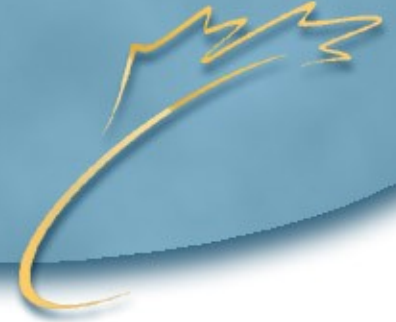




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ICIS 2007 Developer's Workshop



Session 11: ICIS Security Access/Issues

Security of ICIS Data at AAFC

Shawn Yates, SPARC



Overview

- Security Problem
- Temporary fix
- Proposed Solution
- Q & A/Round table discussion



Security Problem

- ICIS currently allows for 2 levels of security
 - Central Db – data shared among ICIS community
 - Local Db – data shared locally (research centre)
- All database records can be viewed by a user
- Only restrictions are on read/write access to databases



Security Problem

- 3 Levels needed:
 - 1) Data only shared among project collaborators
 - Project studies/pedigrees within a local Db restricted to those actively working on a project or to the research centre
 - 2) Share data across AAFC
 - Local Db accessible to all AAFC users
 - 3) Share non-sensitive data with ICIS community
 - Data uploaded to the Central Db



Temporary Fix

- Create multiple Local databases for each Research Centre
 - Awkward – users are constantly switching between local databases
 - Duplication of data in local databases, if germplasm is involved in multiple projects
 - Hard to merge data after project finishes



Proposed Solution

- Add a new column to the USERS table, Security Group (SECUREGRP)
- Column identifies groups of users who are collaborating

USERID	INSTAL	USTATUS	UACCESS	UTYPE	UNAME	UPSWD	PERSONID	ADATE	CDATE	SECUREGRP
-22	-1	-1	20	421	GHUMPHREYS	GH	-40	20060705	0	-2
-21	-1	1	20	421	SFOX	SF	-39	20060705	0	-1
-20	-1	1	20	421	TBANKS	TB	-38	20060705	0	-2
-19	-1	1	20	421	DSIMERS	DS	-37	20060705	0	-3
-18	-1	1	20	421	RGRAF	RG	-36	20060705	0	-3
-17	-1	1	20	421	DGAUDET	DG	-35	20060705	0	0
-16	-1	1	20	421	HCAMPBELL	HC	-21	20060705	0	0
-15	-1	1	20	421	ABANMAN	AB	-17	20060705	0	0
-14	-1	1	20	421	TFEHR	TF	-16	20060705	0	0
-13	-1	1	20	421	CHORBACH	CH	-15	20060705	0	0
-12	-1	1	20	421	BMEYER	BKM	-14	20060705	0	0
-11	-1	1	20	421	GMCLARE	GMC	-13	20060705	0	0
-10	-1	1	20	421	MOLFERT	MO	-11	20060705	0	0
-9	-1	1	20	421	JROSS	JR	-10	20060705	0	0
-8	-1	1	20	421	BCOWARD	BC	-9	20060705	0	0
-7	-1	1	20	421	DDAHLMAN	DD	-8	20060705	0	0
-6	-1	1	20	421	JCLARKE	JMC	-6	20060705	0	0
-5	-1	1	20	421	FCLARKE	FRC	-4	20060705	0	0
-4	-1	1	20	421	RKNOX	RK	-2	20060705	0	0
-3	-1	1	20	421	RDEPAUW	RDP	-1	20060705	0	0
-2	-1	1	20	421	GUEST	GUEST	0	20060621	0	0
-1	-1	1	100	422	SYATES	ADMIN	-7	20020514	0	0
*	0	0	0	0			0	0	0	0



Proposed Solution

- Add the Security Grouping (SECURGRP) column to the GERMLPSM table as well
- Links to USERS table

Microsoft Access - GMS-Local-acschex : Database (Access 2000 file format)

GERMLPSM : Table

GID	MET GN	GPID1	GPID2	GERMU	LGID	GLOCN	GDATE	GREF	GRPLCE	MGID	SECURGRP
-56718	202 -1	-56716	0	-1	0	-1	0	0	0	0	-2
-56717	202 -1	-56716	0	-1	0	-1	0	0	0	0	-3
-56716	1 2	0	0	-1	0	-1	20000000	0	0	0	-2
-56715	31 -1	0	0	-1	0	0	0	0	0	0	-1
-56714	31 -1	0	0	-1	0	0	0	0	0	0	
-56713	31 -1	0	0	-1	0	0	0	0	0	0	
-56712	31 -1	0	0	-1	0	0	0	0	0	0	
-56711	31 -1	0	0	-1	0	0	0	0	0	0	
-56710	31 -1	0	0	-1	0	0	0	0	0	0	
-56709	31 -1	0	0	-1	0	0	0	0	0	0	
-56708	31 -1	0	0	-1	0	0	0	0	0	0	
-56707	31 -1	0	0	-1	0	0	0	0	0	0	
-56706	31 -1	0	0	-1	0	9004	0	0	0	0	
-56705	31 -1	-56704	0	-1	0	4557	0	0	0	0	
-56704	1 2	0	0	-1	0	4557	0	0	0	0	
-56703	31 -1	-10012	0	-1	0	-1	0	0	0	0	
-56702	205 -1	3546542	4811475	-1	0	0	0	0	0	0	
-56701	205 -1	3544435	4806065	-1	0	0	0	0	0	0	
-56700	205 -1	3544410	4807698	-1	0	0	0	0	0	0	
-56699	205 -1	3544410	4747222	-1	0	0	0	0	0	0	
-56698	205 -1	3544371	4747229	-1	0	0	0	0	0	0	
-56697	205 -1	3544292	4807370	-1	0	0	0	0	0	0	
-56696	205 -1	3544282	4807296	-1	0	0	0	0	0	0	
-56695	205 -1	3544282	4807297	-1	0	0	0	0	0	0	
-56694	205 -1	3544281	4807235	-1	0	0	0	0	0	0	
-56693	205 -1	3544098	4747193	-1	0	0	0	0	0	0	
-56692	205 -1	3543719	4806656	-1	0	0	0	0	0	0	
-56691	205 -1	3543605	4747226	-1	0	0	0	0	0	0	
-56690	205 -1	3543509	4806501	-1	0	0	0	0	0	0	
-56689	205 -1	3543501	4806411	-1	0	0	0	0	0	0	
-56688	205 -1	3543500	4747198	-1	0	0	0	0	0	0	
-56687	206 -1	2441652	4559042	-1	0	0	0	0	0	0	
-56686	206 -1	2441308	4639720	-1	0	0	0	0	0	0	
-56685	206 -1	2441308	4559070	-1	0	0	0	0	0	0	
-56684	206 -1	2441279	4639706	-1	0	0	0	0	0	0	
-56683	206 -1	2441279	4559102	-1	0	0	0	0	0	0	
-56682	206 -1	2441045	4559095	-1	0	0	0	0	0	0	
-56681	206 -1	2441045	4639600	-1	0	0	0	0	0	0	
-56680	206 -1	2441043	4639599	-1	0	0	0	0	0	0	
-56679	206 -1	2441039	4559037	-1	0	0	0	0	0	0	
-56678	206 -1	2437923	4559065	-1	0	0	0	0	0	0	
-56677	206 -1	383932	4759918	-1	0	0	0	0	0	0	
-56676	206 -1	383932	4747228	-1	0	0	0	0	0	0	

