



Media Asset Management Software

Executive Summary

The exponential growth in the New Media industry has led to a condition of digital asset overflow for many creative content producers and created an urgent need for project planning, communication and tracking tools. Creative teams use a wide array of file formats, applications and platforms, and members tend to work in small groups, with at least some working remotely. At a time when asset reuse and re-expression are key factors in remaining competitive, an efficient Media Asset Management (MAM) system is crucial. Existing MAM systems are difficult and/or expensive to set up, administer and maintain, and frequently these systems do not meet the needs of creative content producers and project managers.

Specifically designed to meet the needs of New Media producers, TABELLIO takes the mystery out of project planning and evaluation. Managers can assess project development at a glance. Not only is TABELLIO easy to set up and use, it also offers more of the most sought-after features needed by New Media project managers and content producers. The TABELLIO SOLUTIONS PACK is a shrink-wrapped MAM system that includes the TABELLIO software, a project management toolbox and an introductory seminar to be held at the California Academy of Art in San Francisco.

The Need for MAM Systems

GISTICS Inc. states that the North American Media Producer Industry encompasses 207,000 media producing firms and employs 4.1 million media producers. They predict that the Media Asset Management (MAM) market will grow from \$654 million in 1998 to \$3.2 billion by the year 2002.

In this rapidly evolving New Media industry, projects generally require a team of graphic artists, designers, programmers and managers. These teams use a wide array of applications and file formats and may be on the local network, remote or off-line. All of this creates difficulties in managing workflow communications and maintaining access to digital documents. Meanwhile, time-to-market and production costs are critical, making efficiency and productivity key factors for success.

Poor New Media Asset Management and haphazard document access means wasted time and escalated costs. To be successful, New Media producers must treat digital documents like the value-added assets that they are.

Staying on time and within budget means keeping a tight rein on the development process and particularly on workflow design. An efficient MAM system must capture, index and archive every version of every document essential to a project in a format that is easily accessible for reuse and re-expression. Doing this manually is tedious, time-consuming, and nearly impossible with 100% accuracy. Moreover, it is even more cost-inefficient to have highly trained, and therefore expensive, staff wasting time and energy on asset archiving and search routines.

Some of the challenges facing New Media project creators are:

- Assets tend to be large and comprise many different file types, such as graphics, audio tracks, animated sequences, text, etc.
- Multiple modifications lead to many versions of the original assets.
- Multiple projects are frequently managed simultaneously.
- Creative teams are frequently dispersed, with both on-site and off-site members working on a variety of platforms.
- Existing assets must be reused whenever possible.
- Production cost and time-to-market are critical.

Benefits of a Good MAM System

Enterprises that dedicate sufficient resources to a MAM system can save substantially through the following benefits:

- More efficient project and workflow management
- Quicker asset development and retrieval
- Increased asset reuse and re-expression
- Greater productivity with the same staff
- More competitive project bidding, leading to increased sales
- Increased customer satisfaction.

Who Needs a MAM System

Gistics Inc. reports that all types of New Media producers benefit from a MAM system. Although the type of benefits vary with the type of organization, the larger the company, the greater the gains. Gistics Inc. identifies the following expected benefits:

- Solo contractors benefit from individual productivity gains, including fewer look-ups, quicker retrievals and lower file management overhead.
- Virtual teams of 5 members and small studios of about 20 content producers see gains similar to those for individuals, as well as a decrease in media development costs and an increase in licensable properties.
- Medium and large studios with 50 to 500 media developers also gain from an increase in corporate valuation due to increased productivity and from the value ascribed to assets documented in a MAM system.¹

Existing Solutions

MAM systems can be classified in 4 categories:

- **Traditional Version Control Systems**, originating from the world of software development, are usually not well suited for media asset management, mostly because of the complexity of the systems and an inability to cope with the demands of large media assets. Also, they frequently lack fundamental features such as keyword indexing and retrieval.
- **Media Cataloging** tools offer thumbnail browsers and sometimes keyword retrieval. Support for file formats can be a problem. Because cataloging tools merely reflect contents once they are created, they do not help a team to collaborate during production.
- **Workgroup Editions** usually use a three-tiered architecture: client, server and archive. Network bottlenecks, file compatibility and administrative complexity can all be problems.
- **Enterprise-level Solutions** provide the adaptability needed by large corporations but are expensive to set up and maintain. They may cover multiple campuses and reach hundreds of users. They are designed to handle massive amounts of assets, at scales of terabytes of information. Only a few large media companies can afford such a commitment, and most, if not all, are only partially effective.

Gistics Inc. describes three levels of MAM architecture:

- **Function-centric** systems emphasize quick storage and retrieval of media for individuals or workgroups usually for a single purpose.
- **Process-centric** systems target workflows where the manipulation of assets varies little between projects, for example in pre-press preparation.
- **Industry-centric** systems provide multi-company access to media assets.

1. Source: Media Asset Management: Best Practice Primer, Gistics Inc. Gistics Research Inc. is the leading US research company providing comprehensive analysis of MAM industry trends, technologies, best practices, customer requirements, vendors and market categories and resources.

Software and Best Practices

To date, most MAMs have relied on a combination of software and Best Practices solutions. Because of the human factor involved in remembering complex file naming procedures, when to archive what, or in dealing with check-in and check-out procedures, the results are frequently less than ideal. One of the greatest problems with the software/Best Practices solution is staff compliance. When people are rushed, as is often the case, Best Practices protocols are often sacrificed.

Current Shortcomings

Complex, time-consuming set-up and maintenance costs must be balanced against the needs of management and creative teams. One of the major criticisms of MAM systems is that the effort involved in maintaining assets eats into production time and hampers creativity.

