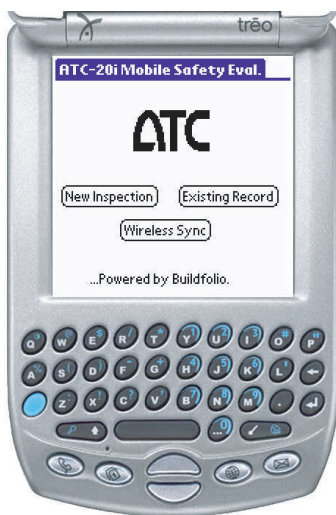


Users manual: Mobile postearthquake building safety evaluation data acquisition system (Version 1.0)



ATC Applied Technology Council

 Buildfolio Inc.

Applied Technology Council

The Applied Technology Council (ATC) is a nonprofit, tax-exempt corporation established in 1971 through the efforts of the Structural Engineers Association of California. ATC's mission is to develop state-of-the-art, user-friendly engineering resources and applications for use in mitigating the effects of natural and other hazards on the built environment. ATC also identifies and encourages needed research and develops consensus opinions on structural engineering issues in a nonproprietary format. ATC thereby fulfills a unique role in funded information transfer.

ATC is guided by a Board of Directors consisting of representatives appointed by the American Society of Civil Engineers, the National Council of Structural Engineers Associations, the Structural Engineers Association of California, the Western Council of Structural Engineers Associations, and four at-large representatives concerned with the practice of structural engineering. Each director serves a three-year term.

Project management and administration are carried out by a full-time Executive Director and support staff. Project work is conducted by a wide range of highly qualified consulting professionals, thus incorporating the experience of many individuals from academia, research, and professional practice who would not be available from any single organization. Funding for ATC projects is obtained from government agencies and from the private sector in the form of tax-deductible contributions.

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ATC-20i

Users Manual: Mobile Postearthquake Building Safety Evaluation Data Acquisition System (Version 1.0)

Developed jointly by

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Preface

This Users Manual, prepared by the Applied Technology Council (ATC) and Buildfolio Inc., contains instructions for installing and using the ATC-20i personal digital assistant (PDA) application for postearthquake safety evaluation of buildings. The evaluation procedures follow those specified in the ATC-20 Report, *Procedures for Postearthquake Safety Evaluation of Buildings*, which was published by ATC in 1989, and the ATC-20-2 Report, *Addendum to the ATC-20 Postearthquake Building Safety Evaluation Procedures*, which was published by ATC in 1995.

The ATC-20i PDA application has been developed for PDAs using the Palm Operating System. It enables engineers to document inspection results using electronic input screens that duplicate the ATC-20 rapid and detailed evaluation forms and to upload the data via wireless technology, or the internet, to a master server on which the data can be reviewed, summarized, and managed by the user and by building departments in jurisdictions affected by the earthquake. The PDA application also allows inspectors to print INSPECTED (green), RESTRICTED USE (yellow), and UNSAFE (red) placards in the field.

ATC gratefully acknowledges the individuals who participated in the development of the ATC-20i

PDA application. Chee Song Chern served as Project Director and led the development of the ATC-20i PDA software, which was written by Sohrab Chattawal, Chernyong Heng, Ivan Xie Ke, Rahul Sanghavi, and Shreyan Singh. Overview and guidance for the project was provided by a Project Engineering Panel consisting of Thalia Anagnos, Nesrin Isil Basöz, Frank Chiu, Nick Delli Quadri, Ronald P. Gallagher, Stephen H. Pelham (ATC Board representative), James E. Russell, Michael Sabbaghian, and Calvin Wong. Peter N. Mork and Michelle Schwartzbach produced the Users Manual. The affiliations of these individuals are provided in the list of project participants.

ATC also gratefully acknowledges Haresh Shah, who conceived the idea for this PDA application, and the San Francisco Department of Building Inspection, who participated in a pilot study to test an earlier version of the ATC-20i PDA application.

Funding for the development of the PDA application and this report was provided by the ATC Henry J. Degenkolb Memorial Endowment Fund and Buildfolio Inc.

Christopher Rojahn
ATC Executive Director

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Installation Instructions

The electronic files obtained from the ATC web site, or on the CD provided by ATC, contain two sets of software: (1) ATC-20i Desktop Synchronization Software, and (2) ATC-20i PDA Application software. Both sets of software need to be installed in order for the application to operate properly.

1.1 Installation Guide for Synchronization Software

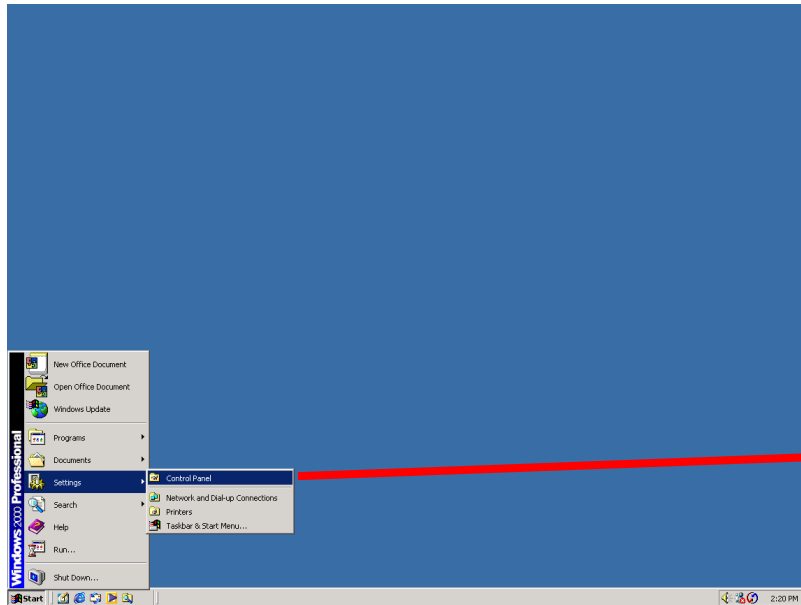
1.1.1 Software Prerequisite

- Windows 95, 98, 98SE, NT, ME, 2000 or XP operating system
- Palm software in C:\Palm (For information on Palm Desktop, please visit, <http://www.palm.com/>)

1.1.2 Procedure for Installing Desktop Synchronization Software

Uninstall Older Version of Desktop Synchronization Software

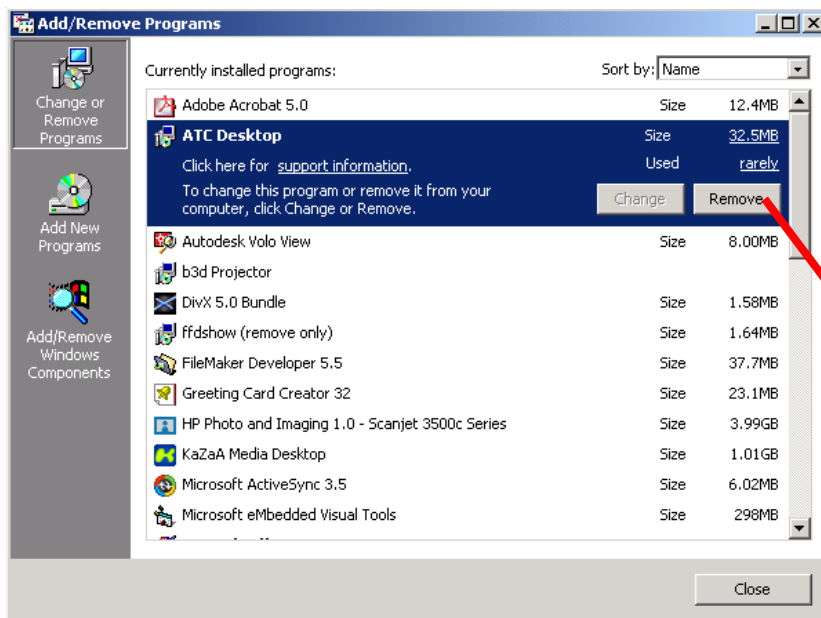
If an older version of the software exists on the desktop, uninstall it:



Step 1.

Select **Start
Settings
Control Panel**

Step 2.

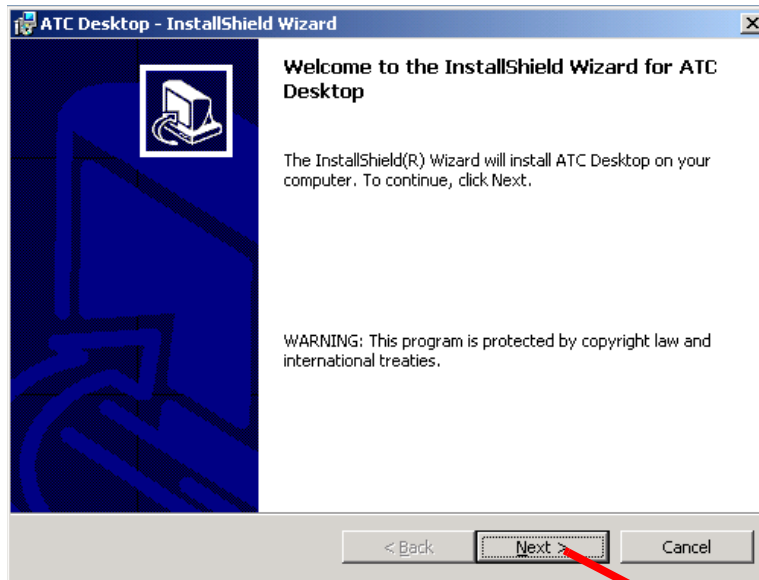


Double click on the **Add/
Remove Programs** icon to run it.