Record: 1 of 56320

Datasheet View

start | Inbo... | Internet... | C:\CIS\Dat... | LAUNCHER | Microsoft Po... | GMS-Local-a... | GERMLPSM... | 10:45 AM



Proposed Solution

- Add the Security Grouping (SECURGRP) column to the STUDY table
- Links to USERS table

The screenshot shows a Microsoft Access window displaying a table named 'STUDY'. The table has the following columns: STU#, SNAME, PM#, TITLE, OBJECTIV, INVE\$S, SDATE, EDATE, USERID, and SECURGRP. The SECURGRP column is highlighted in black. The table contains 21 records, with the first record having a value of -3 in the SECURGRP column. The status bar at the bottom indicates 'Records: 14' and '1 of 21'.

STU#	SNAME	PM#	TITLE	OBJECTIV	INVE\$S	SDATE	EDATE	USERID	SECURGRP
-21	06 A0425-52	0	2006 A0425-52 Trial	-	0	E	20060501	20061001	-3
-20	06 A0424-28	0	2006 A0424-28 Trial	-	0	E	20060501	20061001	-2
-19	06 A0423-27	0	2006 A0423-27 Trial	-	0	E	20060501	20061000	0
-18	06 A0409	0	2006 A0409 Trial	-	0	E	20060501	20061001	0
-17	06 A0406	0	2006 A0406 Trial	-	0	E	20060501	20061001	0
-16	06 A0404-19	0	2006 A0404-19 Trial	-	0	E	20060501	20061001	0
-15	06 A0403-10	0	2006 A0403-10 Trial	-	0	E	20060501	20061001	0
-14	06 A0354-56	0	2006 A0354-56 Trial	-	0	E	20060501	20061001	0
-13	06 A0353-A04	0	2006 A0353-A0421 Trial	-	0	E	20060501	20061001	0
-12	06 A0352&-61	0	2006 A0352&-61& Trial	-	0	E	20060501	20061001	0
-11	06 A0339-46	0	06 A0339-46 Trial	-	0	E	20060501	20061001	0
-10	06 A0334B-A0	0	2006 A0334B-A0407 Trial	-	0	E	20060501	20061001	0
-9	06 A0324-27B	0	2006 A0324-27b Trial	-	0	E	20060501	20061001	-1
-8	06 A0320-23	0	2006 A0320-23 Trial	-	0	E	20060501	20061001	0
-7	06 A0316-37B	0	2006 A0316-37b Trial	-	0	E	20060501	20061001	0
-6	06 A0315-32B	0	2006 A0315-32B Trial	-	0	E	20060501	20061001	0
-5	06 A0308-52	0	06 A0308-52 Trial	-	0	E	20060501	20061001	0
-4	06 A0303-40	0	2006 A0303-40 Trial	-	0	E	20060501	20061001	0
-3	06 A0302&-46	0	2006 A0302&-46& Trial	-	0	E	20060501	20061001	0
-2	06 A0301-A04	0	2006 A0301-A0420 Trial	-	0	E	20060501	20061001	0
-1	06 A0247A-A0	0	2006 A0247A-A0359 Trial	-	0	E	20060501	20061001	0
0		0			0		0	0	0



Proposed Solution

- GMS:
 - SetGen – allow users to assign a list of pedigrees to a particular Security Group (from USERS table)
 - When a Security Group is chosen, the corresponding SECUREGRP id is added to the Germplasm table
 - Only users in that Security Group can view pedigrees on that list
 - If SECUREGRP = 0 then list is available to all users



Proposed Solution

- DMS:
 - A new cell underneath the STUDY NAME cell, where the user enters the SECUREGRP id of those able to view the study
 - DMS Workbook places the SECUREGRP id in the STUDY table
 - If SECUREGRP = 0 then study is able to be viewed by all users



Proposed Solution

- Problems:
 - A user can only be a member of one Security Group at a time
 - Re-programming of SetGen and DMS Workbook
 - Changes need to be made to the databases – update tool would need to be developed



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Q&A, Discussion

- Comments?