Existing MAM architectures fail to meet the needs of managers and creators of New Media projects. The main shortcomings of existing MAM systems are:

- Software/Best Practices protocols are frequently bypassed.
- The interfaces tend to be unwieldy for both administrators and users.
- Set-up and maintenance costs can be high.
- Most existing MAM systems are static and focus on data warehousing.
- Version control procedures require the ongoing cooperation of users.
- Legacy systems may not be compatible with upcoming file formats.

The inability to organize production efficiently leads to many a nightmare involving large numbers of assets. For any number of reasons, such as missing or misplaced assets, wrong version, etc., reuse or re-expression becomes impossible. Redoing the work is often the only possible solution. All too frequently, frustration and a waste of valuable time are the unwanted results leading to budget and deadline overruns, as well as reduced quality.

What Producers Want

In a study of New Media content managers and producers, Gistics Inc. identified the following features as being the most sought-after in a MAM system:

- Extensive support for file formats
- Automated routing of files along the workflow
- Automatic version control to track multiple versions of the same source asset
- Custom fields for index or keyword retrieval
- Double-click to open
- Thumbnails.

More importantly, Sobrio has determined that what users really most want from a MAM system is the freedom to create.

The Tabellio Solution

Sobrio's challenge was to create a production workflow and asset management software that is:

- **Seamless**, so that users can continue to work in their usual ways
- **Adaptable**, so that it can be easily set up to suit the way a team works
- **Robust**, so that lost or misplaced assets are a thing of the past
- **Easy to administer and use**, so that there is no need for special system administrator skills.

In answer to these needs, and based on its multimedia expertise, Sobrio developed the TABELLIO SOLUTIONS PACK, specifically for New Media firms producing media rich content, including:

- Multimedia projects
- 3D and 2D animation and presentation projects
- CDROM and DVD contents
- Desktop publishing, including conventional documentation
- Web-based and other electronic publishing.

TABELLIO uses a Client/Server database. Most of the database resides on the server, but to reduce network traffic, new assets are stored on the user's local computer until the user decides to make the assets a permanent part of the project history. The server supports Windows 95/98, NT and 2000™ and MacOS X™. The Clients support Windows 95/98, NT and 2000™, Mac OS 8.05™ or higher, and Linnux BSD™.

The TABELLIO SOLUTIONS PACK is designed to get new users up and running with TABELLIO as quickly as possible. It includes the TABELLIO software, an introductory seminar and a project management toolbox custom-designed for a particular New Media sector.

With TABELLIO, you can easily and efficiently capture, identify, store, retrace and reuse digital assets.

TABELLIO is specifically designed to provide:

- Platform independence — Users can be on any mix of PCs or Macs.
- Application independence — No more worries about file format compatibilities.
- Seamless project management — Save time and prevent lost files by tracking and storing the contents of every file version that go into a project.
- Project management and evaluation — Provides easy access to files and meta-information at any time, even for deleted or overwritten files.
- Distributed workforces — Automatically notifies users of changes and potentially conflicting versions.
- Implicit version control — Users work in their usual applications, with no need for check-in and check-out procedures.
- Internet, TCP/IP access — Requires no special system administrator skills to set up or use.

TABELLIO is about teamwork, specifically the type of teamwork involved in developing new media projects where many people work on complex documents in various digital formats.

TABELLIO is the first MAM tool able to track, capture, identify and store every version of every digital asset produced during the development of a New Media project. Users can decide just how much to keep. TABELLIO's automatic capture, implicit version control and automatic notifications make the collaboration process easier. End-users find that its uncomplicated and transparent nature enhances creativity. Best of all, TABELLIO is easily tailored to suit the way you work.

Unlike many other MAM systems, TABELLIO focuses on providing the tools needed during the planning, production and distribution phases. With TABELLIO, you can realize the full commercial potential of media assets by saving lost time and effort. While automatically tracking and storing the history of complex digital documents, TABELLIO's exclusive MAM technologies provide you with peace of mind and give you more time to create.

Easy to implement, TABELLIO provides administrators and managers with an unobtrusive and dynamic method of project workflow control. Users work in their normal fashion in the applications to which they are accustomed, while TABELLIO operates seamlessly in the background.

Tabellio Concepts

TABELLIO's revolutionary technology introduces these new concepts.

Watched folder: A folder on your hard drive or system storage that TABELLIO supervises.

T-doc: An asset captured in the TABELLIO database, consists of the original file content in its native format, the file Meta-information, and the relationships between this and other T-docs. A new T-doc is created for every Save or Save As operation.

Meta-information: Properties such as Creation Date, Author, Original Filename, etc. plus any other User-defined properties. Assets can be retrieved by Meta-information values, for example, all *.bmp* files created by Jane Smith last September.

Workspace: A TABELLIO folder that contains T-docs and is usually set up to supervise a Watched folder. A Workspace contains only the most recent T-doc. The contents of the Watched folder are mirrored in the Workspace. Workspaces may be Linked to other Workspaces for version control.

Linked Workspaces: TABELLIO sets a flag whenever the contents of one Linked Workspace do match the other, creating automatic version control. Potential version conflicts can be resolved with a single mouse click.

Frozen Workspace: A read-only copy captured at a moment in time. Perfect for deliverables, project evaluations and backups.

Pending Transfer List: To reduce network traffic and save space, T-docs are stored locally in the Pending Transfer List. Periodically you decide which T-docs to make a permanent part of the database or to discard.

Version Control: An Asset Management tool that informs you of the version status of any asset. Workspaces always contain the latest version of an asset.

The Technology Behind the Scene

TABELLIO comprises three interrelated modules:

- The **Spy**, a tool that transparently captures and tracks your files as you create, tagging them for easy future retrieval
- The **History Database**, which uses a central server to store and protect the content and properties of each file;
- The **Viewer**, the main user interface from which you access all captured documents and project histories.

