

ICIS Installation Diagnostic Tool

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Agenda

- Objectives of the tool
- Background
- Configuration Test Features
- Database Test Features
- DLL Test Features
- Other Features
- What's Next?



Objectives of the tool

- <u>Discover</u> the installation problem
- <u>Suggest a solution</u> to the installation problem
- Fix the installation problem



Background

- First introduced at ICIS Developers' Workshop 2006
- Original name: ICIS System Integrity Diagnostics Tool
- Originally developed using Visual Basic



Background

- With Configuration Test (OS, ODBC settings, module versions)
- With Database Test (compares DB structure against .SQL files)
- With DLL Test (minimal; check ICIS32.DLL functions/procedures)
- Original Visual Basic prototype translated to Delphi (commenced Jan 2007)



Background

• Original user interface:

IRRI

	CIS
nternat	ional crop information system
find pro	ignostic tool will check the ICIS installation for integrity and error checks. Use this tool to iblems that may cause ICIS applications to fail. Choose the test you wish to run then click in Tests" button.
Te	st Options
	Configuration Test: This will check the installation components.
	\square Database Test: This will check the database structures.
	Minimal DLL Test: This will check the functions of the DLL.
	Full DLL Test: This will check ALL the functions of the DLL.
	Important Note: Full DLL. Test will alter your database content. We recommend use on a blank database.
	Run Tristis
	Ready

• Version 5.4 user interface:

	And the second of the second	nabito\LOCALS~1\Temp\ICIS.INI	Change	ICIS
7 1		R5) and installation (INSTLN) records [lo R5) and installation (INSTLN) records [II		15]
	Compare GMS with	E:\ICIS5\EXES\icis_diag_resources\GM		Change
	🔽 Compare DMS with	E:\ICIS5\EXES\icis_diag_resources\DM	45-5.4.sql	Change
	🦵 Compare IMS with	E:\ICIS5\EXES\icis_diag_resources\IM	15-5.4.sql	Change
		Enable auto-modification	of local databases	s to ICIS Schem
~ [DLL Test (minimal)	Include test for IMS/GEM	S DLL functions?	
			Reset	Run

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Configuration Test Features

Retrieve operating system info

Operating System:

Microsoft Windows XP Professional Service Pack 2 (Build 2600)

Retrieve and check ODBC settings (local & central GMS/DMS)

ICIS ODBC settings:

Central GMS: [CENTRAL-IRIS-GMS-V5.3] Microsoft Access Driver (*.mdb) (OK) Local GMS: [LOCAL-IRIS-GMS-TRAINING-V5.3] Microsoft Access Driver (*.mdb) (OK) Central DMS: [CENTRAL-IRIS-DMS-V5.3] Microsoft Access Driver (*.mdb) (OK) Local DMS: [LOCAL-IRIS-DMS-TRAINING-V5.3] Microsoft Access Driver (*.mdb) (OK)



Configuration Test Features: NEW

• Option to specify which data source name(s) to test I CIS Installation Diagnostic Tool File Help International Crop Information System Installation Diagnostic Tool

🗹 Configu	ration Test		A
INI file 🔽	:\DOCUME~1\mhabito\LOCALS~1\Temp\ICIS.INI	Change	(ICIS)
TEST: 🔽	Local/Central GMS 🔽 Local/Central DMS 🛛 🔽 IMS	GEMS	\square

• Option to change the ICIS configuration (.INI) file to use

Configuration Test Features: NEW

• Retrieve and check ODBC settings for IMS and GEMS IMS: [LOCAL-IRIS-IMS-TRAINING] Driver do : Central GEMS: [CENTRAL-IRIS-GEMS] Microsoft Access



Configuration Test Features: NEW

• Validation of file/directory paths specified in ICIS configuration (.INI) file. (Error-0011)

ICIS.INI paths:	
[BROWSE]	LASTDIR=E:\ICIS5 (OK)
[CONFIGURATION]	LASTDIR=E:\ICIS5 (OK)
[WORKBOOK]	IMAGE=E:\ICIS5\Exes\dmsfiles\themes\wheat.bmp (OK)
[WORKBOOK]	WORKBOOK=E:\ICIS5\Exes (OK)
[WORKBOOK]	LASTDIR=E:\ICIS5 (OK)
[WORKBOOK]	HELPFILE=E:\ICIS5\Exes\dmsfiles\help\index.html.lnk (OK)
[RETRIEVER]	FILE=E:\ICIS5\Database\IRIS\Local\Training-RTV.mdb (OK)

• New error: "Error-0011: File path specified in ICIS.INI does not exist"

Configuration Test Features: NEW

• Checking for existence of required resource files: LAUNCHER.TXT, ICIS32.DLL (Error-0009)

Error-0009 : Resource file is missing [E:\ICIS5\EXES\LAUNCHER.TXT]

• Checking for existence of data source name specified in ICIS configuration file (Error-0001)

Error-0001 : Invalid ODBC DSN [CENTRAL-IRIS-DMSS]. The DSN does not exist.

