

# Learner Tools

## > Communication Tools

### Discussion Forums

The software enables participants to exchange ideas in ongoing threaded discussions. Topics and responses appear in structured, hierarchical format that can be sorted, expanded, and collapsed. Instructors set user permissions (view/create/edit/delete entries). Depending on permissions, participants can create new topics, new responses, and responses to previous responses. Instructors can create separate discussion environments for small and/or large groups. The Discussion tool includes print capabilities.

### File Exchange

The software supports two-way, asynchronous and real-time communications around shared files. Communication occurs via shared workspaces and/or instant messages. The shared workspace sits directly on a user's PC, not a website or centralized server. All application logic and data is stored locally on the desktop of each member of a shared space and is totally secure. This system enables live viewing and editing capabilities as well as offline exchanges.

Students and instructors can store, organize, view, edit, and share computer files in a familiar Windows Explorer-style environment. Instructors set permissions at the Files tool, file, and folder levels (add/modify/delete/view). Depending on permissions, students can create and arrange folders and sub-folders. Students can view common file types even if they don't have the supporting application and they can open any file, provided they have the application that supports it.

Depending on permissions, students/instructors can edit files online or offline and they can collaboratively view and edit Word files and display PowerPoint presentations in real-time. Saved offline changes are automatically synched with other members when participants reconnect. Instructors can preserve evolving stages of revisions made in and outside of class (by both individual students and by groups of students), as well providing archives for fair copy and finished work.

HTML files and information on the World Wide Web can also be leveraged within the context of a shared space. Instructors can assign a 'designated driver' in a shared space. Students can browse webpages in tandem with an instructor, together with other class members, or on their own. Software enables users to copy and paste links throughout the shared space, find new or changed favorites and save Internet shortcuts.

Image files (.jpg & .bmp) are also supported in a multi-page, album-style display environment. Using the sketchpad tool, instructors can mark-up images, add text to images. Depending on how instructor sets permissions, students can also collaborate on drawings and designs.

Groove supports mathematical and scientific symbols provided that the display fonts for symbols are available on the system in use. Groove cannot calculate or compute mathematical equations or scientific equations.

Instructors can use the Document Review tool as a way of initiating a review cycle for a single document or document set. They can initiate a document review cycle by adding files and selecting reviewers. Reviewers receive an instant message telling them they have been assigned a document review. Each reviewer works in their own review tab with the ability to add comments specific to any file they are reviewing. Reviewers' comments are rolled up into a common discussion area for all reviewers to see. Users respond to discussion items similar to the way they do in the Groove Discussion Tool. Marked-up files are added back to the tool in a special folder.

Instructors can manage the activities in a shared workspace using the Meetings tool. They can organize discussion topics and student participation before a shared workspace begins. They can also use it during a Groove session to document student learning and after a session to track student progress.

### **Internal Email**

The shared workspace is tightly integrated with Microsoft Outlook. Instructors and students can email groups and individuals, attach files, and spell check-outgoing messages. Message history includes print capabilities.

Currently, Groove Workspace uses email for shared space invitations and users have the ability to "send" Outlook and Notes email threads to a shared space. Groove leverages Outlook and Messenger contact lists, whereby users can send Groove invitations, using their Messenger or Outlook contact list within Groove. In addition, Groove invitations can be sent via Messenger from within the Messenger client or a Groove shared space.

A product developed by a Groove partner, Parallelspace email, will allow participants to have a fully functional email environment from within any Groove shared space--no more jumping back and forth between Groove and email programs. Personal email is kept private and not shared with other members of the shared space. Participants can send and receive email, view appointments, contacts, tasks, and journal items directly from within Groove client.

### **Online Journal/Notes**

Students can use the Notepad tool to create and edit plain and rich text documents. Instructors (or other students depending on permissions an instructor sets) can read, comment on and/or edit Notepad documents. The tool includes icons for easy text formatting (ie: font type, size and color, bulleted lists, paragraph alignment, indent/outdent. Notepad includes print capabilities.

### **Real-time Chat**

Regardless of a user's location, instructors and students can initiate an invitation for chat (an IM). Chats can be conducted one-on-one or with a group of people. Chat sessions do

not belong to a specific shared space. However, users can save a chat session anytime during an interaction, which becomes a space on their system. It is also possible to create a copy of a shared space. In terms of removing old documents automatically, this is not available out of the box but it can be easily added.