Step 3.

Click on **ATC Desktop** to highlight it and click on the **Remove** button to uninstall the existing version of the software.

Install the new version.

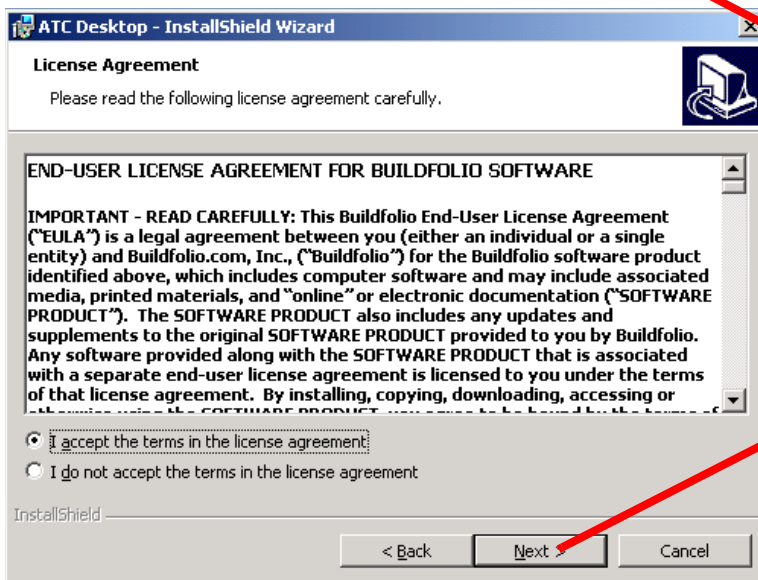


Step 1.

Locate the file **Desktop/setup.exe** on the installation CD or in the folder where the contents of the downloaded zip file have been extracted.

Step 2.

Double click on **setup.exe** to run it

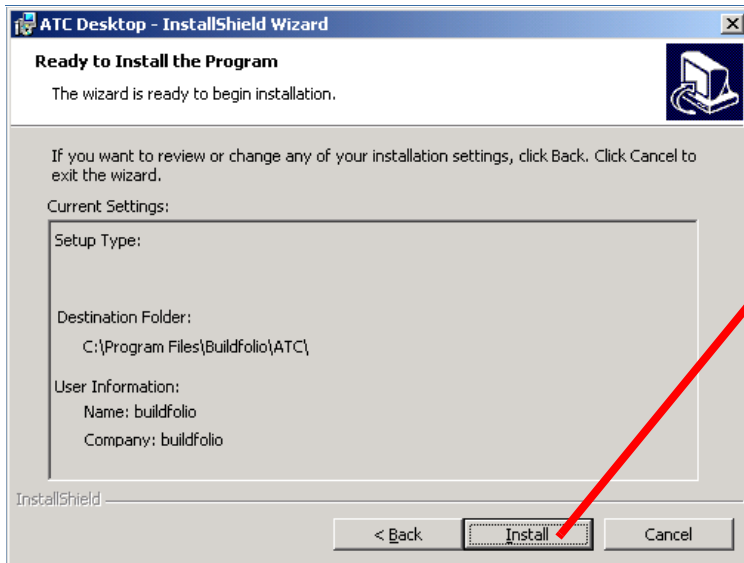


Step 3.

Click **Next** on the Welcome Screen

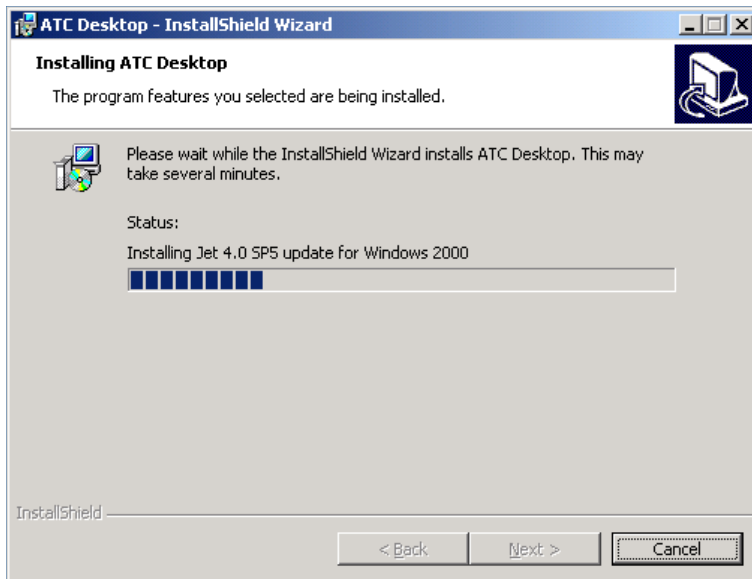
Step 4.

Click to accept the license agreement; then click **Next**.



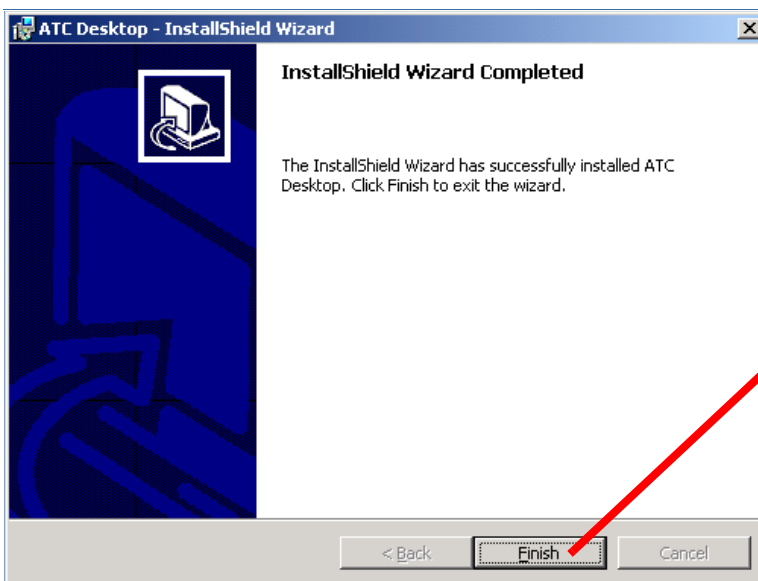
Step 5.

Click **Install** to start the installation.



Step 6.

The installation process may take a few minutes. Please be patient while the process is running.



Step 7.

Once the installation is done, click on **Finish** to exit the installation process

1.2 Installation Guide for PDA Software

1.2.1 Software Prerequisite on Desktop before Installing PDA Application

- Buildfolio ATC Desktop Synchronization Software described above

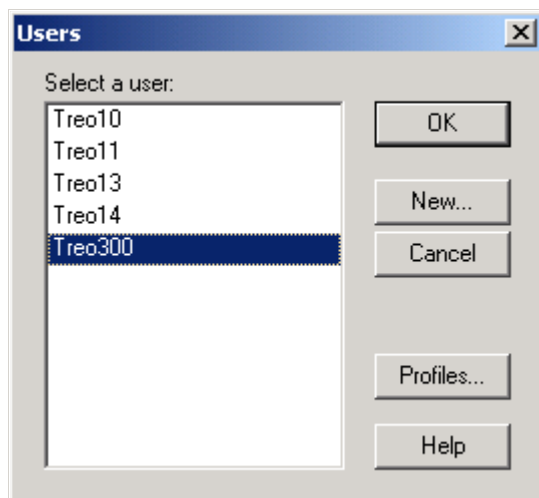
1.2.2 Procedure for Installing PDA Software to a Palm based PDA

The full version of ATC-20i PDA Software can be installed by downloading the zip file (**ATC20i.zip**) from the online store at the ATC website (<http://www.atcouncil.org/>) and extracting the contents of the downloaded zip file into a folder.

The installation file can also be obtained from the installation CD.

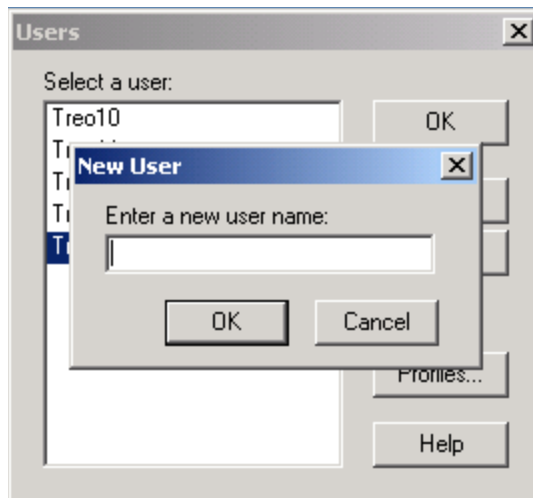
Installation on a PDA with no registered HotSync user (typically a new PDA that has not been used for HotSync before)

- Step 1.** The ATC-20i PDA software is installed on the PDA via the HotSync process. For a new PDA, there does not exist a HotSync user on the PDA. To register a HotSync user on the PDA, press the HotSync button on the PDA/cradle.
- Step 2.** Select a HotSync user from the list of existing users displayed on the desktop or create a new user by clicking the “New” button.
 - a. Select an existing user from the list and click **OK**.



