Fast Data Integrity Console

User Guide

Fast Data Integrity Check Features

Fast Data Integrity is a SQL Server-specific utility that performs Sage 300 (Accpac) integrity checking in a fraction of the time taken by the standard Sage Administrative Services function.

Tests on sample data show 10x performance gains, tests on moderate sized databases show 100x performance gains, and tests on large databases show 1000x performance gains. In addition, the program is also "stand-alone" – which means that you do not need to install Sage 300 on the computer running Fast Data Integrity.

The larger the database, the greater the performance gain. Fast Data Integrity performs tests on Sage 300 AP, AR, AS, BK, CP, CS, GL, GP, IC, MT, OE, PM, PO, RA, TX, and UP applications, as well as TaiRox CRM and Collections and TaiRox Productivity Tools. The integrity check also performs some cross-application checking.

Note: *Some errors reported by the Sage 300 Data Integrity Check* that do not affect daily operation *are not reported by TaiRox Fast Data Integrity*. See Integrity Check FAQs.

Why Use TaiRox Fast Data Integrity Check for Sage 300?

TaiRox's Fast Data Integrity check goes straight to the SQL database – immediately improving performance and by-passing Sage's data "auto-correction" – and providing simpler data filtering.

There are four good reasons to use TaiRox Fast Integrity:

- **1 – to check Sage 300 data integrity fast.**

  Fast Integrity Check runs from 100 times to 1000 times faster than Sage 300's data integrity check, reducing time to solve many problems.

- **2 – to improve <u>accuracy of information</u> from Report Writers and Business Intelligence programs.**

  Fast Integrity Check pulls data directly from the database, rather than through Sage 300 objects, and shows where data is inconsistent.

  Many Sage 300 objects will "auto-correct" data as it is read, even to the extent of adjusting "formatted and unformatted" versions of some keys that could be used to join tables. This kind of auto-correction means that only data accessed through the objects is guaranteed to be consistent.

- **3 – to eliminate <u>noise</u> that prevents you from finding data issues.**

  There are several kinds of noise – for example:
  - Numerous "locked period" warnings from 5-year-old data.
  - Hundreds of "missing user" messages because a user was deleted instead of being made inactive.
  - Dozens of "discount taken exceeds …" messages during mid-month operation that are fixed operationally at month end.

- **4 – to expand or limit integrity checks with a useful set of options.**
  - Check all transactions or transactions for 1 or more recent fiscal years.
  - Include/exclude inactive records.
  - Check/ignore missing required optional fields.
  - Include/exclude completed transactions.

Interactive or Scheduled Operation

TaiRox's Fast Data Integrity product includes two separate data integrity check programs, one runs from a console and the other can run as a Windows scheduled task.

This document describes how to use the *Fast Data Integrity Console*.

- Using the console

    You can run Fast Data Integrity interactively on a single Sage 300 database.

    If you run Fast Data Integrity from the console:

    - o You do not have to run the console in a Sage 300 installation.

        However, if Sage 300 is installed, the program will perform Administrative Services (AS) tests.

    - o You can select an option to repair orphan records that it discovers.

- Running as a Windows Scheduled Task

    "Fast Data Integrity" is designed to be run every night on multiple Sage 300 databases.

    See the Fast Data Integrity Check User Guide for instructions on setting up a Windows Scheduled task.

