

Serf[®] Instructor Guide



Version 4.0

by

Fred T. Hofstetter

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Introduction

Welcome to Serf! You are entering an educational environment that unleashes the power of the World Wide Web for delivering instruction, creating information portals, and improving communications among instructors and students. Before you begin creating your first course or channel, however, you need to understand the hierarchy of user types that exist in the Serf environment. There are five kinds of users in Serf:

1. *Serf Sysadmin*. At the top of the hierarchy is the Serf sysadmin, which stands for system administrator. The sysadmin is in charge of running the Serf server, making periodic backups of the work done by instructors and students, and troubleshooting any problems that may arise. Every Serf server must have at least one sysadmin.
2. *Administrator*. The administrator creates the resources with which instructors and students work. These resources include portals, rosters, calendars, syllabi, rooms, and styles. The administrator creates courses or channels by linking these objects together and assigning them to an author or instructor. For institutions with a small staff, it is possible for the Serf sysadmin also to function as the administrator. At larger institutions, the sysadmin can create several administrators to assist in the creation and monitoring of courses and channels.
3. *Instructor*. The instructor is the person to whom the administrator will have assigned the responsibility for teaching a course or authoring a channel. Depending on the options chosen by the administrator, the instructor will normally be able to create and edit the course or channel syllabus, add and modify dates on the course calendar, adjust the style parameters that control the on-screen appearance of the course, and add or drop students from the roster. The instructor also has access to the course gradebook, which is used to monitor student progress, grade assignments, and compute final grades.
4. *Teaching Assistant*. Each course can have one or more teaching assistants. The teaching assistant helps the instructor communicate with students, grade assignments, and maintain the course roster. In practice, however, smaller courses tend not to have teaching assistants.
5. *Student*. Last in the hierarchy but certainly not least in terms of importance is the student or end user. The student side of Serf is where all of the options described above combine to create a unique and powerful way of exploring, discovering, and constructing knowledge over the Web.

As you can see from this list, you, the instructor, are in the middle of the hierarchy. In terms of organizing and presenting instructional events, interacting with students, and assessing performance, you are in many ways the most important part of the process. Serf has been designed to make your role enjoyable, efficient, and effective.

When a user logs on, Serf checks the database to determine what role the user plays in the Serf hierarchy. When a student logs on, for example, Serf displays a very simple screen containing the student options. When a system administrator logs on, on the other hand, Serf displays a more comprehensive screen consisting of many more options. You should be happy to know that when you log on as an instructor, you will get a set of instructor options that have been specifically designed to make the role of the author easy to learn and pleasurable to fulfill.

Serf Instructor Options

When an instructor logs on, Serf presents a screen similar to the one shown in Figure 1. Depending on the Serf style parameters in use at your institution, some of the icons and logos may differ. All instructors get the same control panel, however, which has five columns: Syllabus, Student Views, Administrative, Personal Calendar, and System.

Serf® Microsoft Internet Explorer

File Edit View Favorites Tools Help

chatroom e-mail listserv newsgroup options index search EXIT log out

Internet Literacy

Serf Instructor Options

You are working on the course HEPP-433-194-03S: Internet Literacy.

Syllabus	Student Views	Administrative	Personal Calendar	System
Edit	Current Class	Gradebook	Daily	Logout
View	Brief Index	Roster	Weekly	Password
Brief Edit Index	Detailed Index	Export	Monthly	CD-ROM Setup
Detailed Index	Preamble	Upload	Add Event	Register E-mail
Edit Calendar	Assignments	Backpacks	Delete Event	Send E-mail
Edit Style	Switch Courses	Affinities	Change Event	Discussion Forums

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Figure 1. When an instructor logs on, Serf displays the Instructor panel, which contains five columns of options.

Column 1: Syllabus Options

Instructors use the options in column 1 of the control panel to create, view, and edit the course syllabus and calendar, and to edit the style that determines how the information will appear on screen.

Column 2: Student Views

The student views let the instructor see how the course will appear to the student. At any time during course creation, the instructor can inspect one of the student views to see the course through the eyes of a student. If the instructor is teaching more than one Serf course, the Switch Courses option enables the instructor to switch courses. The control panel options always apply to the current course, which is identified in the line immediately above the control panel, where Serf says what course or channel the instructor is working on.

Column 3: Administrative

Column 3 of the control panel provides the instructor with administrative options. These include the gradebook, with which the instructor inspects the student's work and assigns grades, and the roster, to which the instructor can add or drop students. The export option lets you make local copies of course components, grades, and student records. The upload feature lets you transfer to the Serf Web site computer files containing text, graphics, audio, and video for use in your courses.

Column 4: Personal Calendar

Every Serf user has a personal calendar that you can use to keep track of important dates and reminders. The Personal Calendar options enable you to see daily, weekly, or monthly views of your personal calendar, and add events, change, or delete events from the calendar. Please note that your personal calendar is different from the syllabus calendar in column 1. Personal dates do not appear on the syllabus calendar; neither do syllabus dates appear on your personal calendar.

Column 5: System

Every Serf user gets the system options displayed in column 5. These options enable you to log on and off and change your password. You can register your e-mail address and send e-mail to any member of the class or channel. The Discussion Forums let you create online discussions and control which members of your class can access them. You can also set up your CD-ROM or DVD drive for use as a multimedia resource in support of a course. This CD or DVD feature, which is described fully in the CD-ROM section of this manual, is optional; you do not need to use CD-ROM or DVD in order to create and deliver courses with Serf.

Authoring Courses with Serf

In Serf, a course or channel consists of the combination of a syllabus with a calendar, a roster, and a style. The syllabus, calendar, roster, and style are objects, which Serf combines to create courses. The syllabus object contains the instructional events that will be presented in the course. The calendar object determines when these events will occur. The roster object lists the students who can log on to the course, and the style object determines how the course will appear onscreen. Because Serf creates courses by combining objects, Serf is an object-oriented authoring environment.

Object orientation provides you with more flexibility than you would have if you put everything into the same structure. Keeping the dates in calendar objects instead of typing them into the syllabus, for example, enables you to use the same syllabus to teach courses that begin and end at different times. Instead of having to retype your syllabus at the beginning of the next academic term, you can simply attach a different calendar object, and all of the events on the syllabus will inherit dates from the new calendar. If this sounds complicated, just read on, and you will soon see how easy it is to create object-oriented courses with Serf.

Creating and Editing a Syllabus

A syllabus is an ordered list of the instructional events that occur in a course or channel. Figure 2 illustrates the kinds of events that can occur on a Serf syllabus. Before you begin inserting events into your course syllabus, you should reflect on the function each kind of event plays on a Serf syllabus.

Textual Content (adds text to the current cluster)
Class title (starts a new class cluster)
Generic title (starts a new generic cluster)
Preamble title (starts a new preamble cluster)
Multimedia graphic (adds content with a graphic icon and link)
Multimedia movie (adds content with a movie icon and link)
Multimedia sound (adds content with a sound icon and link)
Multimedia Web site (adds content with a Web site icon and link)
Include file (adds content from a file)
Observational assignment
Web portfolio assignment
Web query assignment
Submit file assignment
True/false question
Multiple choice question
Fill-in-the-blank question
Image map question
Short answer question
Slider question (Likert scale)
Examination (launches a test)
Strand (launches a tutorial module)
Diagnostic (launches a self-assessment)
Survey (administers a questionnaire)
Externally scored object (launches an externally graded process)
Ungraded external process (does not return a score)
Table (adds content with customizable screen layout)
Control panel (creates a customized control panel)
Menu bar (replaces or augments the current Serf menu bar)
Banner (replaces or augments the current banner)
Trailer (replaces or augments the current trailer)
Left Sidebar (replaces or augments the default left sidebar)
Right Sidebar (replaces or augments the default right sidebar)
Ticket office (lets visitors register for a logon)
Database viewer (lets users view or edit data)
Search form (lets users find information)
Logon form (lets portal users log on)
Logout form (lets portal users log out)

Figure 2. Kinds of Syllabus Events.

Kinds of Events

The three Title events (Class Title, Preamble Title, and Generic Title) create new sections in the syllabus. Each Class Title event that you put on the syllabus begins a new class. Preamble Titles create information that gets presented if the student logs on prior to the scheduled beginning of a course. Generic events create logical subdivisions that can occur either during a class or during the preamble. End users get Next and Back buttons to navigate through subdivisions created by Generic events.

Within each section of a syllabus, you insert the appropriate kinds of events. If you create a Preamble Title called *Computer Logistics* for example, you would follow that by inserting one or more textual content items providing the computer logistics information. Class Titles are the most significant category because they key to dates in the calendar. Each class must begin with a title. Following the title there can be textual content items, multimedia resources, questions, and assignments.

There are four kinds of assignments that an instructor can insert on a syllabus:

- *Web Query*. The Web Query assignment lets you ask an open-ended question directly on the syllabus. The student answers the question by typing a response into an answer box provided on screen.
- *Submit File*. The Submit File assignment enables you to assign students to create on their personal computer any kind of computer file (such as a graphic, a word-processed document, or a spreadsheet) and submit the file for a grade. Serf uploads the file from the student's computer and stores it in the submit file space on your Serf server, to which the instructor can log on and grade the assignment over the Web.
- *Web Portfolio*. Use the Web Portfolio assignment when you want students to submit the URL of a Web page, to which you will assign a grade. You can grade student-created Web pages, for example, or you can assign students to go out and find things on the Web and submit the URL of what they found. In a cooperative learning environment, you can have each student record their contributions to a group project by logging their work at a personal Web page.
- *Observational*. Insert an Observational assignment when you want to grade something the student is not going to submit over the Web. The Observational assignment is so-named because you will be basing your grade on some activity that you will be observing, such as class participation.

In addition to inserting assignments, you can also ask test questions directly on the syllabus. Question types include true/false, multiple choice, fill-in-the-blank, image map, short answer, and slider (*i.e.*, Likert scale). Since it is more likely, however, that you will want to ask test questions as part of an exam, test questions are not covered in this part of the *Instructor Guide*. Toward the latter part of this manual, in the section on creating and editing examinations, you will learn all about administering exams.

Inserting Events

Now that you understand the different kinds of events that can occur on a Serf syllabus, you are ready to find out how easy it is to create these events. If you are not already logged on to Serf, please log on now. The Serf Instructor panel will appear. To insert an event on your syllabus, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column.
- Serf will display the Edit Syllabus form. If Serf tells you that you are not permitted to edit the syllabus for this course, someone owns the syllabus. See your Serf system administrator if you think you should be permitted to edit the syllabus.
- The Edit Syllabus form consists of a series of wide, rectangular boxes. Each box represents an event on the syllabus. If you are editing a brand new syllabus that doesn't have any events in it yet, there will be just one box, which will appear as shown in figure 3.



Figure 3. An empty syllabus edit box.

- Notice how the box contains options to Insert, Edit, Move, Delete, and Copy. To insert an event, click the Insert option. Serf will display the Insert Syllabus Event form shown in Figure 4.
- The form tells you to use the menu to choose the kind of event you want to create. The choices are: textual content; class title, generic title, or preamble Title; multimedia graphic, movie, sound or Web site; observational, Web portfolio, submit file, or Web query assignment; and true/false, multiple choice, fill-in-the-blank, image map, short answer, and slider questions.
- Choose the kind of event you want to create, and then click the Create button.

Figure 4. The Insert Syllabus Event form.

Depending on the kind of event you chose, Serf will provide you with a form to fill out in order to create the event. As illustrated in Figure 5, the form is self-documenting.

In the following field, enter the heading or title that will identify this event in the index.
Leave this field blank if you do not want the event to appear in the index.

Enter the block of text that will appear on screen to provide the content for this event. The text may contain HTML tags.

In what format do you want this content to flow onto the screen?

Plain text (preserves carriage returns)
 Preformatted (preserves all formatting)
 HTML (ignores carriage returns)

Do you want the title to appear in the left column alongside this item, or would you like this item to fill the screen with no column on the left?

Display the Title Column Fill the Screen

Check the tracking box if you want student progress logged for this event.

Tracking

Click the Insert button to insert this item, or scroll down for other options.

Figure 5. Fields and options used in creating syllabus events.

Depending on the kind of event you are creating, the form will contain fields asking you to supply the following information:

- *Heading or Title.* Enter the heading, or title, that will identify this event. What you type here will appear on the syllabus and in the course index. Keep the title short. If you leave the title field blank, this event will not appear in the course index, but it will still appear on the syllabus.
- *Optional Block of Text.* In the large edit box, you may enter a block of text that will appear on the syllabus next to the heading of this event. There are three kinds of events, however, for which the text block is not provided, namely, Class titles, Generic titles, and Preamble titles, which do not use text blocks.
- *Formatting.* The default is HTML, which ignores carriage returns. If you want your carriage returns preserved so you can format your text without using HTML, choose the Plain Text option, which preserves carriage returns. If you want all of your formatting preserved, choose the Preformatted option, which will display the text in a mono-spaced font.
- *Fill-the-Screen.* By default, the title you give the object will appear on the student's screen in a header column alongside the content you provide. If you want your content to fill the screen, however, you can click the option to fill the screen.
- *Tracking.* All of the events except for titles and written assignments have a tracking box that you can check. If you check the tracking option, the student will get a tracking box displayed along with this event, and Serf will ask the student to check the box when the student has completed the event. The instructor can inspect the status of the check boxes to track student progress in the course. You should not overuse this feature, however, because the syllabus can become overly cluttered with checkboxes. Use this only for an event you really want to track.
- *Weight.* Assignments have weight settings. If you want the assignment to count toward the student's grade in the course, pull down the weight menu to indicate how much this event will count. Serf will sum all of the weights, compute the relative weight of this event, and use the relative weight in computing the student's final grade in the course.
- *Days Allowed.* If you want to set a time limit for the completion of an assignment, pull down the menu and choose the number of days the student may work on the item. Serf will warn the student that the assignment is late if it does not get submitted on time.
- *Gallery.* If you want students to be able to see the assignments submitted by their classmates, use the Gallery menu to select the kind of gallery you want. Options on the gallery menu include letting students view assignments only, or assignments with grades and/or instructor feedbacks. There is also an option to make the gallery anonymous, if you do not want student names identified.

When you are done filling out the form, click the Submit button. If Serf detects any errors on the form, you will get a friendly message explaining how to correct the problem.

Figure 6 shows an example of a syllabus that is being created by an instructor, and figure 7 shows how the events will appear on the student's screen. If you compare figures 6 and 7, you will see how the class items and assignments get displayed beneath the class titles.

Tip: When you create instructional events on a Serf syllabus, try to resist the temptation to copy huge blocks of text into the text boxes. Instead of swamping the student with long narratives, it is better to organize your instruction into small chunks. Think modular, and present the instruction in short steps that progressively lead to mastery of the material.

The screenshot shows a Microsoft Internet Explorer window titled 'Serf@EditSyllabus:109'. The browser's menu bar includes 'File', 'Edit', 'View', 'Favorites', 'Tools', and 'Help'. The main content area is titled 'Editing Syllabus' and 'Advanced Web Design'. At the top, there is a navigation bar with links: 'Jump back | 1 | 2 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | to the beginning | Brief Index | Detailed Index | Modules | Translations'. Below this, there are five syllabus entries, each with a menu bar ('Insert | Edit | Move | Delete | Copy | Paste') and a set of attributes (e.g., '109 | Weight=0 | Deadline=0 | EventID=4252').

Practicum III **Class 13: Mon 12 May 2003**

Final Logs This is the third and final time in this course that you are being asked to submit your project logs to be reviewed by your instructor. The next item on this syllabus prompts you to submit your final set of project logs.

Contributions III Students record the contributions they make this week toward accomplishing the project's goals.

Finale **Class 14: Mon 19 May 2003**

Group Project Final versions of portfolios and projects must be mounted on the Web for Dr. Hofstetter to review and grade.

Postscript It may sound trite to say that although this is the end of the course, it's only the beginning of your involvement with advanced Web creation. Reflect on this. In 1997, online course delivery was about a \$700 million industry. It's projected that within ten years, that industry will grow to \$11 billion annually. This is just one example of the kinds of opportunities you will be presented as the twenty-first century ushers in the information economy. There are going to be a lot of opportunities, and you're now poised to take advantage of them. Whatever you choose to do, do it well, and enjoy!

Figure 6. A syllabus created by an instructor using the Serf syllabus editor. Compare this to Figure 7.

Serf@ViewSyllabus - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Practicum III Class 13: Mon 12 May 2003

Final Logs This is the third and final time in this course that you are being asked to submit your project logs to be reviewed by your instructor. The next item on this syllabus prompts you to submit your final set of project logs.

Contributions III Students record the contributions they make this week toward accomplishing the project's goals.

*	This is a Web Portfolio assignment. Click Submit when you are ready to submit it.
🔗	This counts 10 points (10%) toward your grade in the course.
👁	This assignment has a gallery, you can go to the gallery to see what your fellow classmates have submitted.

Finale Class 14: Mon 19 May 2003

Group Project Final versions of portfolios and projects must be mounted on the Web for Dr. Hofstetter to review and grade.

*	This is a Web Portfolio assignment. Click Submit when you are ready to submit it.
🔗	This counts 33 points (33%) toward your grade in the course.
👁	This assignment has a gallery, you can go to the gallery to see what your fellow classmates have submitted.

Postscript It may sound trite to say that although this is the end of the course, it's only the beginning of your involvement with advanced Web creation. Reflect on this. In 1997, online course delivery was about a \$700 million industry. It's projected that within ten years, that industry will grow to \$11 billion annually. This is just one example of the kinds of opportunities you will be presented as the twenty-first century ushers in the information economy. There are going to be a lot of opportunities, and you're now poised to take advantage of them. Whatever you choose to do, do it well, and enjoy!

You are working on the course EDUC-885-010-03S: Advanced Web Design.

Syllabus	Assignments	Calendar	E-Mail	System
Current Class		Daily		Logon
Brief Index	Inspect	Weekly	Instructor	Logout
Detailed Index	Submit	Monthly	Assistant	Password
Preamble	Grades	Add Event	Classmate	CD-ROM Setup
Search		Delete Event	Register	Switch Courses
View Complete		Change Event		Discussion Forums

Figure 7. How the student will view the instructional events listed in Figure 6.

Editing Events

After you enter a few events onto your syllabus, you will undoubtedly encounter situations in which you want to modify the content of an event. You might want to correct a grammatical error, for example, or update some old information. To edit an event on your syllabus, follow these steps:

- If the syllabus event you want to edit is not visible on your screen, click the Detailed Index option in the Syllabus column of the Instructor panel; when the index appears, as illustrated in Figure 8, click the title of the event you want to edit.
- The event will appear inside a wide box containing options to Insert, Edit, Move, or Delete the item. To edit the event, click the Edit option.
- The Edit Syllabus screen will appear, presenting you with the same form you used to create the event in the first place. This time, the form is filled out with the information for this event.
- Follow the onscreen instructions to make any changes you desire.
- Click the Edit button to record the changes.



Figure 8. The index provides a quick way to find the event you want to edit on your syllabus.

Tip: Do not be afraid to experiment when you learn how to use Serf. It is so easy to edit events on the syllabus that you can quickly try things out and see how they will appear on screen.

Moving Events

No matter how well you plan your syllabus in advance, you will inevitably encounter the need to move things around on your syllabus. Serf uses a pull-down menu to make moving events easy. To move an event on a syllabus, follow these steps:

- If the syllabus event you want to move is not visible on your screen, click the Detailed Index option in the Syllabus column of the Instructor panel; when the Index appears, click the title of the event you want to move.
- The event will appear inside a wide box containing options to Insert, Edit, Move, or Delete the item. To move the event, click the Move option.
- When the Move Syllabus Event form appears as illustrated in Figure 9, pull down the first menu to reveal the titles of all the events on your syllabus, and select the event in front of which you want to move this event.
- If you want to move more than one item, use the second menu to tell Serf how many items to move.
- Click the Move button when you are ready to make the move.

You have asked to move the event entitled
Defining the Internet.

Pull down the menu and choose the event that you want to move this one in front of.

36: How the Internet is Changing the World

If you want to move a block of consecutive events along with this one,
use the following menu to tell Serf how many items to move.

Move 3 including: Topics

Press the Move button when you're ready to make the move.

Move

Figure 9. The Move Syllabus Event form.

Tip: As your syllabus grows longer, Skip Ahead and Skip Back options will begin to appear at the top and bottom of your screen. Use the Skip options to move forward or backward in your syllabus, or use the index to jump to a specific event.

Deleting Events

If you need to delete an event from your syllabus, follow these steps:

- If the syllabus event you want to delete is not visible on your screen, click the Detailed Index option in the Syllabus column of the Instructor panel; when the Index appears, click the title of the event you want to delete.
- The event will appear inside a wide box containing options to Insert, Edit, Move, or Delete the item. To delete the event, click the Delete option.
- There is no “Undo” option, so make sure you really want to delete the event before you click the Delete button. If you accidentally delete something you need to restore, click your browser’s back button until you come to the screen displaying that event, use your mouse to select the information, and use your browser’s Edit menu to copy the selected text to your clipboard, from which you can paste it back into your syllabus on the syllabus Insert option.

