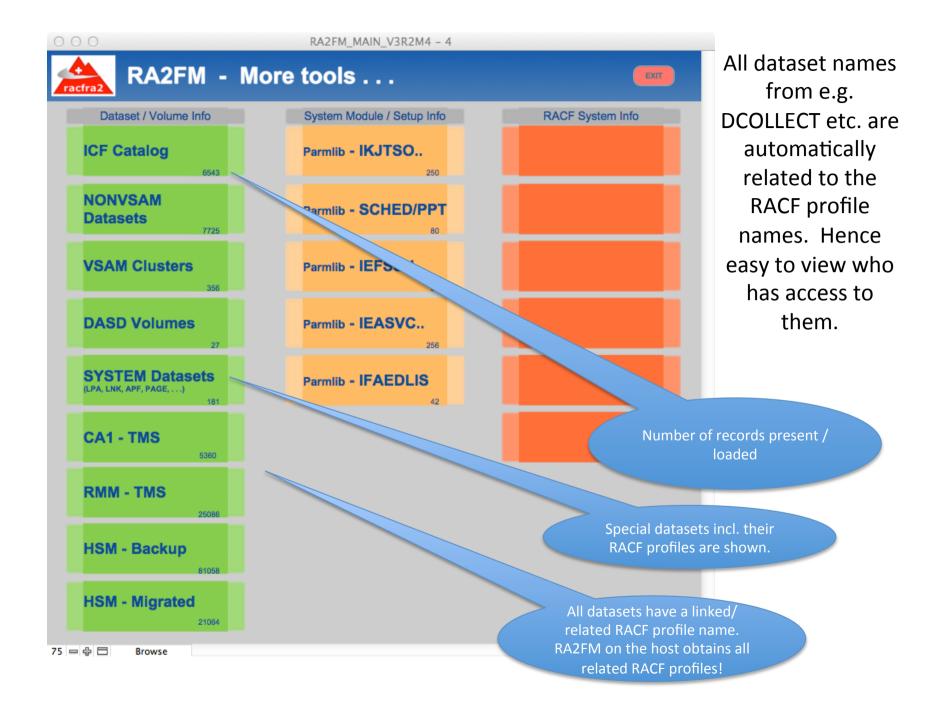


Scripts - pre-defined functions

EXIT

4	racii az					
	Group profiles	User profiles	Dataset profiles	Genera	al Resource profiles	
	Without connected users	IBMUSER	Warning mode only	Warning mode only		
	With connected users	Revoked	Notify defined	1	Notify defined UACC not NONE	
	Without sub-groups	Special	UACC not NONE	UA		
	With sub-groups	Password=NO	Empty access list	En	npty access list	
	Without SubGrps+connects	Never logged ON	ess-ID =	1014	ss-ID = "*" / NONE	
	Validate owner-ID	Validate owner-ID	ONE-C	LICK	owner-ID	
	Not in any access-list	Not in any access-list	to obt	ain	ss list	
	Install.Data is empty	Install.Data is empty			empty	
	Own which profiles?	Not logged on >360 days	insta	nt	cess list	
	Numeric profiles only	More than 50 connects	Duplic resul	tc	ARTED IDs	
		In any access list	Tesui		duplicate members	
		Connects&GroupAuth			Blobal access	
		Owner NE default Group		Sta	rted TASK class	
		Own which profiles?				
	ZFS/HFS profiles	Numeric profiles only				
	Verify ID_NAMEs	CLAUTH=USER	Ava vav minaja a a ania 10 t		aarint2 l at ua knaw	
		AUTH=CONNECT	Are you missing a script? Let us know.			
		AUTH=JOIN				
		Group special				

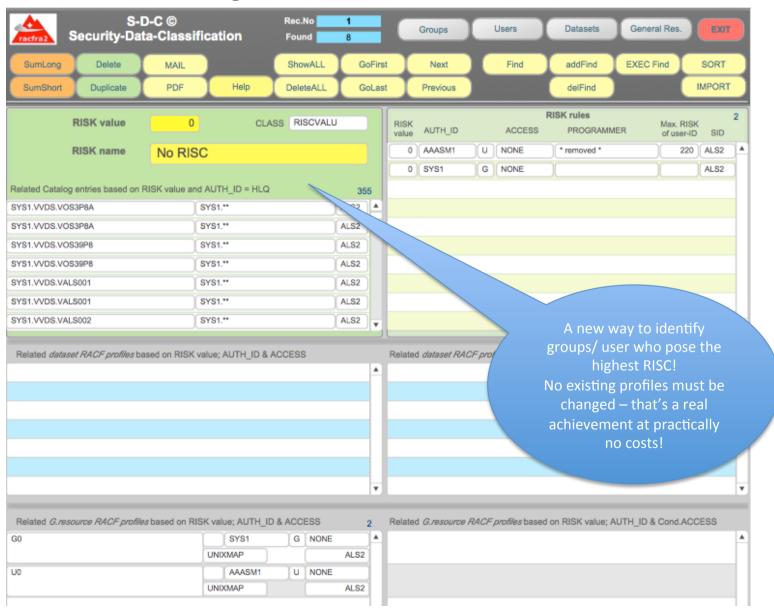
Explicit RRSF defined



More (samples) — DSNs are with RACF profile name!



