



DPF Manager

The open source
COMMUNITY



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PREFORMA



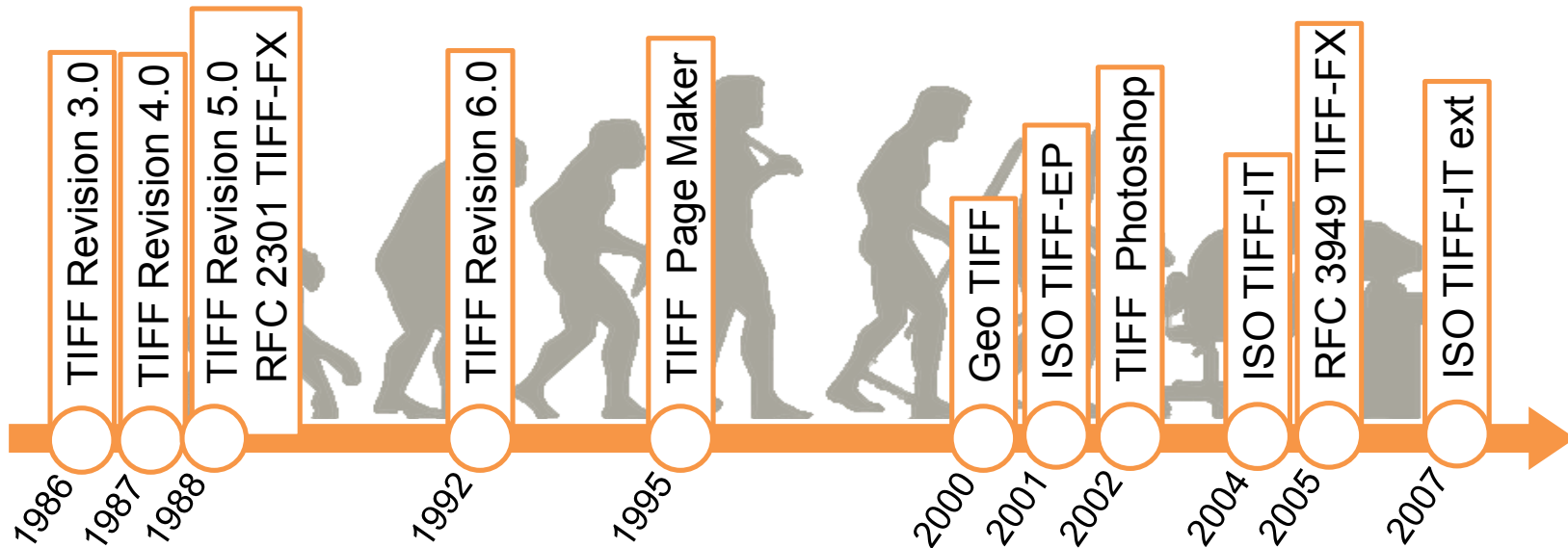
INNOVATION WORKSHOP | **PREFORMA**

Padua, March 7th, 2017

#Preforma

Are you sure...?





Initial Presentation

1. Consortium & People Involved
2. Scope of the Project
3. What is DPF Manager?
4. TIFF Specifications

TI/A initiative

DPF Manager

Community

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EASY INNOVA

www.easyinnova.com

Consortium & People Involved



Easy Innova, S.L. (Spain)
Spin-off of the University of Girona

Certified by:



Member of:



Know-how:

R&D Projects

Platform Architectures

Digital Preservation

IPR

Standards

Artificial Intelligence

Open Source Projects



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R&D Manager



Prof. Dr. Josep Lluís de la Rosa
Full Professor and Researcher



Dr. Albert Trias
R&D Manager



Prof. Dr. Lukas Rosenthaler
Full Professor and Researcher



Dr. Peter Fornaro
Managing Director



University of Girona (Spain)
Agents Research Lab

Know-how:

R&D

Open Source

Digital Preservation



University of Basel (Switzerland)
Digital Humanities Lab

Know-how:

Cultural Heritage

Medical Image

TIFF

Image Formats

Digital Preservation

Scope of the Project

Standardization process
TI/A Standard Initiative
Research



DPF Manager
Open source software
Main features



Memory Institutions
TIFF Experts
Developers

COI

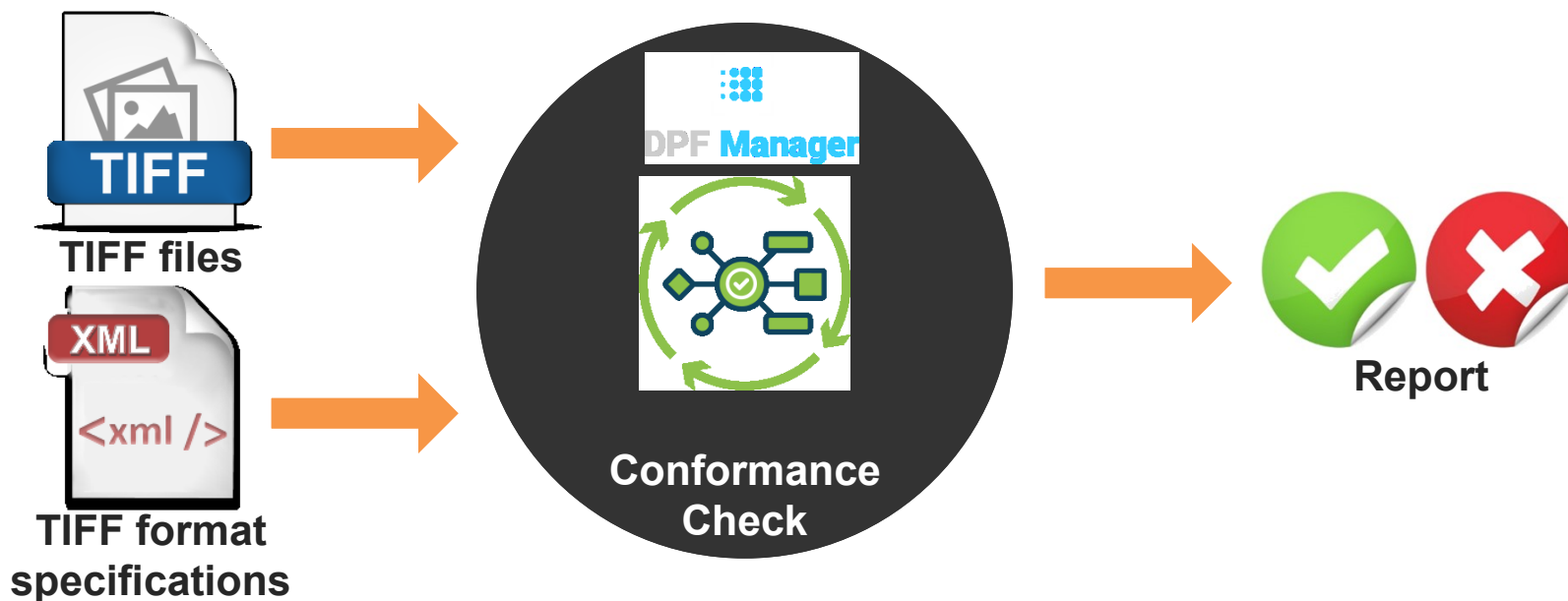


DIGITAL
SYSTEMS



What is DPF Manager?

DPF Manager is the most advanced TIFF conformance checker for digital preservation



TIFF Specifications

DPF Manager is able to validate all these TIFF specific

- TIFF Baseline, Revision 6.0 Final
- Extended TIFF 6.0
- TIFF/IT (*ANSI IT8.8–1993*)
 - TIFF/IT-P1 (*ISO 12639:1998*)
 - TIFF/IT-P2 (*ISO 12639:2004*)
- TIFF/EP (*ISO 12234-2*)
- Customized specification



None of these specifications is prepared for digital preservation!!