Copying and Pasting Events

To speed course development, Serf has a copy-and-paste feature that lets you copy one or more syllabus events, and then paste them somewhere else in the current syllabus. You can even copy events from one syllabus to another, if you are authoring more than one course or channel. To copy and paste syllabus events, follow these steps:

- If the syllabus event you want to copy is not visible on your screen, click the Detailed Index option in the Syllabus column of the Instructor panel; when the Index appears, click the title of the event you want to copy.
- The event will appear inside a wide box containing options to Insert, Edit, Move, Delete, or Copy the item. To copy the event, click the Copy option.
- A dialog box will appear on screen asking you how many events you want to copy. Follow the onscreen instructions to copy the events.
- To paste the events into your syllabus, use the Detailed Index to go to the point in the syllabus where you want to paste them, and click the Paste option at the point where you want the copied items to be pasted. Please note that the items will be pasted right *before* the event in which you click the Paste option.
- To paste the events into a different syllabus, click the Switch Courses option in the Instructor panel, choose the course you want, then use the Detailed Index to go to the point in the syllabus where you want to paste the events, and click the Paste option.

Creating and Editing a Calendar

A calendar provides dates for the instructional events on a syllabus. When Serf displays the syllabus for a course, Serf looks to that course's calendar to find out what dates to present each class. When the syllabus is complete, there should be one class title for each class date on the calendar. If you create more classes on your syllabus than there are dates on your calendar, Serf will warn you that you created more classes than your calendar has dates. Not to worry, because creating a calendar is even easier than creating a syllabus.

Inserting Dates

To insert a date on a Serf calendar, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit Calendar option.
- The Editing Calendar form will appear, displaying each date on the calendar inside a wide box. Each box has options to insert, edit, or delete a date. If there are no dates on the calendar yet, there will only be an option to Insert a date on the calendar.
- Click the Insert option; the Insert Calendar Date form appears as shown in Figure 10.
- Pull down the menu to choose the kind of date you want added to the calendar. The menu contains options to create a class, holiday, reminder, vacation, or announcement. Most of your dates will be classes, which is the menu's default setting.

Calendars consist of a time-ordered series of different kinds of dates.
Use the following menu to choose the kind of date you want to add to the calendar.

Class

Click the Create button to create the date,
or scroll down for other options.

Create

Figure 10. The Insert Calendar Date form.

Serf will provide you with a form to fill out to create the date. Depending on the kind of date you are creating, the form will contain the following options, which are illustrated in Figure 11:

- *Date:* Pull down the year, month, and date menus to set the date. You may also set the hour, minute, and second, but unless you are scheduling more than one class per day, you should leave the hour, minute, and second set to zero.
- *Title or Heading:* In the Heading field, which appears for every kind of date except class dates, type the title that will identify this date. If you are putting the dates for Spring Break on the calendar, for example, type "Spring Break" into the heading field.
- *Text:* The text block is optional. It appears for every kind of date except class dates. Anything you type here will appear on the syllabus along with this date. It is OK to leave the text block empty.
- *Fill the Screen:* By default, the title you give the object will appear on the student's screen in a header column alongside the content you provide. If you want your content to fill the screen, however, you can click the option to fill the screen.
- *Insert:* Click the Insert button when you are ready to insert the date into the calendar.

Use the following menus to set the year, month, date, hour, minute, and second, if any.

1998 January 1 0 : 0 : 0

Enter the title, or heading, that will identify this date:

You may supply an optional block of text to appear on screen along with this date. The text may contain HTML tags.

Do you want the title to appear in the left column alongside this item, or would you like this item to fill the screen with no column on the left?

Display the Title Column Fill the Screen

Click the Insert button to insert this item, or scroll down for other options.

Insert

Figure 11. Fields and options used in creating calendar dates.

Editing Dates

Just as you can edit events on a syllabus, so also can you edit events on a calendar. To edit an event on the calendar, follow these steps:

- If the calendar is not visible on your screen, click the Calendar option in the Syllabus column of the Instructor panel.
- Each date will appear in a wide box containing Insert, Edit, and Delete options.
- Scroll down to the date you want to edit, and click its Edit option.
- The Edit Calendar Date screen will appear, presenting you with the same form you used to create the date. This time, the form is filled out with the settings for this date.
- Follow the on-screen instructions to make any changes you desire.
- Click the Edit button to record the changes.

Deleting Dates

If you ever need to delete a date from a calendar, follow these steps:

- If the calendar is not on your screen, click the Calendar option in the Syllabus column of the Instructor panel.
- Each date will appear in a wide box containing Insert, Edit, and Delete options.
- Scroll down to the date you want to delete, and click its Delete option.
- There is no “Undo” option, so make sure you really want to delete the date before you click the Delete button. If you accidentally delete something you need to restore, click your browser’s back button until you come to the screen displaying the date, use your mouse to select the information, and use your browser’s Edit menu to copy the selected text to your clipboard, from which you can paste it into your calendar via the calendar Insert option.

Tip: To view the effect on your syllabus of inserting a date into the calendar, click the View option in the Syllabus column of the Instructor panel.

Jumpstarting Class Dates

To save you time when creating a calendar for a class that has lots of periodic dates, Serf has a Calendar Jumpstarter feature. To jumpstart a calendar, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit Calendar option.
- The Edit Calendar form will appear, displaying any dates on the calendar inside a wide box.
- At the end of the calendar, you will see the option to jumpstart the calendar.
- Click the Jumpstart option, and the Class Dates Jumpstarter will appear, as shown in Figure 12.
- Follow the onscreen instructions to jumpstart the calendar.

The class dates jumpstarter enables you to enter a series of class dates into your calendar, all in one step. To begin, use the following menus to set the year, month, and date of the first class you want to insert.

1998 January 1

Use the following menu to tell Serf how many class dates you want to insert.

1

Use the check boxes to indicate which days of the week you want included.

Sundays
 Mondays
 Tuesdays
 Wednesdays
 Thursdays
 Fridays
 Saturdays

Click the Jumpstart button to insert the class dates, or scroll down for other options.

Jumpstart

After Serf jumpstarts the calendar, you will be able to use the calendar editing options to do any fine-tuning you desire.

Figure 12. The Class Dates Jumpstarter.

Creating and Editing a Style

There are two styles that affect the appearance of a Serf screen, namely, the default style and the course style. If the course style does not override one of the settings in the default style, then the setting in the default style is used. The appearance of everything you see on the Serf screen can be changed by editing the course's style. The buttons at the top of the screen can be changed, for example, and you can even modify the links to those buttons. The course banner can be changed, and you can replace the logos and links at the bottom of the screen with your own graphics and Web addresses. You can change the foreground and background colors of the text and the tables that Serf uses to create the shaded backgrounds in your syllabus. You can even change the icons that are used to denote the different kinds of items on the calendar and on the syllabus.

Changing all of these style parameters is a lot of work, however, and in practice, the only graphic you really need to change will be the course banner. You should have a graphic artist create your course banner and design it to fit the context of the other graphics on the screen.

Two reserved words that you need to know when editing style parameters are "none" and "null." Enter the keyword "none" (without quotes) into a style parameter field when you want that field to have no entry in it. Enter the keyword "null" (without quotes) when you want to prevent a style parameter from inheriting the settings in the default style.

Changing the Course Banner

To change the course banner, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit Style option.
- Figure 13 shows how an index will appear above the style settings on the Edit Style screen. This index provides you with a way to jump down to the style settings you want to change.
- Click the Course Banner item in the index; your browser jumps down to the Course Banner settings.
- The course banner can have up to five bitmaps in it, designed to fit side-by-side across the screen. Most schools only use one banner, however, which stretches all the way across the screen. To specify the first (and usually the only) bitmap in the course banner, you want to change the image called Course Bitmap 1.
- In the Course Bitmap 1 edit box, type the filename of your course banner (either a GIF or JPEG image). Do not type a path in front of the filename. Serf graphics are kept in a special Web space on the Serf server. To mount your graphics into that Web space, use the Upload option on the Instructor panel.
- In the Course Bitmap 1 Width field, enter the width of the image in pixels. The recommended width for course banners is 600 pixels.
- In the Course Bitmap 1 Height field, enter the height of the image in pixels. The recommended height for course banners is about 70 pixels.
- Click the Change button to register the change.

Tip: Serf can resize graphics. If you enter numbers into the height and width settings for a bitmap that are different than the actual size of that bitmap, your Web browser will resize the graphic to the size you specify. You need to be careful doing this, however, because some graphics do not look good when they are resized, especially if you are making a small graphic a lot larger.

Style Sheet Left Sidebar Right Sidebar Menu Bar Screen Logon Banner Course Banner Columns Column 1 Column 2 Status Tables Items Broadcast HTML Head Frameset Control Panel Logon Substitution Suppression Language Backpacks Affinities Icons Buttons Slider Dividers Trailers	
Menu Bitmap 1	chat.gif
Menu Bitmap 1 Width	76
Menu Bitmap 1 Height	33
Menu Bitmap 1 Alternate Text	Serf's Up
Menu Link 1	ChatAdvancedMultimedia
Menu Bitmap 2	email.gif
Menu Bitmap 2 Width	76
Menu Bitmap 2 Height	33
Menu Bitmap 2 Alternate Text	E-mail
Menu Link 2	mailto:

Figure 13. The style index appears above the parameters listed on the Edit Style screen.

Changing the Internet Resources Links

If you are using a chatroom, listserv, or newsgroup to support communications among the students in your course, you will want to modify the links to the buttons at the top of the screen so the links go to your own Internet resources. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit Style option.
- You will find the Internet Resources bitmaps in the Menu Bar section of the style parameters; click Menu Bar to jump down to that section.
- The links for each Menu Bar bitmap are listed right after the width and height parameters for that bitmap. Edit the links as you wish, then scroll down and click the nearest Change button to register the changes.

ParaChat Chatrooms

Serf has special support for the ParaChat network, which provides real-time communication options for students in Serf courses. To get a ParaChat chatroom for use in your course, follow these steps:

- Go to <http://www.parachat.com> and follow the instructions you will find there to get a free chatroom for use in your course. When you specify a name for the chatroom, choose a name that fits the topic of your course. The Internet Literacy chatroom, for example, is called Interlit.
- To link a ParaChat chatroom to the Serf menu bar, click the Edit Style option in the Syllabus column of the Instructor panel, and when the Edit Style screen appears, scroll down to the menu bar bitmap settings for the chatroom icon.
- Make the Menu Bitmap parameters read as follows (unless you want to use a different bitmap here): the filename is *chat.gif*, the width is 76, and the height is 33.
- Make the chatroom's Menu Link read as follows: *ChatName* where *Name* is the name of your chatroom. For example, if your chatroom is called Interlit, make the link read: ChatInterlit
- Scroll down and click the nearest Change button to register the changes. Now when you click the chatroom icon in the Serf menu bar, it will launch your chatroom.

Note: In a Serf link, Chat is a reserved prefix that causes Serf to look to the ParaChat network for the name of the chatroom you specify after the reserved word Chat. The link ChatInterlit, for example, makes Serf launch the chatroom called Interlit on the ParaChat network.

Listserv Links

To link a Serf menu bar icon to a listserv, follow these steps:

- Click the Edit Style option in the Syllabus column of the Instructor panel, and when the Edit Style screen appears, scroll down to the menu bar bitmap settings for the listserv icon.
- Make the Menu Bitmap parameters read as follows (unless you want to use a different bitmap here): the filename is *listserv.gif*, the width is 76, and the height is 33.
- Make the listserv's Menu Link read as follows: `mailto:Address` where *Address* is the e-mail address of your listserv. For example, if your listserv is called `SantaClaus-list@northpole.com`, make the link read:
`mailto:SantaClaus-list@northpole.com`
- Scroll down and click the nearest Change button to register the changes.
- When you click the listserv icon in the Serf menu bar, it will launch an e-mail window pre-addressed to the listserv.

Newsgroup Links

If your course is using a newsgroup, there is a technique you can use to simplify the setup required on the part of your students to access the newsgroup. If you include the name of the news server in the URL that you link to the newsgroup icon, the students will not need to configure their Web browsers for use with newsgroups. To create such a newsgroup link, follow these steps:

- Click the Edit Style option in the Syllabus column of the Instructor panel, and when the Edit Style screen appears, scroll down to the menu bar bitmap settings for the newsgroup icon.
- Make the Menu Bitmap parameters read as follows (unless you want to use a different bitmap here): the filename is *news.gif*, the width is 85, and the height is 33.
- Make the newsgroup's Menu Link read as follows: `news://Server/Newsgroup` where *Server* is the name of the server that hosts the newsgroup, and *Newsgroup* is the name of the newsgroup. For example, if your newsgroup is called `wish.list.requests`, and its news server is `news.northpole.com`, make the link read: `news://news.northpole.com/wish.list.requests`
- Scroll down and click the nearest Change button to register the changes. Now when you click the newsgroup icon in the Serf menu bar, it will launch the newsgroup without requiring the user first to register a news server and subscribe to that group.

Before you commit your students to using newsgroups, however, have a look at the Serf Discussion Forums, which provide a much easier way for you to create and manage threaded discussions on various topics among your students. See the Serf Discussion Forums part of this manual, or just click Discussion Forums on the Instructor panel and follow the onscreen instructions.

Rostering Students

Depending on local customs at your institution, an instructor may be given the power to add and drop students from the course roster. Before you add or drop a student from a roster, however, you should make sure that the student actually has enrolled in or withdrawn from your course.

Adding a Student to the Roster

To add a student to the roster for a course, follow these steps:

- Click the Roster option in the Administrative column of the Instructor panel. Serf will display the Add a Student to the Roster form illustrated in Figure 14.
- In the First Name field, type the student's first name.
- In the Last Name field, enter the student's last name.
- In the Ticket field, enter the student's ticket. Every ticket used on your Serf system must be unique. Most institutions use social security numbers for tickets. Type the student's social security number without any spaces or hyphens. When cashing in a ticket, if a student enters hyphens but the instructor did not, Serf recognizes the problem, automatically corrects it, and lets the student proceed. E-mail addresses can also be used as tickets, since everyone has a unique e-mail address.
- Click the Add button to add the student to the roster.
- Serf will inform you of the results of adding the student to the roster.
- When you are done adding students to the roster, you can verify the results by clicking the option to view the roster.

Enter the real first name and last name of the student
you want to add to the current course roster.

First Name Last Name

Enter the student's ticket. If no student already has this ticket,
Serf will use this ticket to create a new student for you.
Otherwise, Serf will add to the roster the student who has this ticket.

Ticket

Click the Add button to add the student to your course roster.

You can also [view the roster](#) to see its members.

Figure 14. The Add a Student to the Roster form.

Tip: The Add a Student to the Roster form adds a student to the current course's roster. If you want to add a student to the roster for a different course, scroll down and choose the option to switch courses.

Dropping a Student from the Roster

To drop a student from a roster, follow these steps:

- Click the Roster option in the Administrative column of the Instructor panel. Serf will display the Drop a Student from the Roster form illustrated in Figure 15.
- Use the menu to select the user you want dropped from the roster. If the user you want to drop does not appear in this menu, then that user does not belong to the roster.
- Click the Drop button to drop the user from the roster.
- After informing you of the results of dropping the user from the roster, Serf will reprint the Drop a Student from the Roster form, enabling you to drop another user from the roster if you want.

Use the menu to choose the student you want to drop, then click the Drop button to drop the student from the roster for the course
EDUC-885-010-03S: Advanced Web Design.

Hofstetter, Fred; "fred" 235423542

Drop

To drop a student from the roster of a different course,
scroll down and choose the option to switch courses.

Figure 15. The Drop a Student from the Roster form.

When you are done dropping students from the roster, you can verify the results by clicking the Roster→View the Roster option in the Administrative column of the Instructor panel. When the roster appears, the students you dropped will no longer appear on it.

Note: If Serf does not permit you to add and drop students from a roster, your Serf system administrator did not assign you ownership of the roster. Depending on local customs, an institution may decide to retain control of student rosters at the administrative level. If you believe that a student needs to be added to or dropped from a roster, and Serf refuses to let you do so, contact your Serf system administrator.

Using the Gradebook

The Serf gradebook makes it quick and easy for you to view the status of each student in the course with regard to the assignments you have given and the work students have submitted. Assignments that you have not yet graded will display a *Grade Me* link that you can click to review the assignment and submit a grade. You can also leave a comment that the student will receive along with the grade you give.

Viewing the Class Gradebook

You begin the grading process by viewing the gradebook. To view the gradebook, click the Gradebook option in the Administrative column of the Instructor panel. Serf will display a summary of the grades in your course, as illustrated in Figure 17. The summary has six columns. Columns one and two identify the student's real name and Serf name. Column three is the Pending column; if the student has submitted assignments that are waiting for you to grade, a *Grade Me* link will appear in the Pending column. The last three columns provide some statistics, telling how many assignments have been graded for this student so far, the running average of the grades you assigned, and the student's final grade in the course. The final grade will show as an I, which stands for Incomplete, until all of the assignments have been graded.

Student Name	Serf Name	Pending	Graded	Average	Final
<u>Doe, John</u>	jdoe		6 of 6	B	B
<u>Jones, Benjamin</u>	Ben Jones	<u>Grade Me</u>	4 of 6	B+	I
<u>Smith, Mary</u>	mary		6 of 6	A	A

Figure 17. The Class Grades report.

Viewing Individual Grades

To view the grades for any student in your course, follow these steps:

- If you are not already viewing the gradebook, click the Gradebook option in the Administrative column of the Instructor panel.
- When the Class Grades report appears, click the name of the student whose grades you want to view.
- Serf will display the individual's grade report, as illustrated in Figure 18.

The grade report has five columns. Column 1 contains the name of the assignment. Column 2 contains the grade. Columns 3 and 4 show the weight of each assignment and the percentage of the final grade that weight comprises. Column 5 displays the date on which the student submitted the assignment.

Assignment	Grade	Weight	% of Final	Date
E-mail	<u>A+</u>	5	3.7	Thu 17 Sep 98
Listserv	<u>A+</u>	5	3.7	Mon 28 Sep 98
Discussion Forums	<u>A+</u>	5	3.7	Wed 16 Dec 98
Graduate Research Project	<u>A</u>	33	25	Wed 24 Feb 99
Home Page	<u>A</u>	18	13.6	Wed 18 Nov 98
Term Paper	<u>Grade Me</u>	33	25	Mon 3 May 99
Multimedia Project	<u>A</u>	33	25	Wed 16 Dec 98
	Final Grade: I			Average: A

Figure 18. The Individual Grades report.

Assigning Grades

To assign a grade for a student assignment, follow the steps provided above in the section entitled “Viewing Individual Grades” to display the individual grade report for that student. If the student has submitted an assignment that is waiting to be graded, a *Grade Me* link will appear in the Grade column. If the assignment is a so-called “observational” assignment that does not require the student to submit anything over the Web, a blank underline will appear in the Grade column. If the assignment requires the student to submit something but the student has not done so, an underline with three dots will appear. If the assignment is an exam that the student has not yet completed, an underline with three dashes will appear; an underline with two dashes denotes an unanswered test item asked directly on the syllabus. Click either the Grade Me link or the underline to display the Grade Event form.

Depending on the type of assignment you are grading, the Grade Event form will provide you with an answer to read, a file to launch, or a URL to review. If the assignment is a Web Query, for example, Serf will print the question you asked, followed by the answer the student wrote. For a Web Portfolio assignment, Serf will provide you with the URL of the student’s work, which you can click to peruse what the student submitted.

In all cases, Serf displays a Letter Grade menu and a Percent menu, as illustrated in Figure 19. To assign a grade, pull down either the Letter Grade menu and choose a letter grade, or use the Percent menu to choose a percent. In addition to assigning a grade, you may also leave a comment about the assignment by typing a message into the comment box. When the student inspects the grade, any comment you type into the comment box will appear on screen along with the grade.

After you have completed the Grade Event form, click the Grade button to submit the grade. The grade will take effect immediately. The student’s running average in the course will be updated, for example, as soon as you click the Grade button. Both your grade and any comment you provided will be available for student view immediately. Students can only view their own grades in the course; an individual student is unable to see the grades of other students in the course.

This form will assign a grade to the student named Benjamin Jones,
whose Serf name is Ben Jones,
for the *Term Paper* assignment:

A major part of your grade in this course is determined by a term paper that you write on a topic of your choosing related to an educational or communications issue on the Internet. You may elaborate on one of the topics discussed in the text, or you can choose an original topic. Your paper must contain at least six bibliographic references. Make sure the title of your paper, your name, and the date you completed it appear at the top. Follow precisely the bibliographic style guidelines for the style you use (APA, MLA, or CMS--see chapter 14 for details). After you've transferred your paper to your Web site and tested all of the links in it to make sure they work properly, you may submit it for a grade by pressing the Submit button provided below.

The URL submitted by the student is:

<http://www.udel.edu/~BenJones/mpeg.html>

If you want to leave a comment for the student regarding this assignment,
you may do so in the box below.

You could improve this paper by visiting <http://www.mpeg.org> and searching the MPEG FAQ for information on the scalability of digital video recordings.

In what format do you want your comment to flow onto the screen?

Plain text (preserves carriage returns)
 Preformatted (preserves all formatting)
 HTML (ignores carriage returns)

Use either the Letter Grade menu or the Percent menu to select the grade you want to assign.

If you're giving a low grade, do you want to grant the student a chance
to revise the assignment and try for a higher grade?

Give the student another try

Click the Grade button to record the student's grade.

[Return to the gradebook](#)

Figure 19. The Grade Assignment form.