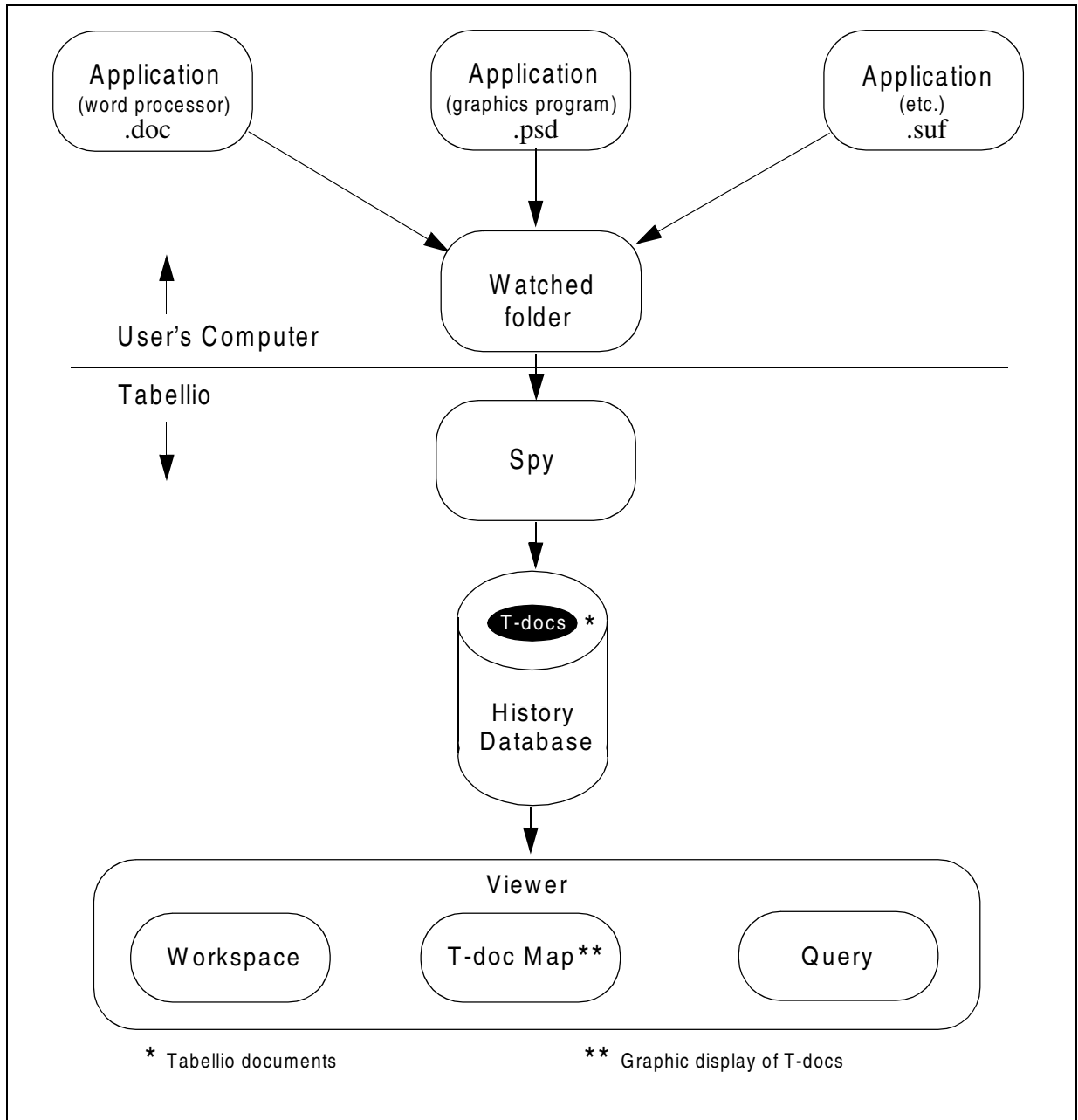


Figure 1. TABELLIO data flow

The Spy

The Spy module creates links between different versions of files with the same name. The Spy runs locally on each team member's computer and sends captured data to the History Database. The Spy manages the information, tracking all the files and Workspaces under supervision.

The History Database

The History Database is the heart of TABELLIO. It maintains the complete history of all files and their properties that make up a project, as well as the profiles of all groups and users. Files stored in the History Database are never flattened and can be opened seamlessly in the application in which they were originally created.

The History Database, specifically designed to work in a New Media environment, is a client/server object-oriented, distributed, transactional database with cross-platform compatibility. This means:

- As an **object-oriented database**, the History Database stores files, folders, and other entities as objects within the database.
- As a **distributed database**, the files reside both on a server and on users' computers. This minimizes network traffic because only objects in use by team members are copied to their own computers as they work.
- As a **transactional database**, changes are posted on an all-or-nothing basis, which makes the History Database the most robust and consistent database possible.
- **Cross-platform compatibility** means that the History Database makes files, folders, and other entities accessible to all the designers in a project team regardless of the platform or application they are using.

The entire History Database can also reside on the User's computer in a desktop (standalone) configuration; however, TABELLIO is usually set up in a network configuration.

The part of the History Database that resides on a user's computer allows work without placing any demands on the server or the network. Users can further conserve disk space on the server by periodically deciding which files to discard or to permanently keep in the server part of the History Database.