TIFF For Archival Recommendation
The TI/A Standard Initiative

NEW

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Initial Presentation

TI/A Initiative

1. TI/A Standard initiative

2. Timeline

DPF Manager

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TI/A Standard Initiative

TI/A Standard Initiative

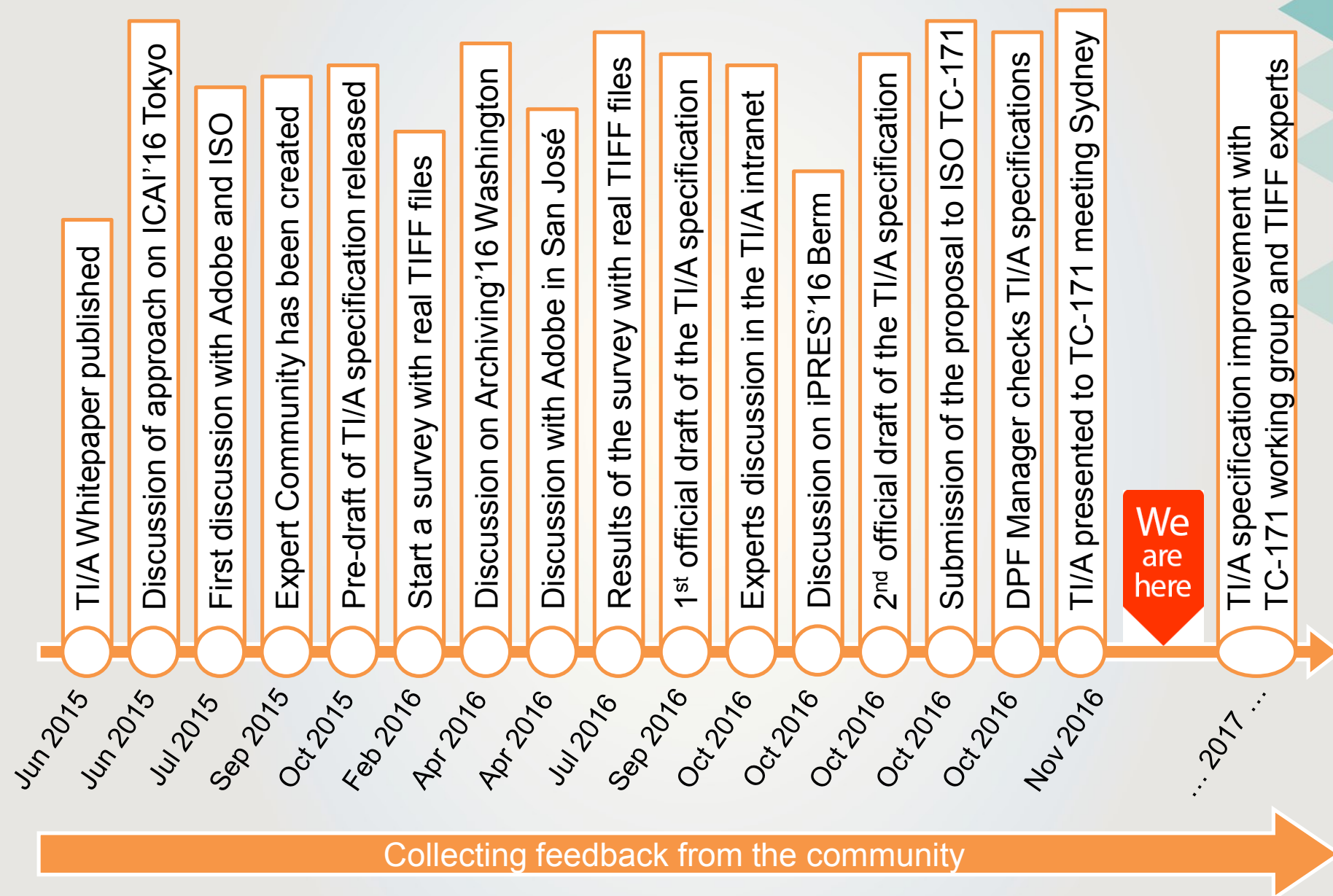
- Similar to PDF/A the TI/A initiative defines “tags” of TIFF as **not recommended, optional and required**.
- The recommendation for TIFF in archival environments is precisely specified based on feedback of the expert user community and a large (> 2 M files) survey of „hot“ data.
- The aim of the recommendation is to prevent the need for early migration due to wrong chosen features.
- The recommendation is focused on technical aspects and not on content based archival concepts (e.g. compression).

Official standardization process started at the end of 2016

Recommendation of TIFF for Archives already submitted to the ISO TC-171

The limitations of the baseline TIFF are too severe for many applications in digital archiving. It is important that, besides crucial technical metadata such as ICC color profiles (in case of color images) also important descriptive metadata is stored within the image file. Having descriptive metadata available (such as content description, iconography, copyright and ownership information etc.) is crucial for every archive. Having this information in the same file as the image data guarantees that this information will always be associated with the image.

