Sage 300 Performance

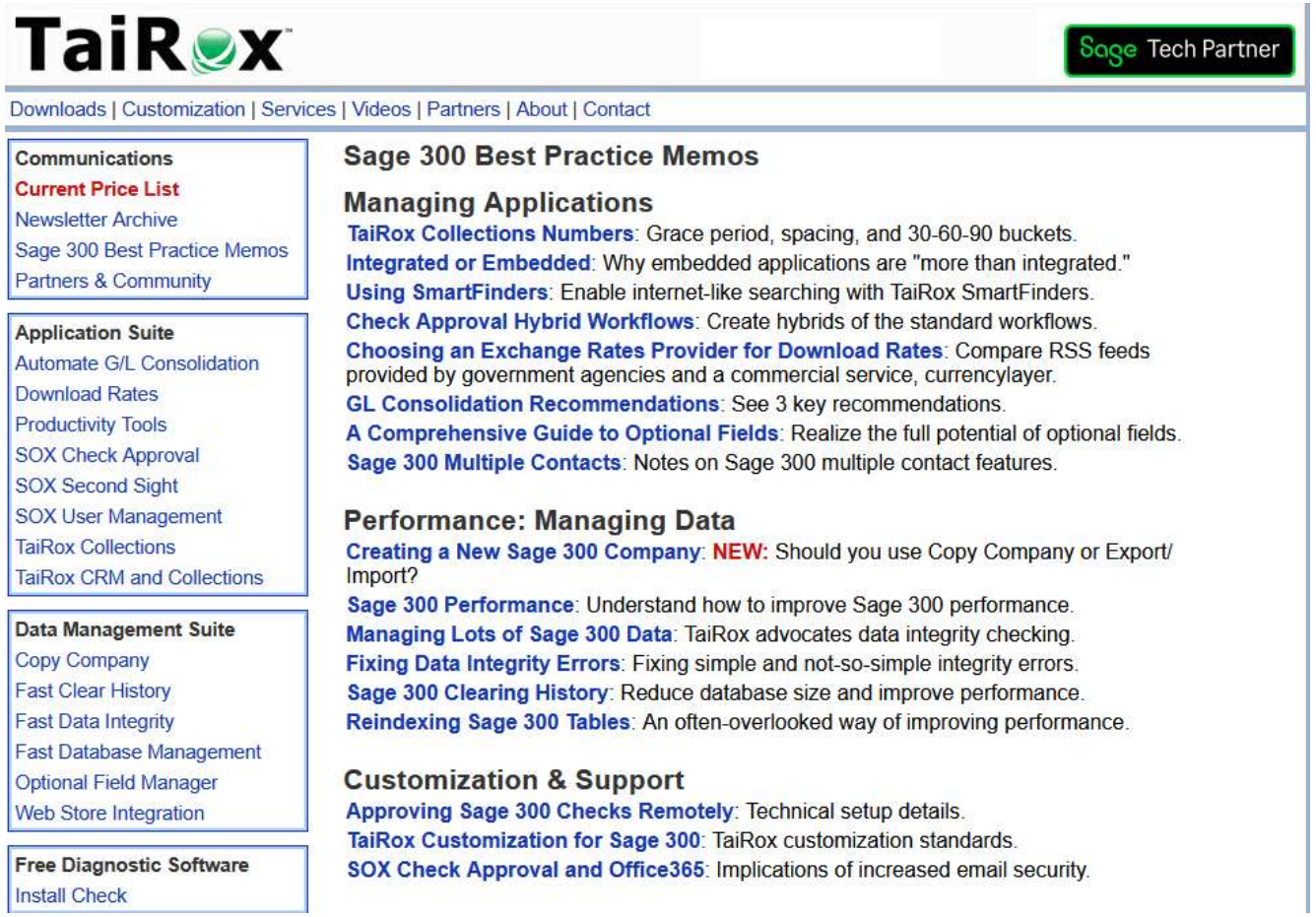
Presented by: Don Thomson, TaiRox CEO, B.Sc., M. Sc.

Agenda

- Best Practice Performance Memos
- Networks and Performance
  - Fixes: buy equipment or analyze performance
- Data and Performance: TaiRox Products
  - Improve performance
  - Clean your data
- Scaling Up to 200 Users

TaiRox Best Practice Memos

Including memos on performance: managing data



TaiRox

Sage Tech Partner

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Communications
- Current Price List
- Newsletter Archive
- Sage 300 Best Practice Memos
- Partners & Community

Application Suite
- Automate G/L Consolidation
- Download Rates
- Productivity Tools
- SOX Check Approval
- SOX Second Sight
- SOX User Management
- TaiRox Collections
- TaiRox CRM and Collections

Data Management Suite
- Copy Company
- Fast Clear History
- Fast Data Integrity
- Fast Database Management
- Optional Field Manager
- Web Store Integration

Free Diagnostic Software
- Install Check

Sage 300 Best Practice Memos

Managing Applications

TaiRox Collections Numbers: Grace period, spacing, and 30-60-90 buckets.
Integrated or Embedded: Why embedded applications are "more than integrated."
Using SmartFinders: Enable internet-like searching with TaiRox SmartFinders.
Check Approval Hybrid Workflows: Create hybrids of the standard workflows.
Choosing an Exchange Rates Provider for Download Rates: Compare RSS feeds provided by government agencies and a commercial service, currencylayer.
GL Consolidation Recommendations: See 3 key recommendations.
A Comprehensive Guide to Optional Fields: Realize the full potential of optional fields.
Sage 300 Multiple Contacts: Notes on Sage 300 multiple contact features.

Performance: Managing Data

Creating a New Sage 300 Company: **NEW:** Should you use Copy Company or Export/Import?
Sage 300 Performance: Understand how to improve Sage 300 performance.
Managing Lots of Sage 300 Data: TaiRox advocates data integrity checking.
Fixing Data Integrity Errors: Fixing simple and not-so-simple integrity errors.
Sage 300 Clearing History: Reduce database size and improve performance.
Reindexing Sage 300 Tables: An often-overlooked way of improving performance.