Security data classification



Security data classification

The implementation of the S-D-C© has been accomplished as follows:

First you have to define a new RACF class e.g. RISCVALU allowing a resource name of 1-2 numerics. These numerics define the base RISK values, which in turn will be used to calculate the protential RISK of a GROUP- and or USER-ID. It is recommended you only use a single digit 0-9 as this will be in most cases sufficient.

Perform base RDEFINES to establish the RISK values e.g.

```
RDEFINE 0 RISKVALU DATA('NO RISK')
RDEFINE 1 RISKVALU DATA('LOW RISK')
RDEFINE 2 RISKVALU DATA('MODERATE RISK')
RDEFINE 3 RISKVALU DATA('MEDIUM RISK')
RDEFINE 4 RISKVALU DATA('???? RISK')
RDEFINE 5 RISKVALU DATA('???? RISK')
RDEFINE 6 RISKVALU DATA('???? RISK')
RDEFINE 7 RISKVALU DATA('CRITICAL RISK')
RDEFINE 8 RISKVALU DATA('???? RISK')
RDEFINE 9 RISKVALU DATA('HIGH RISK')
```

Assign now each GROUP- or as well USER-IDs to above defined Resource name by using the PERMIT command. A PERMIT consists of an ID plus its authority. Allowing RISK values/calucaltion to be made of small pieces or granules.

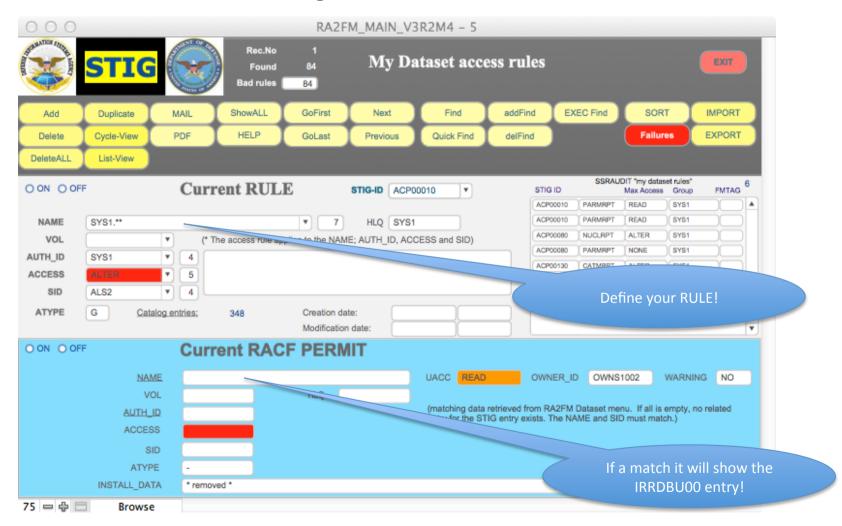
```
PERMIT 0 CLASS(RISKVALU) ID(SYS1) ACCESS(NONE)')
PERMIT 0 CLASS(RISKVALU) ID(userid) ACCESS(READ)')

PERMIT 9 CLASS(RISKVALU) ID(SYS1) ACCESS(ALTER)')
PERMIT 9 CLASS(RISKVALU) ID(userid) ACCESS(ALTER)')
```

S-D-C calculates the RISK values based on matching ID and ACCESS of all access lists i.e. DATASETS and GENERAL RESOURCES.



STIG sample dataset rules



Summary

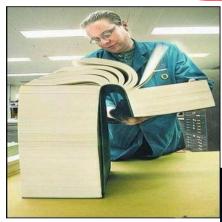
- RA2FM is the most SOPHISTICATED ADD-ON and not a replacement of some tools as it is a STAND-ALONE application for PCs/tablets (Windows&Apple) to increase productivity. It gives you the flexibility you cannot achieve on a mainframe!
- A new approach to deal with RACF and associated data e.g. HSM, RMM, Catalogs, STIG, Security data classification by using other technology
- A tool that does not require any DB2, SQL, REXX, EXCEL, ACCESS etc. skills
- Has lots of ready to use scripts
- All RACF information on ONE single screen (all segments!)
- Drill up and down; left and right functions
- Multiple windows e.g. to compare side by side data
- Works on PCs, tablets, iPhones (Windows, iOS, OSX, Servers)
- EASY to use for EVERYBODY
- Increase productivity save labor intensive costs
- More FUN than working with ISPF or paper reports . . .
- For PC/MAC a 21-29 inch (incl. ultra wide) monitor is highly recommended



Questions?







This way or The Swiss waySM



Suggestions welcome



"I LIKE YOUR DESIGN, BUT CAN YOU CHANGE THIS, THIS, THIS, THIS AND THIS? ALSO, MOVE THIS OVER HERE, THIS TO HERE AND REPLACE THIS HERE. THE COLORS ARE ALL WRONG AS WELL..."

We are open to any suggestions. Since RA2FM is THE most advanced relational database system covering RACF security, whereby all relevant fields are related to each other, it is easy to create new layouts, reports and scripts to cover the ever growing needs for almost every user. You won't find anything like it!