OR

- b. Click **New** and type in a name for the new user. Click **OK** once, highlight the new user in the list and click **OK** again.

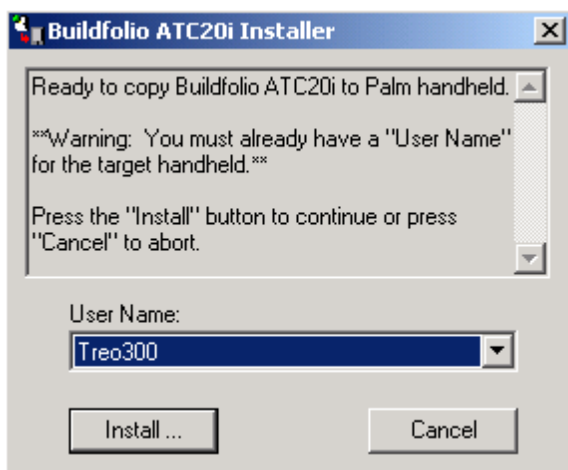


The user is now registered on the PDA, and can now use HotSync and install the ATC-20i PDA software.

- Step 3.** Locate the file "**PDA/install.exe**" on the installation CD or in the folder where the contents of the downloaded zip file have been extracted.

- Step 4.** Double click on **install.exe** to run it.

- Step 5.** Select the user that was registered with the PDA in the previous steps and click **Install**.



- Step 6.** Put your Palm PDA in the cradle and press the HotSync button on the PDA/ cradle to start installation.

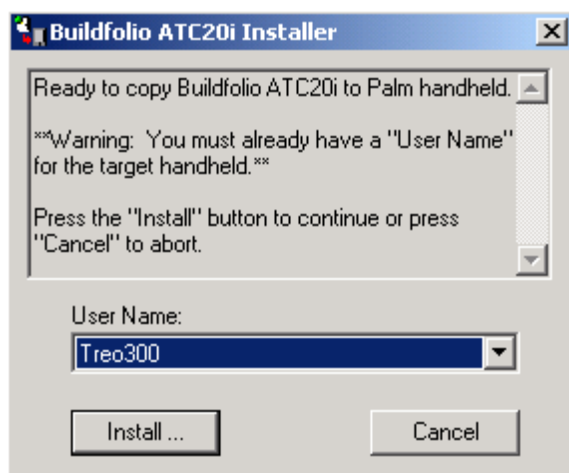
Step 7. Upon successful installation, screen will show “Files installed successfully” and the installation program will quit automatically.

Installation on a PDA with a registered HotSync user (typically a PDA that has been used for HotSync before)

Step 1. Locate the file “**PDA/install.exe**” on the installation CD or in the folder where the contents of the downloaded zip file have been extracted.

Step 2. Double click on “**install.exe**” to run it.

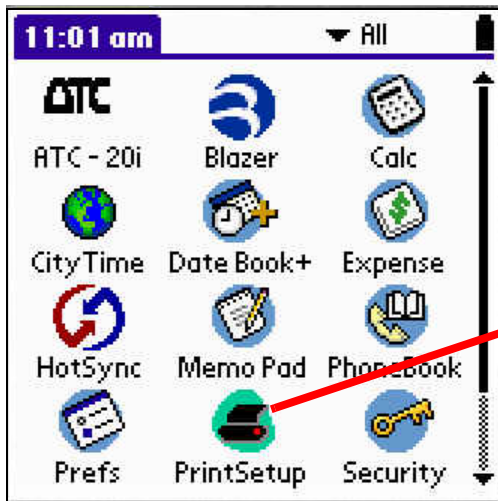
Step 3. If the PDA has been used for HotSync before, the HotSync user should be registered on the PDA. Select this user from the list of existing users displayed on the desktop and click “**Install**”.



Step 4. Put your Palm PDA in the cradle and press the HotSync button on the PDA/ cradle to start installation.

Step 5. Upon successful installation, screen will show “Files installed successfully” and the installation program will quit automatically.

1.2.3 Procedure for Setting up the Printer

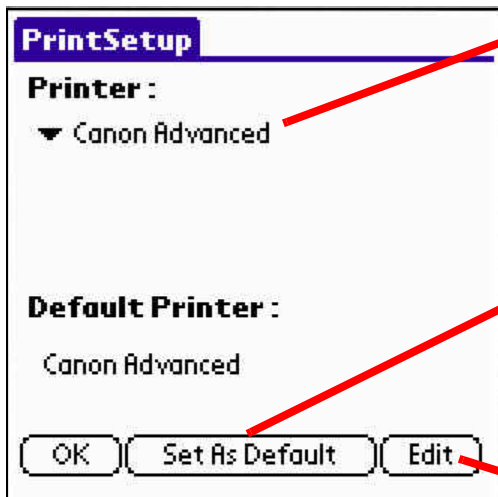


Step 1.

Click on the **PrintSetup** icon on the main menu of the PDA.

Step 2.

Select your wireless printer from the drop-down menu.

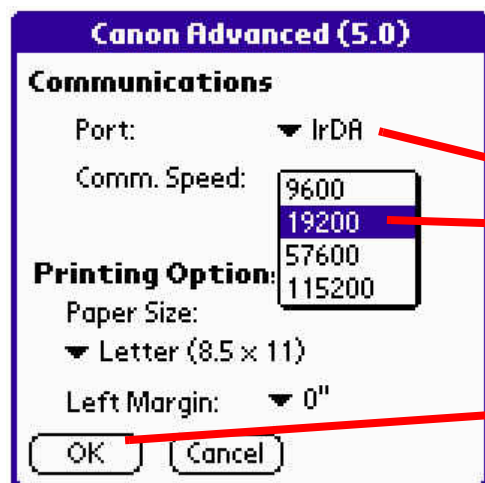


Step 3.

Click on the **Set As Default** button to set the selected printer as the default printer.

Step 4.

Click on the **Edit** button to setup the communication properties.



Step 5.

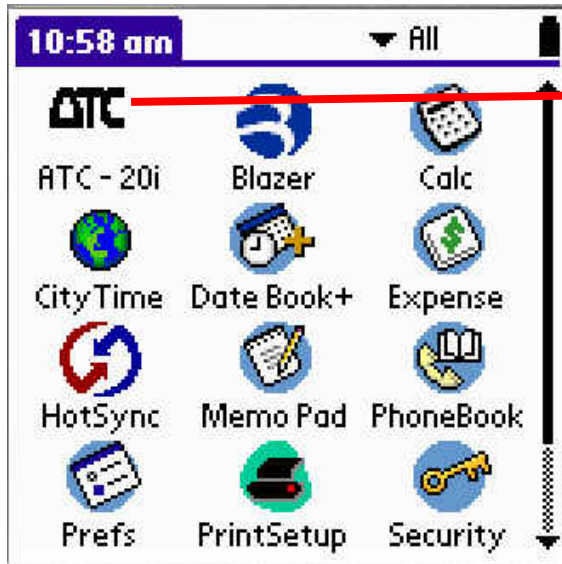
Make sure that the communications port is set to **IrDA** and set the communication speed to **19200**.

Step 6.

Click the **OK** button twice to return to the main menu on your PDA.

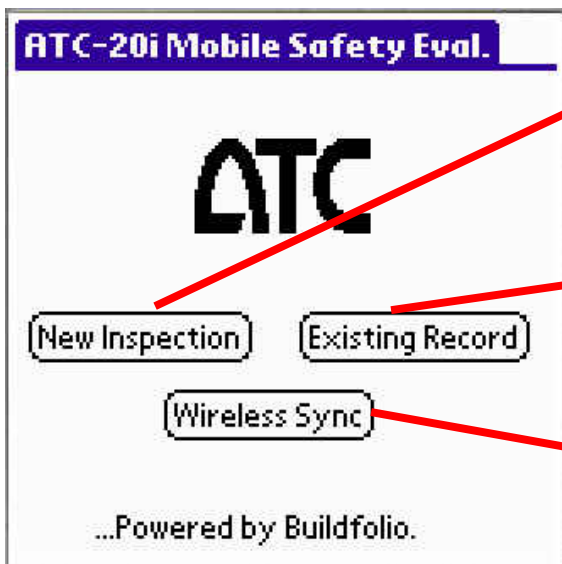
Handheld Application

2.1 Launching the Application



Step 1.
Click on the ATC-20i icon on the PDA menu to launch the application.

Once the application is launched, the main menu is displayed.



New Inspection -
Click this button to create a new inspection.