Customization & Support

Approving Sage 300 Checks Remotely: Technical setup details.
TaiRox Customization for Sage 300: TaiRox customization standards.
SOX Check Approval and Office365: Implications of increased email security.

Networks and Performance

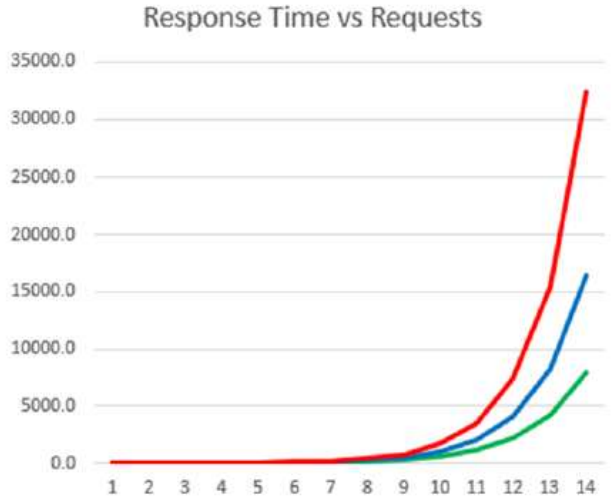
- Small input changes have large output effects
- Response time is an exponential function of the number of simultaneous requests

TaiRox Memo

Sage 300 Performance

Small Variations

- Increasing the parameter from 2 milliseconds to 2.1 milliseconds means the response times become unacceptable for a smaller number of users.
- Decreasing the parameter from 2 milliseconds to 1.9 milliseconds means the response times remain acceptable for a larger number of users.
- The data is shown: basic exponential progressions.

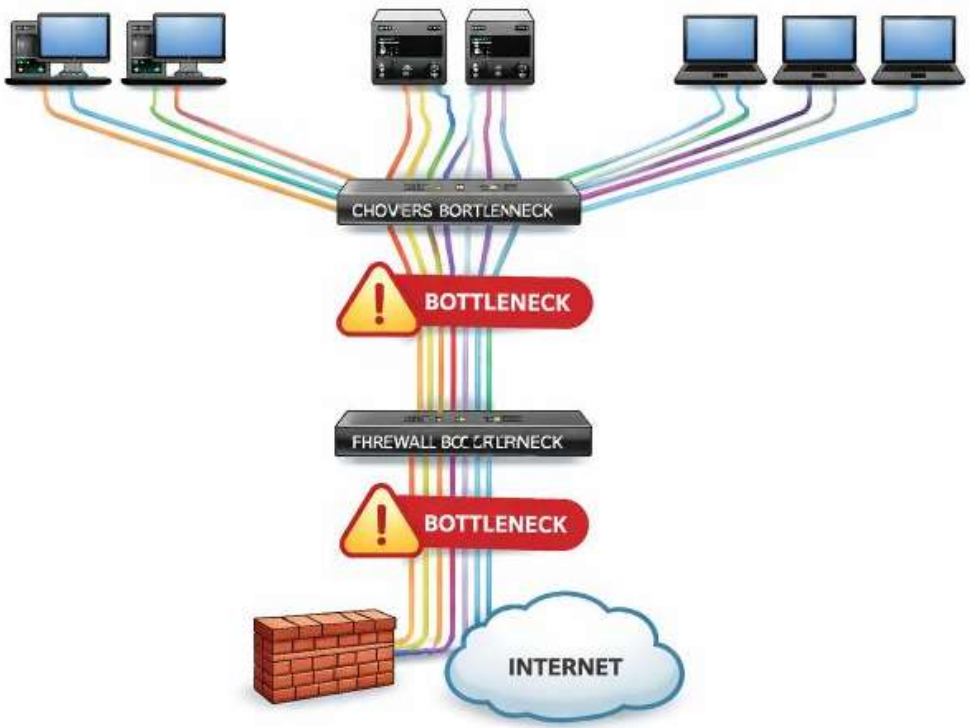


1.9	2	2.1
3.6	4	4.4
6.9	8	9.3
13.0	16	19.4
24.8	32	40.8
47.0	64	85.8
89.4	128	180.1
169.8	256	378.2
322.7	512	794.3
613.1	1024	1668.0
1164.9	2048	3502.8
2213.3	4096	7355.8
4205.3	8192	15447.2
7990.1	16384	32439.2

Networks and Performance

TaiRox

- An operation that should take 1 second, is taking 10 seconds.
  - Bottleneck #1 has a 7 second effect
  - Bottleneck #2 has a 2 second effect



Buy Equipment: Should You?