Configuration Test Features: NEW

•Checking of database file location/path (i.e. .MDB file (MS Access)) associated with an ODBC data source name [refined algorithm] (Error-0001)

Error-0001 : Invalid ODBC DSN [LOCAL-IRIS-DMS-TRAINING-V5.3]. Microsoft Access Path: E:\ICIS5\DATABASE\IRIS\LOCAL\5.3\New Folder\Training.mdb

• Checking for existence of key value in the ICIS configuration (.INI) file (Error-0010)

Error-OOlO : No value specified for key [SECURITY] under section [D Or Section-Key combination does not exist.

Configuration Test Features: NEW

• Checking of module version against ICIS32.dll version [algorithm refined] (Error-0003)

InTrack.EXE: 13 October 2006, 09:26:30 AM (5.3.1.0)

Error-0003 : Module [InTrack.EXE] is not compatible with ICIS32.dll.

• Checking of ICIS32.dll version against ICIS release/schema version (Error-0004)

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Database Test Features

• Main functionality: compare database structure with .SQL files released with the Installation Diagnostic Tool

🗹 Database Test: 🔽 LOCAL 🔲 CENTRAL			
🔽 Compare user (USEF	RS) and installation (INSTLN) records [local GMS / central GMS]		
🔽 Compare GMS with	E:\ICIS5\EXES\icis_diag_resources\GMS-5.4.sql	Change	
🔽 Compare DMS with	E:\ICIS5\EXES\icis_diag_resources\DMS-5.4.sql	Change	
🔲 Compare IMS with	E:\ICIS5\EXES\icis_diag_resources\IMS-5.4.sql	Change	
	Enable auto-modification of local databases to I	CIS Schema 5.4	

 Limitation: currently, applicable to MS Access databases only
 CIMMYT.

Database Test Features: NEW

• Option to specify which DB 🔽 Database Test: 🔽 LOCAL 🔲 CENTRAL to test

Compare user (USERS) and installation (INS

🔽 Compare GMS with

Compare DMS with

Compare IMS with

E:\ICIS5\EXES\icis_di

E:\ICIS5\EXES\icis_di

E:\ICIS5\EXES\icis_di

Option to check the schema of the IMS

Compare IMS with

E:\ICIS5\EXES\icis_diag_resources\IMS-5.4.sql =

Char

Database Test Features: NEW

Compares INSTLN records of local & central GMS (required)

 $\overline{\mathbb{M}}$ Compare user (USERS) and installation (INSTLN) records [local GMS / central GMS].

 Option to change the .SQL files to compare with the DBs

E:\ICIS5\EXES\icis_diag_resources\GMS-5.4.sql	Change
E:\ICIS5\EXES\icis_diag_resources\DMS-5.4.sql	Change
E:\ICIS5\EXES\icis_diag_resources\IMS-5.4.sql	Change

Database Test Features: NEW

- On-the-fly generation of patch SQLs (full/partial) for missing DB table columns and DB indices (MS Access)
 - → In-line (<<<startpatch>>> ... <<<endpatch>>>)

Table: study (5 records) ICISAutoMod Log: ICIS Schema v5.4 <<<startpatch>>> ALTER TABLE study ALTER COLUMN SNAME TEXT(50) Missing Field: userid ICISAutoMod Log: ICIS Schema v5.4 <<<startpatch>>> ALTER TABLE study ADD COLUMN USERID INT <<<en

Reset

Run

→ Separate text file (one SQL statement per line)

Local DMS_PATCH - Notepad		
	rmat <u>V</u> iew <u>H</u> elp	
ALTER TAB	LE STUDY ALTER COLUMN SNAME TEXT(50) LE STUDY ADD COLUMN USERID INT	

Database Test Features: NEW

 Option to enable automatic modification (ICISAutoMod) of local GMS/DMS/IMS database (to upgrade from ICIS Schema v5.3 to v5.4)

Enable auto-modification of local databases to ICIS Schema 5.4

→ Example: Local DMS

Table: study (5 records) ICISAutoMod Log: DB Column SNAME set to length 50. Missing Field: userid ICISAutoMod Log: DB Column USERID added.