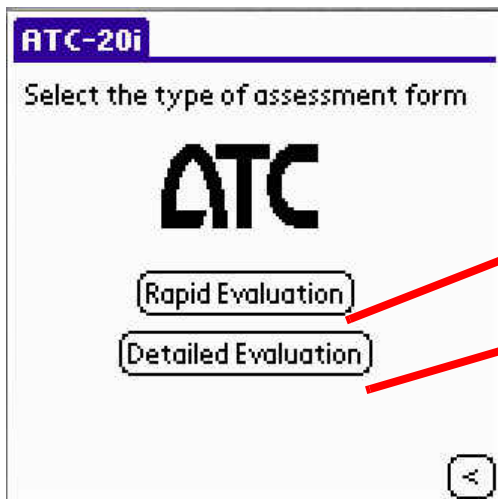
Existing Record -
Click this button to view or edit a previously created inspection.

Wireless Sync -
Click this button to initiate a wireless synchronization with the remote server.

2.2 Creating a New Inspection



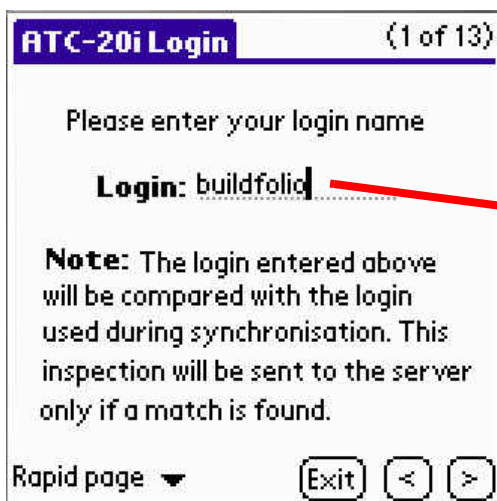
Step 1.
Click the **New Inspection** button.



Step 2.

Click on the **Rapid Evaluation** button if a rapid evaluation is to be conducted

Click on the **Detailed Evaluation** button if a detailed evaluation is to be conducted



Step 3.

The first field in both the inspection forms is a login field.

Enter your login name in this field. The value entered here will be compared with the login name and password used during synchronization. Only those inspections where a match is detected, will be synchronized with the server.

ATC-20i Rapid Eval (2 of 13)

Inspector ID:

Inspection Date: 09/03/03

Inspection Time: 11:06:25 am

Affiliation:

Earthquake/
Aftershock Date:

Areas Inspected:

Exterior only

Exterior and interior

Rapid page ▼

Step 4.

When a new evaluation is to be conducted, an empty electronic inspection form is provided for the inspector to fill in the inspection data.

ATC-20i Bldg Desc (3 of 13)

Building Name: |

Address:

Unit#: Parcel#:

City:

State: ▼ Select State

Zip:

Bldg contact:

Rapid page ▼

Step 5.

Enter the inspection data into the form and click the ">" button on each page to navigate to the next page; or, to correct data on a previous page, click the "<<" button.

ATC-20i Rapid Eval (7 of 13)

Observed Conditions:

Collapse, partial collapse, or building off foundation

Building or story leaning

Racking damage to walls, other structural damage

Rapid page ▼

ATC-20i Rapid Eval (9 of 13)

Estimated Building Damage
(excluding contents)

<input type="checkbox"/> None	<input type="checkbox"/> 30-60%
<input type="checkbox"/> 0-1%	<input type="checkbox"/> 60-100%
<input type="checkbox"/> 1-10%	<input type="checkbox"/> 100%
<input type="checkbox"/> 10-30%	

Comments:
.....
.....

Rapid page ▼ **Exit** < >

NOTE:

- The page number shows the inspector's location in the current inspection.

ATC-20i Rapid Posting (10 of 13)

Post INSPECTED placard at main entrance. Post RESTRICTED USE and UNSAFE placards at all entrances.

<input type="checkbox"/> Inspected (Green placard)
<input type="checkbox"/> Restricted Use (Yellow placard)
<input type="checkbox"/> Unsafe (Red placard)

Record any use and entry restrictions exactly as written on placard:
.....
.....

Rapid page 1 (Login) 2 (Inspection) 3 (Bldg Desc) 4 (Bldg Desc) ▼ < >

- The **Rapid page** button will allow the inspector to select a specific page in the current inspection.

- Clicking the **Exit** button on any page will terminate the new inspection process, and the inspector will be returned to the main menu. All data pertaining to the current inspection being created, will be lost.

ATC-20i Further Acts (11 of 13)

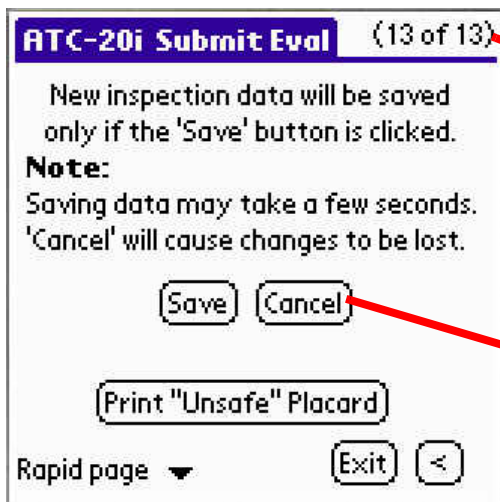
Barricades needed in the following Areas:

Detailed evaluation recommended

<input type="checkbox"/> Structural	<input type="checkbox"/> Geotechnical
<input type="checkbox"/> Other:	

Other recommendations:
.....

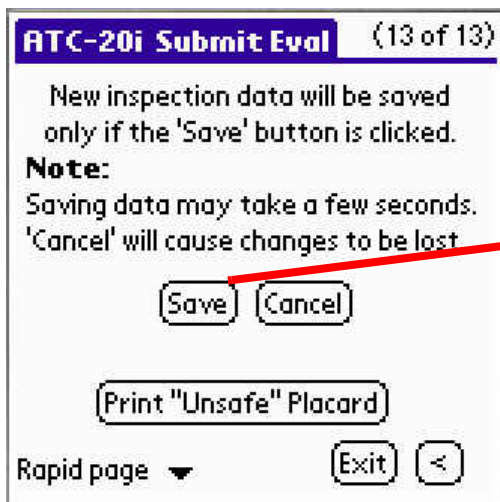
Rapid page ▼ **Exit** < >



This is the last page of the electronic evaluation form. Once all the required inspection data has been filled in, the inspector can choose to either save the inspection data or exit the evaluation.

NOTE:

- Clicking the **Cancel** button will terminate the process of creating a new inspection and the user will be returned to the main menu. All data pertaining to the current inspection being created, will be lost.

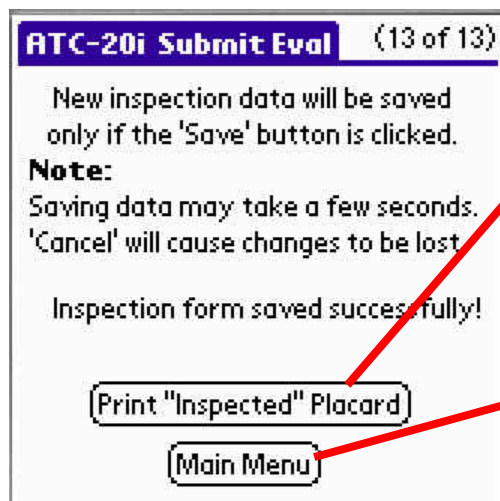


Step 6.

Click the **Save** button to create a new inspection record in the database and store the inspection data into it. A message is displayed when data is successfully saved.

Step 7.

Placard printing is done by clicking on the **Print "Inspected" Placard** button, which sends the print job to a wireless printer. Refer to **page 17**** for instructions on placard printing.



Step 8.

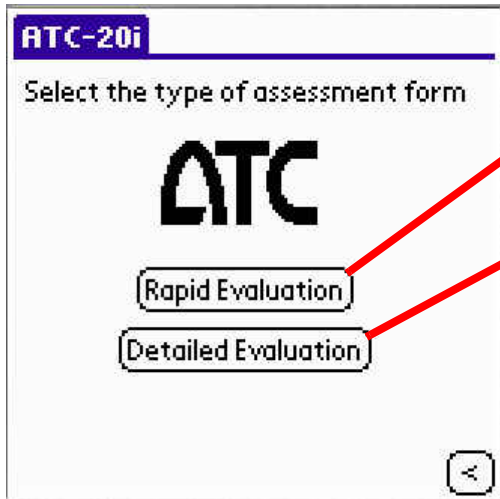
Once the inspection data is saved and the placard has been printed, the user can continue using the software by clicking on the **Main Menu** button and navigating to the main menu.

2.3 Viewing / Editing a Previous Inspection



Step 1.

Click the **Existing Record** button.



Step 2.

Click on the **Rapid Evaluation** button if a rapid evaluation is to be viewed and/or edited.

Click on the **Detailed Evaluation** button if a detailed evaluation is to be viewed and/or edited.



Step 3.

A list of rapid (or detailed) inspections previously conducted and stored on the PDA is displayed. Highlight the inspection you want to view and/or edit.

Step 4.

Click on the ">" button to load the inspection data pertaining to the selected inspection and view it.

ATC-20i Login (1 of 13)

Please enter your login name

Login: buildfolio.....

