



ASTM INTERNATIONAL
Helping our world work better

Putting Structured Documents to Work at ASTM International

19 October 2017

www.astm.org



Embracing Technology



For 50 years ASTM's position has been to identify and harness technologies in publishing to

- Automate editing and composition
- Minimize risk of error
- Serve members with new tools
- Meet the needs that customers express for greater efficiencies



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Factors Driving ASTM Direction

- Customer-Driven Product Development
- Industry/VOC
- Enabling Technologies–NISO STS
- Interoperability/New Partnerships
- Improved Discoverability
- Changing Reseller Relationships
- Increased Efficiency/New Support Systems
- Remaining RELEVANT....”The Long Game”

Voice of the Customer

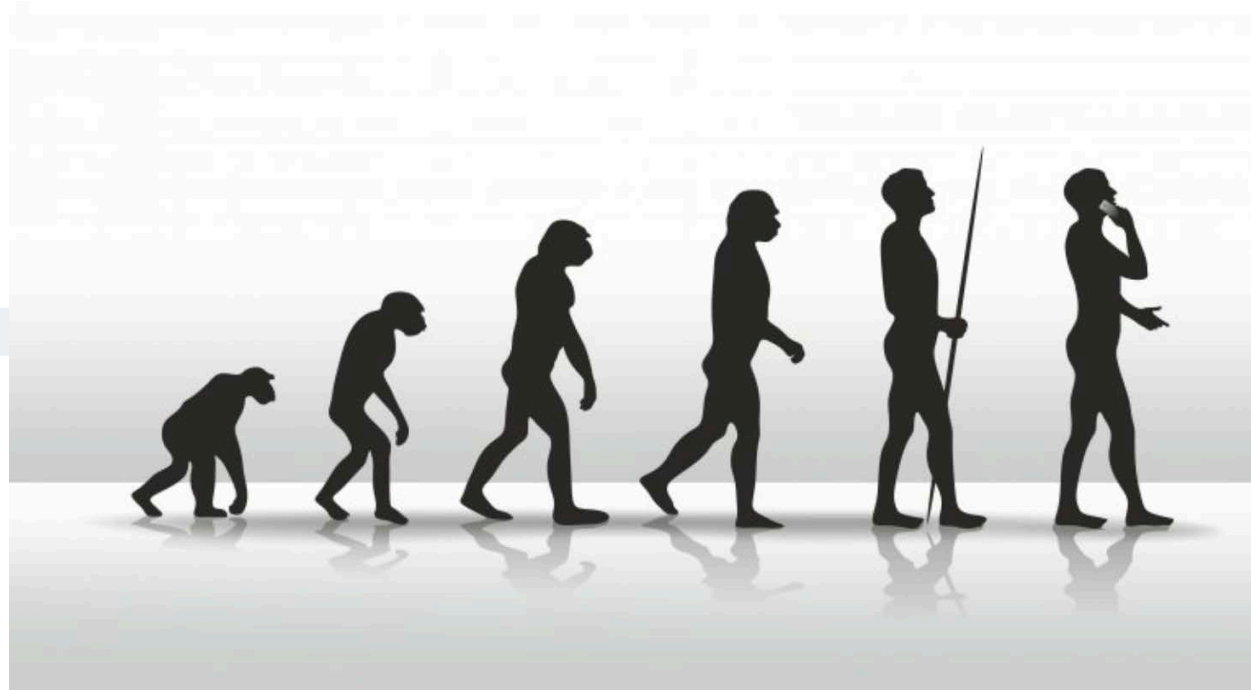
Reached out to members and customers with

- Web Surveys,
 - Phone Surveys
 - Conference Calls/Webinars
 - On-site focus groups
-
- Members and non-members from
 - Industry, Government, Academia
 - Attendees were QA Engineers and Executives, Other Engineers, Librarians



ASTM INTERNATIONAL
Evolution of workflow and tools

Where are
our members/
customers today
and where do they
want to be in
the future?