The Viewer

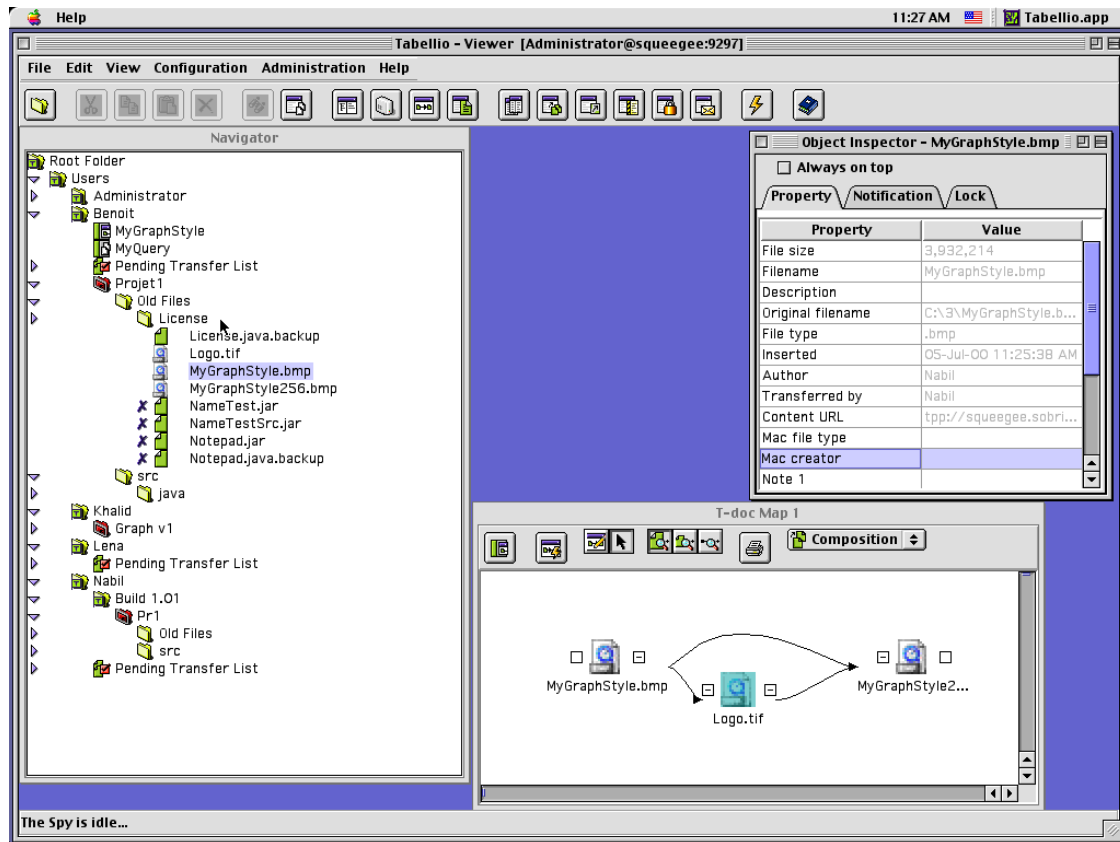


Figure 2. The Viewer with Navigator, Object Inspector and T-doc Map

The Viewer is the main TABELLIO interface. It provides dynamic views of all objects in the History Database. When the Viewer opens, it contains the Navigator window and the Object Inspector window. From the Viewer Menu bar and Toolbar, you can access all other TABELLIO functions, including the T-doc Map, as shown in Figure 3.

The Navigator

The Navigator lets you browse TABELLIO objects. Through the Navigator you can:

- view the History Database structure
- manage Workspaces and documents, including Version Control issues
- set up linked Workspaces and Watched folders
- determine which documents to keep and to discard
- open documents in an application
- add files or folders from your hard disk to the History Database
- copy documents from a Workspace to your local drive
- Import and Export Workspaces.

The Object Inspector

The Object Inspector lets you examine and set properties for the folder or document selected in the Navigator. The Object Inspector dialog box contains tabs for Properties, Notification and Lock. The Properties tab lists the properties associated with the current object. The Notification

tab establishes whether you are notified of changes, either by email or by a TABELLIO message. The Lock tab lets you control document access and modification by others.

The T-doc Map

The T-doc Map provides a graphic display of selected documents and their relationships. You can specify which documents to display and how to display them. You can view any documents in the History Database, including precursor files, even if they have been deleted or overwritten on the local hard drive directory.

Details of the Tabellio Interface

When you start TABELLIO, you enter your login name and password. TABELLIO's Access Control System enables managers and administrators to set a User's access rights. TABELLIO is a low maintenance tool, and Access Control is easy to configure - TABELLIO requires only one administrator, who does not need any special system administrator skills, and could just as easily also be a team leader, project manager, or team member.

Watched Folder and Linked Workspaces

Sobrio's goal is to make document management easy, so TABELLIO requires minimal setup time. When starting a new project, you create the Workspace structure for the project in the Navigator window (Figure 4). Typically, to increase Version Control and facilitate document tracking, you create a Workspace for each project member, and link the member's Workspaces to a project leader's Workspace.

In Figure 4, the Workspace "Dan_Files" under the user Daniel is connected to the Watched folder *D:/Daniel*. The Watched folder connection is made with a few mouse clicks. In TABELLIO jargon, *D:/Daniel* is now a Watched Folder. Once this connection is established, changes in one are automatically reflected in the other. This connection can be either bidirectional or one way.

In addition, the Workspace "Dan_Files" is linked to the Workspace "Official_Project". Special icons next to the file icons in "Dan_Files" indicate the version status compared to those in "Official_Project".