Giving the Student Another Try

Serf provides you with the opportunity to give the student another chance if the student performs poorly on an assignment. If you give the student a bad grade and also want to give the student another chance, click the option to “Give the student another try” on the grade form shown in figure 19.

When the student tries again, another *Grade Me* link will appear in your gradebook for that student. When you follow the *Grade Me* link to grade the assignment, the grade form will display the former grade(s) and comment(s) you gave the student for this assignment. The form will also display grade menus for you to assign a new letter grade or percentage grade for the revised assignment. If the student’s performance is still low, you can once again click the option to give the student another try, if you want to let the student try again for a higher grade.

QuickGrades

The gradebook provides you with a QuickGrades option, which is intended primarily for the end of a course when you want to give grades quickly to students who may not have handed in all of their assignments. To use QuickGrades, you click the Gradebook option in the Instructor panel, pull down the QuickGrades menu, and select the assignment for which you want to give quick grades. Serf will list all of the students in your course, and alongside each student’s name, you will get grade controls that let you assign letter grades or percentages quickly. As the onscreen instructions will tell you, after you assign the quick grades, you must click the Submit button to record the grades.

Grading Students in a Virtual Room

If you are teaching several sections of a course, your Serf system administrator may have grouped your sections into a virtual room. If so, when you click the Gradebook option, you will see grades for all of the students in all of the sections assigned to that room. The virtual room makes it quicker for you to assign grades if you are teaching many sections of a course, because you do not have to switch courses to enter the gradebook for each section.

Whether to use a virtual room is a matter of personal preference. If you are teaching several sections of a course, and you would like all of the sections to appear in your gradebook at once, ask your Serf system administrator to assign your sections to the same virtual room.

Another advantage of the virtual room is that when students click the Class E-mail option that lets them address mail to any student in the class, all of the students taking courses assigned to the virtual room will appear in the point-and-click directory of student e-mail addresses.

Discussion Forums

Serf Discussion Forums enable you to create private discussion areas for use by students enrolled in your course. You can create your own forums and control which students have access. To make the Discussion Forums easy and intuitive to use, all of the instructions are provided onscreen. To go into the Discussion Forums, click the Discussion Forums option in the System column of the Instructor panel. Since you are an instructor, you will get the Discussion Forum options shown in Figure 20.

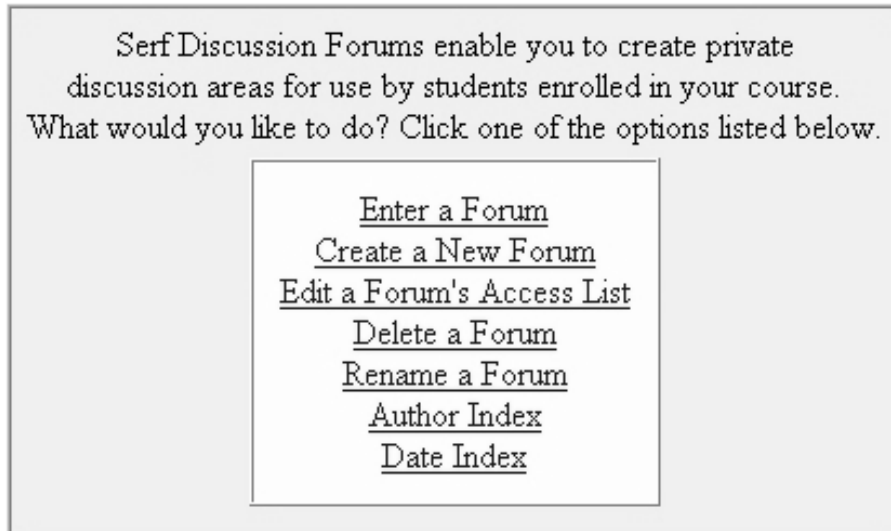


Figure 20. Discussion Forum Options for Instructors.

Creating a New Forum

At first, your course will not have any forums. To create a discussion forum, click the option to Create a New Forum. The Create a New Forum screen appears as shown in Figure 21. Enter the title of the forum you want to create, and click the Create button to create the forum.



Figure 21. The Create a New Forum screen.

Editing a Forum's Access List

As soon as the new forum gets created, you will be given the option to edit its access list. By default, all of the students enrolled in your course have access to the newly created discussion forum. If you want to make the forum more private, click the option to edit the access list, and the Discussion Forum Access Controller will appear, as shown in Figure 22.

This form enables you to control access to the discussion forum entitled:

Societal Implications of the Internet

You may provide access to everyone in the course, and if this course meets in a virtual room, to everyone enrolled in that room, or you can control access by selecting individuals. What would you like to do?

Provide access to everyone in the course
 Restrict access to selected individuals

You may deny access to the instructor, or to any teaching assistants who may be assigned to this course, by checking the boxes below.

Deny Access to the Instructor
 Deny Access to Teaching Assistants

Click the Register button when you're ready to record your changes to the forum's access list.

Register

If you chose to provide access to individuals, click Yes or No to provide or deny access to each student listed below.

COMM-467-197-98S: Internet Literacy

<input type="radio"/> Yes <input checked="" type="radio"/> No	Doe, John--"jdoe"
<input type="radio"/> Yes <input checked="" type="radio"/> No	Jones, Benjamin--"Ben Jones"
<input type="radio"/> Yes <input checked="" type="radio"/> No	Smith, Mary--"mary"

Click the Register button to make the settings take effect.

Register

[Create a New Forum](#) | [Enter a Forum](#) | [Edit a Forum's Access List](#)

Figure 22. The Discussion Forum Access Controller.

The access controller gives you the ability to:

- Restrict access to selected individuals
- Deny access to the instructor
- Deny access to teaching assistants (if any TA's have been assigned to your course)
- Turn access on or off for any individual in your class

If the course meets in a virtual room, the student rosters of other courses meeting in the same room will also appear on the access controller form, enabling you to provide or deny access to any student in the room.

Deleting a Forum

The Discussion Forum Options provide you with the ability to delete a forum. Before you delete a forum, however, please realize that all of the topics, messages, and responses that students may have entered in that forum also will be deleted. If you really want to delete a forum, follow these steps:

- Click the Discussion Forum option in the Instructor panel; the Discussion Forum Options will appear.
- Choose the option to Delete a Forum; the Delete a Forum screen shown in Figure 23 will appear.
- Pull down the menu to select the forum you want to delete.
- Click the Delete button to delete the forum.



Figure 23. The Delete a Forum Screen.

Renaming a Forum

If you make a typographical error when you create the name of a forum, and you want to correct the error, or if you decide to rename a forum altogether, you can do so. To rename a forum, follow these steps:

- Click the Discussion Forum option in the Instructor panel; the Discussion Forum Options will appear.
- Choose the option to Rename a Forum; the Rename a Forum screen will prompt you to pull down a menu and select the name of the forum you want to rename.
- Pull down the menu to select the forum you want to rename, and click the Rename button.
- The Rename a Discussion Forum screen appears as shown in Figure 24.
- In the title field, edit or retype the name of the discussion forum.
- Click the Rename button to register the change.

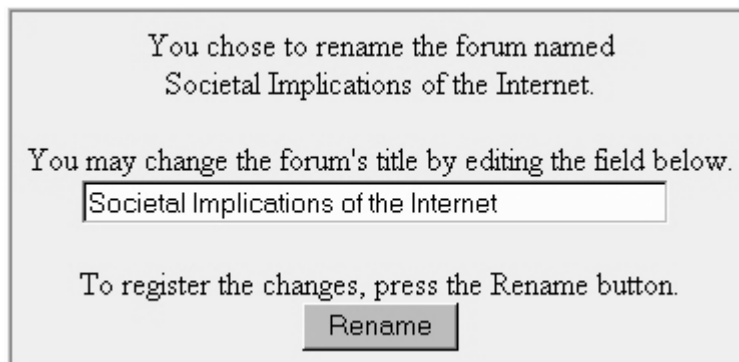


Figure 24. The Rename a Discussion Forum Screen.

Entering a Forum

To create new topics, and to read and respond to messages in a forum, you must enter the forum. To enter a forum, click the Discussion Forum option on the Instructor Panel, and choose the option to Enter a Forum. Serf will respond by printing a list of the discussion forums that exist in your course. To enter a forum, simply click on its name. Once you enter a forum, you can create new topics, read messages and responses to existing topics, and participate in the discussion by entering responses and comments of your own.

Creating a New Topic

To create a new topic, follow these steps:

- Click the option to Start a New Topic; the Begin a New Discussion Topic form will appear as shown in Figure 25.
- In the title field, enter the title of the topic you want to create.
- In the text box, write the message that will introduce the topic to get the discussion started.
- Click the Create button to create the topic.

In the following field, enter the title of the topic you want to create.

Since you are creating a new discussion topic, you get to write the first message. Enter the text of the message in the box below. The text may contain HTML tags.

In what format do you want your message to flow onto the screen?

Plain text (preserves carriage returns)

Preformatted (preserves all formatting)

HTML (ignores carriage returns)

Click the Create button to create this topic, or scroll down for other options.

[Read a Discussion Topic](#) | [Enter a Different Forum](#)

Figure 25. The Begin a New Discussion Topic form.

Reading Existing Topics

To read the ongoing discussion of topics in a forum, follow these steps:

- If you are not already in the discussion forum you want to read, click the Discussion Forum option on the Instructor Panel, choose the option to Enter a Forum, and enter the forum of your choice.
- Serf will list the topics that have been created in the forum so far; click the topic you want to read.
- Figure 26 shows how Serf will display the topic. First comes the introductory message that began the topic, followed by all of the responses that users have made. Use your browser's scrollbar to scroll down and peruse the messages.

Halloran, Beth--"bhalloran"
 03-Apr-98 2:31:23 PM

Consulting On The Web

Topic #4

I was just writing to get the opinion of others on the topic of "consulting on the web". I am a Registered Dietitian and I was thinking that a great way to market Nutrition Education Services on the web would be to provide a web site in which people could subscribe (for an hourly fee, in a chat-room format) and receive one-on-one nutrition counseling. They would receive highly individualized attention without the threat or embarrassment of meeting face-to-face. In addition, potentially, you could have clients from around the world. Teachers could also benefit by providing one-one-one tutoring in the same manner (again, possibly for a fee as a tutor). I don't know what the logistics of something like this would be, but I would be interested in receiving the input of others...

Hofstetter, Fred--"fth"
 05-Apr-98 9:46:52 PM

Response #1

Consulting On The Web

Beth, I think your idea has merit. I'm going to do some checking for you with some friends of mine on the Net and get back to you with more info on setting up this kind of a business on the net. I'll write more soon.... Fred

[Respond to This Topic](#) | [Start a New Topic](#) | [Read a Different Topic](#) | [Enter a Different Forum](#)

[Author Index](#) | [Date Index](#)

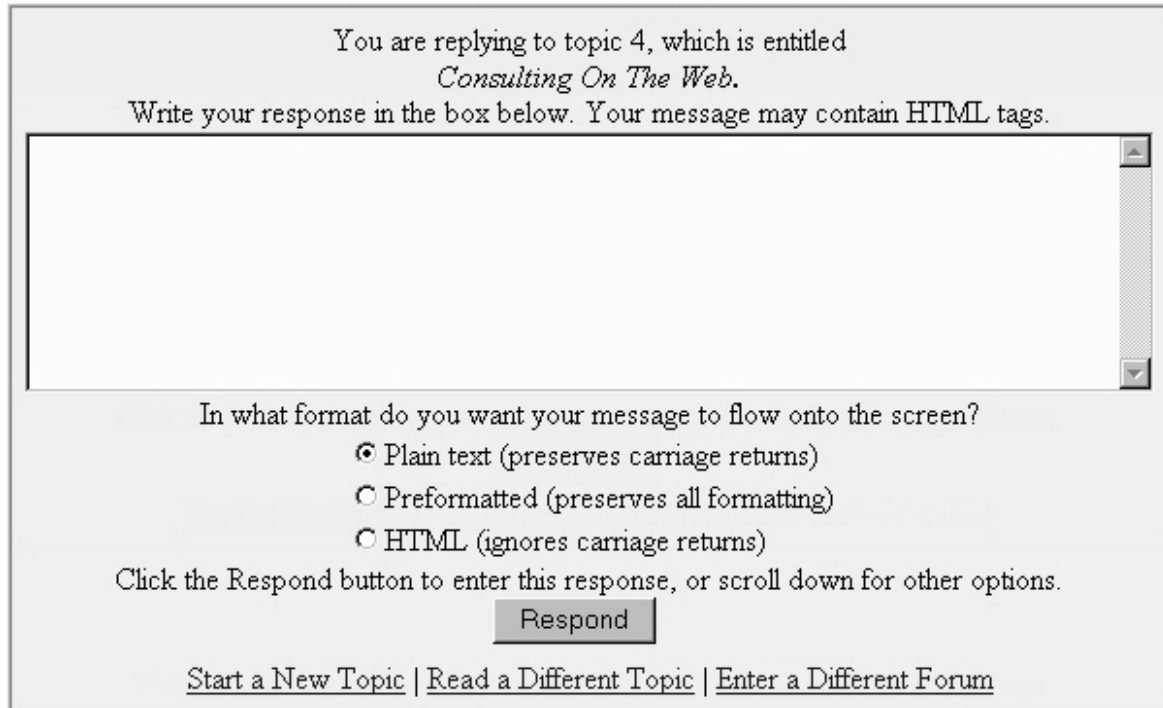
You may also [edit the last message](#) you wrote.

Since you are an instructor, you may also [delete this Topic](#).

Figure 26. The View Discussion Topic screen.

Responding to a Topic

To respond to a topic in a discussion forum, click the Respond to This Topic button at the bottom of the View Discussion Topic screen shown in Figure 26. Serf will display the Respond to a Discussion Topic form shown in Figure 27. Write your response in the message box, and click the Respond button. Serf will redisplay the topic, and you will see your newly written response at the bottom of the list of messages.



You are replying to topic 4, which is entitled
Consulting On The Web.

Write your response in the box below. Your message may contain HTML tags.

In what format do you want your message to flow onto the screen?

- Plain text (preserves carriage returns)
- Preformatted (preserves all formatting)
- HTML (ignores carriage returns)

Click the Respond button to enter this response, or scroll down for other options.

[Start a New Topic](#) | [Read a Different Topic](#) | [Enter a Different Forum](#)

Figure 27. The Respond to a Discussion Topic form.

Deleting a Topic

Whenever you read a message in a discussion forum, the option to delete the entire topic will appear at the bottom of the screen, as shown in Figure 26, where the instructions say “Since you are an instructor, you may also delete this topic.” Only instructors can delete topics in a discussion forum.

Because deleting a single reply in the midst of a discussion topic may compromise the integrity of a discussion, you cannot delete individual messages. If you want to delete any part of a topic, you must delete the entire topic.

Instructor and Classmate E-Mail

Serf makes it easy for students and instructors to communicate via electronic mail. Every user has a Register E-mail option in the System column of their Serf options panel. When users tell Serf that they want to send e-mail to their instructor or to a classmate, Serf makes their Web browser launch an e-mail window pre-addressed to the targeted user's e-mail address. To enable this powerful mode of communication over the Internet, every user should register their E-mail address. It is doubly important for you, the instructor, to register your e-mail address. If you do not register your e-mail address, nothing will happen when the student clicks the option to send you mail. To register your e-mail address, follow these steps:

- Click the Register E-mail option in the System column of the Instructor panel.
- The Register Your E-mail Address form will appear as shown in Figure 28.
- Enter your e-mail address in the blank provided.
- Click the Register button to register your e-mail address.

Should your e-mail address change in the midst of a course, simply repeat these steps, and enter the revised e-mail address.



Enter your e-mail address in the blank provided.

Then click the Register button to record your e-mail address.

Figure 28. The Register Your E-mail Address form.

Multimedia CD-ROM Option

In many courses, instructors use audio and video as multimedia resources to help students visualize and understand complex phenomena. The Web is still too slow, however, to handle the real-time streaming of audio and video on a worldwide basis. Serf solves this problem by providing authors with a way to include in their online syllabi links to multimedia resources on a CD-ROM.

The cost of creating multimedia CDs has fallen dramatically. It now costs relatively little to duplicate a multimedia CD containing the audio and video resources needed to enhance a course. The Serf-delivered Internet Literacy course, for example, uses a multimedia CD-ROM to provide more than two hundred “Show-Me” videos that illustrate how to do things on the Internet.

Serf enables you to use a multimedia CD to support an online syllabus by means of a special symbol known as `cd|`. When Serf encounters the symbol `cd|` in the midst of a hyperlink, Serf replaces the `cd|` by the Windows drive letter or the Macintosh name of the user’s CD-ROM. To create such a link in an online syllabus, all you need to do is enter the symbol `cd|` where the drive letter or name would normally go.

The best way to understand this is to study an example. Chapter 2 of the Serf-delivered Internet Literacy course uses a movie called *models.mov* to demonstrate how the Web is being used to improve teaching and learning. To create an online link to this movie, the author of the Internet Literacy course entered the following text into the text block of the Insert Syllabus Event form:

There is a movie on the Internet Literacy CD in which your textbook's author demonstrates how the World Wide Web helps achieve the goals of the constructivist movement in education. As you [watch this movie](file:///cd|/ch2/models.mov), you will see demonstrations of some exciting software applications that involve students actively in discovering and constructing knowledge.

Notice how the symbol `cd|` appears in the spot where the CD-ROM drive letter or name would normally go. At runtime, when Serf displays this instructional event to the student, Serf replaces the `cd|` by the CD-ROM drive letter or name that the student will have entered by pressing the CD-ROM Setup option in the System column of the student options panel.

If you decide to author a Serf course using a multimedia CD, you will need to set up your CD-ROM drive for use with Serf, so that you can test the CD-ROM links on your syllabus as you create it. To set up your CD-ROM drive for use with Serf, click the CD-ROM Setup option in the System column of the Instructor panel, and follow the onscreen instructions.

Metafiles

A metafile is a file that describes another file; hence the name metafile. Several applications on the Web use metafiles to launch things. Realaudio and Realvideo use metafiles, for example, to launch audio and video files and tell the player where to begin and stop playing.

In Serf, you can create metafiles by using the `@metafile` command. The syntax is as follows:

```
@metafile=filename
Line 1 of the file
Line 2 of the file
Line 3 of the file . . .
@endmetafile
```

The metafile can have as many lines as you want. You begin the metafile with the `@metafile=filename` command, where *filename* is the name of the metafile. Do not include a drive letter or a path or a leading slash or backslash on the filename; just give the name of the file. If you have more than one metafile on a Web page, you must give each metafile a unique filename.

When Serf encounters the `@metafile=filename` command, Serf takes the contents of the metafile, up to but not including the `@endmetafile` command, and creates a metafile in the Serf Web space. The metafile's name in Serf Web space will be coded according to the course ID and user ID. If you are in course 42 and your user ID is 441 and the filename is Moonlight.rm, for example, the metafile that Serf creates will have the name Serfweb/Course42/User441Moonlight.rm.

For an example of how to use the `@metafile` command, suppose you want to create an instructional event on a Serf syllabus in which you will provide a link which, when clicked, plays the first 15 seconds of Beethoven's Moonlight Sonata from a CD in the user's CD-ROM drive. The music resides on the user's CD in a file named `\sonatas\moonlight.rm` which is a realaudio file. You click the option to edit your syllabus, on which you click the Insert option at the point where you want to create the event. In the edit box on the create event form, you would enter the following content:

```
If you <a href="@metafile=moonlight-0-15.rm
file:cd\sonatas\moonlight.rm?start="00:00:00.0"&end="00:15"
@endmetafile">listen to the introduction</a> of Beethoven's Moonlight
Sonata, you will know how one of the world's most famous piano pieces begins.
```

Notice this example's use of the special Serf CD-ROM code `cd|` which appears in the spot where the user's CD-ROM drive letter or name would normally go. At runtime, Serf will replace the code `cd|` with the letter or name of the user's CD-ROM drive as the user set it up by clicking the CD-ROM Setup option in the System section of the Serf control panel.

Export Features

Serf's export features enable you to extract objects into computer files that you can use for backup purposes or for exporting grades from Serf to your institution's student records systems. Running parallel to Serf's export options is a set of import features that the Serf system administrator can use to read objects into Serf. This import/export facility is how publishers distribute courses created with Serf.

Making Backups

Your Serf system administrator is most likely creating daily backups to guard against accidental loss of your materials. Many users like to be able to make their own backups, however, as an added safeguard. Serf enables the instructor to make backups of the course syllabus, calendar, style, exams, and test questions. When you ask to make a backup, Serf responds by sending you a file. Your Web browser will give you the option of saving that file under any filename and in any directory on your computer's hard drive. When you name the file, choose something sensible. If you are backing up a course syllabus, for example, and the name of the course is music 101, name the backup something like *c:/syllabi/music101*. To create a backup, follow these steps:

- Click the Export option in the Administrative column of the Instructor panel.
- Serf will ask what kind of object you want to export: syllabus, calendar, style, exam, item pool, or test item. Make your choice.
- Serf will create the backup and export it to your browser as a plain text file.
- Your browser will ask you where to save the file, and what name to give it. Choose a name appropriate for the kind of backup you are making.

Tip: Since the backup is a plain text file, you can inspect it with any text editor after your computer saves it on your hard disk drive.