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DLL Test Features: NEW

• Option to check additional functions/procedures in ICIS32.DLL. Example:

- → IMS_OpenDatabase
- → GEMS_OpenDatabase

Test parameters/data no longer hardcoded in the application



Other new features

• The different tests may be run independently

Configuration Test INI file C:\DOCUME~1\mha TEST: Cocal/Central (
🗖 Database Test: 🕅 LOC
Compare user (USERS Compare GMS with Compare DMS with Compare IMS with
DLL Test (minimal)

 Display of detections are classified into two categories: →Errors
 →Warnings

> Detected Errors: Error-0003 : Module [InTrack.EXE] i Error-0007 : DB table not found. [I Error-0005 : User Access Error: Mis Local INSTLN record does not match INSTALID ADMIN UDATE

Detected Warnings:

Warning-0001 : DB index not found. <<<startpatch>>> CRE

Other new features

 More informative error/warning messages.
 Some messages have variations to help pinpoint the cause of the issue and/or recommend a solution to the issue

→ Example: "Error-0001: Invalid ODBC DSN"

IRIS5.4.ini:

📕 IRIS5.4 - Notepad

<u>File Edit Format View H</u>elp

[LOCA] GMS] DSN=LOCAL-IRIS-GMS-TRAINING-V5.4 UID=RBREED PWD=

Detected Errors:

Error-0002 : ODBC Connection failed for ODBC DSN [LOCAL-IRIS-GMS-TRAINING-V5.4] No password (PWD) supplied in configuration (.INI) file

Other new features

 Indents, extra spaces between sections, improved section headers/dividers placed in "Results" textfile for better readability

🗭 results - Notepad	ICIS Installation Diagnostic Tool - RES
<u>File E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp	<u>File E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp
System Configuration	System Configuration
Operating System: MSV ICIS ODBC settings: Central GMS: [IRIS Local GMS: [LOCAL- Central DMS: [IRIS Local DMS: [LOCAL- ICIS module versions icis32.dll: Wednes BROWSE.EXE: Tuesda SETGEN.EXE: Thurso	Operating System: Microsoft Windows > ICIS ODBC settings: Local GMS: [LOCAL-IRIS Central GMS: [CENTRAL-IF Local DMS: [LOCAL-IRIS Central DMS: [CENTRAL-IF ICIS module versions: ICIS32.DLL: 23 May BROWSE.EXE: 23 May
GMSSRCH.EXE: Thur: GMSInput.EXE: Wedr ICISworkbook.xla: DataComp.XLS: Thur ICISForms.exe: Sat InTrack.EXE: Wedne	SETGEN.EXE: 15 May GMSSRCH.EXE: 22 May GMSInput.EXE: 28 Janu ICISworkbook.xla: 30 May DataComp.XLS: 29 May ICISForms.exe: (Date u InTrack.EXE: 13 Octu

Other new features

Improved "About" form

About ICIS Diagnostic Tool		
ICIS Diagnostic Tool Version 5.2.0 App Description		
	About ICIS Installation Diagnostic Tool	
	ICIS Installation Diagnost	ic Tool
Warning:	Its this tool to detect problems which	may cause your ICIS applications to fail.
	2007 IRRI-CIMMYT Crop Research Informatics Lab Developers: Maria Corina D. Habito, Archie Roland	
	This program is free software; you can redistribute it and, modify it under the terms of the GNU General Public Licens as published by the Free Software Foundation; either ver of the License, or (at your option) any later version. This program is distributed in the hope that it will be usefu but WITHOUT ANY WARRANTY; without even the implied	se sion 2 I, warranty of
	MERCHANTABILITY or FITNESS FOR A PARTICULAR PURF GNU General Public License for more details. You should have received a copy of the GNU General Publ along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, M	
	Show GNU General Public License >>	

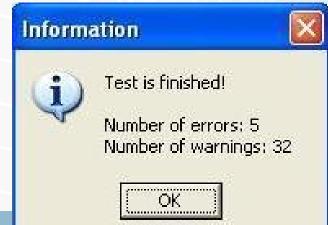
icis_diag

Other new features

Application icon

Installation Diagnostic Tool

Message at the end of the test (no. of errors/warnings)



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What's Next?

 Make Database Test (including auto-modification of local DB) applicable to different DB backends

- Include more ICIS32 DLL functions/procedures in DLL test
- Implement a fourth test: Module-specific
- Setup a formal ICIS Installation Helpdesk (on CropForge Tracker?)