TI/A Initiative Timeline



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T/A Initiative

DPF Manager

1. DPF Manager Functionalities

2. DPF Manager Technical Features

3. Use Scenarios

4. OAIS Integration

5. DPF Manager current version

6. What's Next?

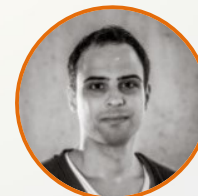
7. Open Source Project

8. DPF Manager Website



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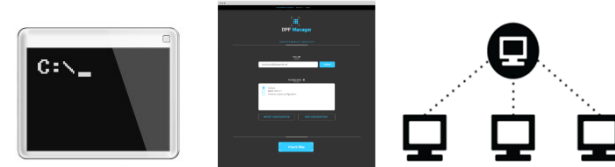
DPF Manager Technical Features



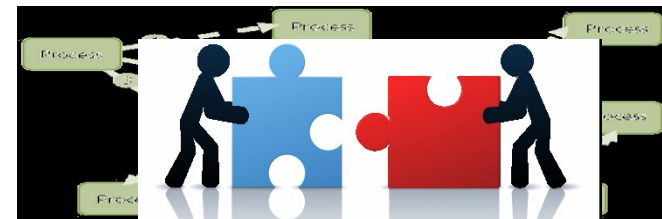
Multi- platform



Flexible



Modular



Technologies

maven

Java 8

spring

Travis CI

JavaFX

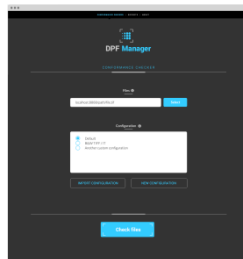
JAC2FX



Use Scenarios

1

Standalone



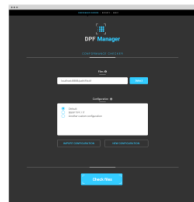
Graphic Interface

```
C:\>dpfmanager.exe -  
files=/archive/*.tiff -  
config=config.xml  
-reports_folder=/tmp/reports -  
fixed_files_folder=/tmp/files
```

Command line

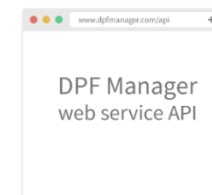
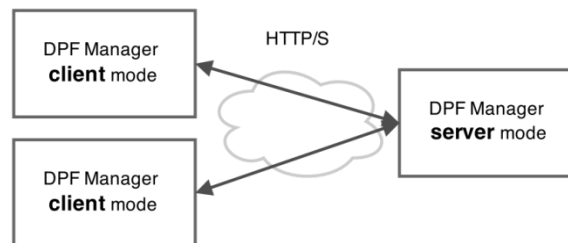
2

Client - Server



```
client:\>dpfmanager.exe  
-server=80.45.32.45  
-port=80
```

Client



```
server:\>dpfmanager.exe  
-mode=server
```

Server

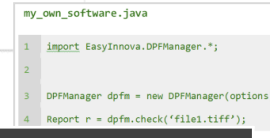
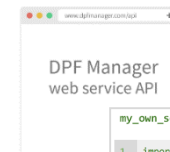
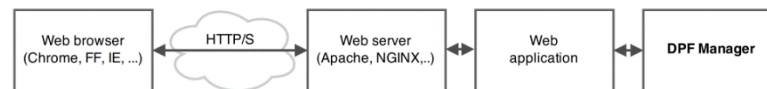
Use Scenarios

3

Web application



Browser Client

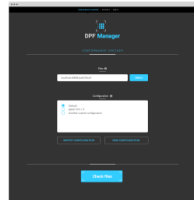


```
server:\>dpfmanager.exe
-mode=server
```

Server

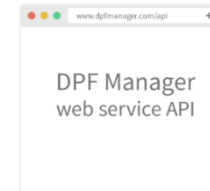
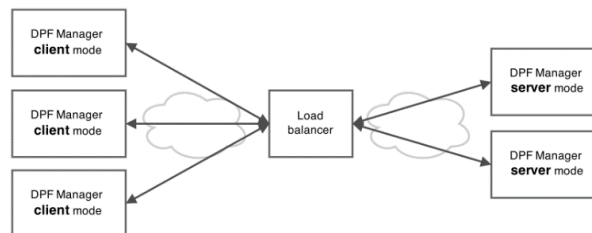
4