Exporting Grades

At the end of a course, after you have graded all of the assignments, you may want Serf to export the final grades to save you the work of having to enter the grades by hand into whatever system your institution uses for handling grades. Serf has a very flexible Export Grades routine that enables you to specify the format in which Serf will export the grades. After you set the format, Serf returns the grades to you in a computer file, which you can forward on to whatever administrative system your institution uses to report grades. At many schools, for example, faculty members can e-mail grades to the Student Information System (SIS) that handles grades. By setting the parameters of the Export Grades routine to match the format of an e-mailed grade report, instructors can make Serf export grades in a file that the faculty member can simply e-mail to the SIS system.

To export grades from Serf, follow these steps:

- Click the Export option in the Administrative column of the Instructor panel.
- When Serf asks what kind of object you want to export, choose Grades.
- Serf will present you with a form that lets you specify the format in which the grades will be exported. Your system administrator should have preset these settings for you to fit the manner in which your institution handles grades. You can modify the settings as you wish.
- When you are ready to receive the grades, press the Export button.
- Serf will send the grades to your browser as a plain text file. Your browser will ask you where to save the file, and what name to give it. Choose a name appropriate for the class whose grades you are exporting.

Tip: Since Serf exports grades in a plain text file, you can inspect the grades with any text editor prior to sending them on to your institution's student information system. You should check the grade report carefully, and make any changes needed before submitting the grades to your administrative system.

Archiving the Course Gradebook

At the end of a term, before your system administrator cleans your course from the Serf server, you should make an archival copy of its gradebook. Serf's archive feature provides you with the option of having an archival copy of your gradebook downloaded to your local computer in one of three formats: grades only, grades & assignments, or tab-delimited. Use the tab-delimited format if you are transferring your grades into a database or spreadsheet for data analysis. The other options export the gradebook as an html file that you can view with any Web browser. Should a student challenge a grade years after the course has been cleaned from your Serf server, you will be able to go into the archival copy of the gradebook on your local computer and see how the student answered the assignments, what grades you gave, and how the student's final grade was computed.

To make an archival copy of your gradebook, follow these steps:

- Click the Export option on the Instructor panel.
- When the Export screen appears, click the option to archive the course gradebook at the end of the term.
- The Gradebook Archive Options will appear, as shown in Figure 29.
- Definitely make the Grades Only archive; if you choose the option to archive grades with assignment questions and answers, be prepared to wait a minute or two, because extracting this much data can be a lengthy process.

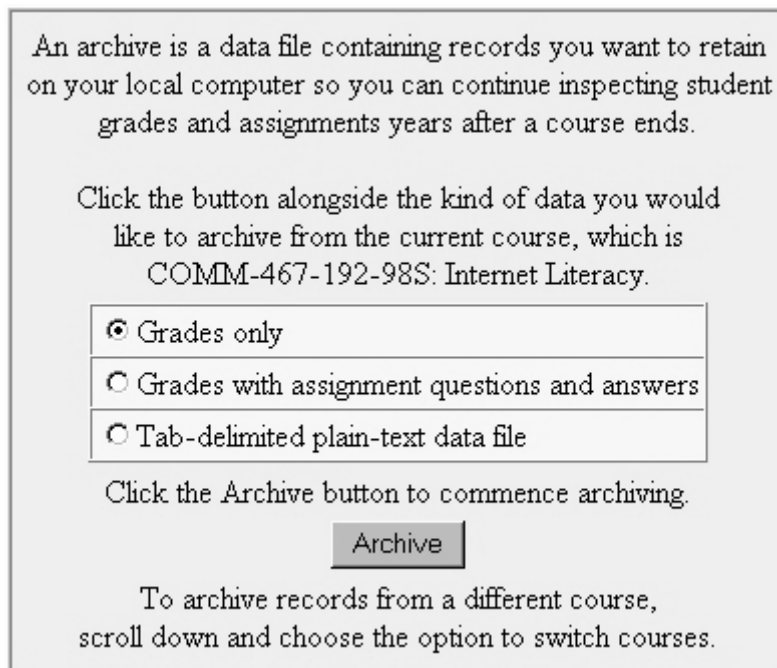


Figure 29. The Gradebook Archive Options.

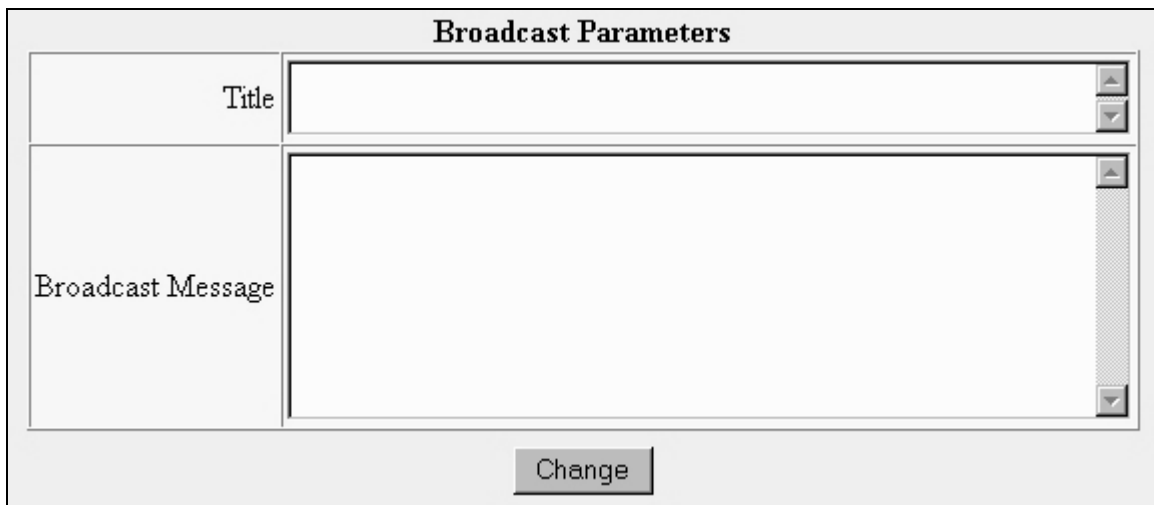
When the archive comes onto your screen, the instructions will tell you how to save it as a local file on your computer. Make sure you put the complete name of your course into the name you give the file. For example, if your course is called MUS-101-001-98S, make the filename be gradesArchiveMUS-101-001-98S. Years later, when you are looking up student grades in this course, you will be glad you named the file completely with its course number, section, year, and term.

Broadcasting Messages

Sometimes things happen that you want to announce to every student in your class. The bookstore may be about to return unsold books to the publisher, for example, and you may want to warn your students that they must remember to purchase the textbook if they have not already done so. If your class meets physically in a classroom, inclement weather or illness may prevent you from getting to class; you can let your students know the class is cancelled by broadcasting a message to that effect.

Serf makes it possible for course instructors to broadcast messages that will always appear on the first screen the student sees after logging in to your course. No matter where the student is in your course, this message will always appear just below your course banner when the student logs into your course. The broadcast feature is part of the Styles table that determines the look and feel of your course. To create a broadcast message, follow these steps:

- Click the Edit Style option in the Syllabus column of the Instructor panel.
- When the Edit Style screen appears, click the word Broadcast in the parameter index near the top of the screen.
- Figure 30 shows how there are two broadcast parameters: Title and Broadcast Message.
- In the Title field, click the title of the message; what you enter here will appear on the student's screen in large bold letters.
- In the Broadcast Message field, type the body of the message. The text you type may include HTML tags.
- Click the Change button to register the change to your course's style.
- Log out, then log back on again. When you log on, you will see the message on the first screen of your course, just as the students will see it. If the message needs to be changed, repeat these steps until it looks the way you want it.
- To delete the message when you no longer want it to be broadcast, simply clear the Title and Broadcast Message fields, and press the Change button.



The screenshot shows a form titled "Broadcast Parameters". It contains two main input fields: "Title" and "Broadcast Message". The "Title" field is a single-line text box with a small scroll bar on the right. The "Broadcast Message" field is a larger multi-line text box with a vertical scroll bar on the right. Below these fields is a "Change" button.

Figure 30. Parameters in the Broadcast section of the Edit Style form.

The Serf Testing System

The Serf Testing System enables you to create and administer exams over the Web. When students complete an exam, Serf grades it automatically and enters the grade in your gradebook. The Serf Testing System is object-based. The objects consist of exams, question pools, and test items, which can be true/false, multiple choice, fill-in-the-blank, image map, short answer, or slider (*i.e.*, Likert scale). The object-based nature of the Serf Testing System gives you a lot of flexibility in when and how you can ask test questions. Each test question can reside in one or more pools, which can be used in one or more exams, with different settings controlling how the questions get asked and scored. You can even ask a test question directly on the syllabus, without putting the question into an exam.

Because putting items directly onto the syllabus is the quickest way to get started asking objective test questions, this *Instructor Guide* will start you there. After you learn how to create individual test items, you will find out how to create exams and ask questions as part of an exam.

Inserting Test Questions Directly Onto the Syllabus

To insert a test question directly onto the syllabus, you use the syllabus editor to insert the kind of question you want to ask. After you select one of the question types (true/false, multiple choice, fill-in-the-blank, image map, short answer, or slider), the Test Question Editor will appear, enabling you to create the question. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to ask a test question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, and scroll the menu down to where the test questions are, as shown in Figure 31.
- Choose the kind of question you want to create, and then click the Create button. If this is your first time through these instructions, choose the True/False question, which is the simplest kind of question.

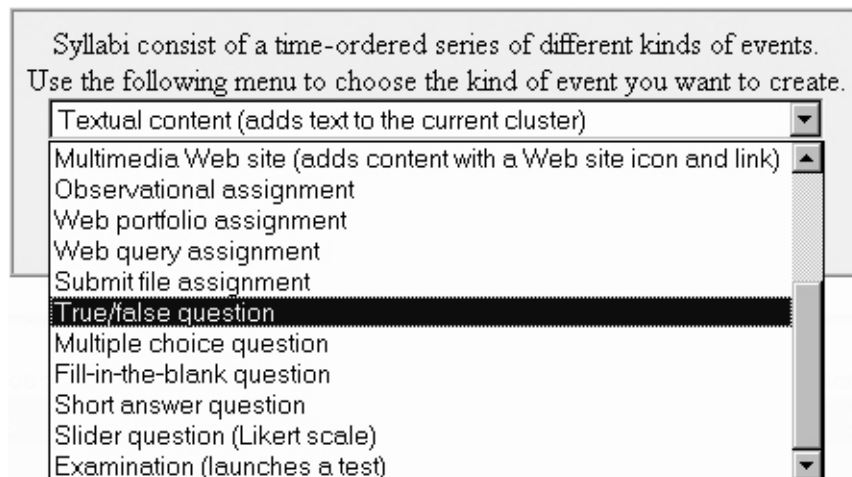


Figure 31. Choosing to Create a True/False Question.

True/False Questions

When you choose to insert a true/false question directly onto the syllabus, Serf displays the Insert a True/False Question form shown in Figure 32. This form prompts you to do the following:

- If you want to insert an existing true/false question, pull down the menu and select the question you want to enter. If you have not created any true/false questions, this menu will be blank.
- If you want to create a new question, enter the title you want the new question to have. Try to avoid entering a title such as “Question 1” because Serf will number the questions automatically. Instead, make the title have something to do with the content of the question, such as “Grant’s Tomb.”
- By default, the title will appear in a column alongside the question when the item gets printed on the syllabus. If you want to suppress the printing of the title column, click the option to Fill the Screen.
- If this item counts toward the student’s grade in the course, pull down the Weight menu, and set the weight. Make the weight higher or lower, depending on how much you want this item to count with respect to other test questions and assignments you’ve placed on your syllabus.
- If you want to set a deadline by which the student must answer the question, pull down the Days Allowed menu and select the number of days allowed.
- When you click the Insert button, Serf will insert the test question. If you are creating a new test question, Serf will display the test question editor. Read on to learn how to edit a True/False question.

You can either insert an existing question or create a new one.
 To insert an existing question, use the menu to select the question.

True/false questions ▼

To create a new question, use the field below to enter
 the title you want the new question to have.

Grant's Tomb

Do you want the title to appear in the left column alongside this item,
 or would you like this item to fill the screen with no column on the left?

Display the Title Column Fill the Screen

If this item counts toward the student's grade in the course, specify the relative weight.
 If this item has a deadline, specify how many days the student has to complete it.

Weight: 1 ▼ Days Allowed: No Limit ▼

Click the Insert button to insert this item, or scroll down for other options.

Insert

Figure 32. The Insert a True/False Question Form.

Editing a Test Question

When you begin to edit a brand new true/false question, the question editor will appear as shown in Figure 33. The big box at the top of the screen gives you the opportunity to change the parameters you entered when you inserted the true/false question onto the syllabus. The next box gives you the option to Insert, Edit, Move, or Delete elements of the question. Since a brand new question does not contain any elements yet, there is only one box there so far. The Preview box shows what your question looks like so far. Since you have not entered any elements yet, the Preview box only gives the type and title of the question.

Editing a True/false Question

Grant's Tomb

[Preview](#) | ItemID=703
Grant's Tomb

You may change the title by editing the field below:

Grant's Tomb

Do you want the title printed in the left column when this item appears on the syllabus, or would you like the instructions to fill the screen with no column on the left?

Display the Title Column
 Fill the Screen

You may change the relative weight that determines how much this item counts, and you may change the deadline that tells how many days the student has to complete this item.

Weight
 Days Allowed

To register the change, click the Change button.

Change

Printed below is a list of the elements that have been entered so far into this true/false question. Beneath these elements is a [preview](#) that shows how this item will appear on screen.

[Return to the Syllabus Editor](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#) | [Preview](#)

Preview

True/false Question
Grant's Tomb

[Return to the Syllabus Editor](#)

Figure 33. How the true/false question editor appears when you begin a new question.

True/False Question Elements

In Serf, questions consist of elements. You create a question by inserting elements into it. True/false questions consist of five kinds of elements: text, image, icon, answer prompt, and feedbacks. Each element can be inserted anywhere inside the question. This enables you to create any conceivable design or layout in your true/false question. To insert an element into a true/false question, follow these steps:

- Click the Insert option at the point in the question where you want to insert an element.
- The Insert a True/False Question Element form will appear as shown in Figure 34.
- Pull down the menu, and select the kind of element you want to select. You will probably want the first element you select to be a text element.
- A self-prompting form will appear, guiding you in the creation of the element. Follow the onscreen instructions to fill out the form, and then click the Insert button to insert the element.
- To create a properly-functioning true/false question, you must enter an Answer element, which tells Serf whether your question is true or false.
- As you add elements to the question, the preview window will show the current contents of the question. You can test the feedbacks by answering the question in the preview window. Note that you cannot answer the question, however, until you enter an answer button element.

Insert a True/false Question Element

Grant's Tomb

True/false questions consist of an orderly succession of different kinds of elements.
Use the following menu to choose the kind of element you want to create.

Text block (starts a new paragraph)

Then click the Create button to create the event,
or scroll down for other options.

Figure 34. The Insert a True/False Question Element form.

Figure 35 shows a completed True/False question. Notice how the elements that have been inserted include a text block, an answer prompt, and feedbacks that the student will receive depending on whether the student answers true or false. If you do not provide your own custom feedbacks, Serf will display default feedbacks, which simply inform the student whether the answer is right or wrong.

Insert | Edit | Move | Delete | Preview
✎ 1 | Parameter=1 | 🗑

Text Block
Ulysses S. Grant is buried in Grant's tomb.

Insert | Edit | Move | Delete | Preview
✎ 2 | Parameter=5

Answer
True

Insert | Edit | Move | Delete | Preview
✎ 3 | Parameter=6

Feedback for True
That's correct! Ulysses S. Grant is indeed buried in Grant's tomb.

Insert | Edit | Move | Delete | Preview
✎ 4 | Parameter=7

Feedback for False
Sorry, that's not correct. If you read the question a little more carefully, you can see that the question gives away the answer: Grant is buried in Grant's tomb.

Insert | Edit | Move | Delete | Preview

Preview

True/false Question
Grant's Tomb

Ulysses S. Grant is buried in Grant's tomb.

True False

Answer

Figure 35. Elements in a true/false question.

Tip: If you log on as a student, answer the question, then log back on as an instructor and check your gradebook, you will see how the student now has a grade for answering this question.

Multiple Choice Questions

The process for creating multiple choice questions is very similar to the true/false questions you just learned how to create. To create a multiple choice question, follow these steps:

- In the Syllabus section of the Instructor panel, choose the option to Edit the syllabus.
- Go to the place on the syllabus where you want to ask a multiple choice question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll the menu down to where the test questions are, choose to insert a multiple choice question, and click the Create button.
- When the Insert a Multiple Choice Question form appears, follow the on-screen instructions, and click the Insert button.
- The question editor will appear, just like it did for true/false questions, except this time, it is entitled the Multiple Choice Question Editor.

Multiple Choice Question Elements

When you click Insert to create a multiple choice question element, you get the menu of elements shown in Figure 36. Most of these elements are the same as for True/False questions, and they work the same way. What's special about the multiple choice question are the elements entitled "Correct answer (and its feedback)" and "Distractor (and its feedback)." Unlike other testing systems, which limit the number of choices you can have, Serf lets you create as many correct answers and distractors as you like.

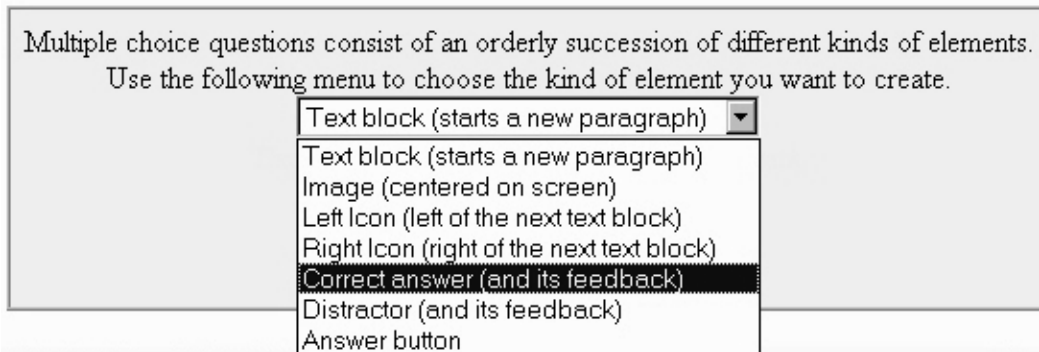


Figure 36. The menu of multiple choice elements on the Insert a Multiple Choice Question Element form.

Figure 37 shows a completed multiple choice question. Notice how it has one correct answer, and three distractors. The preview window shows how these choices get displayed when the question appears on the student's screen.

Insert Edit Move Delete Preview ✎ 1 Parameter=1
Text Block Who is buried in Mozart's tomb?
Insert Edit Move Delete Preview ✎ 2 Parameter=9
Distractor Grant
Feedback No, Grant is buried in Grant's tomb.
Insert Edit Move Delete Preview ✎ 3 Parameter=8
Correct Answer Mozart
Feedback Right you are! Mozart is indeed buried in Mozart's tomb.
Insert Edit Move Delete Preview ✎ 4 Parameter=9
Distractor Michael Jordan
Feedback No, Michael Jordan isn't dead yet.
Insert Edit Move Delete Preview ✎ 5 Parameter=9
Distractor Schubert
Feedback No, Schubert is buried in Schubert's tomb.
Insert Edit Move Delete Preview ✎ 6 Parameter=1
Text Block Click the answer you think is correct, and then press the answer button.
Insert Edit Move Delete Preview ✎ 7 Parameter=10
Button This causes the answer button to appear on screen.
Insert Edit Move Delete Preview
<h2 style="margin: 0;">Preview</h2>
Multiple Choice Question Multiple Tombs
<p style="text-align: center;">Who is buried in Mozart's tomb?</p> <ul style="list-style-type: none"> <input type="radio"/> Grant <input type="radio"/> Mozart <input type="radio"/> Michael Jordan <input type="radio"/> Schubert <p style="text-align: center;">Click the answer you think is correct, and then press the answer button.</p> <div style="text-align: center; margin-top: 10px;"> Answer </div>

Figure 37. Elements in a multiple choice question.

Fill-In-The-Blank Questions

To create a fill-in-the-blank question, follow these steps:

- In the Syllabus section of the Instructor panel, choose the option to Edit the syllabus.
- Go to the place on the syllabus where you want to ask a fill-in-the-blank question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll the menu down to where the test questions are, choose to insert a fill-in-the-blank question, and click the Create button.
- When the Insert a Fill-In-The-Blank Question form appears, follow the onscreen instructions, and click the Insert button.
- The question editor will appear, enabling you to insert fill-in-the-blank question elements. When you click Insert to insert a question element, you will get the menu of elements shown in Figure 38. Elements unique to the fill-in-the-blank question are the Question blank (and any text immediately following), and the feedbacks.