Running Fast Integrity Check Console

Launch Fast Data Integrity from **Start Menu > All Programs > TaiRox Software > Fast Data Integrity Console**. The following window will appear.
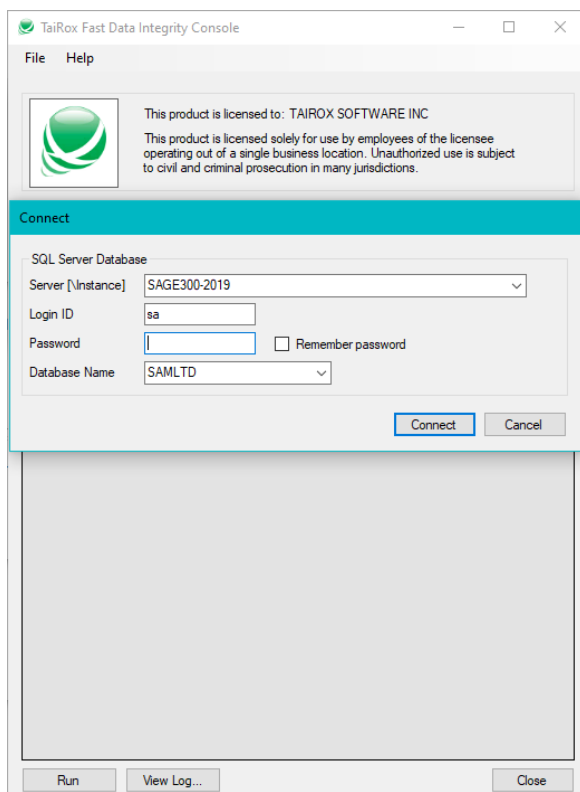
Connect to SQL Server Database:

Enter in the name of the SQL Server\instance where the Sage 300 databases are stored or choose it from the dropdown. Select the "<Browse for more>" choice to browse for servers.

- Use the Delete key to remove remembered servers from the list.

Enter a SQL Server login name and password – typically the same one that you used in Database Setup.

> **Note:** The SQL login for Fast Data Integrity needs sufficient rights to create temporary tables and stored procedures. The program will log errors if it lacks sufficient rights.

- Click the "Remember Password" checkbox to save the password for this login.
- To forget a password, uncheck the Remember Password checkbox and the log in.

Select the database you want to check from the dropdown list.

- The list will include all databases on the server to which the login ID has access.
- The login will fail if the login ID or password is invalid.

Click the Connect button to continue.

Select Applications

Once a database connection has been established, Fast Data Integrity will display the applications that can be tested. Modules must be activated to be tested.

The Administrative Services (AS) selection will only appear if running the Console in a Sage 300 environment. The AS tests involve checks for Sage 300 users.
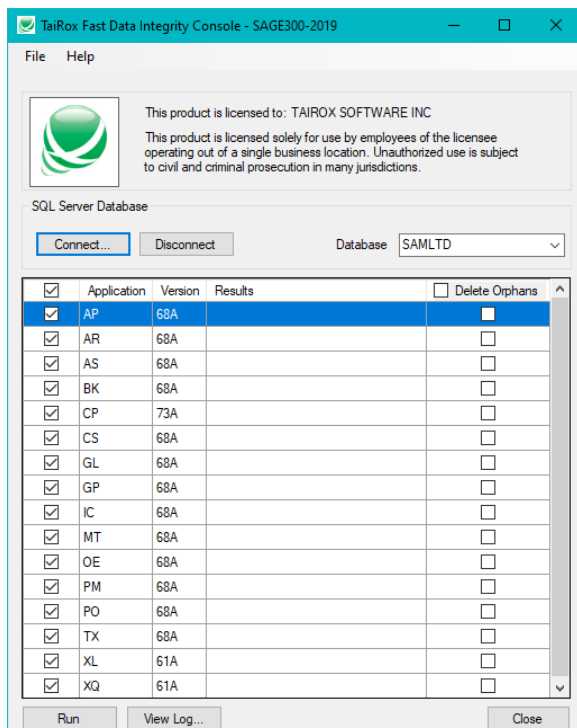
Select each of the applications that you want tested in the current database. You can also choose to fix orphan records for any of the applications that you select.