### Video Services

Like other browsers, Groove will allow users to see RealVideo and hear RealAudio. Currently, Groove does not have a video tool or live video as an internal product.

### Whiteboard

Users who own the Microsoft Tablet PC can make use of the Groove Ink Chat tool. Using this tool, instructors and students can write in their own handwriting directly into your PC using digital pen and ink. The Groove Ink Chat ensures interoperability with Groove users on standard Windows laptops and desktops.

## > **Productivity Tools**

### Bookmarks

Both instructors and students can create links between Groove tools as well as between Groove files and documents. Within Groove's Web Tool, users can navigate and bookmark websites, either individually or as part of a group learning activity.

### Calendar/Progress Review

The system includes a full-featured calendaring application which instructors can use to create and display their syllabus and course learning activities. Instructors can schedule learning activities & projects for everyone in the space or for small groups, setting permissions for each. They can copy and paste links to specific assignments or activities. Students can view learning activities by day, week and month and import and export single events or entire calendar with other shared space calendars. The calendar is compatible with Outlook's Calendar tools.

Existing in the shared workspace environment, the Calendar tool enables the possibility of an evolving course plan. Instructors can modify, expand on or explain elements of the course as need arise. Students can add their own suggestions as well.

### Orientation/Help

Groove Networks Online Support, available to all Groove customers, offers a support environment on the Web for both users ([www.groove.net/support/](http://www.groove.net/support/)) and developers ([www.groove.net/devzone/](http://www.groove.net/devzone/)). The searchable knowledge base, tech notes, and public forums (monitored by Groove's tech support experts) provide technical help and product information resources.

Groove Networks also offers four different Support Center options. They include the:

- Groove Incident Support, offering phone support on a per incident basis.
- Groove Standard Support, offered as part of Enterprise Assurance, including unlimited 13X5 email and phone support for designated customer contacts.
- Groove Gold Support, adding a 24X7 emergency response service to the Standard Support program.

-Groove Platinum Support, including all of the elements in the Standard and Gold programs, plus dedicated technical support resources and 36 hours of on-site mentoring.

### Searching Within Course

Currently, Groove does not have any search capabilities but they plan to include a search function for future versions.

### Work Offline/Synchronize

All content, activities and gestures made by any members of a shared space are immediately duplicated on the desktops of the other members and are encrypted over-the-wire. Because Groove runs locally on the desktop, all users maintain full access to all content and functionality while offline. When a user reconnects, Groove's relay capabilities automatically ensure everyone is synchronized and up-to-date.

## > **Student Involvement Tools**

### Groupwork

Groove Workspace facilitates the formation of spontaneous groups, as well as formal group project work. Because it is "always on", student teams can collaborate when it's convenient — in real-time or at different times.

Students can use the Outliner tool to support group work. It is a tool designed to facilitate open-ended brainstorming and joint-decision making. Users can post ideas on the fly, then order and re-order them hierarchically as the group's vision solidifies. This tool may be useful for coordinating collaborative projects.

Students can also employ the Project Manager tool that enables groups to create tasks, prioritize them and assign them to individual members. They can update the status of each member's activities to track group project progress. Instructors can either create group project templates or save students' project spaces as templates for future groups.

### Self-assessment

Instructors can create self-assessments using the Forms tool described below.

### Student Community Building

Students can create informal workspaces as they desire. Instructors can also formalize this process, grouping students in small workspaces, with assignments for community building.

### Student Portfolios

Groove does not currently support the creation of personal homepages. However, in combination with a Microsoft SharePoint server, such functionality could be achieved.

## Support Tools

### > **Administration Tools**

#### Authentication

Groove software automatically handles user public/private key creation, distribution and maintenance, end user authentication, and 192-bit encryption of all content and activity stored locally on disk and traveling across a network. Since security is built in as a platform service, it does not impose the additional costs associated with centralized administration and management of certificates or encryption keys.

### Course Authorization

There are three levels of access to a Groove space: manager, participant and a guest. A manager has full access. Participants are set by default to be able to create and delete their work. Guests are usually set to read but not write. Permissions for access can be set on a space level or by tool. For instance, the manager of the space can limit students from writing in one tool but allow them to have full access in another.

### Hosted Services

Groove Hosted Services (including Hosted Relay Services and Hosted Management Services) provide IT administration tools for supporting the full range of Groove decentralized capabilities within a managed, protected computing environment.