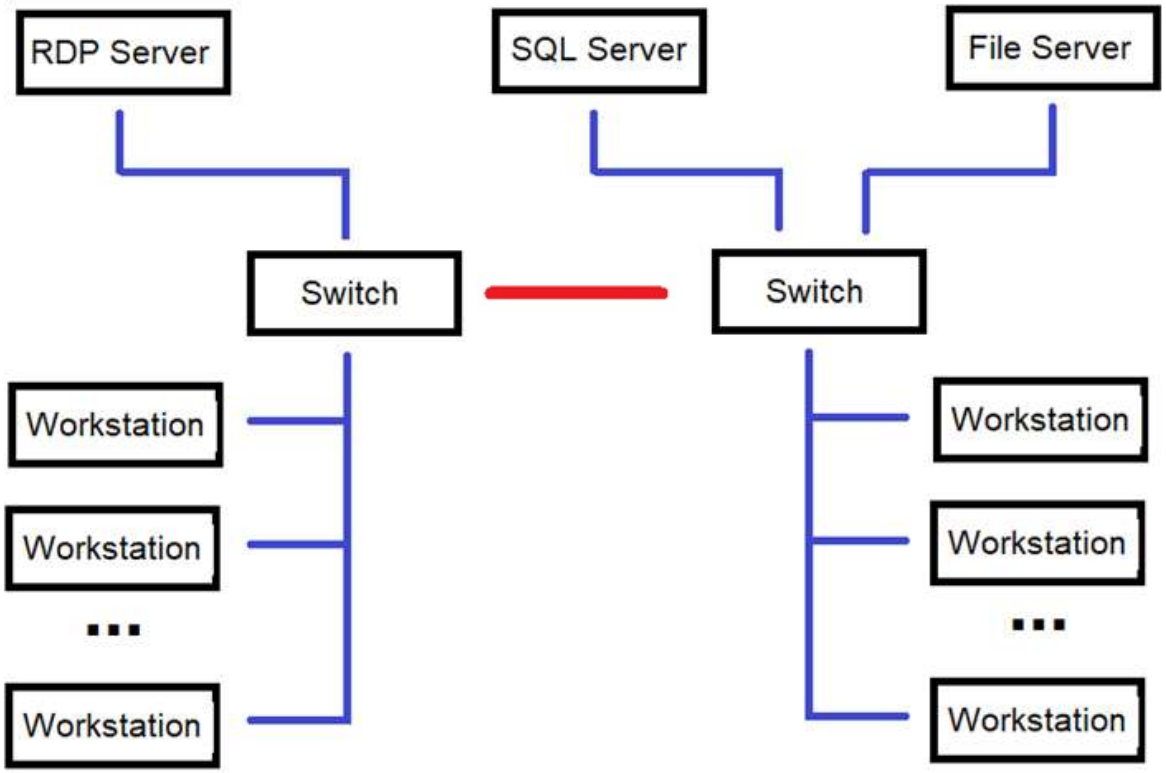
TaiRox

- Purchase a faster SQL Server computer?
- Purchase SSDs (solid state disks)?
- Purchase faster switches and network cards?
  - 2026: transitioning from 1Gbps to 10Gbps

Analyze Performance

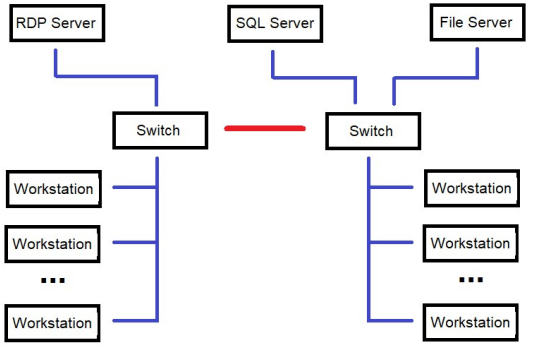
TaiRox

- Create a simple network diagram.
- Measure Throughput!
  - When Sage 300 is slow
  - When Sage 300 is fast
  - How?
    - JPerf or iPerf3 or similar free tools
    - Or copy a huge file from A to B



Networks – Fixes That Have Worked

- Remove Anti-Malware from SQL Server
  - See online forums or ask an AI you trust!
- Isolate Voice-over-IP (QoS)
  - Put on a separate network!
- Check NIC (network interface card) Drivers
  - Beware of sleep mode!
- Cables?
- Look at Switch Specs
  - Check switch-to-switch connections!



Network Switch Basics

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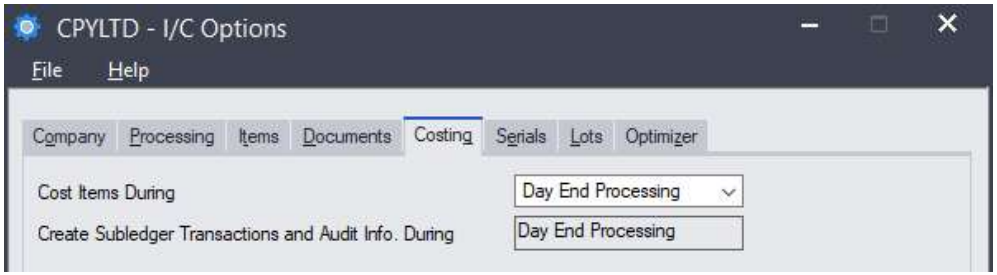
- Access Port
  - connects workstations to the network
- Trunk Port
  - connects one switch to another
- Internal Switching Speed
  - Huh?

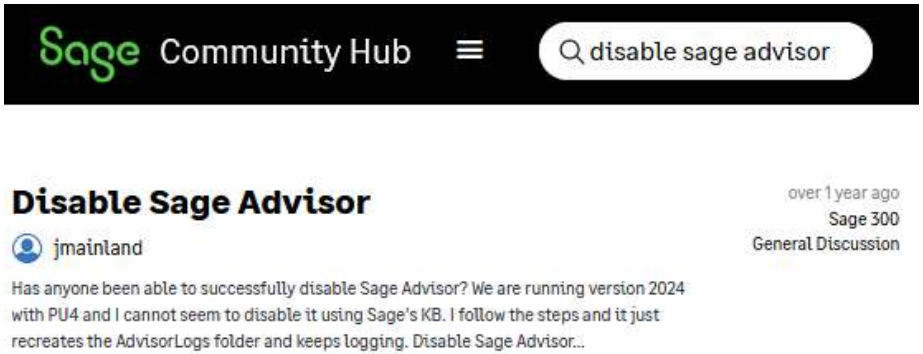


Settings and Performance

- I/C Options: Cost Items During
  - Day End Processing
  - Posting
  - Measure, change setting, measure

- Turn Off Sage Advisor
  - Sage Community Hub "disable sage advisor"