Click the Run button to check and/or fix the selected applications. A message will appear to display the progress:
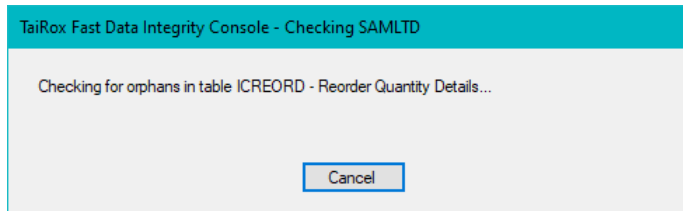
Results are Summarized in the Grid

When the operation is complete, the results are summarized in the grid.
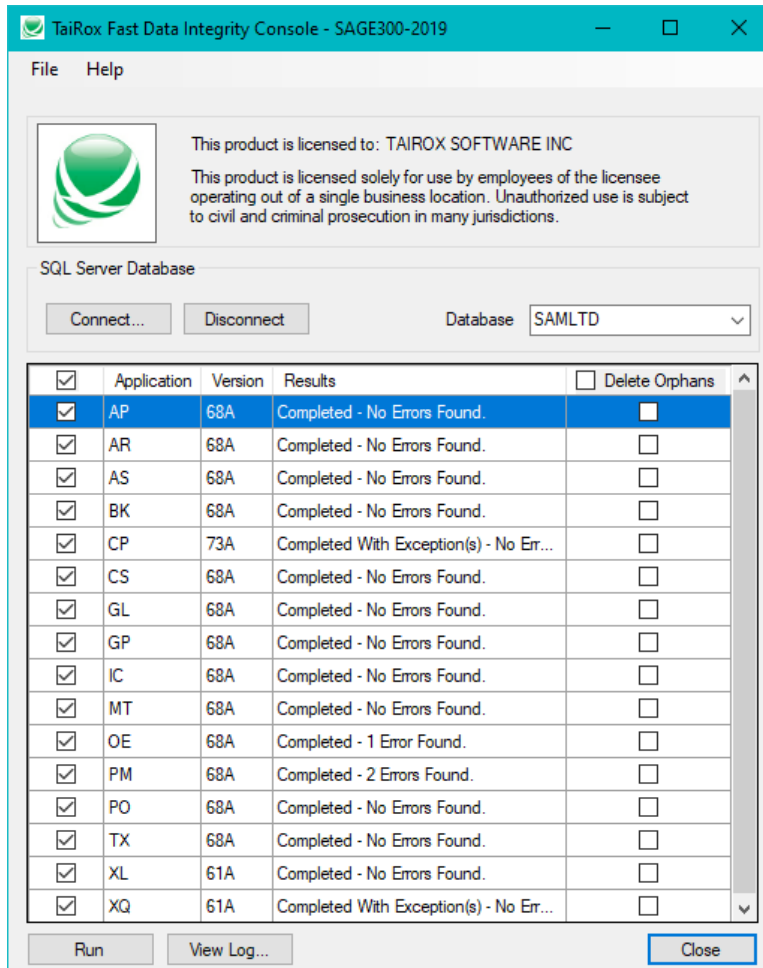
If you wish to delete orphan rows in all the tables of an application, click that application's checkbox, and run the test again.

> **Important:** Back up your data before deleting orphan rows.

If You Select "Delete Orphans" for Applications

If you select the checkbox to delete orphans for any applications, the program will prompt you to confirm *before* running the integrity check.
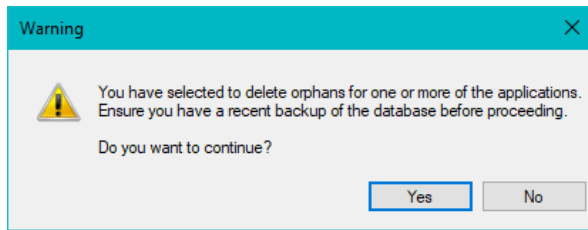
Click Yes to continue.

View the Log File to See Details from the Data Check

Click the View Log button to view the log file. The log file provides a complete list of all tests performed and orphans deleted.

The tests are not exhaustive (neither are the standard Sage 300 utility's tests) and may be categorized as follows:

- Foreign key tests are important because the keys are used to join tables together for reporting. Missing keys may cause data to be missed in reports.

- Orphan tests are important because some business intelligence tools will pull this data into their data-cubes - data that is inaccessible to Sage 300 and not included in data beyond the point of orphanage.