High availability



```
client:\>dpfmanager.exe
-server=80.45.32.45
-port=80
```

Client



```
server:\>dpfmanager.exe
-mode=server
```

Server

OAIS integration

Integration with OAIS

Document lifecycle
Conformance checking at:

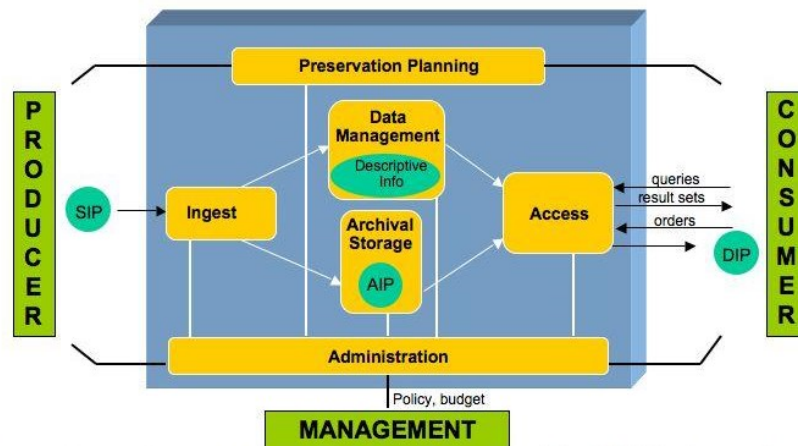
Creation

Transfer

Migration

Digitalization

Reference framework
QA, AIP generation



PREFORMA



<https://github.com/EasyinnovaSL/DPFManager>

<http://preforma-project.eu/dpf-manager.html>

DPF Manager current version



PREFORMA

VERSION 3.1.2 – Released on February 28th, 2017

Interfaces

- Command line interface
- Graphical user interface
- Client/Server
- Online validator



DPF Manager

Implementation checker

- Baseline version 6.0 (Baseline 6.0 and Extended 6.0)
- TIFF/EP
- TIFF/IT (Profile 1 and 2)
- TI/A conformance checker

Policy checker

- Create Policy rules from GUI (with critical, error, warning and info levels)
- Custom standards implementations

Metadata fixer

- Add, edit or remove metadata
- Metadata fixer (Make baseline compliant fix, Autofix metadata incoherencies)

Report

- Human readable (HTML, PDF)
- Machine readable (XML, JSON)
- Achievable data formats (METS, PREMIS, NISO, Dublin Cores)

DPF Manager current version



PREFORMA

VERSION 3.1.2 – Released on February 28th, 2017

File inspection analysis

- File structure
- Tags list
- IPTC fields
- EXIF tags
- ICC Profile
- XMP data (including history)
- File identification
- Metadata incoherencies
- Expert mode option



DPF Manager

Other features

- Periodical checks
- Wizard to create and save configuration files
- Multi-threading
- Load balancing
- Console and tasks widget
- Logging system
- Show ISO references
- Conformance checkers interoperability
- Maven artifact for easy integration in other projects
- Multi language

What's Next?

In the next VERSIONS...

<https://github.com/EasyinnovaSL/DPFManager/milestones>

Implementation checker

- DNG
- TIFF-F (RFC 2306)
- TIFF-FX (RFC 3949)

Policy checker

- New policies to apply

Metadata fixer

- Detect and report file provenance

OAIS integrations

- Archivematica integration.

Reporting

- Global statistical analysis of TIFF checked



DPF Manager

Contribute proposing new features

<https://github.com/EasyinnovaSL/DPFManager/issues>

DPF Manager Website



DPF Manager

dpfmanager.org

HOME ONLINE VALIDATOR DOWNLOAD DOCS CONTRIBUTE BLOG COMMUNITY ABOUT US

DPF Manager

DPF Manager is the most advanced TIFF conformance checker for digital preservation

We are creating a strong open source community of experts with a common

DPF Manager Website content:

- DPF Manager software (different operating systems)
- Blog
- Documentation
 - User manual
 - Tutorials
 - Reference implementation
- Online validator
- How to contribute
- Developers area

TIFF Gain full properties

side the metadata, IPTC

Digital preservation
Get a report about the suitability of the image for Long Term Preservation.