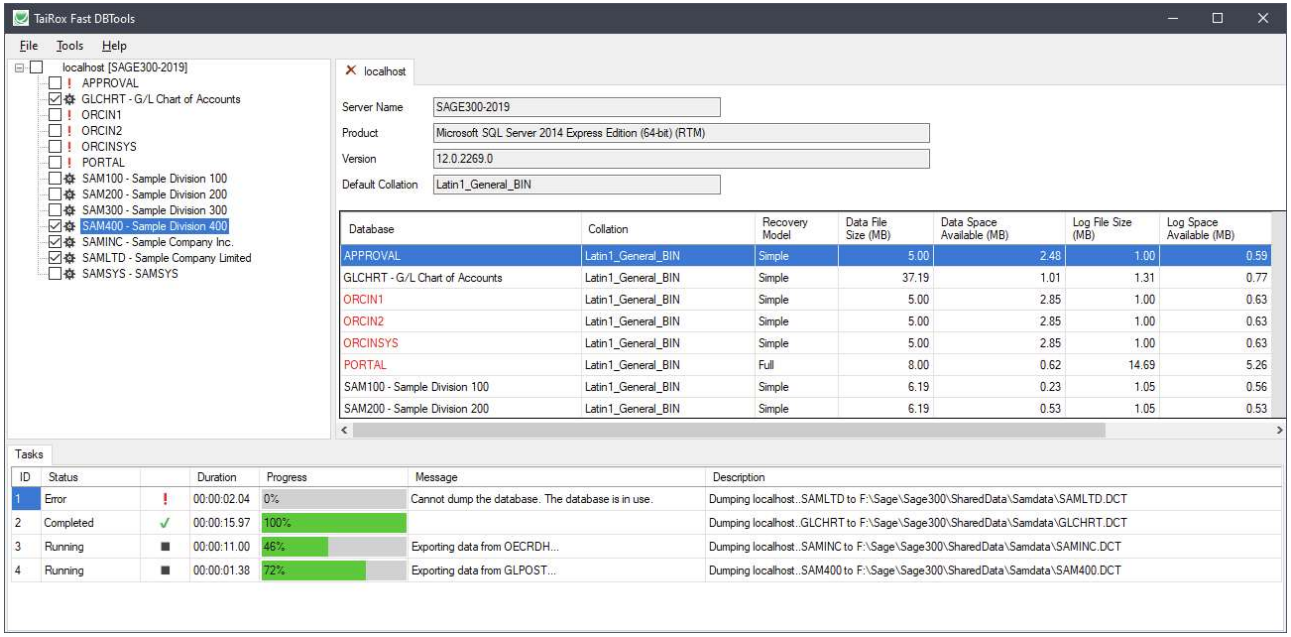


Data and Performance: TaiRox Products

- Improve Performance – Rebuild Your Data
  - Fast DBTools: DBDump, DBLoad, Reindex
- Improve Performance – Delete or Complete Unused Data
  - Fast Clear History
  - Productivity Tools: POs/ Orders / Quotes / BOMS / Items
  - Optional Field Manager
- Improve Performance – Schedule!
  - Collections: Overdue Payment Reminders, Invoices, Statements
- Avoid Trouble – Clean Your Data
  - Productivity Tools
  - Fast Data Integrity

Fast DBTools

- DBLoad
  - 5x-6x faster
  - Load multiple at same time
- DBDump
  - Dump multiple in 1 step
  - REC or CSV
- Re-indexing



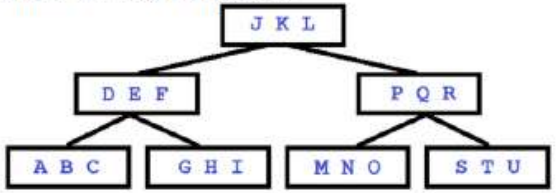
Fragmented Data and Reindexing

TaiRox

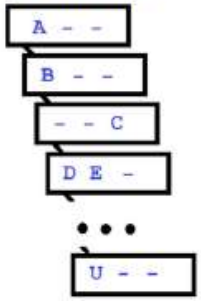
TaiRox™ Memo

Reindexing Sage 300 Tables

A Balanced Index Tree with no Fragmentation



An Unbalanced and Fragmented Index Tree



Fast Clear History

TaiRox

- Clears More
  - AR/AP Tax Withholding
  - AR/AP Deleted Batches
  - Clears TaiRox Collections
- Options
  - OE Use Transaction Date
    - Instead of Completion Date
- Clearing & Database Size

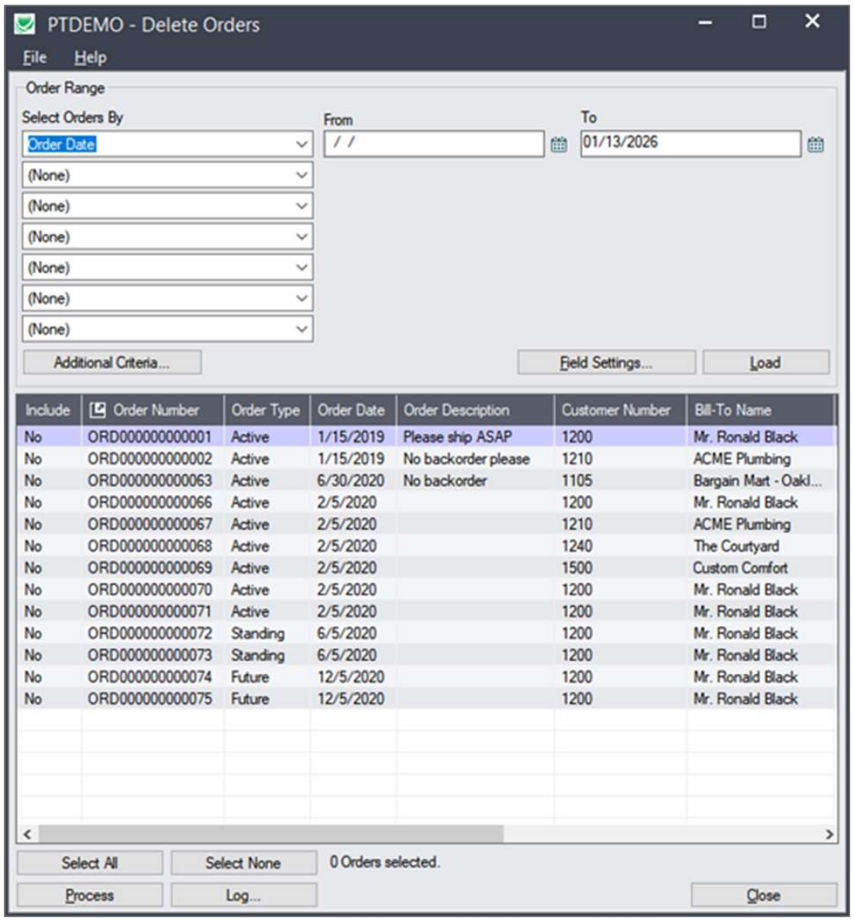
Module*	Core	Fast	Faster By
Bank	5 days	2 min	3600x
General Ledger	5 hrs	1.6 min	187x
Accounts Receivable	30 min	15 min	2x
Accounts Payable	35 min	10 min	3.5x
Inventory Control	2 days	120 min	24x
Order Entry	97 min	0.5 min	197x
Purchase Orders	7 hrs	12 min	35x
* Times vary widely with database sizes, settings and environment			
* Times for individual modules are not additive to a total for all modules			