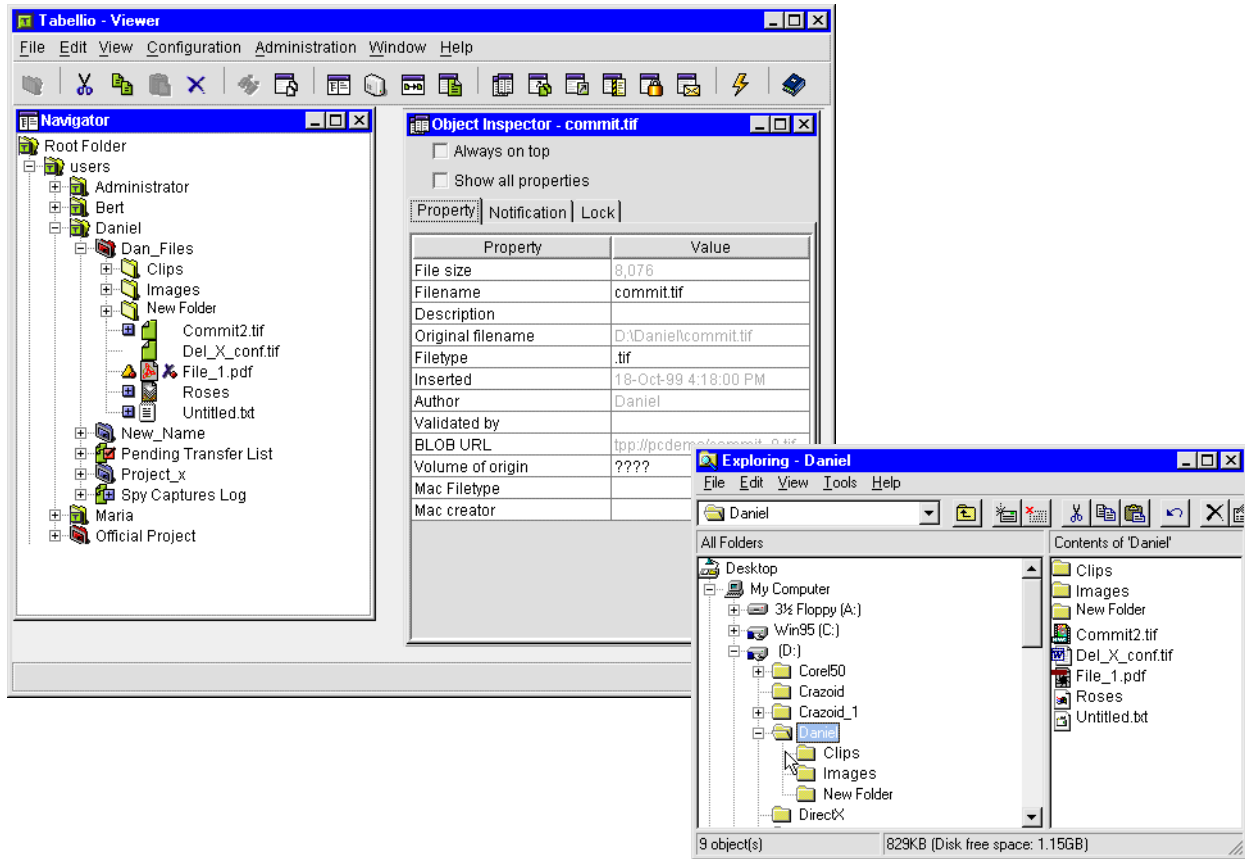


Figure 3. Linked Workspaces Dan_Files and Official_Project, and Watched folder D:/Daniel

From now on the Spy works transparently in the background, automatically capturing the document content, inter-relationships and properties of each file in the Watched Folder, producing unique data objects that can be easily tracked, archived and retrieved.

Daniel can now continue to work in the applications to which he is accustomed. When he performs a Save or Save As to his local file system, TABELLIO will create a new T-doc in the History Database. Only the most recent T-doc is reflected in the Workspace, but every version is stored in the History Database. Daniel can concentrate on creating, rather than adapting his work habits to an arbitrary file system. Because TABELLIO will transparently supervise his work through the Watched Folder and linked Workspaces, he will drastically reduce his organizational tasks and save a great amount of time.

To cut down on network traffic, new T-docs are stored locally. However, the meta-information is sent immediately to the server, so that all team members are kept up to date on the project structure and asset versions. As a user, Daniel's only maintenance tasks are to periodically decide which T-docs to Validate by transferring them to the server, thereby making them a permanent part of the History Database, and which T-docs to commit to the Official_Project Workspace.

In the Navigator window, each User has a Pending Transfer List that displays every capture awaiting Validation. One of the benefits of this list is that it provides easy access to all previous versions. Using pointer technology, the Workspaces provide the user with only the latest version.

Validation is a simple procedure, and consists of selecting one or more T-docs from the Pending Transfer List and choosing one of four possible actions:

- **Transfer to Server** preserves the document in the History Database.
- **Obliterate T-doc** deletes the document and its properties from the database forever.
- **Obliterate T-doc Content** deletes the document and keeps the properties. This saves space while preserving the project history.
- **Send To** moves the document from the current Pending Transfer List to the list of a reviewer, who will then be responsible for the document's Validation.

For each Save or Save As operation, TABELLIO keeps a new version and creates a new T-doc. Some users may prefer such extensive tracking, but to save local disk space, Daniel may choose not to keep every single Save operation. The “Top Layer Option” sets the rate of capture for a given time period. TABELLIO can capture the last-saved version once per minute, hour, day or week, or always, i.e. every time you save.

Without TABELLIO, at the end of a work session Daniel would have overwritten all previously created versions, keeping only the last saved version. With TABELLIO, he can have every version stored in the local part of the History Database and awaiting either Validation or Obliteration.