- Balances tests check that details add up to header totals.

Sample Error Messages

These messages are typical of the errors that will be reported in the log file. Error totals are shown after each application.

```
Checking Payment functional currency decimals...
    Payment: [1, IND1, 000000010613, 5293, 20010719]: One or more functional currency amounts
    has too many digits after the decimal point.
Checking Payment bank currency decimals...
    Payment: [1, IND1, 000000010613, 5293, 20010719]: One or more source currency amounts has
    too many digits after the decimal point.
Checking Payment vendor currency decimals...
    Payment: [1, IND1, 000000010613, 5293, 20010719]: One or more source currency amounts has
    too many digits after the decimal point.
Checking foreign keys for table ARCUS - Customers...
    Customer [DEL4]: Foreign key [SHPVIACODE] refers to non-existent record [PURO] in OEVIA.
    Customer [MAC9]: Foreign key [SHPVIACODE] refers to non-existent record [PURO] in OEVIA.
Checking foreign keys for table ARCSP - Ship-To Locations...
    Ship-To Location [MAC9, 1]: Foreign key [SHPVIACODE] refers to non-existent record [PURO]
    in OEVIA.
Checking National Account balances...
    National Account [EMC2]: Open invoice count [7] does not match sum of member customer open
    invoice counts [6].
    National Account [EMC2]: Source balance [4037.860] does not match sum of member customer
    source balances [3127.740].
    National Account [EMC2]: Functional balance [4037.860] does not match sum of member
    customer functional balances [3127.740].
Checking Posted Transactions currency decimals...
    Posted Transaction [200, 2008, 01, CAD, AR, PY, 7983, 2]: One or more values has too many
    digits after the decimal point.
    Posted Transaction [200, 2008, 01, CAD, AR, PY, 7983, 3]: One or more values has too many
    digits after the decimal point.
```

Changing Fast Integrity Check Settings

Click **File > Settings** to change Fast Integrity Check settings.
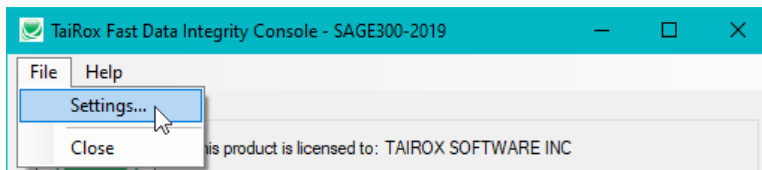
The following form will appear:
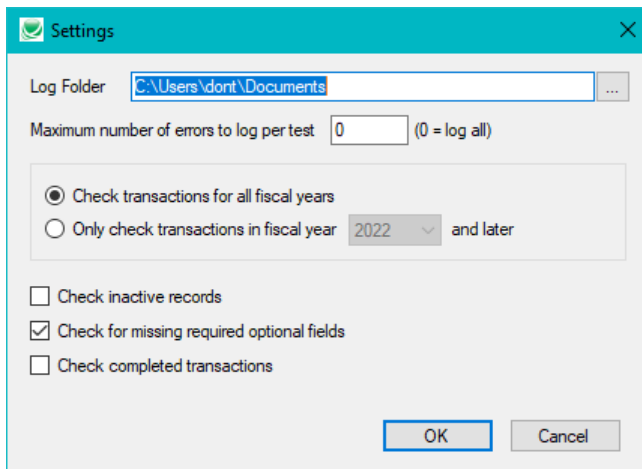
Notes:

- Check Completed Transactions applies only to I/C, O/E, and P/O transactions.

Regarding Fiscal Years: Restricting the transaction tests to a particular set of fiscal years is unlikely to significantly affect performance.

The <u>purpose of this setting is to eliminate noise</u>. There are situations where many errors exist in transactions from prior years.

Fast Data Integrity Check FAQ

> Read the user guide carefully in addition to reviewing this FAQ. The user guide provides specific guidelines for configuring Fast Data Integrity Check.