Note: The login entered above will be compared with the login used during synchronisation. This inspection will be sent to the server only if a match is found.

Rapid page ▼ Exit < >

Step 5.

When a previous evaluation is selected and loaded, the inspector can view the inspection data and edit the data if necessary.

ATC-20i Rapid Eval. (2 of 13)

Inspector ID: ivan.....

Inspection Date: 01/06/03.....

Inspection Time: 2:05:28 pm.....

Affiliation: OES.....

Earthquake/Aftershock Date: 09/01/03.....

Areas Inspected:

- Exterior only
- Exterior and interior

Rapid page ▼ Exit < >

Step 6.

Click the ">" button on each page after viewing and/or editing the data to navigate to the next page; or, to correct data on a previous page, click the "<" button.

ATC-20i Bldg Desc (3 of 13)

Building Name: Buildfolio Inc.....

Address: 1895 El Camino Real.....

Unit#: 2..... Parcel#: 5.....

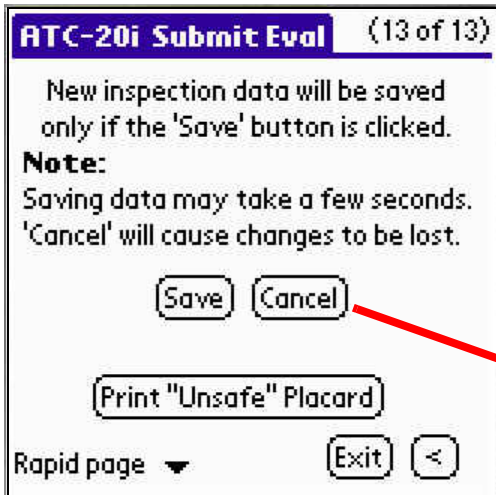
City: Palo Alto.....

State: ▼ California

Zip: 94306.....

Bldg contact: 6503219005.....

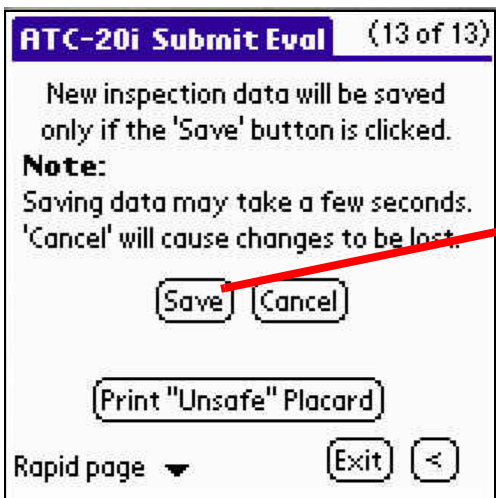
Rapid page ▼ Exit < >



Once all the required inspection data has been viewed and edited, the inspector can choose to either save the data changes or exit the evaluation.

NOTE:

- Clicking the **Cancel** button will terminate the process of viewing/editing an inspection and the user will be taken to the main menu. All data changes pertaining to the inspection being viewed/modified will be lost. The inspection record will continue to exist in the database and it will have the data that had been stored prior to making any changes.

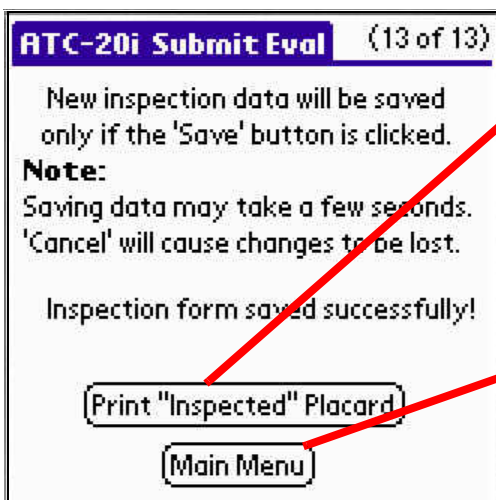


Step 7.

Click the **Save** button to save the data changes in the database. The old data pertaining to the inspection record being modified will be lost and it will be overwritten by the new data that was saved. A message is displayed on successful saving of data.

Step 8.

Placard printing can be done by clicking on the **Print "Inspected" Placard** button and using a wireless printer. Refer to **page 17**** for instructions on placard printing.



Step 9.

The user can continue using the software by clicking on the **Main Menu** button and navigating to the main menu.

2.4 Printing a Placard

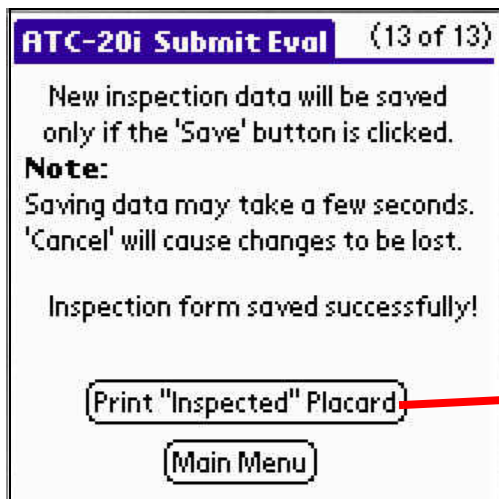


Step 1.

Make sure that the wireless printer has been setup on your PDA. Refer to **page 18** for instructions on how to setup a wireless printer.

Step 2.

Make sure that the placard has been placed in the printer feeder correctly. (Note the direction and alignment of the placard.)



Step 3.

Hold the PDA in close proximity to the printer so that their infrared ports are facing each other.

Step 4.

Click the **Print "Inspected" Placard** button on the PDA to initiate printing.

NOTES:

- Displacement of the placard in the printer feeder will result in misalignment of the printed text on the placard.
- An error will be generated if the printer and the PDA are not in close proximity with their infrared ports facing each other.
- The placard has a limited print area. If the text to be printed is too long, the user will be notified and the text will be truncated **on the printed placard**. However, the entire text will still be stored in the database and can be viewed on the electronic form.

2.5 Wireless Synchronization



Step 1.

Make sure that the wireless mode on your PDA is turned **ON**. Refer your PDA manual on how to turn the wireless mode **ON**.

Step 2.

Click the **Wireless Sync** button on the main menu of the ATC-20i software.



Step 3.

Enter **login** name.

Step 4.

Click the “>” button to initiate wireless synchronization.



Step 5.

Choose the inspections to be sent by checking the corresponding checkboxes. Then click **Send Selected**.

ATC-20i Authorization

Please enter your username
and password for authorization

Login admin.....

Password [masked].....

Submit Reset

Configure Settings Exit <

Step 6.

Enter **Login** name and **Password** for authorization.

NOTE:

Once verification succeeds, the data packages to be sent to the server are prepared. The total number of inspections being packaged and sent is displayed for the inspector's review.

ATC-20i Authorization

Please enter your username
and password for authorization

Login admin.....

Info

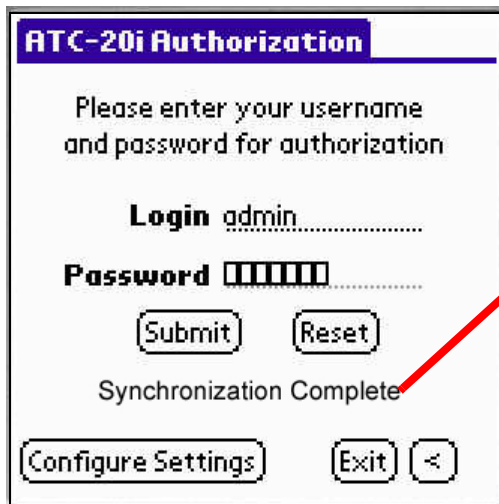
i On verification, only inspections with login name 'admin' will be synchronized.

Ok



Step 7.

Once the packaging is complete, the user is informed about the number of data calls that will be made to the server for synchronization. This number depends on the number of inspections and the amount of data being synchronized. Click **OK** to continue when prompted.



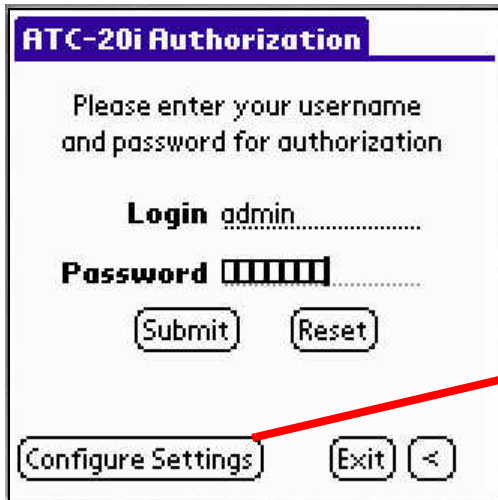
Once the synchronization is complete, a confirming message is displayed. The user can now exit or continue using the software.

2.6 Deleting an Inspection Record

Since a single PDA may be shared between different inspectors, the ATC-20i system does not provide the capability to delete an inspection record directly from the PDA, in order to prevent one inspector from mistakenly deleting the inspection record created by another inspector. An inspection record can, however, be deleted from the PDA by deleting it first from the server.