"Fast ... cleared 49 million records in about 75 minutes ... before this ... not even an option! Thanks TaiRox!!" **Kelly Hummel, Net@Work.** Show complete quote.

"Database is 187 GB ... standard OE clear ... [2 or 3 days] ... TaiRox OE clear ... [less than 2 hours]" **Scott Davies, Equation Technologies.** Show complete quote.

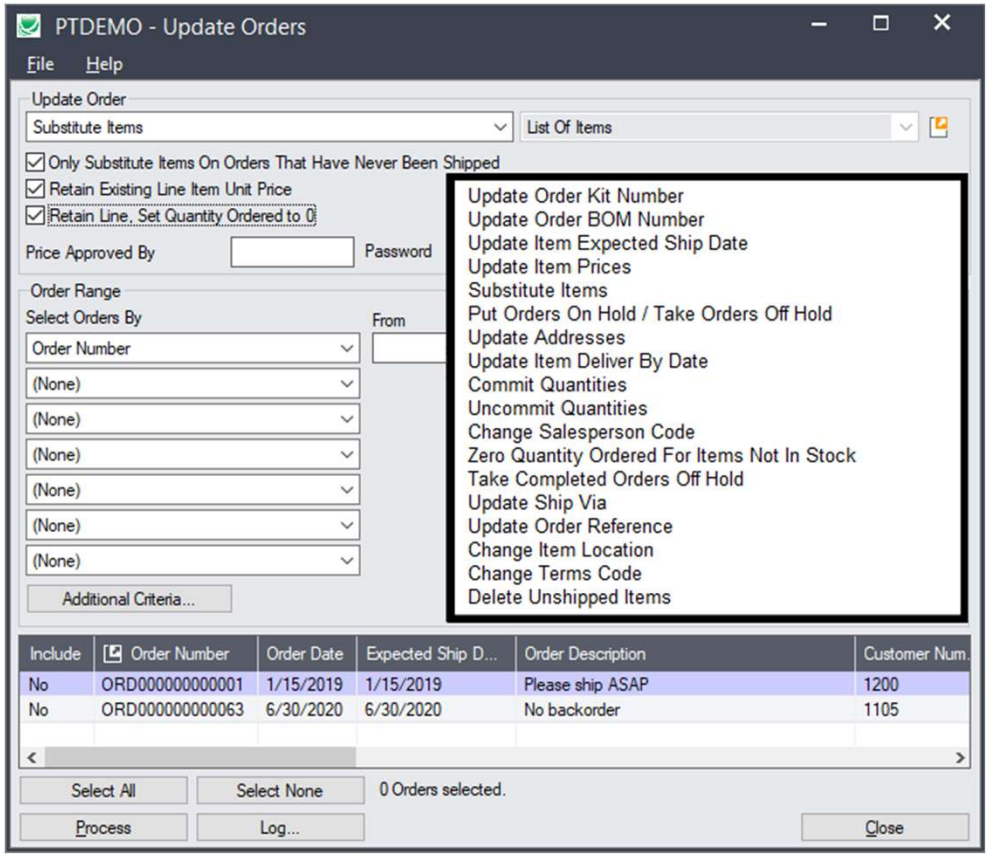
Productivity Tools – Delete

- Delete Old Purchase Orders
- Delete Old Quotes
- Safely Delete Old Orders
- Safely Delete Unused Items
- Safely Delete Unused BOMs