Issues with Running Fast Data Integrity Check from a Task

See **Troubleshooting Scheduled Task Issues** in the Fast Data Integrity User Guide for information on diagnosing task issues.

Installation and Upgrade Issues

Q: Where can I get release notes for Fast Data Integrity Check, and what will they tell me?

A: Click the [Release Notes](#) link in the upper left hand corner of the Fast Data Integrity product page on the TaiRox web site.

Among other things, the Release Notes will tell you about recent fixes and provide program compatibility information. For example:

```
Build 2020-04-13 (7408)
Build 2020-04-10 (7405)
 - Fixes a false positive error report that can occur for ICILOC Quantity
Committed in some environments.

Build 2020-01-23 (7327) - Provides support for Orchid RMA up to RMA 2020.
```

Integrity Check Issues

Q: Why does Fast Data Integrity hang when run as a scheduled task?

*A: See **Troubleshooting Scheduled Task Issues** in the Fast Data Integrity User Guide for information on diagnosing task issues.*

When the program is executed it uses a command-line parameter (an XML file name) to provide all configuration information for running.

If the XML filename parameter is missing from the command-line, the program starts and waits for you to provide further input – however, the Fast Data Integrity screen is hidden. If you open the Task Manager, you can see and end the task.

If the parameter is there but invalid, the program will generate an error and close (if running from the Task Scheduler).

Q: Why did the scheduled task for Fast Data Integrity suddenly stop working?

A: *Check the errors logged for the Windows task and try to run Sox Backup interactively to confirm that it still works. For example, one common reason for a sudden failure is that the license has expired.*

Also check **Troubleshooting Scheduled Task Issues** in the Fast Data Integrity User Guide for information on diagnosing task issues.

Q: What user permissions are required to run Fast Data Integrity?

A: *The SQL login for Fast Data Integrity needs sufficient rights to create temporary tables and stored procedures. The program will log errors if it lacks sufficient rights.*

Q: Why did the data integrity check miss some errors reported by Sage 300 Data Integrity Check?

A: *Some errors reported by the Sage 300 Data Integrity Check that do not affect daily operation are not reported by TaiRox Fast Data Integrity.*

For example:

Fast Data Integrity does not check the ICSTATI table for non-existent items although the Sage 300 integrity program does. This is because items in statistics tables that no longer exist in inventory do not affect IC operations – and you may want to retain statistics for items previously sold even though you no longer sell the items and have deleted them.

Sage 300 allows the deletion of vendors, items and other entities, even though these entities may be present in "historical data", such as old posting journals or statistics tables. However, Sage 300 reports deleted items as errors because it validates these items during the integrity check in the same way that it validates items during data entry.

Q: What are these optional field errors and how do I fix them?

```
Checking optional field count in table PMCONTT - Contracts...
   Contract [1]: The number of optional fields is incorrect.
   Contract [2]: The number of optional fields is incorrect.
   Contract [3]: The number of optional fields is incorrect.
   Contract [4]: The number of optional fields is incorrect.
   Contract [5]: The number of optional fields is incorrect.

Checking optional field count in table PMCATGT - Contract Categories...
   Contract Category [1, 32, 1000]: The number of optional fields is incorrect.
   Contract Category [1, 32, 2000]: The number of optional fields is incorrect.
   Contract Category [1, 64, 1000]: The number of optional fields is incorrect.
   Contract Category [1, 64, 2000]: The number of optional fields is incorrect.
   Contract Category [1, 96, 1000]: The number of optional fields is incorrect.
   Contract Category [1, 96, 2000]: The number of optional fields is incorrect.
```

A: *Sage 300 has a header record for optional fields that includes a count of the number of optional field detail records for each optional field. If this count has been corrupted, you may see error message like this when you run TaiRox Fast Data Integrity.*

You can update and fix these counts by running the Update Optional Field Counts utility in TaiRox's Optional Field Manager. This utility recalculates and updates the optional field detail counts to correct the problem.