Evolutionary DataFax
Continuous improvement of a product with 25+ years of history
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A Brief History of (DataFax) Time
(with apologies to Stephen Hawking)

2.5 July 1992
3.1 September 1995
3.3 May 1997
3.4 March 1999
3.6 March 2003
3.8 August 2006
4.0 December 2009
4.1 December 2010
4.3 January 2013
**DF/Net** June 2014
2014.0.0 December 2014
2016.0.0 October 2016 (*Hey, that’s like now!*
This is Canada 😊
No, this is Canada
And this is Canada
Anger, physical exertion revealed as heart attack triggers

Ethnic groups in 52 countries participate in in-depth study led by NUI Galway researcher
2016.0.0 What’s New

- Query management
  - User-defined QC problem types
  - Multiple QCs per data field
- High-Definition (HD) imaging
  - High definition (300 dpi) images
  - Grayscale and colour image
User-defined QC Problem Types

Managed via QC Problem Type Map and these attributes:

- **Code**: user-defined code values in range 30-99
- **Label**: must be unique
- **Auto-Resolve**: adding a reason to an external QC
  - updates QC status to pending (yes), or
  - keeps QC status as outstanding (no)
- **Sort**: customize the display order
  - In client tools, not in reports (yet)
DFsetup: QC Problem Type Map
iDataFax: QC Problem Types

Problem type cannot be edited once saved

User-defined problem types
Welcome to Test Study 154.

Should you require assistance at any time during data entry, please contact the Study Coordinating Center by telephone at (905) 522-3282 or by email at support@datafax.com.
iDataFax Select by Data - Query Detail
Multiple QCs per field is enabled in Developer Access mode.

This CANNOT be undone once the Study Setup is saved.
iDataFax: Multiple QCs per field
Edit checks: Multiple QCs per field

- New edit checks
  - `dfanyqc2` — status(es) of multiple QCs on a variable
  - `dfqcinfo2` — attribute of multiple QCs on a variable

- Updated edit check behavior
  - `dfeditqc` function can no longer modify problem type
  - `dfanyqc`, `dfqcinfo`, `dfresqc` and `dfunresqc` have a new optional parameter for QC problem code
High-Definition (HD) Imaging

- DataFax now optionally images documents at 300dpi and accepts grayscale and color documents via:
  - DFsend
  - Email
  - Submit PDF

- Documents sent via fax remain black & white and 100 dpi (fax quality)
- Settable on server side and selectable on client side
DFsystem: HD Imaging

Normal Colors: suitable for standard clinical study documents

32 Bit Colors: use when photographic detail needs to be preserved

Note: HD images with 32 bit colors are approx. 10x larger than SD images

If HD is not enabled, imaging remains at Standard Definition (SD), 100 dpi
iDataFax: HD Imaging

HD mode enabled, HD image available
iDataFax: HD Imaging

- HD images may load slowly over low-speed or low-bandwidth connections, therefore SD mode is default
- Click the SD toggle to display HD images when available
- HD mode will remain enabled even if HD image is not available for current record
- HD / SD setting is stored locally as a user/server preference
2016.0.0 What’s New

- Over 60 improvements and fixes
  - Security related updates
  - New client tool icons
    - Visually distinctive from previous releases
  - DFexport.rpc improvements
    - Faster, export multiple plates in one command (to one or more files)
2016.0.0 What’s New

- Over 60 improvements and fixes
  - Export to Microsoft SQL Server
    - In addition to existing support for Oracle, MySQL, PostgreSQL
  - DFsetup smart select and display options
  - Create Patient PDF Package by visit/plate
  - DFbatch folder support
    - Organize / group batch input and output
  - And much more...
Security Related Updates

- Keep abreast of industry best practices
- All DataFax client and server connections now use TLS v1.2
- OpenSSL support updated to version 1.0.2h
- Certificates hashed with SHA-256
  - Please request new certificates during 2016.0.0 upgrade
New Icons

- iDataFax
- DFsetup
- DFsend
New Icons

- DFsystem
- DFATK
- DFbarcode
DFsetup: Smart Select

- Smart Select: select multiple CRF boxes with a single click if they are horizontally adjacent
- Faster, less error-prone for defining data fields
- When any such box is selected, all adjacent boxes are automatically selected and ordered from left to right to ensure proper ICR
- Enable in File > Preferences
DFsetup: CRF View Keyboard Shortcuts

**r** - Show ‘Need’ property

**c** - Hide module names

**i** - Show root module only

**m** - Show module instance only
Create Patient PDF Package

- New visit and plate options for Create Patient Package in iDataFax and DFpdfpkg command line
- Simplifies creation of subset documents
Beyond 2016.0.0

- Re-structure & Consolidate
- HTML & Reporting
- Output Formats
- Improved Performance
- Other Data Collection Models
- New Licensing Model
- API Development
Re-structure & Consolidate

- Update develop / build / tools environment
- Re-structure programs as needed, remove old code
- Database layer (storage, authentication, permissions) <-> Middle layer (logic, API, service) <-> Client layer (presentation, interaction)
- User interface consistency
- Support commercial certificate authorities
- End of Oracle Solaris support (Oracle Linux is available for SPARC)
HTML & Reporting

- HTML-based study / plate / field help
  - HTML5, including video playback

- Presentation / filtering / interactivity in client
  - User can change report output without re-running report

- Comparative reporting over time
  - Look for historical trends, identify challenges and opportunities
New data management / data quality reports
- Define additional study/center attributes (expected enrollment at study & site levels, start & end date, etc)

Descriptive report names and options
- Reports view will be largely over-hauled

Make (fax/scan) arrival time more readily available

Batch edits output as a list view, replacing HTML output
HTML & Reporting
HTML & Reporting (over time)
HTML & Reporting (over time)
Output Formats

- Save directly to Excel
  - Data Listings
  - Study Definition
- JSON (JavaScript Object Notation)
  - Common format for web communication and storage
- HTML
  - With interactivity, client-side filtering
- SDTM / CDASH
  - Deep integration with DFsetup, CDISC-specific module/field properties
- Module export via DFsas
**Improved Performance**

- **Session-based connections**
  - Able to resume existing session in areas with intermittent internet connectivity

- **JSON loader / fragmentation**
  - Faster for iDataFax to connect during login

- **Audit trail reporting**
  - Page history will be much faster

- **Integrated multimedia support**
  - Removes the need to install codecs, simplifying client support
Other Data Collection Models – DFsend++ ?
New Licensing Model

- Exploratory work to support additional options, such as:
  - View-only users
  - Named users
  - Enterprise licensing
  - API licensing
  - Test / backup server licensing
API Development

- **Application Program Interface**
  - Simplifies / standardizes interface to new tools

- Middle layer that connects / filters communication between user tools and database

- Facilitates the creation of new client tools and new databases without disrupting the other (at least that’s the theory)

- Web (and mobile) data collection is being built on this - attend Saloni’s talk tomorrow!
Thank You

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