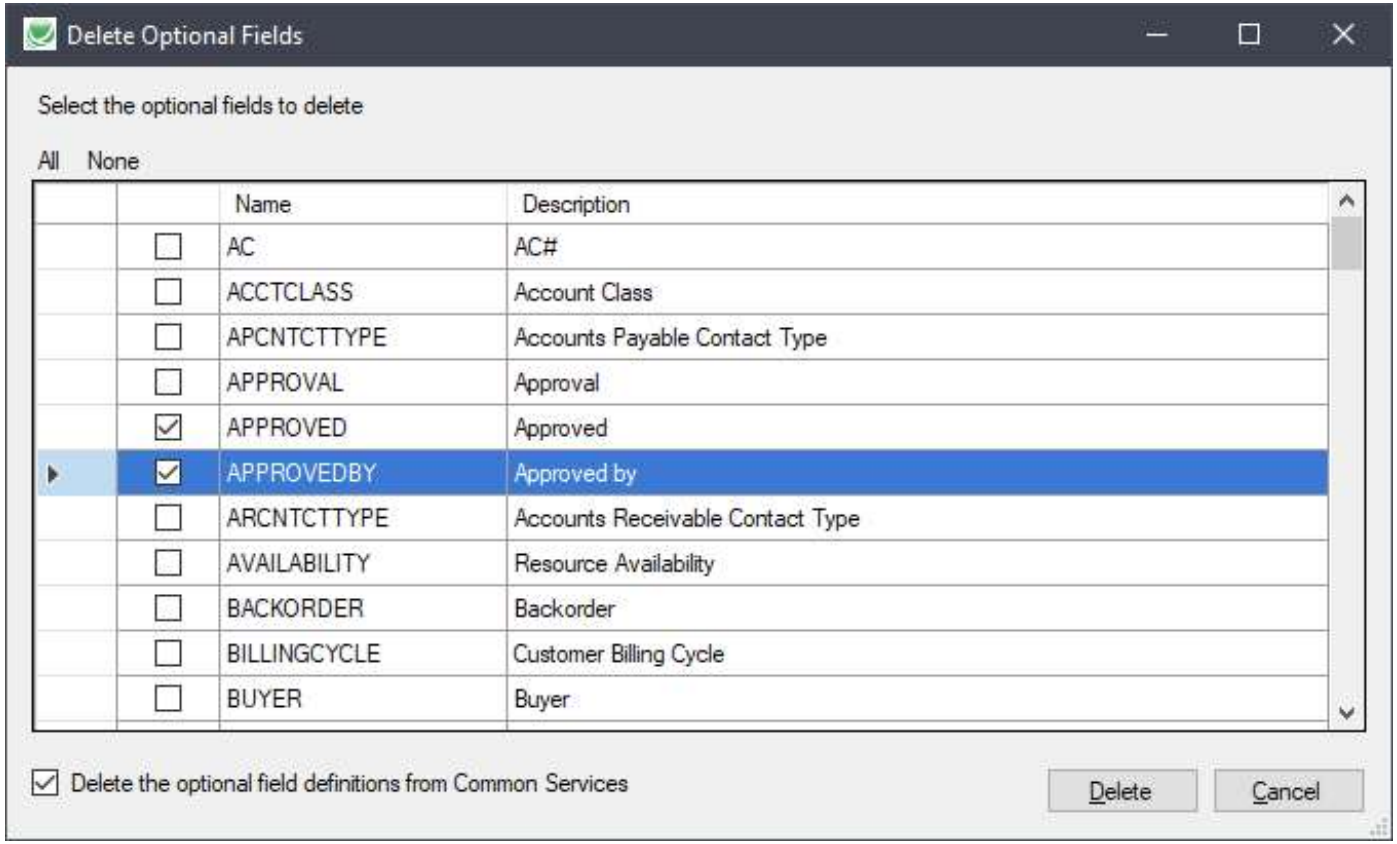
Productivity Tools – Many Operations at Once