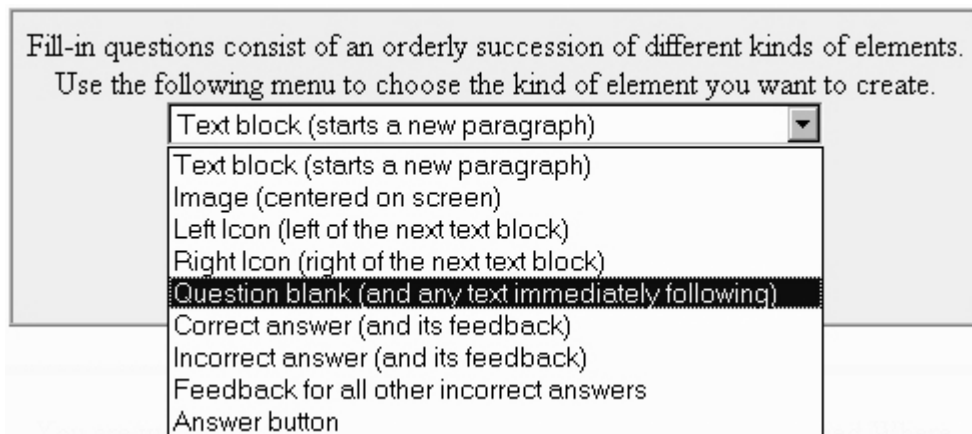


Figure 38. The menu of elements on the Insert a Fill-In-The-Blank Question Element form.

Figure 39 shows a completed fill-in-the-blank question. The preview window shows how the question appears on the student's screen. Notice how the question contains an answer blank in which the student will enter the answer, and an answer button for the student to click after entering the answer.

Insert Edit Move Delete Preview		1 Parameter=1
Text Block	Franz	
Insert Edit Move Delete Preview		2 Parameter=11
Blank	The answer blank is currently 12 characters long.	
Text	is buried in Schubert's tomb.	
Insert Edit Move Delete Preview		3 Parameter=12
Correct Answer	Schubert	
Case	The answer is not case sensitive; capitalization is not judged.	
Feedback	Correct! Franz Schubert is buried in Schubert's tomb.	
Insert Edit Move Delete Preview		4 Parameter=15
Button	This causes the answer button to appear on screen.	
Insert Edit Move Delete Preview		5 Parameter=14
Other Incorrect Answers	Unexpected answers will trigger the feedback provided here.	
Feedback	No, the answer is Schubert. Franz Schubert is buried in Schubert's tomb.	
Insert Edit Move Delete Preview		
<h2 style="margin: 0;">Preview</h2>		
Fill-in Question	Schubert's Tomb	
Franz <input style="width: 100px; height: 20px;" type="text"/> is buried in Schubert's tomb.		
<input style="background-color: #cccccc; border: none; padding: 5px 15px;" type="button" value="Answer"/>		

Figure 39. Elements in a fill-in-the-blank question.

Tip: Just as Serf permits you to have multiple correct answers to a multiple-choice question, you can also create as many correct answers as you want for a fill-in question. You could, for example, create multiple correct answers that would count as correct the expressions “fifty pounds” or “50 pounds” or “50 lbs.”

Image Map Questions

Image maps let you create questions in which the answers are graphics, or parts of graphics. Think of it as a graphical multiple choice question. The instructor defines areas of the image which, when the student clicks, are either judged correct or incorrect, just like the choices in a multiple choice question. The areas of the image can be any size or shape: rectangular, round, or polygonal with any number of sides. To create an image map question, follow these steps:

- In the Syllabus section of the Instructor panel, choose the option to Edit the syllabus.
- Go to the place on the syllabus where you want to ask an image map question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll the menu down to where the test questions are, choose to insert an image map question, and click the Create button.
- When the Insert an Image Map Question form appears, follow the onscreen instructions, and click the Insert button.
- The question editor will appear, enabling you to insert image map question elements. When you click Insert to insert a question element, you will get the menu of elements shown in Figure 40. The correct answer and distractor elements work just like they do for multiple choice questions, except you need to specify the coordinates of the points that define the area chosen.

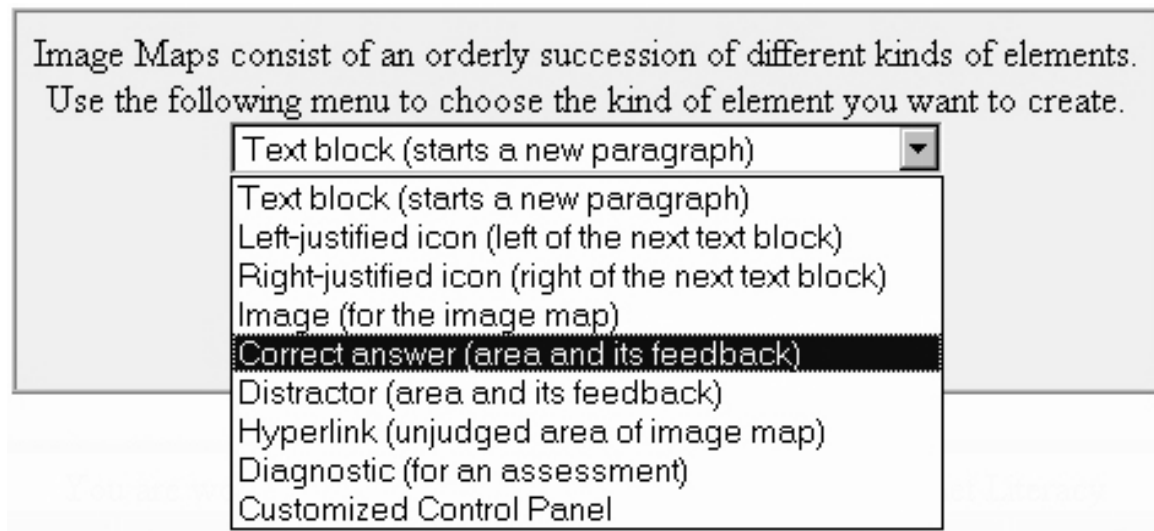


Figure 40. The menu of elements on the Insert an Image Map Question Element form.

Figure 41 shows a completed image map question. Notice how it requires the student to find middle C. The feedbacks tell the student whether their click was too low, too high, or just right. The x,y coordinates in the correct answer and in the distractors were determined by using an ordinary graphics editor (e.g., Paint Shop Pro) to determine the x,y positions of the critical points on the piano pictured in this question.

<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	1 Parameter=1
Text Block	Can you find Middle C on the music keyboard below? Click the key that you think's Middle C, and then I'll tell you if your answer is too low, too high, or just right.
<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	2 Parameter=30
Image	http://www.udel.edu/fth/bitmaps/middleC.jpg
Centering	This image will be centered.
<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	3 Parameter=32
Distractor	0,0,112,32
Feedback	Sorry, the note you clicked is too low. Middle C is higher than that.
<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	4 Parameter=31
Correct Answer	112,0,118,32
Feedback	Yes! That's exactly correct. You found Middle C just fine!
<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	5 Parameter=32
Distractor	119,0,238,32
Feedback	No, the note you clicked is too high. Middle C is lower than that.
<u>Insert</u> <u>Edit</u> <u>Move</u> <u>Delete</u> <u>Preview</u>	

Preview


Image Map	Where's Middle C?
Can you find Middle C on the music keyboard below? Click the key that you think's Middle C, and then I'll tell you if your answer is too low, too high, or just right.	
	

Figure 41. Elements in an image map question.

Short Answer Questions

To create a short answer question, follow these steps:

- In the Syllabus section of the Instructor panel, choose the option to Edit the syllabus.
- Go to the place on the syllabus where you want to ask a short answer question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll the menu down to where the test questions are, choose to insert a short answer question, and click the Create button.
- When the Insert a Short Answer Question form appears, follow the on-screen instructions, and click the Insert button.
- The question editor will appear, enabling you to insert short answer question elements. When you click Insert to insert a question element, you will get the menu of elements shown in Figure 42. The Correct and Wrong phrase elements enable you to specify correct and wrong phrases that are either permitted or forbidden to be in the answer, and where in the answer the phrases must appear.

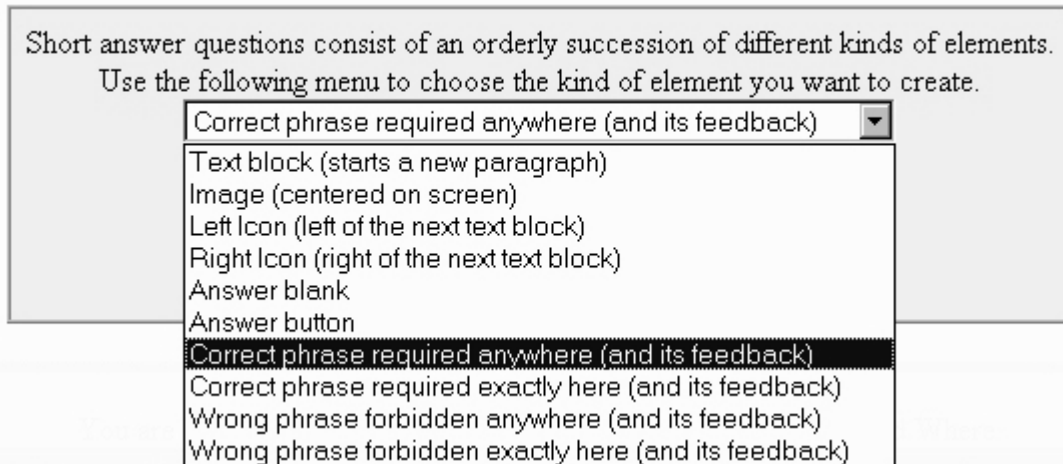


Figure 42. The menu of elements on the Insert a Short Answer Question Element form.

Figure 43 shows a completed short answer question. Notice how it requires the student to answer three required elements in a certain order, namely, Ulysses, S., and Grant. If you are clever when you create the feedbacks, Serf can do some pretty fancy judging when the user answers. For example, if the student only answers “Grant,” Serf will reply: “You failed to include the first name of the person buried in Grant's tomb. His first name is Ulysses. You left out the middle initial, which is S. You correctly entered the last name.” If the student answers “Ulysses Grant,” Serf will respond “You left out the middle initial, which is S. Your answer is incorrect. The person buried in Grant's tomb is Ulysses S. Grant.”

<p>Insert Edit Move Delete Preview 1 Parameter=1</p> <p>Text Block Who is buried in Grant's tomb? To get the answer correct, your reply must include the complete first name, middle initial, and last name of the person buried there.</p>
<p>Insert Edit Move Delete Preview 2 Parameter=1</p> <p>Text Block Type your answer into the box below, then click the Answer button.</p>
<p>Insert Edit Move Delete Preview 3 Parameter=16</p> <p>Blank The answer blank will be 50 characters wide and 4 lines high.</p>
<p>Insert Edit Move Delete Preview 4 Parameter=17</p> <p>Button This causes the answer button to appear on screen.</p>
<p>Insert Edit Move Delete Preview 5 Parameter=19</p> <p>Correct Here Ulysses</p> <p>Case The answer is not case sensitive, capitalization is not judged.</p> <p>OK feedback</p> <p>Wrong feedback You failed to include the first name of the person buried in Grant's tomb. His first name is Ulysses.</p>
<p>Insert Edit Move Delete Preview 6 Parameter=19</p> <p>Correct Here S.</p> <p>Case The answer is not case sensitive, capitalization is not judged.</p> <p>OK feedback</p> <p>Wrong feedback You left out the middle initial, which is S.</p>
<p>Insert Edit Move Delete Preview 7 Parameter=19</p> <p>Correct Here Grant</p> <p>Case The answer is not case sensitive, capitalization is not judged.</p> <p>OK feedback You correctly entered the last name.</p> <p>Wrong feedback Your answer is incorrect. The person buried in Grant's tomb is Ulysses S. Grant.</p>
<p>Insert Edit Move Delete Preview</p>
<p>Preview</p>
<p>Short Answer Question Grant</p> <p>Who is buried in Grant's tomb? To get the answer correct, your reply must include the complete first name, middle initial, and last name of the person buried there.</p> <p>Type your answer into the box below, then click the Answer button.</p> <div style="border: 1px solid gray; padding: 5px; width: fit-content; margin: 0 auto;"> <input style="width: 90%; height: 20px;" type="text"/> </div> <p style="text-align: center; margin-top: 10px;"> <input type="button" value="Answer"/> </p>

Figure 43. Elements in a short answer question.

Slider Questions

To create a slider question, follow these steps:

- In the Syllabus section of the Instructor panel, choose the option to Edit the syllabus.
- Go to the place on the syllabus where you want to ask a slider question, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll the menu down to where the test questions are, choose to insert a slider question, and click the Create button.
- When the Insert a Slider Question form appears, follow the onscreen instructions, and click the Insert button.
- The question editor will appear, enabling you to insert slider question elements. When you click Insert to insert a question element, you get the menu of elements shown in Figure 44. Elements particular to the slider type of question are the notch, which creates notches on the slider, and the slider itself, which prompts the user for an answer.

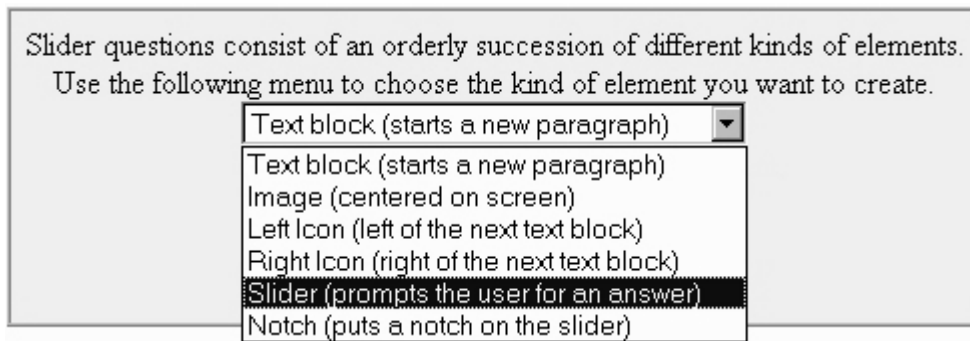


Figure 44. The menu of slider elements on the Insert a Slider Question Element form.

Figure 45 shows a completed slider question. The preview window shows how the question appears on the student's screen. Notice how the slider has five notches, which correspond to the five notch elements entered in the question editor.


<p>Insert Edit Move Delete Preview 1 Parameter=1</p> <p>Text Block When Ulysses S. Grant died, how far along his lifeline was he? Click the spot on his lifeline where you think Grant was when he died.</p>
<p>Insert Edit Move Delete Preview 2 Parameter=23</p> <p>Notch This puts a notch on the slider.</p> <p>Incorrect This notch is considered an incorrect answer.</p> <p>Feedback No, Grant certainly was not at the beginning of his lifeline when he died.</p>
<p>Insert Edit Move Delete Preview 3 Parameter=23</p> <p>Notch This puts a notch on the slider.</p> <p>Incorrect This notch is considered an incorrect answer.</p> <p>Feedback No, Grant was older than that when he died.</p>
<p>Insert Edit Move Delete Preview 4 Parameter=23</p> <p>Notch This puts a notch on the slider.</p> <p>Incorrect This notch is considered an incorrect answer.</p> <p>Feedback No, Grant was further than midway through his life when he died.</p>
<p>Insert Edit Move Delete Preview 5 Parameter=23</p> <p>Notch This puts a notch on the slider.</p> <p>Incorrect This notch is considered an incorrect answer.</p> <p>Feedback Almost, but not quite; Grant was even further along his lifeline when he died.</p>
<p>Insert Edit Move Delete Preview 6 Parameter=23</p> <p>Notch This puts a notch on the slider.</p> <p>Correct This notch is considered a correct answer.</p> <p>Feedback Yes, that's correct, Grant was at the end of his life when he died.</p>
<p>Insert Edit Move Delete Preview 7 Parameter=22</p> <p>Slider This causes the answer blank to appear on screen.</p> <p>Left End Label Birth</p> <p>Right End Label Death</p>
<h3>Preview</h3>
<p>Slider Question Grant's Lifeline</p> <p>When Ulysses S. Grant died, how far along his lifeline was he? Click the spot on his lifeline where you think Grant was when he died.</p> <p style="text-align: center;">Birth  Death</p>

Figure 45. Elements in a slider question.

Creating Examinations

As you learned in the previous part of this manual, it is possible to insert test questions directly onto the syllabus. While inserting questions directly onto the syllabus works fine if you only have a few questions to ask, it can really clutter your syllabus if you have a lot of questions to ask. When you want to ask more than two or three questions, it's better to ask them as part of an exam. This part of the *Instructor Guide* shows you how to insert an exam on the syllabus, create one or more sections in the exam, and connect each section to a pool of questions that Serf will use to decide what question to ask next.

Inserting an Exam on the Syllabus

To insert an exam on the syllabus, you use the same Insert feature that you have been using all along to add items to your syllabus. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert an exam, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert an examination, as shown in Figure 46.
- Click the Create button to insert the exam onto the syllabus.

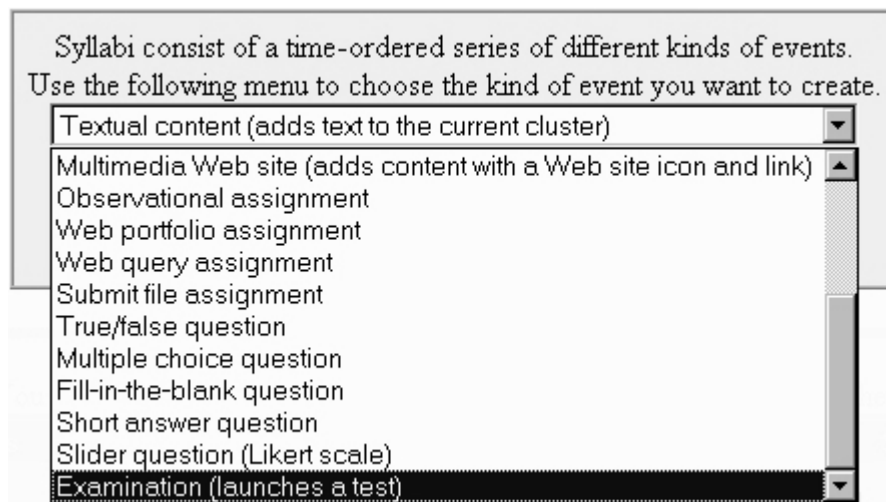


Figure 46. Inserting an examination onto a syllabus.

Serf will respond by displaying the Insert an Examination form shown in Figure 47. This form prompts you to do the following:

- In the big empty text box, enter the text that you want to have appear directly on your syllabus to describe the examination to your students.
- If you want to insert an existing exam, pull down the Examinations menu and select the exam you want to enter. If you have not created any exams yet, this menu will be blank.
- If you want to create a new exam, enter the title you want the new exam to have. Make the title have something to do with the content of the exam, because the title will appear onscreen when the student begins taking the exam.
- By default, the title will appear in a column alongside the content describing the exam when the text gets printed on the syllabus. If you want to suppress the printing of the title column, click the option to Fill the Screen.
- If this exam counts toward the student's grade in the course, pull down the Weight menu, and set the weight. Make the weight higher or lower, depending on how much you want this item to count with respect to the other assignments you've placed on your syllabus.
- If you want to set a deadline by which the student must complete the exam, pull down the Days Allowed menu and select the number of days allowed.

Enter the block of text that will appear on screen to provide the content for this event. The text may contain HTML tags.

This exam will test your knowledge of the reading you did in Chapter 4, which deals with famous burial grounds.

You can either insert an existing exam or create a new one. To insert an existing exam, use the menu to select the exam.

Examinations ▾

To create a new exam, use the field below to enter the title you want the new exam to have.

Who's Buried Where?

Do you want the title to appear in the left column alongside this item, or would you like this item to fill the screen with no column on the left?

Display the Title Column Fill the Screen

If this exam counts toward the student's grade in the course, specify the relative weight.

If this exam has a deadline, specify how many days the student has to complete it.

Weight: 5 ▾ Days Allowed: No Limit ▾

Click the Insert button to insert this item, or scroll down for other options.

Insert

Figure 47. The Insert an Examination form.

When you click the Insert button, Serf will insert the exam. If you are creating a new exam, Serf will display the examination editor, as shown in Figure 48. The examination editor is self-prompting. Depending on where you are in the creation of the exam, the editor will give you different instructions, telling you what you need to do next in creating the exam. When you create a new exam, for example, the onscreen instructions remind you that every exam must contain at least one section. Each section of the exam draws questions from an item pool. Before you can create a section on an exam, you must have created at least one item pool. Notice how the option to Create a Pool appears right below the instructions.

If you scroll down and peruse the Overall Exam Parameters window, you will see how Serf has provided you with an opportunity to modify the parameters you set when you inserted the exam onto your syllabus. In addition, you can change the following settings, which Serf presets to values that you are most likely to want:

- Is this just a practice exam, or does it count for a grade?
- If this exam counts toward the student's grade, you may specify the relative weight.
- If the student must achieve a certain score to pass this exam, you may specify the percentage.
- How many times may the student repeat this exam to try for a higher score?
- Are students permitted to review the answers they give to the questions on this exam?
- If this exam has a deadline, use the Deadline menu to set the number of days within which the student must take the exam.
- If the student should not be permitted to take the exam too far ahead of schedule, set the number of days ahead of schedule that the student can take the exam.
- If you want this exam to be administered only during a certain time each day, set the begin and end times when the exam will be available.

While Serf presets these options to the settings most authors will want, please do not hesitate to experiment with changing these and the other testing parameters you learn about as you continue studying this *Instructor Guide*.