- Step 1.** If the inspection record wished to be deleted does not exist on the server, then synchronize the PDA with the server to transfer the inspection to the server. (Refer to page 18 or page 21 for instructions on synchronization)
- Step 2.** Access the web panel of the ATC-20i system and delete the inspection from there. (Refer to page 29 for instructions on deleting a record)
- Step 3.** Synchronize the PDA with the server again. The inspection that had been deleted from the server will not be downloaded and will cease to exist on the PDA.

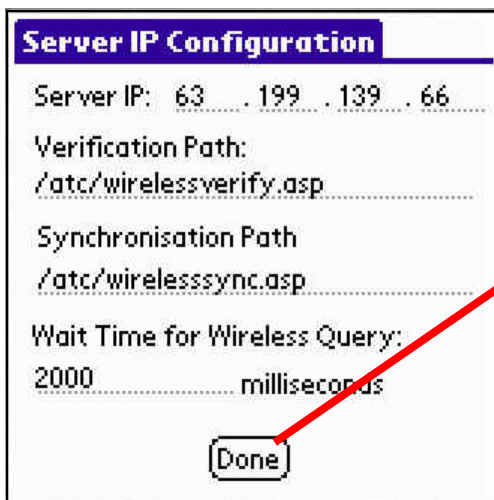
2.7 Configuring Server Settings for Wireless Synchronization (Advanced Topic)



The screenshot shows the 'ATC-20i Authorization' screen. At the top, it says 'Please enter your username and password for authorization'. Below this, there are two input fields: 'Login' with the text 'admin' and 'Password' with a masked field of ten asterisks. There are two buttons, 'Submit' and 'Reset', below the password field. At the bottom of the screen, there are three buttons: 'Configure Settings', 'Exit', and a left arrow button. A red arrow points from the 'Configure Settings' button to the text of Step 1.

Step 1.

Click the **Configure Settings** button on the wireless synchronization page to access the server settings on your PDA.



The screenshot shows the 'Server IP Configuration' screen. It displays several configuration fields: 'Server IP: 63 . 199 . 139 . 66', 'Verification Path: /atc/wirelessverify.asp', 'Synchronisation Path: /atc/wirelessync.asp', and 'Wait Time for Wireless Query: 2000 milliseconds'. At the bottom of the screen, there is a 'Done' button. A red arrow points from the 'Done' button to the text of Step 2.

Step 2.

Make the necessary changes to the server IP Configuration and click the **Done** button to save the changes.

NOTE:

- Incorrect changes to server settings could affect wireless synchronization.
- Server settings include
 1. IP address to which the PDA connects for wireless synchronization.
 2. Paths of the ASP pages used for authenticating the user and synchronization of data.
 3. Time delay used for establishing a better connection with the server.

Desktop Application

3.1 Procedures for Synchronizing Data From Server to PDA Through a Desktop

Step 1.

Make sure that the PC being used is connected to the Internet, the PDA is securely placed in the cradle and the cradle is securely connected to the PC

Step 2.

Check whether the HotSync application is running on the PC. If not, then run it.

Step 3.

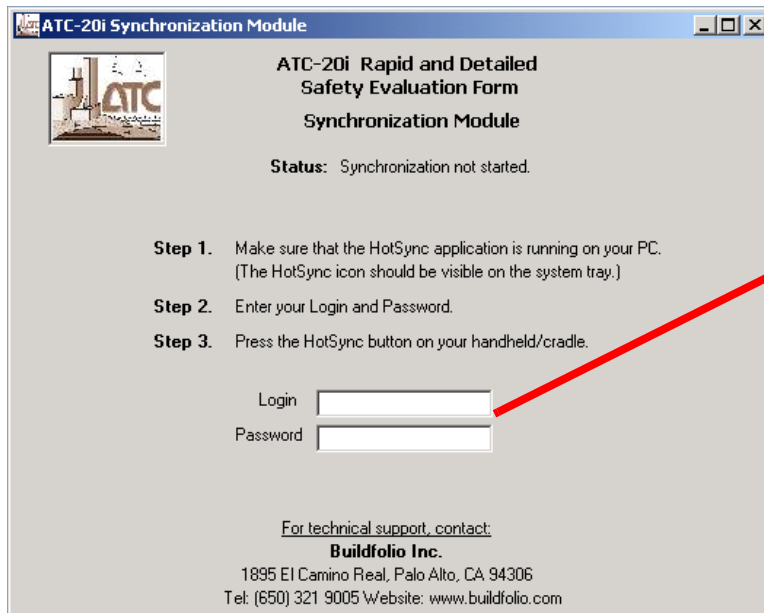
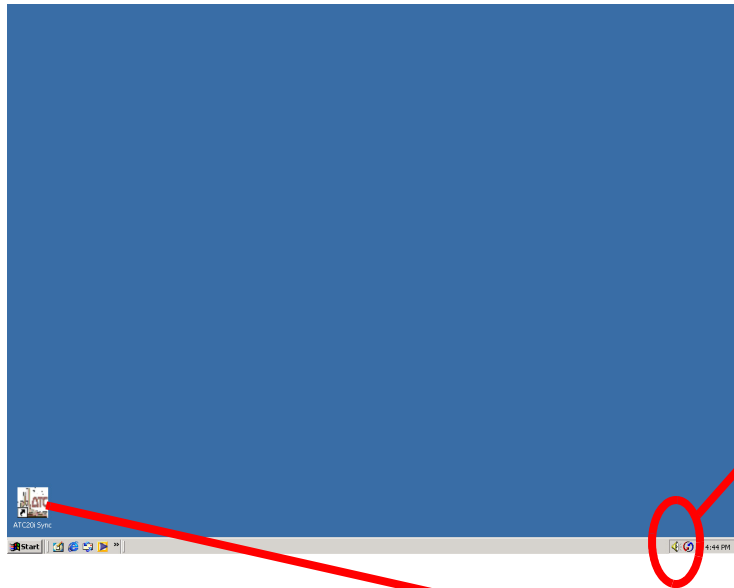
Run the synchronization software by double clicking on the “ATCSync.exe” icon in the folder “C:\Program Files\Buildfolio\ATC\” or on the short-cut placed on the desktop.

Step 4.

Enter your **Login** and **Password** in their respective fields.

Step 5.

Press the **HotSync** button on your PDA/cradle to begin HotSync and ATC-20i synchronization with the server.



3.2 Configuring Server Settings for Desktop Synchronization (Advanced Topic)

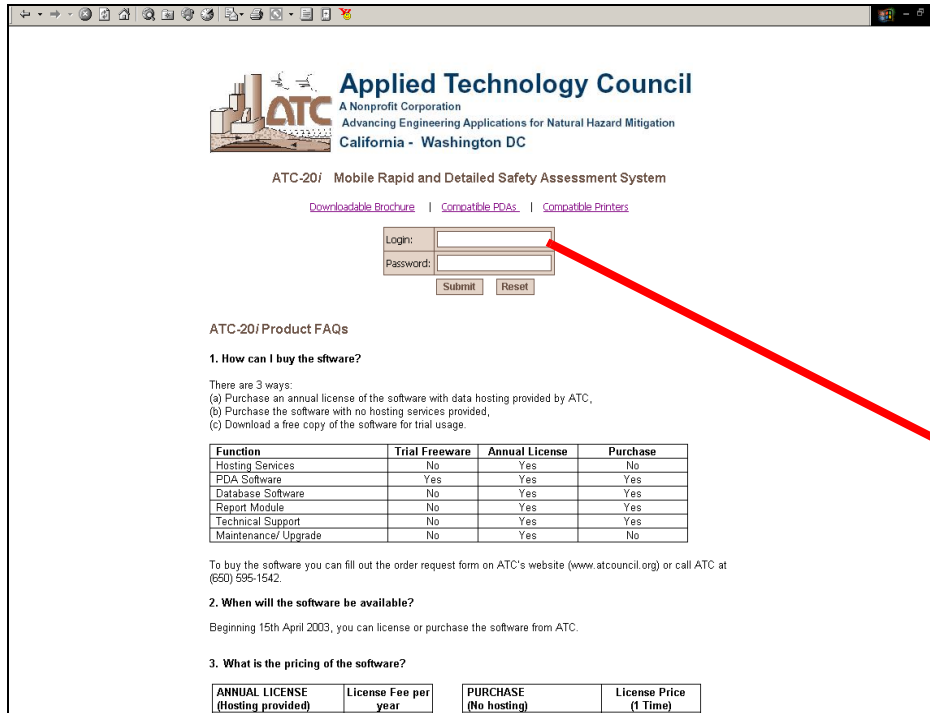
To change the server IP for the ATC Desktop Application:

Step 1. Open C:\Program Files\Buildfolio\ATC\ATC.ini

Step 2. Go to section: [Server]

Step 3. Change the IP address under the keys: “Address” and “FTP”.