- Ship Orders
- Invoice Shipments
- Update Orders
- Apply A/R Documents



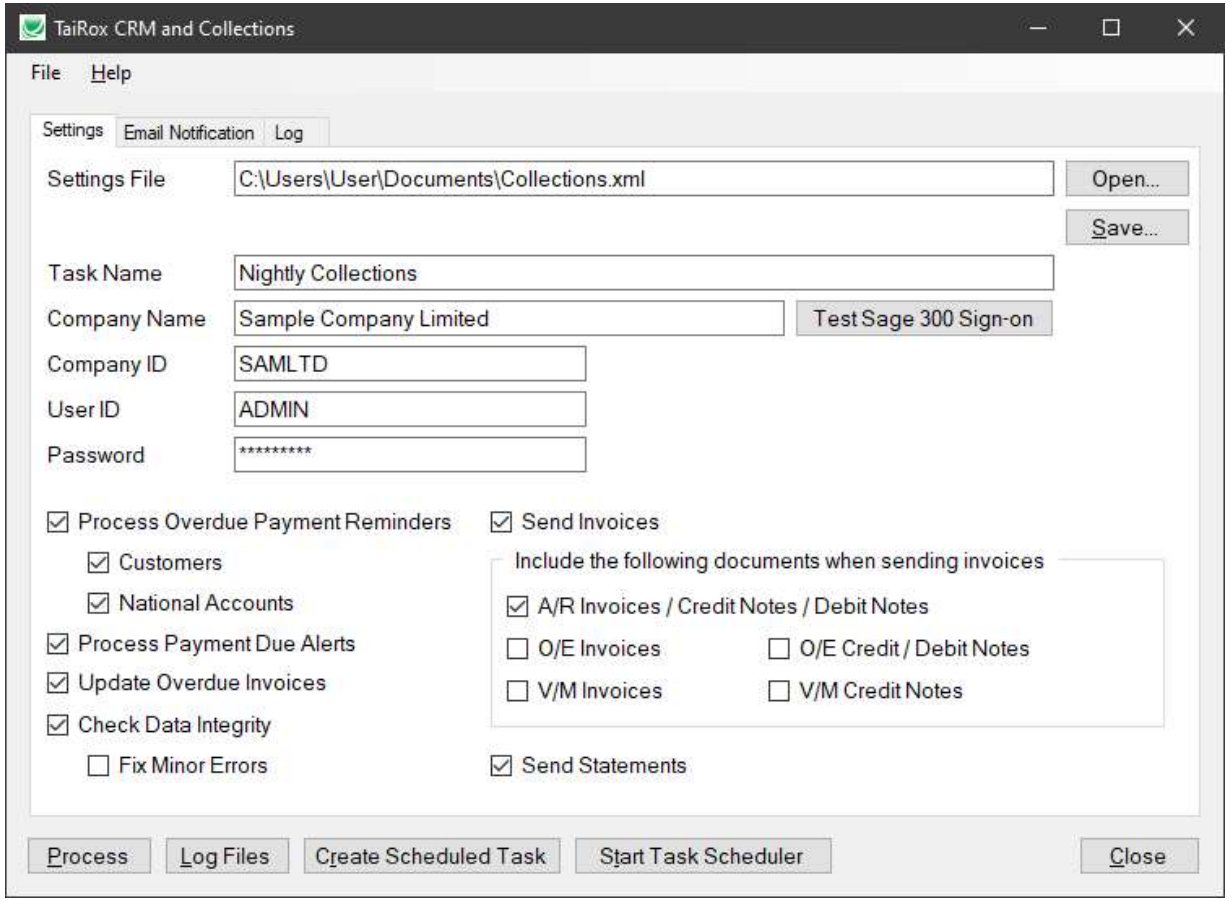
Optional Field Manager

- Delete Unused Optional Fields



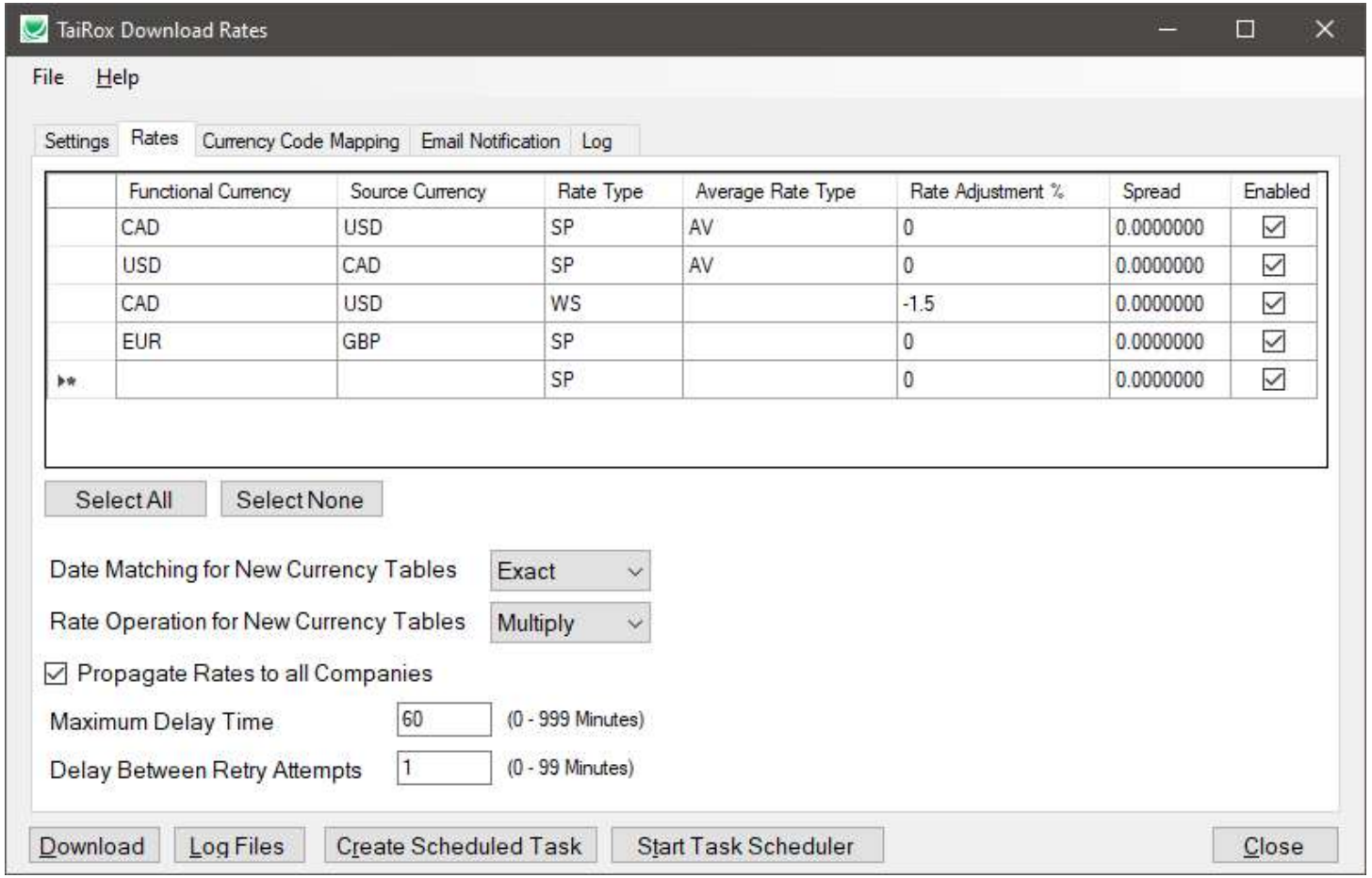
TaiRox Collections

- Schedule
  - Invoices
  - Overdue Payment Reminders
  - Payment Due Alerts
  - Statements
  - … and more



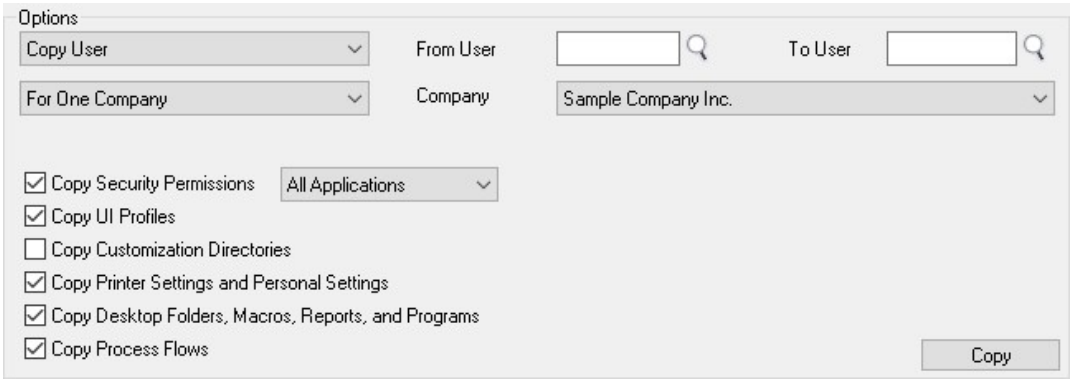
Download Rates

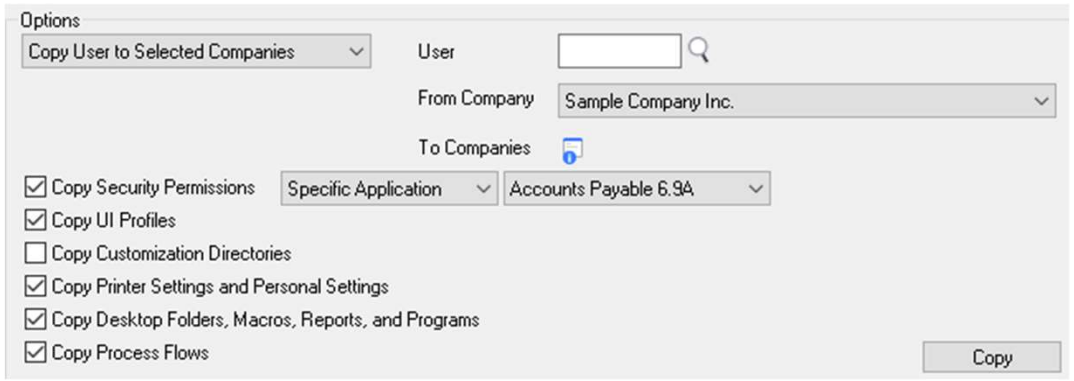
- Schedule



SOX User Management

- Data Consistency
  - Copy one user to another
  - Copy uses to multiple companies
  - Remove user permissions