Groove Hosted Relay Services support a number of key Groove capabilities, including presence services, offline support, bandwidth optimization and firewall transparency. Groove relay features are available both as a hosted service and as on-site servers.

Groove Hosted Management Services allow enterprises to manage the distribution of Groove software identities and licenses, to set security policies for users and devices, and to monitor the usage of Groove software in their management domains. Groove management features are available both as a hosted service and as on-site servers.

### Registration Integration

Administrators can batch add students to a workspace, and instructors can edit these additions? Groove can be connected to registration and can create and mail invitations to students who are registered in a course. The instructor has manager access to change and adjust things as needed.

## **> Course Delivery Tools**

### Automated Testing and Scoring

Instructors can create custom forms and table-style views for collecting and sharing information. Forms Manager Wizards exist for common testing tasks.

Available field types include rich text, number, date, currency, check box, drop down list, and more. All instructors can also create custom forms as needed, using HTML, scripting languages and macros and importing/exporting with other applications (Professional Edition only).

### Course Management

Instructors can set up assignment and test schedules in Groove shared spaces using the Project Manager Tool. Using the Manager Wizard, instructors can set up individual and

shared learning activities. For learning activities in which all students are expected to participate, instructors can assign a name, leader, start date and learning objective. With some customization, they can selectively release materials based on specific start and end dates. Instructors can also create prerequisite assignments. Instructors and students have the ability to create course progress reports and print them.

PinBoard is a flexible tool allowing Groove Workspace users to share a notice board. PinBoard, like a physical noticeboard, lets instructors 'pin' notes on the board for everyone else to see. They can move notes around, re-size them, and choose different backgrounds. PinBoard also lets instructors set 'alarms' -- custom alerts that notify shared space members of events, to-do's, and exams -- and create 'quick polls' for conveniently collecting your students' opinions on a topic.

For more formal participatory decision-making, FlexiVote allows control over the opinion gathering process and the visibility of results with Open, Blind, Private and Secret options. The open poll lets students see results before voting, in a blind vote students must vote first, but can see all details. In private poll students see results but not how other people voted. In a secret vote only the instructor can see results and voting pattern.

### **Instructor Helpdesk**

Technical support is available in the form of Incident Support with the Course Option's Honors Kit. The Campus Option includes access to Groove Standard Support via the Groove Support Center. For a Groove Standard Support description, see <http://www.groove.net/support/options.html>.

### **Online Grading Tools**

Groove has a development kit where any developer can create any number of tools to fit an instructor's needs, including on-line grading tools.

### **Student Tracking**

The Dashboard Tool, only available in Groove Workspace Professional Edition, offers a private view of a both individual student's and small groups' pending discussions and assignment items. With customization, instructors can see number of times students join space and the time they spend in a space. ; they can also send automatic notices and warnings to students if they are not meeting the set requirements.

## **> Curriculum Design**

### **Accessibility Compliance**

Does software comply with Section 508 of the Rehabilitation Act by supporting Window-Eyes and JAWS screen readers? Is it usable with assistive technologies?

### **Course Templates**

Currently, Groove does not have plans to build specific course templates. However, will provide training or consulting to help users build templates.

## [Curriculum Management](#)

## [Customized Look and Feel](#)

## [Instructional Design Tools](#)

Groove offers a developer tool kit and training courses to teach users how to design and develop their own tools.

## [Instructional Standards Compliance](#)

# Technical Specifications

## > **Hardware/Software**

### [Client Browser Required](#)

The Groove Workspace sits directly on a user's PC, not a website nor centralized server. All application logic and data is stored locally on the desktop of each member of a shared space and is totally secure. All content, gestures and activities in Groove are captured for local storage in the Groove XML object store. Each member of a shared space maintains a local copy of the space. Groove software synchronizes the contents of each copy with all other members' copies for the duration of the shared space. Even if some members of a shared space are never on at the same time, all members can be assured of seeing up-to-date information when they return to the space.

### [Database Requirements](#)

Groove Workspace currently supports Windows XP, Windows 98, Windows ME, Windows NT 4.0 (Service Pack 5 or greater) and Windows 2000.

Groove is currently "Designed For (Optimized For)" Windows XP and will be rolling out future enhancements to further optimize Groove for the Windows XP experience. Features to date include implementation of XP optimized icons, fast user switching, integration with Messenger and support for XP visual styles and more. Groove also supports Passport single log on, which means that your Groove account is associated with your Passport account. Future enhancements will be developed to ensure that all Windows XP best practices are met in the Groove platform.