Tip: If a student misses a scheduled exam, and you want to allow that student to take the exam at another time, you can set a special time by (1) going into the gradebook, (2) clicking to see that student's grades, (3) clicking the assignment you want to reschedule, and (4) clicking that assignment's Scheduling option.

Editing Examination

Who's Buried Where?

Printed below is a form that lets you set overall exam parameters that apply to every section in this exam. Use the menus and fields to set the parameters, then click the Change button to make them take effect.

Every exam must have at least one section. This is a newly-created exam that doesn't have any sections yet. You must add a section in order to put questions on the exam. Test items get selected from a question pool. If the question pool doesn't exist yet, you should create the pool before adding a section to the exam.

[Add a Section](#) | [Create a Pool](#) | [Edit a Pool](#) | [Return to the Syllabus](#)

Overall Exam Parameters
Who's Buried Where?

Edit the following field if you want to change the title of this exam:

Who's Buried Where?

If you want to change the text that appears on the syllabus regarding this exam, you may do so in the text area below:

This exam will test your knowledge of the reading you did in Chapter 4, which deals with famous burial grounds.

Do you want the title printed in the left column when this exam appears on the syllabus, or would you like the instructions to fill the screen with no column on the left?

Display the Title Column
 Fill the Screen

Is this just a practice exam, or does it count for a grade?

Practice exam
 This exam counts

If this exam counts toward the student's grade, specify the relative weight.

Weight

If the student must achieve a certain score to pass this exam, specify the percentage:

Criterion Percentage

How many times may the student repeat this exam to try for a higher score?

Retries

Are students permitted to review the answers they give to the questions on this exam?

Yes
 No

If this exam has a deadline, use the Deadline menu to set the number of days within which the student must take the exam.

Deadline in Days

If the student should not be permitted to take the exam ahead of schedule, set the number of days ahead of schedule that the student can take the exam.

Days Ahead of Schedule

If you want this exam to be administered only during a certain time each day, set the begin and end times when the exam will be available:

Start Time: Hour Minute Stop time: Hour Minute

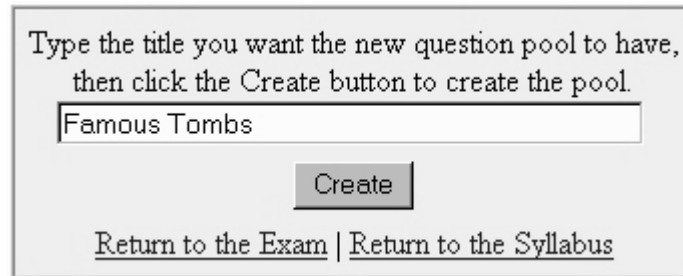
To register changes made in this section, click the Change button.

[Add a Section](#) | [Create a Pool](#) | [Edit a Pool](#) | [Return to the Syllabus](#)

Figure 48. How the Examination Editor appears when you create a new exam.

Creating and Editing Question Pools

To create a question pool, click the option to [Create a Pool](#). This option appears many places throughout the Serf Testing System, thereby enabling you to create a pool whenever you want. When you click the option to create a pool, Serf displays the Create a Question Pool form shown in Figure 49. Follow the onscreen instructions to give the pool a title, then click the Create button.



Type the title you want the new question pool to have,
then click the Create button to create the pool.

[Return to the Exam](#) | [Return to the Syllabus](#)

Figure 49. The Create a Pool form.

After you click the Create button, Serf will display the Pool Editor, which lets you insert, edit, move, and delete items in the pool. When you first create a new pool, it will not contain any items, so the display is brief, as shown in Figure 50.

Editing Pool

Famous Tombs

You may change the title of this pool by editing the title field:

To register the change, click the Change Title button.

Printed below is a list of the items that have been entered so far into this item pool. To add an item to the pool, click the Insert option at the spot in the pool where you want the new item to go.

[Create a Different Pool](#) | [Return to the Exam](#) | [Return to the Syllabus](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#)

Figure 50. How the Pool Editor appears at the beginning of the creation of a pool.

Inserting a Question Into a Pool

To insert an item into the pool, click the Insert option. Serf displays the Insert Item into Pool form shown in Figure 51. Notice how this form gives you the option to insert an existing item or create a new item. If you want to insert an existing item, pull down the menu, and select the item you want to insert. Prior to clicking the Insert button to insert the item, you have the option to change the item's relative weight, that is, how much it will count in relation to the other items in the pool. You can also set a time limit on the item, although setting time limits on individual items is probably not an option you want to choose very often. Especially when an exam is new, it is a good idea to set the option that lets the students comment on your test questions. You will see the comments when you review the grades your students got on the exam.

Use the following menu to select the item you want to insert into the pool.
If you do not find the item you want, you can create a new item.

Item 1: Grant's Tomb

By default, items in a question pool have an equal weight of 1.
Use the Weight menu if you want this item counted differently.

Weight 1

Items in a question pool do not normally have individual time limits.
Enter a time limit if you want this item to have its own specific time limit:

Minutes 0 Seconds 0

Do you want the user to be able to record comments about this item
when it appears on an examination?

Yes No

Click the Insert button to insert the item,
or scroll down for other options.

Insert

Figure 51. The Insert Item into Pool form.

Figure 52 shows how your pool editor will appear after you enter several questions into the pool. There is no limit to the number of items a pool may contain. If you enter more than ten items, Serf will provide an index that lets you move quickly back and forth through the items to edit them. When you finish editing the pool, click the option to return to the exam. Then you will be ready to add a section to the exam.

Editing Pool

Famous Tombs

You may change the title of this pool by editing the title field:
Famous Tombs
To register the change, click the Change Title button.

[Change Title](#)

Printed below is a list of the items that have been entered so far into this item pool. To add an item to the pool, click the Insert option at the spot in the pool where you want the new item to go.

[Create a Different Pool](#) | [Return to the Exam](#) | [Return to the Syllabus](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#) 1 | ItemID=1 | Weight=1 | TimeLimit=0 | Comment=0

True/false Question Grant's Tomb

Grant is buried in Grant's tomb.

True False

[Answer](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#) 2 | ItemID=3 | Weight=1 | TimeLimit=0 | Comment=0

Fill-in Question Schubert's Tomb

Franz is buried in Schubert's tomb.

[Answer](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#) 3 | ItemID=4 | Weight=1 | TimeLimit=0 | Comment=0

Short Answer Question Grant

Who is buried in Grant's tomb? To get the answer correct, your reply must include the complete first name, middle initial, and last name of the person buried there.

Type your answer into the box below, then click the Answer button.

[Answer](#)

[Insert](#) | [Edit](#) | [Move](#) | [Delete](#)

[Create a Different Pool](#) | [Return to the Exam](#) | [Return to the Syllabus](#)

Figure 52. How the Pool Editor appears after you enter several questions into the pool.

Adding Sections to an Exam

As mentioned earlier, every exam needs to contain at least one section. You use the exam editor to add sections to an exam. If the exam editor does not already appear on your screen, click the option to return to the exam, or use the syllabus editor to click the option to edit the exam. To add a section to the exam, follow these steps:

- Click the option to [Add a Section](#) to the exam.
- The Insert Section Into Exam screen appears as shown in Figure 53.
- Type the title you want the section to have into the title field.
- In the Weight field, if you want this section to have a different weight than other sections on this exam, enter the relative weight you want this section to have. If you want all of the sections on the exam to have an equal weight, or if there is just one section on this exam, you can leave the Weight field blank.
- Pull down the Pool menu and select the question pool from which you want questions to be taken in this section of the exam. If no pools exist yet, the menu will be empty. To create a new pool, click the option to [create a new pool](#).
- By default, questions will be selected from the pool in order sequentially; if you want the questions to appear in random order, click the Random option.
- By default, the section will have a fixed length, meaning that every student will be asked the same number of questions. If you would rather have Serf keep asking questions until the students achieve a certain percentage score on this section of the exam, click the Competency-Based option.
- By default, Serf will ask all of the questions in the question pool. If you want a different number of questions to be asked, pull down the Length menu and select the number of questions you want students to be asked in this section of the exam.
- If you chose the option to make this section of the exam be competency-based, also pull down the Criterion Percentage menu and set the percentage correct that students must attain in order to pass this section of the exam.
- If the questions are being presented sequentially, Serf will begin by asking the first question in the pool, unless you pull down the Origin menu and tell Serf to begin asking a different question first.
- By default, students get to see their scores at the end of the section. If you want to change that, pull down the scores menu, which lets you change the setting to let students see their score after each item or at the end of the exam instead.
- By default, students receive feedback after each item. If you want to change that, pull down the feedback menu, which lets you change the setting to provide feedback at the end of the section, at the end of the exam, or never.
- If you want this section of the exam to have a time limit, use the time limit menus to set the number of hours, minutes, and seconds.
- By default, students are not permitted to skip questions in the midst of an exam. If you want students to be able to skip questions in this section of the exam, click Yes to the question asking you about that.
- By default, students are not permitted to change their answers to test questions prior to being graded. If you want students to be able to change their answers, click Yes to the question asking you about that.
- In the two large text boxes at the end of the form, you can provide optional blocks of text that will appear at the beginning and end of this section of the exam.
- In the two small boxes at the end of the form, you can provide Web links that will branch the student to different Web pages based on success or failure of this section of the exam. Please note that these links will appear as optional links the students may take if they want to. Students are not forced to follow these links.
- When you are done filling out the form, click the Insert button to insert the section.

Type into the field below the title you want this section to have:

If you want to specify how much this section will count in relation to other sections in the exam, enter the relative weight:
Weight

Use the Pool menu to specify the question pool for this section of the exam, or you may [create a new pool](#) for this section.
Pool

Do you want the questions to be selected from the pool in order sequentially, or do you want the questions to appear in random order?
 Sequential Random

Do you want this section to be a fixed length, or would you like to keep asking questions until the student meets the competency criterion for this section of the exam?
 Fixed-length Competency-based

How many items do you want presented in this section of the exam?
Length

What score must the student achieve in order to pass this section of the exam?
If this section is competency-based, what percentage of the questions must the students answer correctly in order to meet the competency?
Criterion percentage

If the questions are being presented sequentially, which question in the specified item pool should be asked first?
Origin

When will students be permitted to see their scores?

When do you want feedback given in this section of the exam?

If you want this section of the exam to have a time limit, use the following menus to say how long:
Hours Minutes Seconds

Are students allowed to skip questions in this section of the exam?
 Yes No

If this section of the exam is not competency-based, may students change their answers to the test questions prior to being graded?
 Yes No

You may supply an optional block of text that will appear at the **beginning** of this section of the exam. The text may contain HTML codes.

You may supply an optional block of text that will appear at the **end** of this section of the exam. The text may contain HTML codes.

If the student **fails** this section of the exam, you may supply a link to a Web resource that will appear at the end of the section:

If the student **passes** this section of the exam, you may supply a link to a Web resource that will appear at the end of the section:

Click the Insert button when you are ready to insert this new section into the exam.

[Return to the exam editor](#)

Figure 53. The Insert a Section Into an Exam screen.

Previewing an Exam

If you click the option to return to the syllabus, you will see how Serf provides you with an option to preview this exam. You get that message because you are the course instructor. If you click the preview option, Serf will ask you the questions on the exam, much like students will take the test, except that you get some special instructor options that let you break out of the test whenever you want, whereas students cannot do that. Since you are an instructor, Serf will not keep records of your performance on the test, but you will see what your score would have been, as if you were an actual student.

Administering an Exam

You will be happy to know that there is no work on your part in administering an exam. Serf handles everything automatically. When a student launches an exam from your syllabus, Serf logs the student into the Exam Status database, which keeps track of what the student is doing in the exam. If something happens to interrupt the exam, such as a power failure or a datacomm outage, Serf remembers exactly where the student is in the exam and restarts the student there when the session resumes. If a student tries to cheat on the exam by pressing the browser's Back key, Serf detects that, informs the student that the exam must be taken in the order in which it's administered, and returns the student to the proper place in the exam.

Figures 54 to 58 show the kinds of screens the students will see at various stages in the exam. Depending on the options you chose when you created the exam, the content of these screens may vary.

Take an Examination

You are about to begin taking the exam entitled
Who's Buried Where.

This exam will be presented one item at a time,
with each item appearing on its own separate Web page.

You must score at least 75% in order to pass this exam.

Click the Begin button to start the exam.

Figure 54. The exam begins with the Take an Examination screen.

Beginning Section 1

Famous Tombs

This section of the exam is entitled
Famous Tombs.

This section of the exam has 4 questions on it.

You will be shown your score after each item you answer.
Feedback will be provided at the end of the section.

You will not be permitted to skip questions on this part of the exam.
You will not be permitted to change your answers on this part of the exam.

Click the Begin button to start this section of the exam.

Figure 55. Each section of an exam begins with the Beginning Section screen.

Need to Resume Exam

Who's Buried Where

You are not allowed to move back to previous screens while taking an exam.
Please click the Resume button to continue taking the exam.

Figure 56. If the student moves back to a previous question while answering an item, Serf displays the Need to Resume Exam screen.

End of Section 1

Famous Tombs

Your score on this section of the exam is 66%.

Scroll down if you want to review the feedback to the answers
you gave to the questions in this section of the exam.

There are no more questions on this exam.
Click the Finish button when you're ready to move on.

Figure 57. Each section of an exam ends on the End of Section screen.

End of Examination

Who's Buried Where

Your score on this exam is 66%.
You did not pass this exam, for which a passing grade is 75%.

Before you return to the syllabus,
you may leave a comment regarding one or more
of the questions that were asked on this exam.

Click the Syllabus button when you're ready to return to the syllabus.

Figure 58. The exam ends with the End of Examination screen.

Inspecting the Results of an Exam

When the student completes the exam, the student's score appears automatically in your gradebook. To see any student's score on the exam, simply click the Gradebook option, and click the name of the student whose score you want to see. If you want to make a comment about a student's score, click the score, and you get the form shown in Figure 59 that lets you leave a comment. If a student has used up all of the chances to get a higher score on the exam, and you still want to give another chance, pull down the Grade menu and choose the option to Ungrade the exam. This enables the student to retake the exam.

Grade an Examination

The student named Fred Hofstetter,
whose Serf name is Fred and e-mail address is fhf@udel.edu,
got a grade of 66 on the exam entitled:
Who's Buried Where

You may [inspect the exam](#) the student took
to get this grade, complete with answers, feedbacks, and comments.

If you want to leave a comment for the student regarding this assignment,
you may do so in the box below.

You can adjust the grade the student got on this exam if you wish.
Use either the Letter Grade menu or the Percent menu to select the grade you want to assign.

Letter Grade

Click the Grade button to record the student's grade.

You may also [return to the gradebook](#) without changing the grade.

Figure 59. The Grade an Exam screen lets you leave a comment regarding the student's score.

Notice how the grading form in figure 59 has an option to [inspect the exam](#). Clicking that option brings up a screen displaying all of the questions that were asked on the exam, the answers given by the student, the feedback the student received, and any comments the student may have left for you regarding the test questions.

Creating Surveys

Creating a survey is very much like creating an exam. In fact, you can use the same exact question pools and items on a survey that you use on an exam. The only difference is how Serf presents the items. When Serf administers an exam, the questions get judged, and the student gets a score. When Serf administers a survey, however, the items don't get judged, and the student does not get a score. Instead, Serf presents the items and records the student's responses, which the instructor can view at any time by clicking Gradebook and choosing the option to view the results of the survey.

To create a survey, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a survey, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a survey.
- The rest of the steps are exactly like the process for creating an examination. The only noticeable difference is that the survey has fewer options to choose from, because surveys are simpler than exams.
- If you have not learned how to create exams yet, go back to the part of this manual that shows you how to create an exam, and practice making an exam. Once you know how to create an exam, you will be able to create a survey, without any further instructions.

Creating Diagnostic Assessments

A diagnostic assessment is a series of questions that get presented exactly like the items on a survey. The only difference between a survey and an assessment is that the answers that students give in an assessment can add or subtract weight from one or more diagnoses. After the student finishes answering the questions, if the accumulated weight is high enough to trigger one or more of the diagnoses, Serf displays the diagnoses that got triggered.

Before you try making a diagnostic assessment, you should first learn how to create a survey, as described above. Then, when you are ready to create a diagnostic assessment, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a diagnostic assessment, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a diagnostic assessment.
- Onscreen instructions will prompt you to add at least one section, which will present items from a pool. This works exactly the same as when you create an exam or a survey.

To make the assessment diagnose something, you need to create one or more diagnoses and associate them with the responses to the questions asked on the assessment. To create a diagnosis, follow these steps:

- If you are not already on the Editing Self-Assessment screen, use the Detailed Index to go to the assessment, and click the option to edit it.
- The Editing Self-Assessment screen gives you the option to create or edit a diagnosis. Click the option to create a diagnosis. The Create a Diagnosis screen appears, as shown in Figure 60.
- In the title field, type the name you want the diagnosis to have.
- Pull down the Weight menu and set the weight that will trigger this diagnosis. If you are doing this for the first time, set it to 10; you can easily change this later on.
- In the feedback box, type or paste the message you want the user to receive if this diagnosis gets triggered.
- Click the Create button to create the diagnosis.
- If you ever need to change any of the information just entered, click the option to Edit a Diagnosis, and follow the onscreen instructions.

Type the title you want the new diagnosis to have:

Set the sum of the weights that will trigger this diagnosis.
Trigger weight: ▼

Should the title be displayed when this diagnosis gets triggered?
 Display the title Hide the title

Enter the feedback message the user will see when this diagnosis gets triggered:

In what format do you want this message to flow onto the screen?
 Plain text (preserves carriage returns)
 Preformatted (preserves all formatting)
 HTML (ignores carriage returns)

Do you want a border to be drawn around the message?
 Display the border Suppress the border

Click the Create button to create the diagnosis.

[Return to the Assessment](#) | [Return to the Syllabus](#)

Figure 60. The Create a Diagnosis screen.

The final task in creating a diagnostic assessment is to associate the responses to the test questions with the diagnoses you created. To associate a test question with a diagnosis, follow these steps:

- If you are not already on the Editing Self-Assessment screen, use the Detailed Index to go to the assessment, and click the option to edit it.
- Choose the option to edit the pool that contains the test questions.
- When the pool editor appears, click the option to edit the question with which you want to associate a diagnosis.
- When the question editor appears, choose the option to insert a new element into the question.
- When the element menu appears, pull down the choices, select Diagnostic (for an assessment), and click the Create button.
- The Insert a Diagnostic screen will appear. It has three menus that enable you to associate an answer with a diagnosis, as illustrated in Figure 61.
- The first menu lists the answers that have been entered for the question so far. Pull down the menu and choose the answer with which you want to associate a diagnosis.
- The second menu determines how much will get added or subtracted from the weight that triggers the diagnosis. Scroll the menu up to choose numbers that get subtracted, or scroll it down for numbers that add weight.
- The third menu lets you choose the diagnosis. When you pull this menu down, you see a list of the diagnoses you created. Choose the diagnosis you want associated with this item.
- Click the Insert button to insert the diagnosis. You will see how the diagnosis has been added to the list of elements in the item. If you ever want to change the values in the diagnostic, click the edit option inside the diagnostic element you wish to modify.

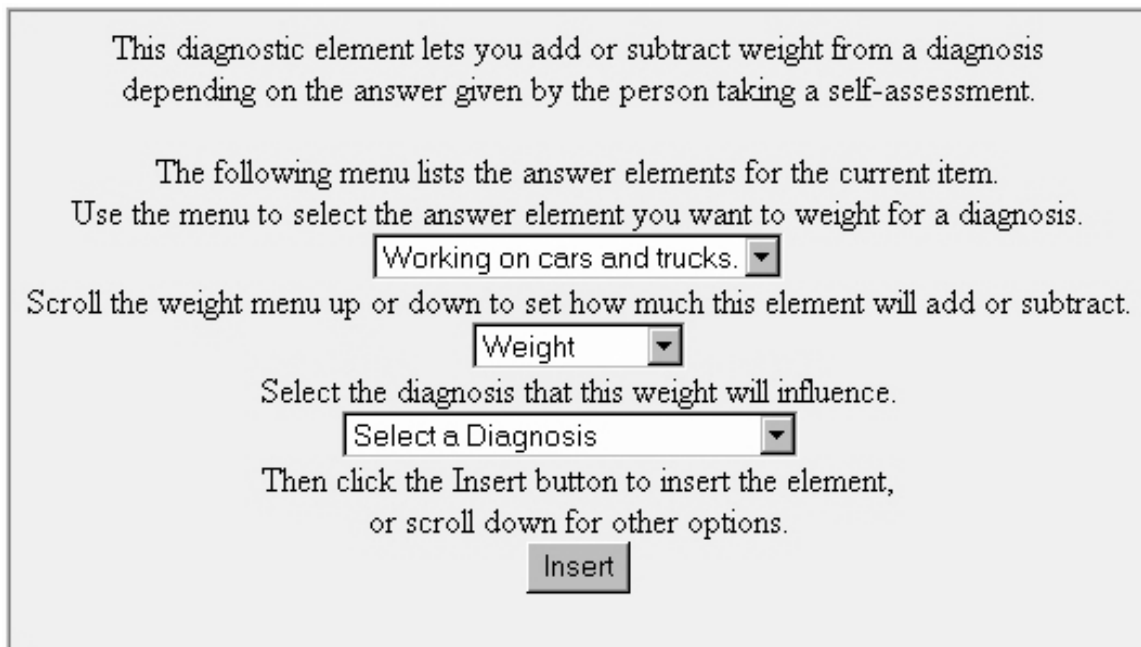


Figure 61. The Insert a Diagnostic screen.