Many Members & Customers

- Books
- Paper
- Binders
- PDFs
- CDs
- DVDs

Moved To:

- Online Subscriptions
- Downloads (PDFs)
- Homemade networks
- Single User License

Increase Sophistication of Access

- 3rd Party Aggregator
- Some add'l tools (search, alerts)

ASTM Compass®

- Workflow Tools
- Annotations
- Change Management
- Version Comparison
- Linking of Internal Content to External Content
- Groups
- PDF/HTML
- Links to eLearning
- Robust Build of Training Options
- Local Language Interface
- Member Dashboard

Next Steps

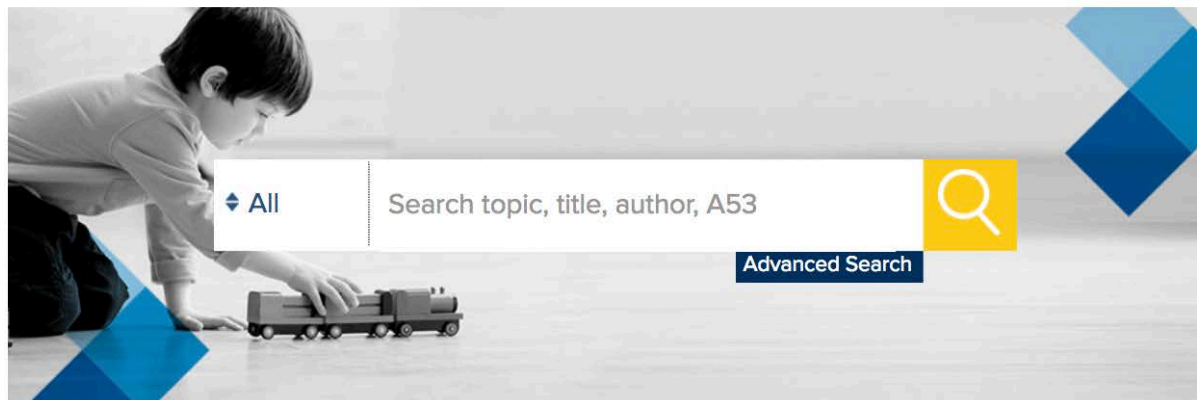
- Gap Analysis
- New Data Formats
- Standards as Data
- Subsets of Standards /Drill-Down Search
- More Mobile

Near Future


- Systems Engineering Intake Data
- Machine to Machine
- AR/VR/3D
- Parametric Equations



Welcome ASTM International



STANDARDS

Book of Standards
Custom Collection
Passport to Steel 
Research Reports
Related Materials
Digital Adjuncts

Alphanumeric Listings
of Standards

A	B	C	D
E	F	G	

Translated Standards

Chinese
French
French Canadian
German
Japanese
Spanish
Russian

DIGITAL LIBRARY

Journals
Special Technical Publications
Manuals/Monographs
Data Series
Proceedings
Bulletins
Materials Research and Standards
CHETAH

BROWSE BY INDUSTRY SECTOR

Standards
Publications

OTHER CONTENT

AASHTO
AATCC
API
ISO
MIL
Unified Numbering System (UNS)
UOP

E-LEARNING

SPECBUILDER

TERMINOLOGY

A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z
0 1 2 3 4 5 6 7 8 9

MY TOOLS

My Annotations (11)
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This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations Issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

DESIGNATION: C40/C40M - 16

Standard Test Method for Organic Impurities in Fine Aggregates for Concrete¹

Active Standard ASTM C40/C40M

ADD/EDIT ANNOTATION 

This standard is issued under the fixed designation C40/C40M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

In this standard:

- [Section 1 Scope](#)
- [Section 2 Referenced Documents](#)
- [Section 3 Terminology](#)
- [Section 4 Significance and Use](#)
- [Section 5 Apparatus](#)
- [Section 6 Reagent and Standard Color Solution](#)
- [Section 7 Sampling](#)
- [Section 8 Test Sample](#)
- [Section 9 Procedure](#)
- [Section 10 Determination of Color Value](#)
- [Section 11 Interpretation](#)
- [Section 12 Precision and Bias](#)
- [Section 13 Keywords](#)
- [SUMMARY OF CHANGES](#)
- [Footnotes](#)

ADD/EDIT ANNOTATION




PRINT SECTION

1 | Scope

Previous [Next](#) | [Top](#) [Bottom](#)

1.1 This test method covers two procedures for an approximate determination of the presence of injurious organic impurities in fine aggregates that are to be used in hydraulic cement mortar or concrete. One procedure uses a standard color solution and the other uses a glass color standard.


Search ASTM Compass

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 **PRINT WITH ANNOTATIONS**


 **PDF VERSION**

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Details

Developed by Subcommittee: [C09.20](#) 
Book of Standards Volume: [04.02](#) 
Pages: 2

ASTM Compass HTML Summary Update

ASTM Compass Version Comparison

Version Comparison of:

Text Size A A

D93-16a

and

D93-09

BACK TO ACTIVE

Legend: ■ Old Version ■ New Version

Format

Pages



Printer Friendly with Annotations

-

PRINT STANDARD

Designation: D93—0916a

Disclaimer: This document is not an ASTM standard and is intended only to provide the user of an ASTM standard an indication of what changes have been made to the previous version. Because it may not be technically possible to adequately depict all changes accurately, ASTM recommends that users consult prior editions as appropriate. In all cases, only the current version of the standard as published by ASTM is to be considered the official document.



DESIGNATION: 34/99

Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester¹

This standard is issued under the fixed designation D93; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (e) indicates an editorial change since the last revision or reapproval.

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In this standard:

[INTRODUCTION](#)

[Section 1 Scope](#)

[Section 2 Referenced Documents](#)

[Section 3 Terminology](#)

[Section 4 Summary of Test Method](#)

[Section 5 Significance and Use](#)

[Section 6 Apparatus](#)

[Section 7 Reagents and Materials](#)

[Section 8 Sampling](#)

[Section 9 Preparation of Apparatus](#)

[Section 10 Verification of Apparatus](#) PROCEDURE A

[Section 11 Procedure](#) PROCEDURE B

[Section 12 Procedure](#) PRECISION

SECTION 13 CALCULATION, 14 AND 15 PRESENT REPORT

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All

Topic, title, author, A53



Advanced Search

HISTORICAL VERSION(S):

D93 - 16 Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

D93 - 15a Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

D93 - 15 Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

D93 - 13e1 Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

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Result Type

☐ Standards (672) ☐ Digital Library (88) ☐ Other Content (12)

Document Type

☐ Online Version (581) ☐ PDF Version (758)

Category

☐ Applications (192) ☐ Materials (149) ☒ **Process (73)**

- ☐ Biological Process
- ☐ Chemical Process
- ☐ Contamination and Decontamination
- ☐ Corrosion
- ☐ Manufacturing Process
- ☐ Mechanical Process
- ☐ Nuclear Process
- ☐ Physical Process
- ☐ Separation and Purification
- ☐ Specimen Preparation
- ☐ Wear and Erosion
- ☐ Properties and Measurements (134)

ASTM D93-16a Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

Active Standard (Latest Version)

5.1 The flash point temperature is one measure of the tendency of the test specimen to form a flammable m... More

Developed by Subcommittee D02.08 | Book of Standards Volume: 05.01

Historical Versions - previous version(s) of standard

Translated Version(s): Russian

Other Searches:

ICS 13.220.40 (Ignitability And Burning Behaviour Of Materials And Products) • ICS 75.080 (Petroleum Products In General) • ICS 75.160.20 (Liquid Fuels)

Format	Pages	
Online Version	–	VIEW ONLINE
PDF Version	18	DOWNLOAD PDF
Online E-Learning	–	E-LEARNING