The T-doc Map

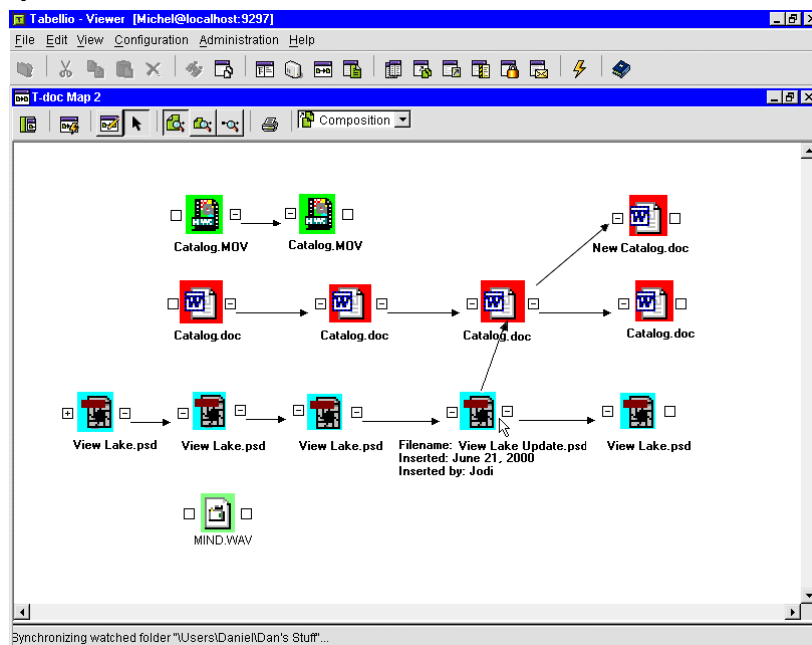


Figure 4. The T-doc Map displays file versions and links along a timeline

The T-doc Map provides an interactive display for all documents in the database. While regular file systems involve an arbitrary organization of folders and files, the T-doc Map is a genuine graphic representation along a timeline. Every document has a permanent point of origin, with the content permanently captured and saved exactly as created. Reuse of that same document creates a new data object, with a new node in the T-doc Map.

You can select documents for display in a T-Doc Map from either a Pending Transfer List or Workspace. The resulting chronology provides a very useful mapping of a developmental history.

The document icons can be expanded at any time to view parent or child documents. A “plus” sign on the left side of the node indicates a previous version. A click on the “plus” expands the graph to show the immediate predecessor. Version Links are shown as arrows.

You also can define and add your own links. In Figure 5, the file “View Lake Update.psd” was inserted into the third version of “Catalog.doc”, and a Content Link was added to show the connection. This version of “Catalog.doc” was also saved as “New Catalog.doc”, automatically creating a Version Link branch.

In addition, as you position the cursor over a node, Tooltips pop up a user-defined list of meta-information for the file. The timeline shows that some documents were created before others, and, using the Tooltips, you see the actual creation date, author and file size. You can adjust and save the Tooltip settings to suit your needs. You can double-click on a node to open the file. Browsing a history and finding exactly what you are looking is now child's play.

As shown in Figure 5, you can also colorize documents according to meta-information values. Colorized icons can make it easier to interpret more complicated project histories. You can assign colors based on the value of any meta-information field. In Figure 5, the blue icons represent images, the red icons text, and the green icons other documents. (If you are reading this in a black and white copy, the icons are shaded differently.) The colors are applied at all zoom levels. When you combine colorizing with Tooltips, you can examine a complete project history in one view.

Other Tabellio Features

Version Control and the T-doc Map

Lack of Version Control leads to costly mistakes and cost overruns. One of TABELLIO's unparalleled features is an implicit Version Control system applicable to any type of document without the need for check-in or check-out procedures.

Just by looking at a T-doc Map, a manager can ascertain project status and apply necessary changes with only a few mouse clicks.

Notifications

TABELLIO notifications allow you to track the modifications on selected documents. For instance, a project manager can systematically track document modifications without disturbing or interrupting developers' production work.

Notifications can be either by email or through a TABELLIO Message. As soon as a modification occurs, TABELLIO sends a message. At any time, users can look at their Message Windows or email to get an update on document modifications.

Freezing a Workspace

When you Freeze a Workspace, you create a copy taken at a particular point in time. You can Freeze a Workspace to send a version of a project to a client, while keeping the project itself. Or, you might want to keep a specific version of a project for evaluation, backup or project tracking purposes.

As with all TABELLIO features, freezing a Workspace is easy. You select the Workspace, right-click, select the Freeze command and name the frozen Workspace.

Once frozen, the content of a Workspace is read-only and cannot be altered. A special icon identifies a frozen Workspace.

When you freeze a Workspace, TABELLIO doesn't copy all the documents. Instead, to optimize disk space, it uses pointers to existing T-doc versions in the database.

Query

Competing successfully means shorter time-to-market cycles. Productivity can be jeopardized by inconsistencies in file naming conventions and storage procedures. Time and money are often wasted searching for assets or working on the wrong version, yet despite the obvious benefits, digital asset tracking and retrieving are often overlooked in the production process.

TABELLIO's simple Query system lets you search for T-docs based on the file meta-information, or property, values. The 13 default and 8 user-defined properties provide almost innumerable possibilities for defining a Query. Once defined, you can save a Query for reuse.

How Tabellio Can Work for You

Here is how TABELLIO handles some typical scenarios faced by New Media producers:

- A manager has to **prepare production reports** for several teams.
Within minutes, using a Query based on user-defined properties, he produces a report that displays the entire team's output in a T-doc Map, with each member's output represented by a different color. The timeline makes production bottlenecks obvious. The manager can also extract the production information and export it to a spreadsheet.
- A **large interactive CD project** has multiple teams, each working on a different aspect of the project, such as music and narration, animation, scripting and some programming. Up to several hours per week are spent in production meetings at both team and project level to sort out production bottlenecks. Although all team member's presence is required, at any given time at least 75% of staff are not involved in the ongoing proceedings.
Using TABELLIO, the project leader has version control, asset management and productivity assessment all in one. He links individual Workspaces to a group Workspace, links the group Workspaces to a project milestone Workspace, and then links the project milestone Workspaces to a final project Workspace. The T-doc Map gives him project assessment at a glance and make the bottlenecks obvious in seconds, saving everybody's time. He can schedule shorter meetings with only those who need to be involved.
- An **off-site team member needs to synchronize** his work with the rest of the project. The team member connects to the TABELLIO server via the internet. As well, TABELLIO's Import utility makes adding files or Workspaces to the database easy.
- A **designer works alone, for numerous clients**. Whenever a client returns for a follow-up project, the designer has to dig through his archives searching for old files. He is frequently not sure that he has retrieved the right version.