4.1 Accessing the Web Page

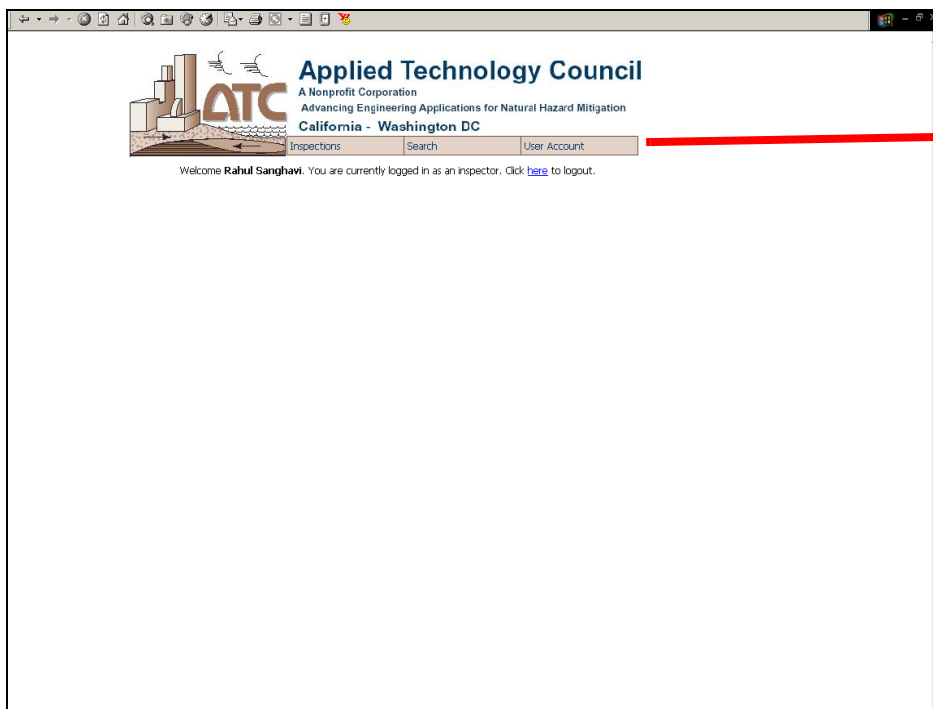


Step 1.

Go to
<http://www3.buildfo-lio.com/atc>

Step 2.

Type in your **Login** name and **Password** in the respective fields.



Menu Functions include:

1. "Inspections" -
 - a. "New" – Add new inspections
 - b. "View/Edit" – Change old inspections
2. "Search" - Inspection Search Engine
3. "User Account" – Personal Details Module

4.2 Creating a New Inspection Record

Step 1.

On the menu bar, click on:

Inspections → New → Rapid (Detailed):

An empty (rapid) detailed inspection form is displayed.

Step 2.

Enter the inspection data on the form.

Step 3.

Click the **Submit** button to create and save an inspection record in the database.

NOTE:

- Clicking on the menu to navigate to any other page without clicking the **Submit** button will terminate the process of creating a new inspection. **All data currently entered in the new inspection form will be lost.**

4.3 Viewing / Editing a Previous Inspection

Applied Technology Council
A Nonprofit Corporation
Advancing Engineering Applications for Natural Hazard Mitigation
California - Washington DC

Welcome **Rahul Sanghavi**. You are currently logged in as an inspector. [Click here](#) to logout.

Found 11 matches for rapid inspections uploaded on to the system till date...

Inspector ID	Building Name	Location	Date	View/Edit	Delete
17678	Block Residence	15615 Flying Circle, San Francisco, CA 90025	4/21/2003	View/Edit	Delete
17678	Carroll Residence	456 Hill Street, Fremont, CA 94655	4/21/2003	View/Edit	Delete
17678	K. Smith Residence	15960 Flying Circle, Los Angeles, CA 95628	4/21/2003	View/Edit	Delete
17678	McGrath Home	123 Wild Lakes Estate, Big Bear, AK 94655	4/21/2003	View/Edit	Delete
17678	Ramos Residence	14 Clubhouse Way, Milpitas, CA 92251	4/21/2003	View/Edit	Delete
17678	Administration Bldg.	Juvenile Hall, San Mateo, CA 52274	4/22/2003	View/Edit	Delete
17678	Cerruti Residence	123 cesar chavez, San Francisco, CA 91002	4/22/2003	View/Edit	Delete
17678	I. M. Retired Residence	Unit 12, Sea View Park, 1220 Old Country Rd., CA 94522	4/22/2003	View/Edit	Delete
17678	Jones Bldg	4567 Bayport Avenue, San Diego, CA 85466	4/22/2003	View/Edit	Delete
17678	Red Motor Inn	401 University Ave., Palo Alto, CA 94306	4/22/2003	View/Edit	Delete

Page 1 of 2

Step 1.

On the menu bar, click on

Inspections → View/Edit → Rapid (Detailed):

A list of all rapid (detailed) inspections performed by the inspector is displayed.

Step 2.

Click the **View/Edit** button next to any inspection record to view the inspection data for that inspection.

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Advancing Engineering Applications for Natural Hazard Mitigation
California - Washington DC

Welcome **Rahul Sanghavi**. You are currently logged in as an inspector. [Click here](#) to logout.

ATC-20i Rapid Evaluation Safety Assessment Form

Inspection

Inspector ID: 17678 Inspection Time: 12:16:46 PM Inspection Date: 4/22/2003

Affiliation: OES Event Code: MH1 Areas inspected: Exterior Only Interior and Exterior

Building Description

Building Name: I. M. Retired Residence Type of Construction: Wood frame Concrete shear wall

Address: Unit 12, Sea View Park Steel concrete Unreinforced masonry

City: 1220 Old Country Rd. Tilt-up concrete Reinforced masonry

State: California Concrete Frame Other: Mobile Home

ZIP: 94552

Building contact/phone: Mr. Rutgers 234 8545

Number of stories above ground: 1 Primary Occupancy: Dwelling Commercial Government

Number of stories below ground: 0 Other residential Offices Historic

Approx. "Footprint area" (sq. ft.): 1400 Public assembly Industrial School

Number of residential units: 1 Emergency services Other: _____

Number of residential units not habitable: 1

Evaluation

Investigate the building for the conditions below and check the appropriate column.

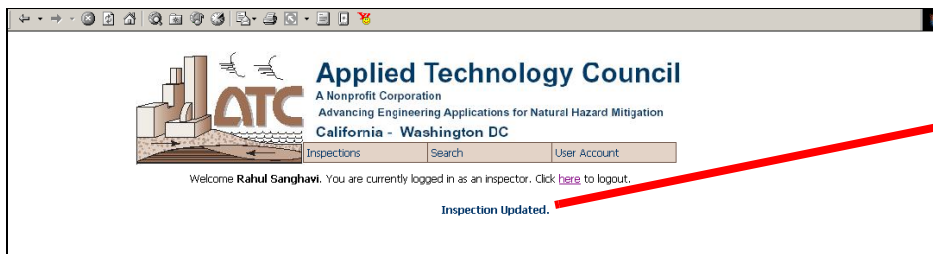
Observed conditions:	Minor/None	Moderate	Severe	Estimated Building Damage (excluding contents)
Collapse, partial collapse, or building off foundation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> None

Step 3.

Make changes to the inspection data wherever necessary.

Step 4.

Click the **Submit** button to update the inspection record in the database. The old inspection data will be overwritten by the new modified data.

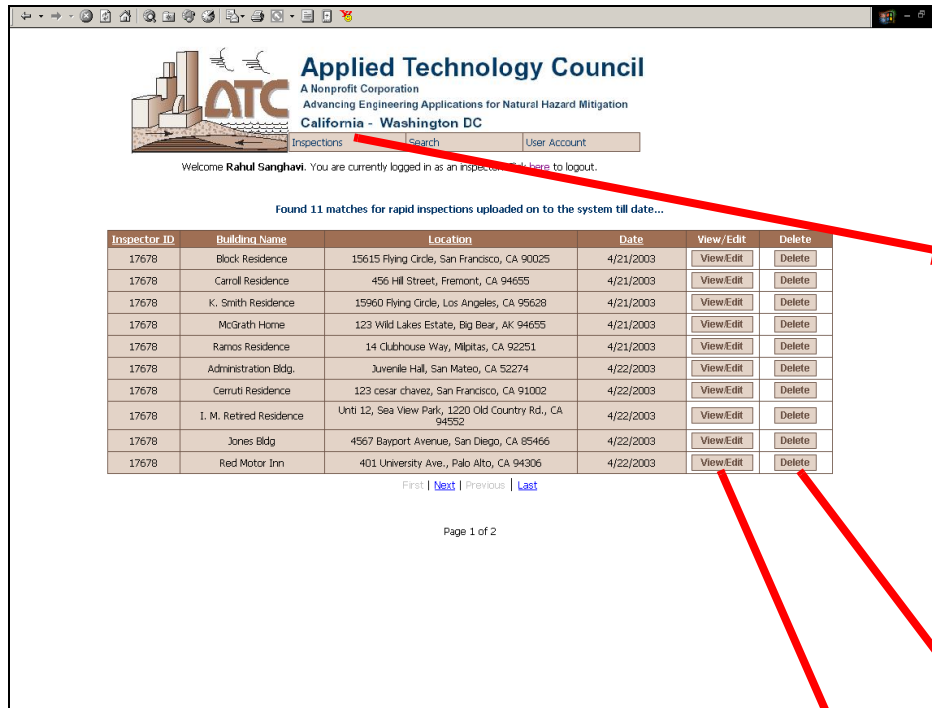


An **Inspection Updated** message is displayed when the record is updated.