ASTM D93 - 94 Standard Test Method for Flash Point by Pensky-Martens Closed Tester

Historical Standard

SUPERSEDED BY D93

1.1 This test method covers the determination of the flash point of petroleum products in the temperature range from 40 to 360°C by a manual Pensky-Martens closed-cup apparatus or an aut... More

Developed by Subcommittee D02.08 | Book of Standards Volume: 05.01

Other Searches:

ICS 13.220.40 (Ignitability And Burning Behaviour Of Materials And Products) • ICS 75.080 (Petroleum Products In General) • ICS 75.160.20 (Liquid Fuels)

Format	Pages	
PDF Version	5	DOWNLOAD PDF

Mark Up Language – Phase I



First conversion to Structured Content

- 1999: SGML Conversion Complete
 - Editors editing and composing in SGML
 - Converted 6500 standards (PDF only)

Tools:

- XyEnterprise PDM CMS
- Arbortext Epic Editor
- XyEnterprise XPP Composition and Styling

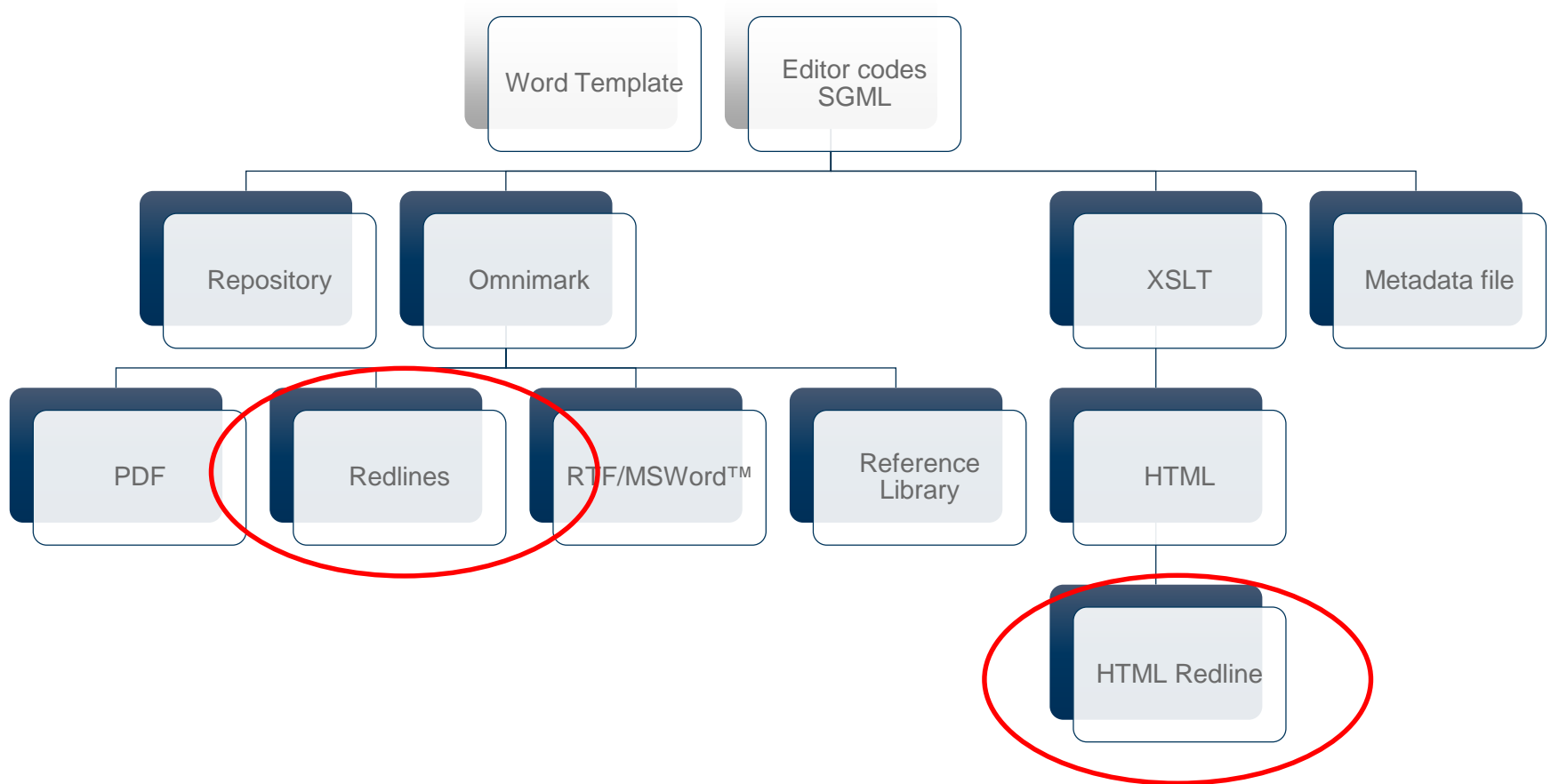
Cost: \$3 million

Savings: \$800K/annually

Ballot to published PDF:

- Prior to SGML—18 or more weeks after standards approval

Old Workflow, SGML



The Interim Years— Phase II



2000, Redlines

2000, Versioning (Historicals)

2002, Develop collaboration tool/online member area

2006, HTML (active and redlines)

2011, Switched to digital printing at annual savings \$.5 mil

Ballot approval to published PDF:

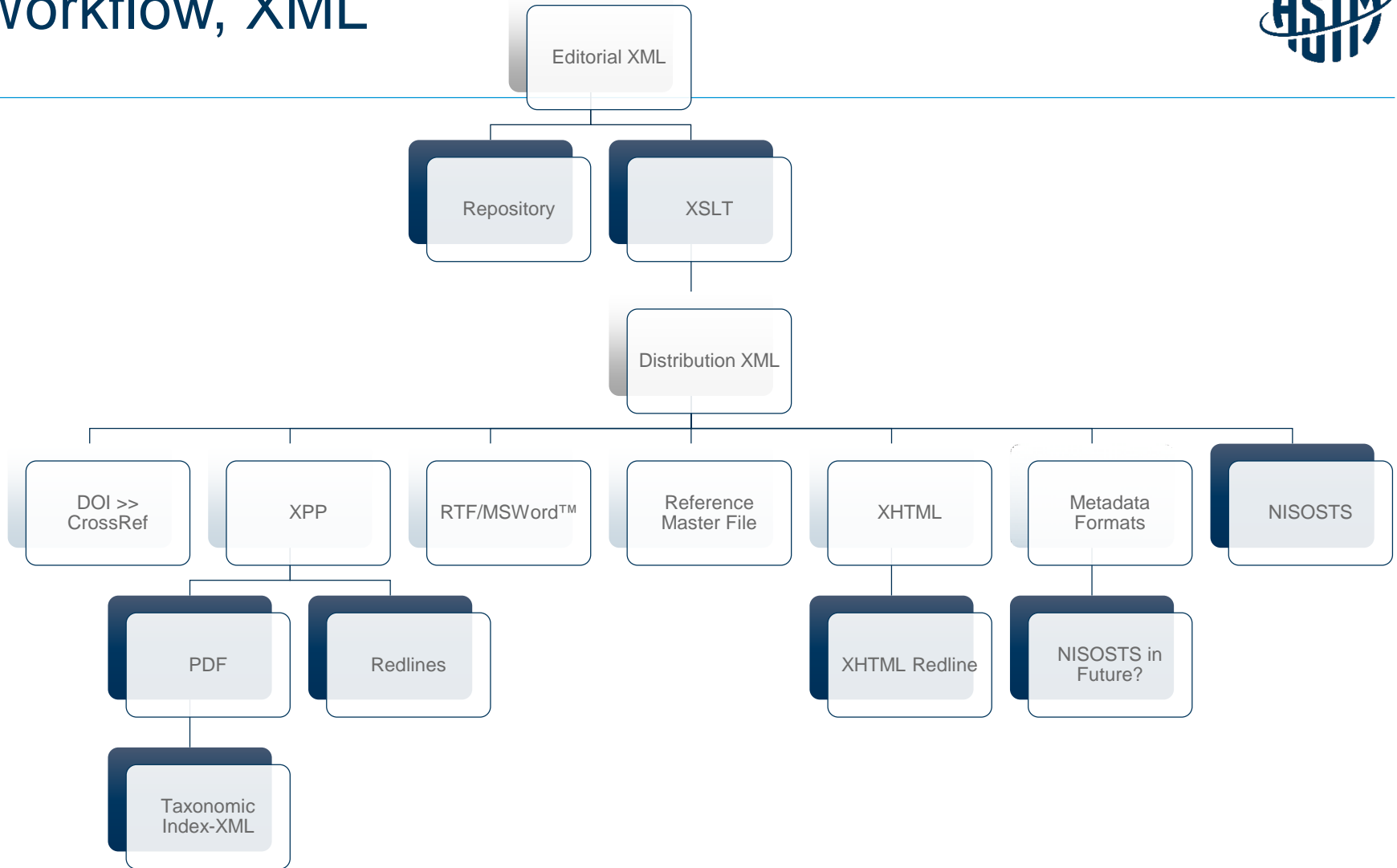
- 2004—2-6 weeks

XML Conversion–Features



- Based DTD on existing SGML
- Create newer, better HTML as output from XML
- Built all new customer portal for new content (ASTM Compass®)
- Created HTML tools such as annotations for customers
- Cost: \$1.3 mil (\$1.7 less than SGML)

Workflow, XML



These were our critical errors we had to overcome:

- **Not understanding our data.** Example: 25 different Notes in standards could look alike, but the old composition code behind each of those 25 notes could have been structured 25 different ways.
- **Choosing to convert instead of just rekeying.** In retrospect, we would have been more efficient long-term with a rekey.

Where did we succeed?



- **Team goals across divisions** (editorial, IT).
- **Having a supportive President.** We were weeks from having to pull the entire SGML conversion in the '90s but for a 5-figure emergency fund approved to move forward and fix errors
- **Having a supportive President.** We were in real trouble within the projected cost for the XML conversion because of a misunderstanding over required QA in the '12 but for a 6-figure emergency fund approved to move forward and QA to member expectations
- Importing a leader who truly **understood our data/long-term vision.**

Standards Groups Events Discussing Future Formats for Standards



Recent Escalation of Conversation Opportunities

- Traditional, SPAB, SES, SPIF, DIN/Beuth
- XML Roundtables: 2013, 2014, 2015
- NIH JATS CON
- NISO XML
- SWISS
- INCOSE
- Semi-annual European Meetings on Product Development as well as Sales & Marketing
- Tech Forum

Table Topics, November 2017, Standards Technical Forum, NYC, NY

Machine written standards

- Future license agreements
- Business models
- Managing entitlements internal and external
- Internet of Things (IOT)
- Voice command/interaction
- AR during manufacturing, maintenance, construction, and in the lab, standards role
- Other disruptive technologies

Customer Demand Product Development



- VOC
- Total solution
- ASTM Compass®, x5 updates 2017, UX update
- ASTM collaboration management tool launch: SpecBuilder, SpecPublisher with features for industry and government
- Transclusion with semantic capabilities
- Continue support for NISOSTS activity
- Expand ASTM thesaurus
- Continue exploration of 3D modelling from our figures/tables/equations in next generation “smart manufacturing” requirements
- Still ingest Word/similar as members prefer
- Continued improvements in change management
- Output XML version of NISOSTS along with current formats



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Questions?

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