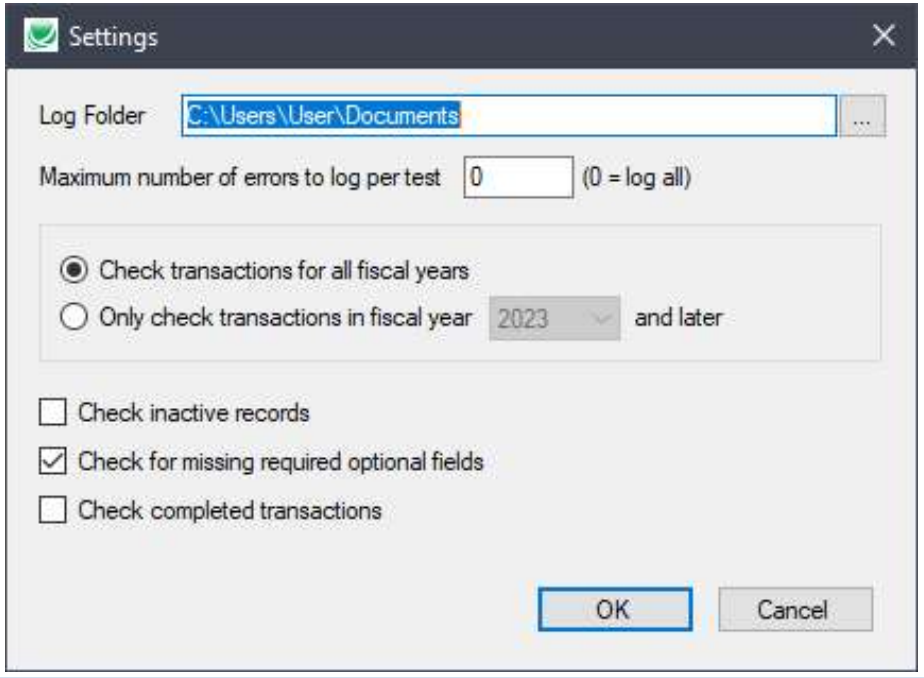
Fast Data Integrity

TaiRox

> "I would just like to say ... WOW! On the client's largest entity, over 200 gig, it typically takes a day to run a DI on just one of the modules (AR, AP or GL). It ran in 6 minutes on AR! I can also say it found and reported on the errors that I was expecting."
> **Kimberly Kyle, Sage 300 Certified Consultant.** Show complete quote.

> "The native data integrity ... took over 3 days ... Fast Data Integrity ... less than 1.5 hours."
> **Bruce Warrell, NextLevel Information Solutions.** Show complete quote.

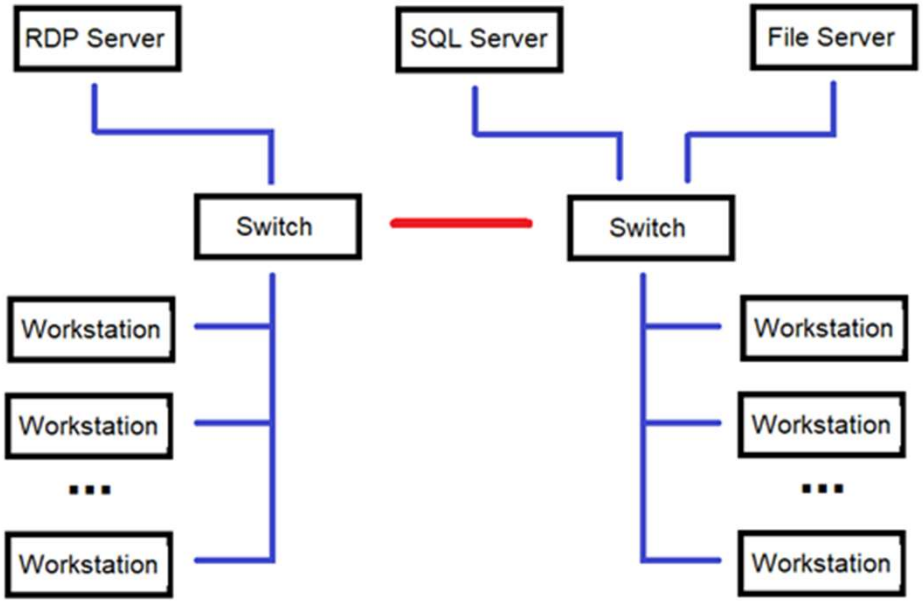
- Filtering Options
  - Only Recent Fiscal Years
  - Inactive Records
  - Completed Transactions
  - Required Optional Fields



Scaling Up To 200 Users

TaiRox

- RDP Server and SQL Server in the same physical computer
  - An "internal switch" will be 30-50 times faster than a network switch
- Replicate the Database
  - Report off the replicated database
    - Read: OLTP and OLAP methods
- Schedule!
- Training!?



Questions?

TaiRox

- Improve Performance – Rebuild Your Data
  - Fast DBTools: DBDump, DBLoad, Reindex
- Improve Performance – Delete or Complete Unused Data
  - Fast Clear History
  - Productivity Tools: POs/ Orders / Quotes / BOMS / Items
  - Optional Field Manager
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- Avoid Trouble – Clean Your Data
  - Productivity Tools
  - Fast Data Integrity