### [Server Software](#)

The Groove platform provides system-level services that are woven into any Groove application or solution, incorporating peer interaction while minimizing development complexity. All Groove communications and content can be shared directly and in real-time, as well as offline. Groove also enables developers to create applications without dealing with network complexity or imposing configuration tasks on end users.

All content, gestures and activities in Groove are captured for local storage in the Groove XML object store.

## > **Pricing/Licensing**

### [Company Profile](#)

Ray Ozzie founded Groove Networks in October 1997. Ray is best known as the creator of Lotus Notes, the world's leading groupware product with more than 75 million users worldwide. Groove Networks is a privately held company headquartered in Beverly, Mass. The company currently sells its products and services through a direct sales force with offices throughout the United States and in Europe. Since its founding, the company has obtained more than \$155 million in financing from Accel Partners, Microsoft® Corporation, Intel Capital, and private investors.

Groove U offers a low-cost license program for higher education institutions. Groove U enables professors and administrators to harness the power of Groove Workspace on a course-by-course basis, throughout a department, or across the entire campus — with little to no administrative overhead and at very low costs. All you need to do is decide whether you want to adopt Groove Workspace for your course, your department or your entire institution.

The Course Option offers perpetual licenses, and enables professors to make Groove Workspace available to students as if the software were a textbook. The Campus Option has annual license terms, meaning your institution is licensed to use Groove products and services for a 12-month period. With the Campus Option, you're licensed for all updates and upgrades of the software during the subscription term.

Every year, your institution can renew the Campus Option agreement. Otherwise, hosted and support/upgrade services will be discontinued upon contract expiration, and software licenses will be revoked. If neither the Course nor Campus Options meet your needs, a la carte software product discounting for academic institutions and students is also available.

With the Campus Option, license codes are issued to students, and identity codes to faculty and staff, electronically via Hosted Management Services or the Enterprise Management Server. For details on other student software distribution options, see <http://www.groove.net/legal/licenses/education.html>

Groove Workspace users are permitted to use their one Groove account on up to five devices. That is, only one Groove Workspace license is required and installable on up to five devices. However, users can create an unlimited number of identities per account.

### Costs

Groove U offers specific pricing plans for purchases at the course, department and campus levels. Students can also take advantage of discounts on individual licenses. Please contact [sales@groove.net](mailto:sales@groove.net) for pricing details.

### Open Source

Central to Groove Networks platform strategy is the recruiting and nurturing of a broad and diverse community of partners and developers. Groove users can access not only core tools and platform functionality, but also a growing community of ISV's, systems integrators, solutions providers, consulting organizations, and independent developers.

The Groove platform is secure, extensible and built on open standards for ease of development and integration. Groove software is based on Microsoft's Component Object Model (COM) specification and includes support for .NET based technologies. It allows developers to leverage Groove technology using familiar language, including VBNET, C#, C++, JavaScript and Perl. Groove supports existing and emerging industry standards including http, UDP, TCP/IP, for communications, XML as an encoding scheme for both local storage and on-the-wire data, SOAP and XML-PPC for application interoperability, multiple COM compliant scripting and programming languages, MIME/MHTML for handling messages with multiple data types; vCard for identity and contact management; and Open Software Description (OSD) utilized by component services to describe software components, their versions, underlying structure and relationships to other components.

### Optional Extras

Decentralized computing is not mutually exclusive of traditional server-based or centralized IT solutions. The platform design enables developers to integrate with center-based systems. With the Groove Enterprise Integration Server, authorized members of Groove shared spaces can securely access, share and work with the data residing in a company's centralized server-based business systems (e.g., transaction, CRM, PRM). The platform employs server-based bots that allow developers to automate processes associated with data residing in centralized systems.

For grant proposals where several faculty members are responsible for distinct parts of a document, WorkSmith™ (a product developed by a Groove partner) allows many authors to be editing the same RFP at the same time. The software allows individuals to simultaneously work on the sections of an RFP that they are responsible for without interfering with others. Team members can see which sections others are working on at any time.

Using Groove as the underlying connection, everyone is guaranteed to have the same version of the document. If users work offline, they can lock sections of the document and the next time they connect to the Internet all their new changes will be merged with the other team members.

“Out of the box”, current Groove tools do not have archiving capabilities. Users can create archiving capabilities in any of the tools they choose to use. Groove does have backup capabilities.

### Software Version