- The Obliterate T-doc Content Only command frees up disk space but leaves the History, including the meta-information, intact. The Freeze Workspace feature makes version freezing for deliverables and backups a breeze.
- A **project supervisor asks for a file** created by a designer. Although the designer saved the file, time is wasted searching.
TABELLIO's automatic tracking and file storage retrieves the file in seconds.
 - A **designer needs to change some files**. However, another team member has already flattened the files in an inaccessible format. The designer spends hours redoing much of the original work.
TABELLIO tracks and stores every file that goes into a flattened file, in their original formats, so that retrieval and subsequent changes are only a click away.
 - A **graphic artist misses a project deadline**, because she had to take time to look for files she previously worked on for someone else.
TABELLIO file meta-information makes it easy for anyone to find a specific set of files at any time.
 - On a day when he is more rushed than usual, a producer suddenly realizes, that he has just spent **35 minutes working on the wrong version** of a document.
Synchronization of a team's production is easy with TABELLIO's implicit Version Control. TABELLIO labels each version of a file so that the history is clear, making selection a simple matter. With optional File Lock, you can further protect the current version by restricting access.
 - An **outside contractor** joins the team on a short-term basis. He does not have TABELLIO, and he needs access to various current and older versions of files.
TABELLIO always preserves files in their native formats. The Export utility moves documents out of the History Database while preserving the TABELLIO meta-information in a separate text file.

Tabellio Solution Pack

The TABELLIO SOLUTION PACK allows users to implement TABELLIO as quickly and painlessly as possible. The TABELLIO SOLUTION PACK includes a fixed number of TABELLIO software user licenses, a sector-specific project management MAM toolbox and a training seminar. Sobrio also offers extensive MAM consultation services. All of this is designed to give users what they want most: Freedom to create.

Tabellio and the Competition

Table 1 shows the key MAM industry players, listed by category. Only TABELLIO is specifically designed to meet the needs of New Media producers and managers.

Table 1: Key industry players, by category

Category	Player
Workgroup-level Asset Management	TABELLIO (Sobrio)
Traditional Version Control	PVCS (Intersolv) Perforce (Perforce Software) Visual Source Safe (Microsoft) Atria (Rational Software)
Cataloging	Alienbrain (NXN) Cumulus (Canto) Portfolio (Extensis) Mabango (Digital Graffiti)
Enterprise-Level Asset Management	Bulldog (Bulldog Software) Digital Library (IBM) Media Vault (EDS) Cinebase (Cinebase Software)) Documentum (Documentum)

Source: Sobrio, 2000.

Sobrio understands that highly trained staff, both managerial and creative, are also valuable corporate assets. Using expensive media creators and managers to perform basic file management and retrieval is a huge waste of resources — especially when the MAM task can be so easily automated with TABELLIO.

Sobrio's immediate goal is to provide the New Media industry with a transparent asset tracking tool for designers, and a powerful workflow asset management system for integrators, producers and asset and project managers. TABELLIO'S ultimate goal is to maximize asset reuse and re-expression, enhancing profitability and to provide features to substantially increase production workflow control.

As shown in Figure 1, TABELLIO is designed primarily to meet the unsatisfied needs of production teams. TABELLIO is specifically designed for creators working in smaller to mid-sized settings, those looking for a more affordable MAM solution that is also unobtrusive and easy to use. TABELLIO is a platform- and application-independent productivity and production tool for mid- and large-size creative firms.