After you create the diagnoses and associate them with your test items, you can try the assessment by clicking the option to return to the syllabus and preview the assessment. After you get the assessment working the way you want it, log on as a student, and run the assessment from the viewpoint of a student. Then log back on as an instructor, click Gradebook, and click the option to review the results of the assessment. You will see how you get an item analysis of the questions presented, plus a summary of the diagnoses made for each student who has completed the assessment.

Creating Tutorial Strands of Instruction

Tutorial strands enable you to use Serf to present instructional sequences consisting of expository frames and test questions with feedback that is intended to help students learn. Like surveys and diagnostic assessments, tutorial strands use Serf's examination engine to present, sequence, and record student progress through the material. If you know how to create an exam with Serf, you also know how to create a strand. After you learn how to create exams and practice administering them, you will be ready to try creating a strand. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a strand, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a strand.
- The rest of the steps are exactly like the process for creating an examination. The only noticeable difference is that the strand has fewer options to choose from, because strands are simpler than exams.
- If you have not learned how to create exams, go back to the part of this manual that shows you how to create an exam, and practice making an exam. Once you know how to create an exam, you will be able to create a strand, without any further instructions.

Launching External Processes

Serf contains a data structure that enables you to launch external processes and pass data as part of the launch. The external process receives the data and interacts with the user accordingly. There are two kinds of external launches: graded and ungraded. If the launch is graded, Serf expects it to return the score that the student received from the external process. If the launch is ungraded, on the other hand, no response is awaited.

Ungraded External Processes

To launch an ungraded external process, which can receive data from Serf but does not return anything in reply, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert an ungraded external process, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert an ungraded external process.
- When the ungraded external process editor appears, you can use the familiar menu to insert the text and graphics you want onscreen. You could enter a text block, for example, that says "This is the world's first ungraded external process. Why don't you click the button to launch it?"
- In the external process editor, click Insert, and choose the option to insert an external launch variable. Give this variable the name and value that you want to pass to the external process. Repeat this step for each variable you want to send to the external process. The variables will get sent in the order in which you arrange them in the external process editor.
- After you have inserted your variables, at the very bottom of the external process editor, click Insert, and choose the option to insert an external launch button. Follow the onscreen instructions, which prompt you to put into the action field the `http://` address that will launch the external process. (This is the Action field for the Post method that will post the data to the external process.)
- If you want text or graphics underneath the button, you can insert them, as you like.
- To test the launch, return to your syllabus, and when the item appears, click the button you created, which will launch the external process and post the variables you entered.

Graded External Processes

A graded external process follows the same design strategy as an ungraded process, except that in addition to posting data, the graded external process expects to receive a response in reply. To launch a graded external process, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a graded external process, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a graded external process.
- When the graded external process editor appears, you can use the familiar menu to insert the text and graphics you want onscreen. You could enter a text block, for example, that says “This is the world’s first graded external process. Click the button to see how it works.”
- In the external process editor, click Insert, and choose the option to insert an external launch variable. Give this variable the name and value that you want to pass to the external process. Repeat this step for each variable you want to send to the external process. The variables will get sent in the order in which you arrange them in the external process editor.
- In the external process editor, click Insert, and choose the option to insert the external return address. This will be passed to your external process so it can provide the student with a button to click at the end of the process to return them to Serf and pass the grade and optional feedback to Serf.
- In the external process editor, click Insert, and choose the option to insert the external grade return. This is where you set the name of the variable in which you will return the grade to Serf.
- In the external process editor, click Insert, and choose the option to insert the external feedback return. This is where you set the name of the variable in which you will return feedback to Serf.
- After you have inserted your variables, at the very bottom of the external process editor, click Insert, and choose the option to insert an external launch button. Follow the onscreen instructions, which prompt you to put into the action field the `http://` address that will launch the external process. (This is the Action field for the Post method that will post the data to the external process.)
- If you want text or graphics underneath the button, you can insert them, as you like.
- To test the launch, return to your syllabus, and when the item appears, click the button you created, which will launch the external process and post the variables you entered. Please note that Serf will pass the launch variables in the exact order in which you specify them in the external process item. Thus, you insert them into the item in the order in which you want them passed to the external process. Likewise, the external process must pass the Grade and Feedback to Serf in the same order in which you inserted them into the item.

Customizing the Look and Feel of Serf

By default, every Serf screen has a common look and feel. At the top of the screen is the menu bar, which consists of a row of icons the user can click to access instructional resources. Next comes the banner, which is a wide, narrow graphic associated with the course. Under the banner comes the course content, which is normally divided into two columns. Then comes the control panel, which provides navigation and communication options on every screen. Finally comes the trailer, which consists of copyright or trademark information and logos linked to affiliated Web sites.

Experienced authors who want to override this default look and feel of Serf can create more advanced environments by making custom control panels, menu bars, banners, and trailers that can replace the default screen elements. The customization process for all four of these elements is the same. We begin by learning how to create a custom control panel. Once you can make a custom panel, it will be easy to learn how to make custom menu bars, banners, and trailers. You will even learn how to use the table-oriented screen layout options to create custom course content any place on your syllabus. Like all editing in Serf, the customization process is object-oriented and permits authors to create any conceivable combination of text, links, and graphics without needing to know any HTML.

Custom Control Panels

If you look at the default control panel on any Serf screen, you will see how it is organized into a table consisting of rows and columns. Imagine what it would be like if you could take over the layout of that table, change how many rows and columns it has, and put anything you want into any table cell—any text, color, graphic, or link—if you could do that, you could create anything! Well, that’s exactly what Serf’s customizable control panel lets you do.

To create a custom control panel, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a custom control panel, and click the Insert option on any item inside the cluster for which you want a custom control panel to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a control panel.
- The Insert a Control Panel screen will appear as illustrated in Figure 62. You can either pull down the menu of control panels to insert a control panel you made previously, or you can create a new one by typing a title into the title field. Assuming this is your first time through these instructions, there won’t be anything to choose from in the menu, because you have not made any control panels. So type a descriptive title such as “My first control panel” into the title field.
- The next part of the form asks you, “Where should this control panel appear?” The options let you replace the default panel or make your custom panel appear above or below it. Most often, you will be replacing the default panel, so that option’s pre-selected for you. You can change this later on, so don’t worry if you are not sure what to choose right now.
- When you get the Insert a Control Panel form filled out, click the Insert button, and the control panel editor will appear.

You can either insert an existing item or create a new one.
 To insert an existing item, use the menu to select the item.

Control panels ▼

To create a new item, use the field below to enter
 the title you want the new item to have.

Where should this control panel appear?

In place of the default control panel Above it Below it

Click the Insert button to insert this item, or scroll down for other options.

[Delete an Item](#) | [Return to the Syllabus](#)

Figure 62. The Insert a Control Panel screen.

When the control panel editor appears, follow these steps to begin creating a control panel:

- Click Insert to make the Insert a Control Panel Element screen appear.
- Pull down the menu, and study the elements you can insert on a control panel. The elements are:
 - Text block (starts a new paragraph)
 - Image (and its link, if any)
 - Text (and its link, if any)
 - Column (begins a new column)
 - Border (around the control panel)
 - Text colors (inside the control panel)
 - Table (begin a new table)
 - Close Table (closes the current table)
- Notice how the menu includes items that let you begin and end a table, create a new column in a table, and control the table's borders and colors. You will use these features to control the layout of your control panel onscreen. You can even create tables within tables, to control precisely the layout of your text and graphics on screen.
- Choose the option to begin a new table; the Begin a Table screen appears as shown in Figure 63.
- The size menu lets you set how wide the table should be. Select autosize unless you want to force the table to be a fixed size.
- The rest of the settings are self-explanatory; after you set them, click the Insert button to insert the table.
- The control panel editor will reappear, showing your newly created table element.

The table element lets you begin a table, which is a design element that that controls the layout of the control panel.

How wide should the table be?

Autosize ▼

Should the table be centered?

Centered Not centered

If you want the table to have equally spaced columns, how many columns should there be?

Don't force equal columns ▼

What color should the table background be?

White ▼

Click the Insert button to insert the element, or scroll down for other options.

Insert

Figure 63. The Begin a Table screen.

To put a hypertext link in the control panel, follow these steps:

- Using the control panel editor, click the Insert option at the point where you want the text to go. In this example, you want the text to go after the table you just created, so click the Insert option that appears after the table.
- When the Insert a Control Panel Element screen appears, pull down the menu, and choose “Text (and its link, if any).”
- The Insert Some Text form appears, as shown in Figure 64.
- In the text box, click the text you want to enter. For this example, enter “Send mail to a classmate”
- Say yes in answer to the question that asks, “Should this text end the line it's on?” Yes makes this text end the table cell, so that the next cell will begin a new row of the table.
- If you want the text to be linked, the remainder of the form gives you the option to type a URL or to select a Serf link from the Serf Object Menu. Pull down the Serf Object Menu, and you get a list of built-in Serf commands that you can link to. If you scroll down the list, you will discover that you can also link to events that you placed on your Serf syllabus.
- For this example, choose the Serf link that says: E-mail a Classmate
- Click the Insert button, and Serf will insert your link. When the Control Panel editor appears, scroll down to the preview, and you will see your link there.
- Repeat these steps to add as many hypertext links as you like. If you want some of the links to go into a second column, insert a new column element at the spot where you want a new column to begin. You can add as many columns as you want.

Enter the text that you want to appear on screen.

Should this text end the line it's on?
 Yes No

If you want this text to trigger an object on the Web,
enter the URL (Web address) of the object you want
this text to trigger when the user chooses it.

If you want this text to trigger a Serf event or object,
select the object from the following menu:
Serf Object Menu

Then click the Insert button to insert the element,
or scroll down for other options.

Insert

Figure 64. The Insert Some Text form.

To put an image link in the control panel, follow these steps:

- Using the control panel editor, click the Insert option at the point where you want the image to go.
- When the Insert a Control Panel Element screen appears, pull down the menu, and choose “Image (and its link, if any).”
- The insert an image form appears, as shown in Figure 65.
- In the URL field, enter the Web address of the image you want. For this example, enter: logout.gif (Note: logout.gif is one of Serf’s built-in images. To use a built-in image, you don’t need to type its complete http address.)
- Say yes in answer to the question that asks, “Should this image end the line it’s on?” Yes makes this text end the table cell, so that the next cell will begin a new row of the table.
- If you want the image to be linked, the remainder of the form gives you the option to type a URL or to select a Serf link from the Serf Object Menu.
- For this example, since you are creating a logout link, pull down the Serf Object Menu, and choose the Serf link that says: log out.
- Click the Insert button, and Serf will insert your link. When the Control Panel editor appears, scroll down to the preview, and you will see your link there.
- Repeat these steps to add as many images as you like. If you want some of the images to go into a third column, insert a new column element at the spot where you want a new column to begin. You can add as many columns as you want.

Figure 65. The Insert an Image form.

Do not be afraid to try experiments with the control panel editor. Try inserting columns, for example, and see what effect they have on your panel. Use the Move command to move elements around, and see what that does to your panel. Add long texts, and short texts. Tell some of the texts to end the line they’re on, but let other text not end their lines. Put in some text elements that don’t have links, and put in others that do. Try ending the current table, then create a new one. If you are ambitious, try creating a table inside a table. There is no way you can hurt anything by running these kinds of experiments, and by playing with the elements, you will discover how much power they give you. By creating tables within tables, you can create any conceivable screen layout with any texts, any images, and any links located any place you want on the screen.

Custom Menu Bars

In Serf, the menu bar is the row of icons that appear at the top of each screen. Each icon has a link, which takes the user somewhere, either within Serf, or out on the Web. The icons and links that appear in the menu bar are determined by settings in the Style, which you customize by clicking in the first column of the Instructor panel the option to edit the style of your course.

By default, the menu bar appears on each screen of your course, no matter what the student is doing. That works well, because it gives the student a consistent user interface, and there is nothing wrong with keeping it that way. If you are creating a more advanced learning environment with Serf, however, and you want to have something else appear in place of the default menu bar, you can do so by creating a custom menu bar.

The menu bar editor works exactly like the custom control panel editor. If you have not yet learned how to create a custom control panel, follow the detailed instructions provided above in the Custom Control Panel section of this manual. Once you know how to create a custom control panel, it will be easy for you to create a custom menu bar. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a custom menu bar, and click the Insert option on any item inside the cluster for which you want a custom menu bar to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a menu bar.
- The Insert a Menu Bar screen will appear as illustrated in Figure 66. You can either pull down the menu of menu bars to insert a menu bar you made previously, or you can create a new menu bar by typing a title into the title field.
- The next part of the form asks you, “Where should this menu bar appear?” The options let you replace the default menu bar or make your custom menu bar appear above or below it. Most often, you will be replacing the default menu bar, so that option is pre-selected.
- When you have the Insert a Menu Bar form filled out, click the Insert button, and the menu bar editor will appear.
- The menu bar editor works exactly the same as the control panel editor, which you learned to use above in the control panel section of this manual.

You can either insert an existing item or create a new one.
 To insert an existing item, use the menu to select the item.

Menu bars ▼

To create a new item, use the field below to enter the title you want the new item to have.

Where should this menu bar appear?

In place of the default menu bar Above it Below it

Click the Insert button to insert this item, or scroll down for other options.

Insert

[Delete an Item](#) | [Return to the Syllabus](#)

Figure 66. The Insert a Menu Bar screen.

Custom Banners

The banner is the picture that appears on every Serf screen immediately below the menu bar. The graphics that appear in the banner are determined by settings in the Style, which you customize by clicking on the Instructor panel the option to edit the style of your course.

By default, the same banner appears on each screen of your course, no matter what the student is doing. That works well, because it creates a unifying design element on each screen of your course. There is nothing wrong with keeping it that way. If you are creating a more advanced learning environment with Serf, however, and you want to have something else appear in place of the default banner, you can do so by creating a custom banner.

The banner editor works exactly like the custom control panel editor. If you have not yet learned how to create a custom control panel, follow the detailed instructions provided above in the Custom Control Panel section of this manual. Once you know how to create a custom control panel, it will be easy for you to create a custom banner. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a custom banner, and click the Insert option on any item inside the cluster for which you want a custom banner to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a banner.
- The Insert a Banner screen will appear as illustrated in Figure 67. You can either pull down the menu of banners to insert a banner you made previously, or you can create a new one by typing a title into the title field.
- The next part of the form asks you, “Where should this banner appear?” The options let you replace the default banner or make your custom banner appear above or below it. Most often, you will be replacing the default banner, so that option is pre-selected.
- When you have the Insert a Banner form filled out, click the Insert button, and the banner editor will appear.
- The banner editor works exactly the same as the control panel editor, which you learned to use above in the control panel section of this manual.

You can either insert an existing item or create a new one.
To insert an existing item, use the menu to select the item.

Banners

To create a new item, use the field below to enter
the title you want the new item to have.

Where should this banner appear?

In place of the default banner Above it Below it

Click the Insert button to insert this item, or scroll down for other options.

Insert

[Delete an Item](#) | [Return to the Syllabus](#)

Figure 67. The Insert a Banner screen.

Custom Trailers

In Serf, the trailer is the block of text and the row of icons that appear at the bottom of each screen. Each icon has a link, which takes the user somewhere out on the Web. The text, icons, and links that appear in the trailer are determined by settings in the Style, which you customize by clicking on the Instructor panel the option to edit the style of your course.

By default, the trailer appears on each screen of your course, no matter what the student is doing. That works well, because it gives the student a consistent user interface, and there is nothing wrong with keeping it that way. If you are creating a more advanced learning environment with Serf, however, and you want to have something else appear in place of the default trailer, you can do so by creating a custom trailer.

The trailer editor works exactly like the custom control panel editor. If you have not yet learned how to create a custom control panel, follow the detailed instructions provided above in the Custom Control Panel section of this manual. Once you know how to create a custom control panel, it will be easy for you to create a custom trailer. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a custom trailer, and click the Insert option on any item inside the cluster for which you want a custom trailer to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a trailer.
- The Insert a Trailer screen will appear as illustrated in Figure 68. You can either pull down the menu of trailers to insert a trailer you made previously, or you can create a new one by typing a title into the title field.
- The next part of the form asks you, “Where should this trailer appear?” The options let you replace the default trailer or make your custom trailer appear above or below it. Most often, you will be replacing the default trailer, so that option is pre-selected.
- When you have the Insert a Trailer form filled out, click the Insert button, and the trailer editor will appear.
- The trailer editor works exactly the same as the control panel editor, which you learned to use above in the control panel section of this manual.

You can either insert an existing item or create a new one.
To insert an existing item, use the menu to select the item.

Trailers

To create a new item, use the field below to enter the title you want the new item to have.

Where should this trailer appear?

In place of the default trailer Above it Below it

Click the Insert button to insert this item, or scroll down for other options.

Insert

[Delete an Item](#) | [Return to the Syllabus](#)

Figure 68. The Insert a Trailer screen.

Custom Sidebars

A sidebar is a rectangular region that you can make appear along the left or right edge of the screen. Into this region, you can place any kind of content you want, although sidebars normally are used to contain links which, when clicked, take the user to different parts of the site.

By default, no sidebars appear onscreen in Serf. Using the style editor, you can change the sidebar setting to make the sidebar of your choice appear onscreen. To create such a sidebar, you use the sidebar editor, which works exactly the same as the custom control panel editor. If you have not yet learned how to create a custom control panel, follow the detailed instructions provided above in the Custom Control Panel section of this manual. Once you know how to create a custom control panel, it will be easy for you to create a sidebar. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a sidebar, and click the Insert option on any item inside the cluster for which you want a custom sidebar to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a left sidebar or a right sidebar.
- The Insert a Sidebar form will appear onscreen. You can either pull down the menu to insert a sidebar you made previously, or you can create a new one by typing a title into the title field.
- The next part of the form asks you, “Where should this sidebar appear?” The options let you replace the default sidebar or make your custom sidebar appear above or below it. Most often, you will be replacing the default sidebar, so that option is pre-selected.
- When you have the Insert a Sidebar form filled out, click the Insert button, and the sidebar editor will appear.
- The sidebar editor works exactly the same as the control panel editor, which you learned to use above in the control panel section of this manual.

Custom Content

No doubt, you have been impressed by the power the custom control panels, menu bars, banners, and trailers give you to take over the layout of your Serf screens. Don't you wish you could use the same approach to create customized layout for the content events in your course? Well, the good news is that you can! Any place you want on your syllabus, you can insert a custom table that you can edit with the exact same editor you use to create custom control panels, menu bars, banners, and trailers.

The custom table editor works exactly like the custom control panel editor. If you have not yet learned how to create a custom control panel, follow the detailed instructions provided above in the Custom Control Panel section of this manual. Once you know how to create a custom control panel, it will be easy for you to create customized layouts for course content events. Follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert customized course content, and click the Insert option inside the item above which you want the custom content to appear. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option entitled: Table (adds content with customizable screen layout).
- The Insert a Custom Table screen will appear. You can either pull down the menu of custom tables to insert a table you made previously, or you can create a new one by typing a title into the title field.
- When you have the Insert a Custom Table form filled out, click the Insert button, and the custom table editor will appear.
- The custom table editor works exactly the same as the control panel editor, which you learned to use above in the control panel section of this manual.

Include Files

Another way to customize the screen is to include files that you can create with any HTML editor, such as Netscape Composer or Microsoft FrontPage, for example. You use the HTML editor to create the file and save it on your server. Then you follow the steps below to include the file as part of your course or channel content. At runtime, Serf reads in the external file and displays its body onscreen at the spot where you included it in your content. To use an include file, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert an include file, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert an include file.
- When the Insert an Include File editor appears, you will be prompted to specify the URL Web address of the file to be included. This URL can be located anywhere on the Web, although access will be fastest if you put the file on your Serf server.
- Follow the onscreen instructions to specify whether you want this event to appear in the index, fill the screen, or log student progress.
- When you are done filling out the form, click the Insert button to include the file into your content.

Putting Customized Replacement Objects in Modules and Item Pools

Earlier in this manual, you learned how to replace the default control panel, menu bar, banner, and trailer with your own customized screen layouts for any cluster on your course syllabus. What about customizing exams, surveys, diagnostic assessments, and strands? Does Serf permit you to replace the default screen objects in these kinds of modules? Yes, quite easily. To replace the default control panel, menu bar, banner, or trailer in an exam, survey, diagnostic assessment, or tutorial strand, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where the exam, survey, diagnostic assessment, or tutorial strand appears, and click its Edit option.
- When the module editor appears, scroll down, and click the option to edit the pool for the section of the module in which you want to change the default control panel, menu bar, banner, or trailer.
- At any place in the pool, click the option to insert a new item into the pool.
- When the Insert Item form appears, pull down the menu and select the customized object you want this pool to inherit.
- Click the Insert button to insert the object into the pool.