Report
Get multiple reports in different formats, including HTML, XML, JSON, for different purposes.

Flexible
DPF Manager is suitable for different scenarios. Working as standalone application, client-server or command-line all in a single APP

Multi-platform
DPF Manager is distributed for multiple platforms (Windows, Linux and Mac).

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- Initial Presentation

- TI/A Initiative

- DPF Manager

- Community**

 - 1. Join us!

 - 2. Follow us!



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Join us!



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visit

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DPF Manager

Install now

For Windows, Mac OS X and Linux

visit

www.ti-a.org

TIFF (



Get involved!

visit

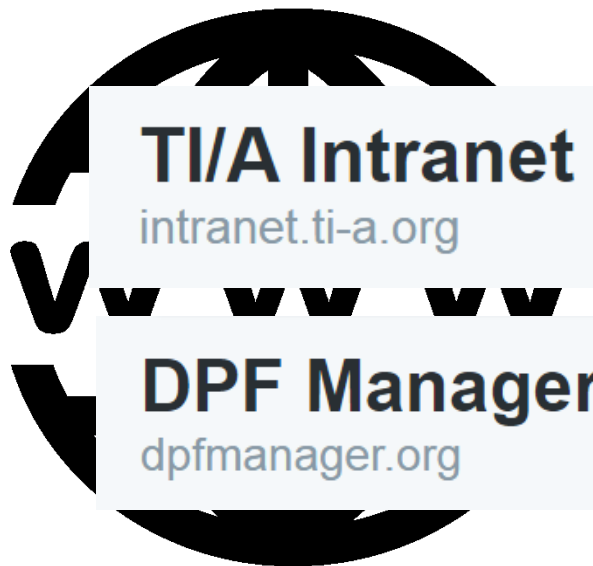
<http://www.dpfmanager.org/community.html>
<https://github.com/EasyinnovaSL/DPFManager>

Developers



New pull request

Follow us!



TI/A Intranet

intranet.ti-a.org

EXPERTS

81

POSTS

47

COMMENTS

203

VISITORS

1652

DPF Manager

dpfmanager.org

VISITORS

21119

VISITORS PER DAY

37

BLOG VISITS

1933

DOWNLOADS

235



DPF Manager

@DPFManager

TWEETS

703

SIGUIENDO

230

SEGUIDORES

323

ME GUSTA

346

TI/A Initiative

@TI_A_Standard

TWEETS

900

SIGUIENDO

1.140

SEGUIDORES

420

ME GUSTA

380

Thank you!

DPF Manager



Yvonne Tunnat @YvonneFrieze · 17 gen.

How does #JHOVE with #TIFF validation?
Comparison with @ImageMagick,
#exiftool, @DPFManager, fixit_tiff &
LibTIFF

openpreservation.org/blog/2017/01/17/tiff-format-validation-easy-peasy/

1 16 15

"DPF Manager is very easy to install and extremely easy to use"

"The tool is very fast – 80 TIFFs need less than a minute"

"I think in terms of usability this tool has easily won the contest"

"HTML output is very nice and there is also METS and XML"

would like an additional csv option). Furthermore, the TIFF files are sorted by the number of errors. The worst ones come first and when you scroll down, the TIFF get less and less

There are also
ns of usability this tool

has easily won the contest.

As a bonus, each error is in
the exact quotation that the

Conformance checker

Baseline TIFF 6.0

Type	ID	Location	Description
✖	OFFSET-0001	tag 282 XResolution	on
✖	OFF		
!	TAG		The byte offset may refer at

Having seen this, I am tempted to think of the DPF manager as the reference tool for whether a TIFF really is valid or not.

Findings of the DPF manager seem to be trustworthy to me, as the TIFF specification can be referenced for each error found."

"I am tempted to think of the DPF manager as the reference tool for whether a TIFF really is valid or not."

It certainly aims at being the go-to-validator for TIFF-files"



DPF Manager

Thanks for your attention!
FEEL FREE TO ASK US



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