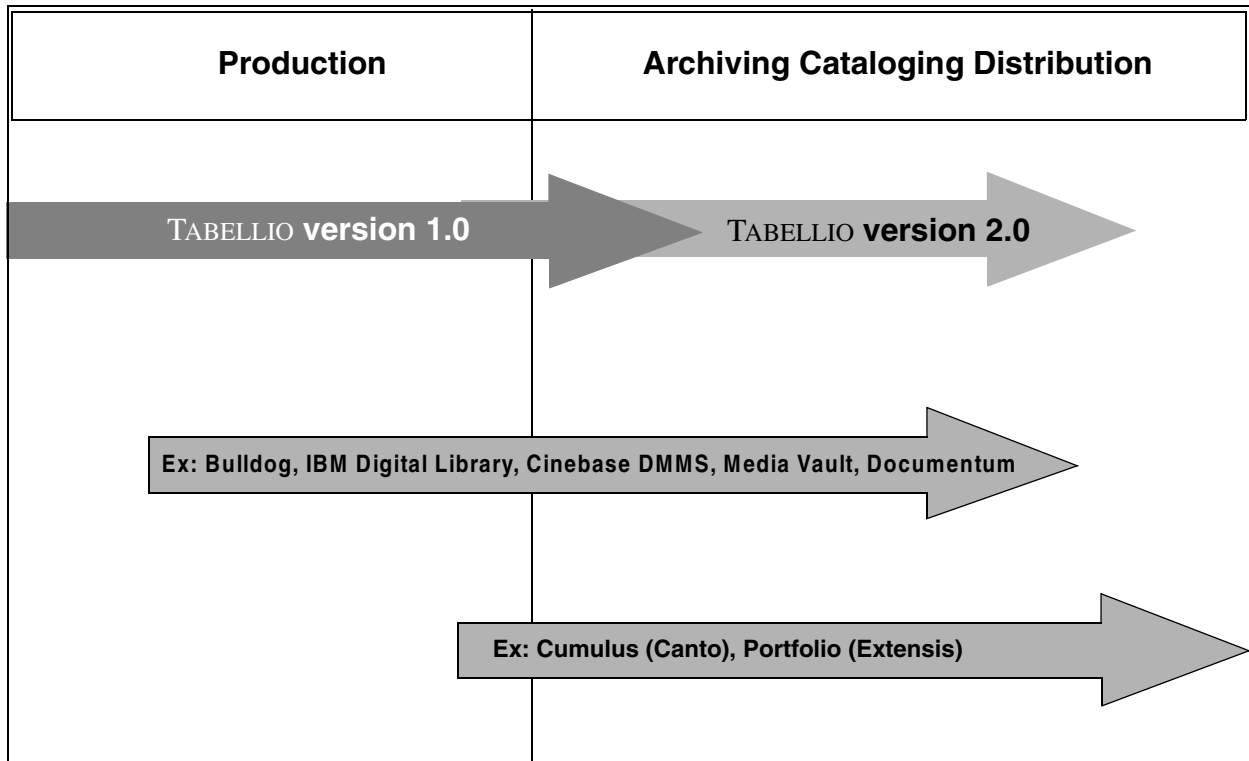


Figure 5. TABELLIO focuses on production workflow management

TABELLIO is an “easy-to-implement” tool with most of the production workflow features provided by enterprise-level solutions. Even in large creative companies projects are generally assigned to smaller teams, teams whose needs TABELLIO can fill.

Table 2 shows how TABELLIO’s features and price measure up against the competition. Only TABELLIO is specifically designed to meet the demands of New Media content creators and managers, and only TABELLIO offers the range of features most sought after by them.

Table 2: Product characteristics, by category

Characteristics	TABELLIO	Traditional Version Control	Cataloging	Enterprise Solutions
Typical Assets	Multimedia documents	Source code	Digital images and graphics	Business documents
Typical Number of Users (active, per database)	1-50	1-50	1-50	100+
Typical Storage Size	< 100 Gigabyte	< 10 Gigabytes	< 10 Gigabytes	> 1 Terabyte
Database Technology	Object-Oriented (open source)	Proprietary	File system	Relational database (SQL)
Version Control	Implicit	Check-in, Check-out	No	Check-in, Check-out
Email Notifications	Yes	Some	No	Yes
Automatic Capture	Yes	No	No	No
Attach Keywords To Assets	Yes	No	Yes	Yes
Workflow Control	Basic	None	None	Advanced
Archival (offline)	Yes	No	Yes	Yes
HTML Client	No	No	Yes	Yes
Web Catalog	No	No	Yes	No
Thumbnails	Planned (version 2)	No	Yes	Some
Special Needs				Full-time database administrator
Cost	Medium	Low	Low to medium	High

Source: Sobrio, 2000.

Product Specifications

The Spy

- Captures documents automatically as they are created or modified
- Adds meta-information (asset properties) automatically to captured documents
- Supports transparent and interactive support modes.

The Database

- Distributed object-oriented database
- Virtually unlimited storage capacity
- Supports all data types (including BLOBs) and data streaming
- Constant live, fail-safe backup
- Client-level caching that boosts performance and minimizes network traffic
- Seamless communication with all platforms.

The Viewer

- Interactive, multilingual, cross-platform (Java™) user interface
- Easy manipulation of documents using hierarchical and timeline graph views
- Advanced graph layout presents document dependencies logically
- Integrated version control functions with email notifications
- Document indexing based on meta-information
- Query subsystem
- Ability to import and export meta-information and documents in native formats.

Technical Requirements

TABELLIO Client (Windows)

- Intel-based Pentium-class PC, 166 MHz and higher
- Windows 95™ / Windows 98™ / Windows NT™ 4.0 (service pack 5 or later version)
- Min. 64 MB RAM, 128 MB recommended (RAM needed for TABELLIO and user applications)
- 30 MB Hard Drive installation space, plus sufficient storage space for your files
- TCP/IP networking.

TABELLIO Client (Macintosh)

- PowerPC-based computer, G3 and up
- MacOS™ 8.05 or later version
- Min. 64 MB RAM, 128 MB recommended (RAM needed for TABELLIO and user applications)
- 30 MB Hard Drive installation space, plus sufficient storage space for your files
- TCP/IP networking

TABELLIO Server

- Windows NT™ 4.0 (service pack 5 or later version), Windows 95™, 98™ or 2000™, and MAC OS X™.
- Minimum 64 MB RAM
- 30 MB Hard Drive installation space
- Hard Drive space for media resources varies depending on individual needs
- TCP/IP networking

Conclusion

The exponential growth in the New Media industry has led to a condition of digital asset overflow for many creative content producers at a time when asset reuse and re-expression are key factors in remaining competitive. Existing MAM systems are difficult and/or expensive to set up, administer and maintain. Moreover, frequently those systems do not meet the needs of project managers and creative content producers.

TABELLIO not only offers more of the most sought-after features needed by New Media project managers and content producers, it is also easy to set up and use. Setting up TABELLIO is as easy as deciding on a Workspace structure that suits your production environment. Automatic capture of content and meta-information means effective asset management with less effort for both users and administrators. TABELLIO, with its tools for project monitoring, Version Control and document retrieval, can save both time and money in developing New Media projects.

TABELLIO is totally application-independent and can handle any type of file or project. Design teams are free to create without having to stop to record information about dependencies or versions.

Valuable content is always safe and easily retrievable. Managers can review the progress of a project at any time, without having to search for buried files.

TABELLIO's thorough audit trail means easy access to documents, increased reuse, and a better return on asset investment.

The TABELLIO SOLUTION PACK provides the most advanced Media Asset Management available. It is a package of software and services designed specifically to facilitate the installation and implementation processes.