This method makes all of the items in the pool inherit the customized object. Suppose you want an individual item in the pool to have its own custom object. To replace the default control panel, menu bar, banner, or trailer for an individual item in a pool, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where the exam, survey, diagnostic assessment, or tutorial strand appears, and click its Edit option.
- When the module editor appears, scroll down, and click the option to edit the pool for the section of the module in which you want to change the default control panel, menu bar, banner, or trailer.
- Go to the item for which you want a custom menu bar, banner, control panel, or trailer to appear, and click the item's Edit option.
- When the item editor appears, click the Insert option inside any element of the item.
- When the Insert a Question Element form appears, pull down the menu and select the option to insert a customized menu bar, banner, control panel, or trailer.
- Follow the onscreen instructions to insert the custom object.

When the item appears as part of an exam, survey, diagnostic assessment, or tutorial strand, it will inherit the customized object you inserted as an element of the item.

Suppressions

If you are using customizable menu bars, banners, control panels, trailers, and tables to create an advanced educational environment with Serf, you may want to turn off the automatic display of the syllabus headings, cluster titles, and navigational buttons (Next and Back) that Serf prints on the student screen. To suppress the display of the headings, cluster titles, or navigational buttons, follow these steps:

- In the first column of the Instructor panel, click the option to edit the style of your course.
- When the Edit Style screen appears, go to the list of style categories that appears under the first Change button, and click Suppression; this scrolls you down to the Suppression section of the style screen.
- The suppression parameters you will find listed there are:
 - Suppress Syllabus Heading?
 - Suppress Individual Cluster Titles?
 - Suppress Next and Back Buttons?
- In the box next to these three parameters, type “Yes” (without the quotes) if you want the display of its parameter to be suppressed.
- Click the Change button to make your changes take effect.

Authoring Portals with Serf

Portals enable a single Serf system to serve multiple domain names on the Internet. The Serf system administrator can use the Serf portal option to point a domain name (i.e., http Web address) at one of the courses or channels of information that you are authoring. When an end user browses to that Web address, your course or channel automatically appears onscreen. The look and feel of your course or channel can be totally different from the rest of the Serf site. It is as if the server is running multiple instances of Serf. Under the hood, however, all of these portals are powered by a single instance of Serf, which makes it very easy for the system administrator to maintain.

You author a portal course or channel with the same Serf authoring tools you learned in the first part of this manual. In addition, you can use Serf objects that were invented to enhance the creation of portals. These objects include (1) ticket offices, through which users can register to obtain access to a password-protected channel; (2) custom logon and logout forms, whereby registered users can log on or off your site; (3) affinity groups, which provide access to threaded discussion forums, document sharing libraries, and electronic newsletter services; (4) database viewers, through which you can provide registered users with access to a third-party database; and (5) search forms, which enable users to search different parts of your site.

Ticket Offices

Portal channels can be totally open to browsing by anyone in the world, or they can require users to log on in order to obtain access. To control tightly who has access, you can use the roster option on the Serf instructor panel, which works the same for portals as it does for courses. Many portals use a less restrictive authentication mechanism, however, which lets anyone have a logon who chooses to register at the site. Serf provides this functionality through the ticket office, which is one of the objects you can insert into a portal channel.

Serf ticket offices have a special feature designed to prevent identity theft. When a user registers at the site, instead of providing immediate access, Serf sends the person an e-mail message containing a link to click in order to complete the registration process. By including this e-mail step in the registration process, Serf helps to insure that someone cannot steal another user's identity.

To create a ticket office, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a ticket office, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a ticket office.
- When the Insert an Include File editor appears, you will be prompted to select an existing ticket office or type a title to create a new one. Type the title you want the ticket office to have, and click the Insert button.
- The Ticket Office editor uses the same engine as the other kinds of objects in Serf. Therefore, you create the look and feel of your ticket office by inserting the text and graphics you want the user to see when the ticket office appears.
- There are some required elements that you must insert into the ticket office. These required fields include the first name, last name, user name, e-mail, desired logon name, and password. You can design these any way you want into the ticket office, but all six of these fields must be present.
- You must insert the registration button, which the user will click to register after filling out the rest of the form. You can give the registration button the label of your choice, thereby customizing what the button says onscreen. The registration button form also lets you set the ID of the roster on which you want the newly created user to appear. Thus, when the user logs on, the user will be taken to the course or channel associated with that roster.
- There are several error conditions that can arise when a user fills out the ticket office form. If the logon name is already taken, for example, or if the e-mail address is malformed, the user will get an error message. You can override the default messages by inserting the verification messages you will find on the insert menu.
- By default, the user will be taken to the Serf default logon screen after completing the registration process. If you want the user to go to some other screen, such as your custom logon screen, insert an After E-mail Verification element, and set that element to direct the user to the screen of your choice.
- Serf handles all of the necessary data keeping, but if you want to perform some kind of customized database operation based on the data the user supplies in the ticket office, you can choose the option to insert an SQL command. There is also an option to insert an input field, which you can use to collect other kinds of information for use in the SQL command.
- Figure 69 shows a ticketing office that illustrates all of the required elements, including the Register button and the fields that prompt the user for a first and last name, e-mail address, logon name, and password.

Welcome to the North Pole ticketing office. To register at the site, please fill out the form below, and then click the Register button.

What is your first name?

What is your last name?

What is your e-mail address?

What would you like your logon name to be?

Please type a secret password into each of the password fields below. These two fields must match in order for your password to be accepted.

Enter your password:

Enter your password again:

Figure 69. The ticketing office prompts the user to choose a username and password.

Logon and Logout Forms

True to their name, logon and logout forms enable users to log on or out of a portal course or channel. These forms are totally customizable. You can make them look and feel the way you want by using the Serf editor to customize their appearance. To create a logon form, follow these steps:

- In the Syllabus column of the Instructor panel, click the Edit option, which is the first option in the column. Serf will display the Edit Syllabus form.
- Go to the place on the syllabus where you want to insert a logon form, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a logon form.
- When the Insert a Logon Form editor appears, you will be prompted to select an existing logon form or type a title to create a new one. Type the title you want the logon form to have, and click the Insert button.
- The Logon Form editor uses the same engine as the other kinds of objects in Serf. Therefore, you create the look and feel of your logon form by inserting the text and graphics you want the user to see when the logon form appears.
- There are two required fields that you must insert into the logon form. These required fields are the username and password. You can design these any way you want into the ticket office, but both of these fields must be present.
- You must also insert the log on button, which the user will click to log on after filling out the name and password fields. You can give the logon button the label of your choice, thereby customizing what the button says onscreen. The logon button form lets you set the course or channel to which the user should be taken after logging on. The logon button form also lets you specify the error screen to which the user will be taken if the logon fails.
- Figure 70 illustrates a logon form that provides a link for users who have not yet registered to visit the ticket office to apply for a logon.

register to get a logon.'" data-bbox="291 513 695 642"/>

Figure 70. The logon form prompts the user for a username and password.

Just as the logon form provides a way for users to log on, so also should you provide a way for authenticated users to log out. The log out process destroys the user's authentication cookie, thereby reducing the possibility that someone who later uses the same computer could gain access to the previous user's records. To create a logout form, follow these steps:

- Go to the place on the syllabus where you want to insert a logout form, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a logout form.
- You will get the customary editing controls, which let you put any text or graphics you want onto the logout form.
- The only required element that you must include is the logout button. When you insert the logout button, you will get a form that lets you specify the course or channel to which the user should be taken after the user logs out. Normally this would be the public channel from which the user logged on in the first place.

Affinity Clusters

Portals are great places to form communities of learners or users who want to share information and discuss or debate issues of common interest over the Web. To empower you to provide community-building services, your Serf system administrator can provide you with an affinity cluster, which is a pre-programmed groupware object consisting of threaded discussion forums, document sharing libraries, and electronic newsletter services. Authors who own an affinity cluster have the power to create one or more affinity groups, each of which can consist of one or more threaded discussion forums, document sharing libraries, and electronic magazines (*a.k.a.* newsletters). A role-based permissions model enables you to assign privileges to end users, who can be given read, write, moderator, or administrator access to the affinity.

If your Serf system administrator has made you the owner of an affinity, you can associate that affinity with a portal course or channel by following these steps:

- In the administrative column of the Serf instructor panel, click Affinities.
- If no affinity cluster has been associated with the current course, you will get instructions informing you how to use the style editor to select a cluster. Click the option to Edit Style, click Affinities, pull down the menu, and choose the affinity cluster you want associated with this course or channel. Note: If no affinity clusters are listed on the menu, your system administrator has not yet made you the owner of an affinity cluster.
- Once again, in the administrative column of the Serf instructor panel, click Affinities. You will get the Affinity Management options illustrated in Figure 71.
- To create your first affinity, click the option to Create an Affinity, and follow the onscreen instructions.

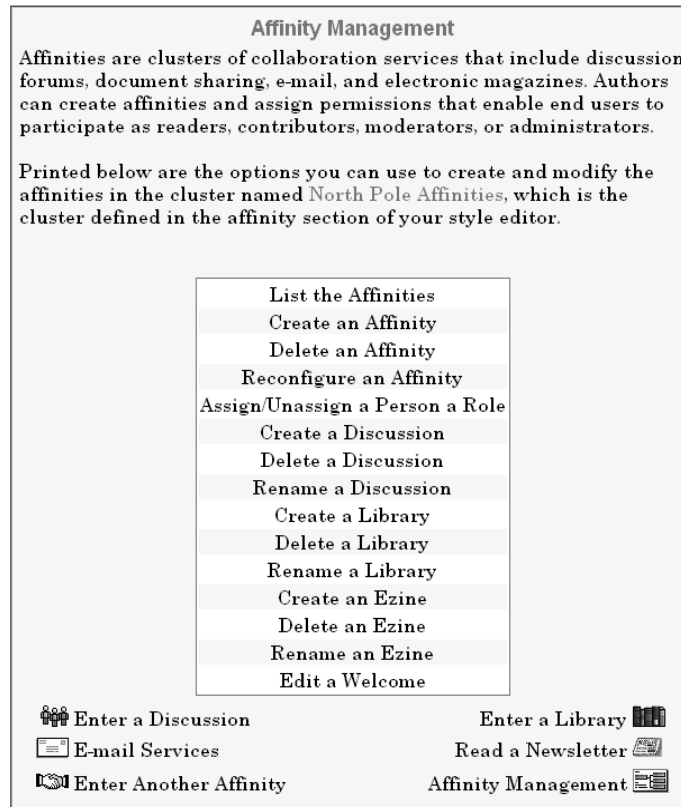


Figure 71. The Affinity Management Options

Threaded Discussion Forums

Threaded discussion forums provide an asynchronous virtual conferencing space in which users can participate in ongoing discussions. Users with read/write access can write messages in response to existing topics, initiate new topics, or create subtopics if the forum's multithreading option is turned on. Moderators can delete or censor offensive messages, and administrators can remove a user's access altogether, should someone become offensive. To create an affinity discussion forum, follow these steps:

- Click to enter the affinity in which you want to create a discussion forum.
- Click Affinity Management to bring up the affinity management options.
- Click the option to Create a Discussion.
- Follow the onscreen instructions.
- The threaded discussion forums were designed to be self-documenting. Follow the onscreen instructions to start a discussion topic, respond to a topic, sort the messages by date or author, and perform a full-text search to find things in the discussion.

Document Sharing Libraries

True to their name, document sharing libraries enable affinity users to share documents over the Internet. Users can be provided with read only or read/write access, which enables them to upload as well as download documents from the library. The documents are organized into folders and subfolders, which give the library a structure similar to the shelves in a physical library. Unlike a physical library, however, new shelves and sub-shelves can be created at any time. A special feature is the full text search engine, which performs a complete search of these documents when a user goes looking for something via the search option. A word-for-word full text index makes the search very fast, efficient, and powerful. To create a document sharing library, follow these steps:

- Click to enter the affinity in which you want to create a document sharing library.
- Click Affinity Management to bring up the affinity management options.
- Click the option to Create a Library.
- Follow the onscreen instructions.
- The document sharing libraries were designed to be self-documenting. Follow the onscreen instructions to upload a document, create new folders and subfolders, sort the contents by date or author, and perform a full-text search of all the documents in the library.

Electronic Magazine Services

The ezine (electronic magazine) services were originally intended to distribute newsletters, but they can be used to distribute almost any kind of document via e-mail over the Internet. End users have personal settings that can be used to request that ezines be sent in HTML, PDF, or plain text formats. Users can also hide from e-mail, if the affinity owner has not disabled that feature. To create an ezine service, follow these steps:

- Click to enter the affinity in which you want to create ezine.
- Click Affinity Management to bring up the affinity management options.
- Click the option to Create an Ezine.
- Follow the onscreen instructions.
- The ezine services were designed to be self-documenting. Follow the onscreen instructions to upload a new issue, create new folders and subfolders, sort the contents by date or author, and perform a full-text search of all the ezine issues.
- While viewing an ezine, administrators and moderators have the option to distribute it via e-mail to all members of the affinity. Before you do such a mass mailing, however, make sure you choose the option to audition the ezine. This lets you send the ezine to a select few so you can verify that, when sent via e-mail, the ezine has the look and feel you want before you mass mail it to all the members of the affinity.

Database Viewers

Database viewers are sophisticated objects that enable advanced authors to provide read or write access to databases residing on your server or network. Data access elements enable you to retrieve and flow information from the database into your content onscreen. You can create one channel, for example, for end users who are permitted to read but not write to the database, and another channel for database authors, whose role is to populate and maintain the data. In order to use database viewers effectively, the Serf author needs to know the Structured Query Language (SQL), which you use to retrieve, insert, and update information in the database. To create a database viewer, follow these steps:

- Go to the place on the syllabus where you want to insert a database viewer, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a database viewer.
- You will get the customary editing controls, which let you put any text or graphics you want onscreen.
- To retrieve data from a database, click Insert, pull down the menu of elements, choose the option to retrieve data, and click the Create button. You will be prompted to (1) select your data source, (2) type the SQL command that will retrieve the data, and (3) provide the name of the temporary data table into which you want the retrieved results to be stored. If the data source menu is empty, ask your Serf system administrator to use the Database Sources option to register your data source.
- To display a field from a record retrieved in the previous step, go to the place in the database viewer where you want to display the field, click Insert, pull down the menu of elements, choose the option to display a field, and click the Create button. You will be prompted to (1) enter the name of the temporary data table in which the field exists, (2) enter the name of the field you want to display, and (3) indicate whether you want a blank space printed before or after the data that gets displayed onscreen.
- To permit the user to edit a field, go to the place in the database viewer where you want to display the edit field, click Insert, pull down the menu of elements, choose the option to edit a field, and click the Create button. You will be prompted to (1) enter the column name of the field you want the user to edit, (2) enter the name of the data table in which the field exists, (3) set the width and height of the edit field that will appear onscreen, and (4) seed the field with the data to be edited.
- To permit the user to enter a field into a new record, go to the place in the database viewer where you want to display the blank field, click Insert, pull down the menu of elements, choose the option to enter a field, and click the Create button. You will be prompted to (1) enter the column name of the field you want the user to enter, (2) enter the name of the data table in which the column exists, and (3) set the width and height of the edit field that will appear onscreen. You will also have the option to seed the field, if you want it to display a value by default.
- To make changes in the data fields take effect in the database, you insert one or more queued SQL commands, followed by an Action button. When the user clicks an Action button, Serf executes the queued SQL commands.
- To display multiple records retrieved from a data table, you use the Begin and End a Sequence elements. In between these Begin and End elements, you place the fields to be repeated onscreen. Insert Next and Previous buttons to let the user page through long sequences of data, and use the Update button to execute SQL commands queued inside a sequence.

The database viewer's Insert menu also contains logical elements, such as (1) Begin If and End If, inside of which you insert elements that get executed if some condition is met; (2) Begin Do and End Do, which executes included elements repeatedly while some condition is true; (3) Branch on Condition, which will branch to a different object in your course or channel when some condition is met; and (4) Assign a Value to a Variable, which you use to keep track of things that have or have not been done. Advanced web developers and programmers who are familiar with these concepts will be able to follow instructions that appear onscreen automatically during the creation of advanced database objects. Authors who have never programmed will probably need some prior instruction in scripting, such as is provided in McGraw-Hill's textbook *Advanced Web Design*.

Search Forms

Search forms enable the Serf author to provide end users with a powerful way to search for information in a database. Depending on the sophistication of your users, you can make the search form as simple or as detailed as you like. Because you create the form with the Serf editor, you can customize its look and feel using the authoring tools you learned earlier in this manual. To create a search form, follow these steps:

- Go to the place on the syllabus where you want to insert a search form, and click Insert. Serf will display the Insert Syllabus Event form.
- The form tells you to use the menu to choose the kind of event you want to create. Pull down the menu, scroll it down, and choose the option to insert a search form.
- You will get the customary editing controls, which let you put any text or graphics you want onscreen.
- Near the top of the search form, you must insert one or more Search In elements. When you click to insert a Search In element, you will be prompted to tell (1) the column name of the field to be searched, (2) the name of the data table in which this field exists, (3) the columns to join if you want to search a relation, and (4) the data source that contains this data.
- To search for a word or phrase, you insert a Search Phrase element, which will prompt you to specify the height and width of the field into which the user will type the word or phrase to be searched.
- To include an AND clause, you insert an AND Clause element.
- Similarly, to include a NOT clause, you insert a NOT Clause element.
- To provide a way for the user to begin the search, you insert a Search button element, which will prompt you for the name you want displayed inside the button, as well as the database viewer in your course or channel to which you want the user to be sent in order to display the search results.
- In the database viewer that displays the search results, you insert a Retrieve Search Results element, which places the search results into a data table named SerfSearchResults. The database viewer can display the data from SerfSearchResults and provide the user with options as described above in the Database Viewer section of this manual.

ASP.NET Serf Controls

ASP.NET is Microsoft's programming environment for creating active server pages (ASP) in the .NET framework. Serf is programmed in C# (pronounced C-Sharp), which is one of the ASP.NET programming languages. A visual design environment called Visual Studio .NET has a toolbox from which authors can drag icons representing server controls onto the design surface of an ASP.NET Web page. These server controls are pre-programmed objects residing in a control library.

Adding Serf Controls to the Toolbox

Serf authors who have Visual Studio .NET can use Serf as an ASP.NET control library, from which the Serf controls can be added to the Visual Studio toolbox. To add the Serf controls to the toolbox, follow these steps:

- Use Visual Studio to open the project of your choice.
- Right-click any item inside the toolbox.
- When the quick menu pops out, choose Add Tab.
- At the bottom of the toolbox, your cursor will be flashing inside the newly added tab.
- Type the name you want the new tab to have. In this example, type Serf, then press Enter.
- The newly added tab appears at the bottom of the toolbox.
- Right-click anywhere inside the Serf tab to pop out the quick menu, and choose Customize Toolbox to bring up the Customize Toolbox dialog.
- Click the .NET Framework Components tab to reveal the registered server controls.
- Click the Browse button, and navigate to the folder that contains the dynamic link library named Serf.dll. Depending on the configuration of your hard drives, the path to this library is probably `c:\inetpub\wwwroot\serf\bin`.
- Click the file named Serf.dll to select it, then click the Open button.
- Click Namespace to sort the controls by namespace, then scroll down to find the Serf controls listed under the Serf namespace, as illustrated in Figure 72.
- Click to check the Serf controls you want (probably all of them), and then click OK to close the Customize Toolbox dialog.
- Figure 73 shows how the Serf controls will appear on the Serf tab of the toolbox.
- Now you can create highly customized pages powered by the Serf environment.

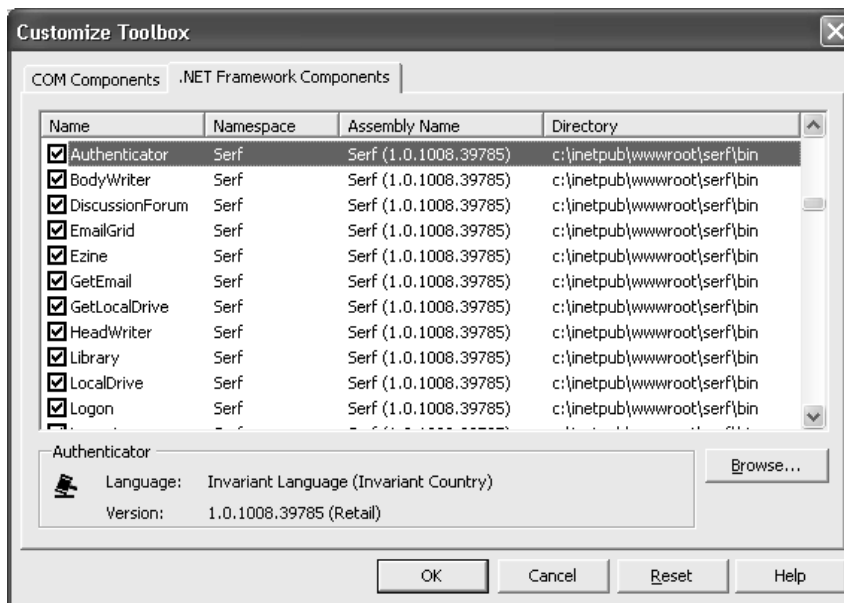


Figure 72. The Serf controls appear under the Serf namespace in the Customize Toolbox dialog.

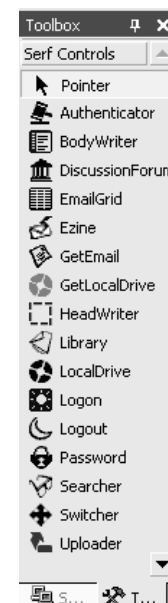


Figure 73. The Serf tab of the Visual Studio toolbox.