NOTE:

- Clicking on the menu to navigate to any other page without clicking the **Submit** button will terminate the process of modifying the inspection. **All changes pertaining to the inspection being modified will be lost.** The inspection record will continue to exist in the database containing the data existing prior to modification.

4.4 Deleting an Inspection Record



Step 1.

On the menu bar, click on:

Inspections → View/Edit → Rapid (Detailed):

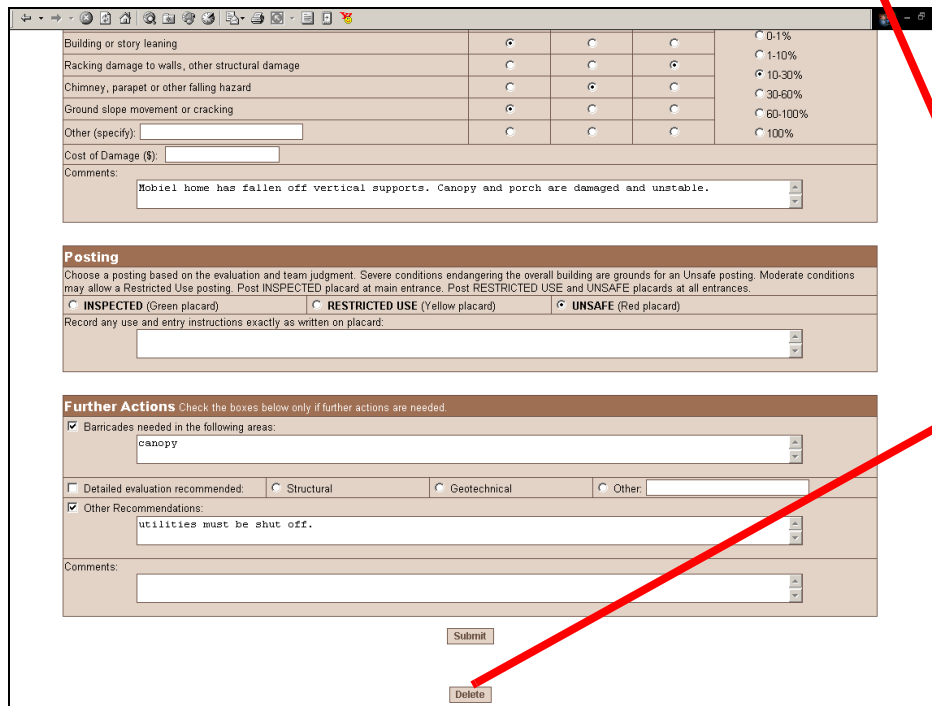
A list of all rapid (detailed) inspections performed by the inspector is displayed.

Step 2.

a. Click the **Delete** button next to any inspection record to delete that inspection from the database.

OR

b. Choose to view the inspection data by clicking on the **View/Edit** button. To delete the inspection, click the **Delete** button at the bottom of the inspection form.



Posting
 Choose a posting based on the evaluation and team judgment. Severe conditions endangering the overall building are grounds for an Unsafe posting. Moderate conditions may allow a Restricted Use posting. Post INSPECTED placard at main entrance. Post RESTRICTED USE and UNSAFE placards at all entrances.

INSPECTED (Green placard)
 RESTRICTED USE (Yellow placard)
 UNSAFE (Red placard)

Record any use and entry instructions exactly as written on placard

Further Actions Check the boxes below only if further actions are required.

Barricades needed in the following areas:
 canopy

Detailed evaluation recommended:
 Structural
 Geotechnical
 Other:

Other Recommendations:
 utilities must be shut off.

Step 3.

The system prompts the user to confirm the deletion of the inspection record. Click “OK” to complete the deletion.



An **Inspection Deleted** message is displayed on successful deletion of the inspection record.

NOTE:

- Clicking the **Cancel** button when prompted by the system to confirm the deletion, will leave the original inspection record intact.

4.5 Search Engine

Welcome **Rahul Sanghavi**. You are currently logged in as an inspector. Click [here](#) to logout.

Selecting any of the following criteria will restrict the search to that criterion. Clicking on the 'List Report' or 'View Statistic' buttons without selecting anything will result in a search being performed on all inspections created under the login **'rahuls'**.

Building Name	<input type="text"/>	Evaluation Type:	Choose a type
Inspector ID	<input type="text"/>	Construction Type:	Choose a type
Affiliation:	<input type="text"/>	Occupancy Type:	Choose a type
Inspection Date:	From <input type="text"/> To <input type="text"/>	Posting Type:	Choose a type
Further Action Type:	Choose a type	Estimated Building Damage:	Choose a level
		Event Code:	Choose an eventcode

Rows per Page: 10 Sort By:

Step 1.

Click the **Search** link on the menu bar to access the search engine page.

Welcome **Rahul Sanghavi**. You are currently logged in as an inspector. Click [here](#) to logout.

Selecting any of the following criteria will restrict the search to that criterion. Clicking on the 'List Report' or 'View Statistic' buttons without selecting anything will result in a search being performed on all inspections created under the login **'rahuls'**.

Building Name	<input type="text"/>	Evaluation Type:	Choose a type
Inspector ID	<input type="text"/>	Construction Type:	Choose a type
Affiliation:	<input type="text"/>	Occupancy Type:	Choose a type
Inspection Date:	From <input type="text"/> To <input type="text"/>	Posting Type:	Choose a type
Further Action Type:	Choose a type	Estimated Building Damage:	Choose a level
		Event Code:	Choose a level

Rows per Page: 10 Sort By:

Step 2.

If necessary, refine your search by selecting the desired criteria.

Selecting any of the following criteria will restrict the search to that criterion. Clicking on the 'List Report' or 'View Statistic' buttons without selecting anything will result in a search being performed on all inspections created under the login 'yahuls'.

Building Name	<input type="text"/>	Evaluation Type:	Choose a type
Inspector ID	<input type="text"/>	Construction Type:	Choose a type
Affiliation:	<input type="text"/>	Occupancy Type:	Choose a type
Inspection Date:	From <input type="text"/> To <input type="text"/>	Posting Type:	Choose a type
Further Action Type:	Choose a type	Estimated Building Damage:	Choose a level
		Event Code:	Choose an eventcode

Rows per Page: 10 Sort By:

List Report View Statistic Reset

Found 14 matches ...

Further Action Type	Count	Evaluation Type	Count	Construction Type	Count
N/A	10	N/A	0	N/A	2
Structural Evaluation Recommended	3	Rapid Evaluation	10	Wood Frame	7
Geotechnical Evaluation Recommended	0	Detailed Evaluation	4	Steel Frame	0
Other Evaluation Recommended	1			Tilt-up concrete	0
				Concrete frame	0
				Concrete shear wall	2
				Unreinforced masonry	3
				Reinforced masonry	0
				Other	0

Occupancy Type	Count	Posting Type	Count	Estimated Building Damage	Count
N/A	0	N/A	0	N/A	0
Dwelling	8	Inspected	1	None	0
Other residential	0	Restricted Use	4	0-1%	5
Public assembly	0	Unsafe	9	1-10%	4
Emergency services	0			10-30%	3
Commercial	3			30-60%	0
Offices	1			60-100%	2
Industrial	0			100%	0
Government	0				
Historic	0				
School	0				
Other	2				

Step 3.

Click the **View Statistics** button to view a statistical summary of the inspection records that match the search criteria.

Step 4.

If preferred, sort the search results by various criteria and control the number of results to be displayed per page.

Inspector ID: Construction Type:

Affiliation: Occupancy Type:

Inspection Date: From To Posting Type:

Further Action Type: Estimated Building Damage:

Event Code:

Rows per Page: 10 Sort By:

List Report View Statistic Reset

Found 14 matches ...

Date	Inspector ID	Event Code	Building Name	Address	City	State	ZIP	Affiliation	Evaluation Type	Further Action Type	Construction Type	Occupancy Type	Posting Type	Estimated Building Damage	View/Edit	Delete
4/21/2003	17678	BH002	Block Residence	15615 Plying Circle	San Francisco	CA	90025	OES	Rapid	Structural Evaluation Recommended	Wood Frame	Dwelling	Inspected	0-1%	View/Edit	Delete
4/21/2003	17678	GH145	Carroll Residence	456 Hill Street	Fremont	CA	94655	OES	Rapid		Wood Frame	Dwelling	Unsafe	1-10%	View/Edit	Delete
4/21/2003	17678	BH002	K. Smith Residence	15960 Plying Circle	Los Angeles	CA	95628	OES	Rapid	Structural Evaluation Recommended	Wood Frame	Dwelling	Restricted Use	0-1%	View/Edit	Delete
4/21/2003	17678	EQ001	McGrath Home	1223 Wild Lakes Estate	Big Bear	AK	94655	OES	Rapid		Wood Frame	Dwelling	Unsafe	0-1%	View/Edit	Delete
4/21/2003	17678	TX83	O'Reilly Residence	604 Hill Side	Riverside	CA	65882	OES	Detail		Wood Frame	Dwelling	Restricted Use	1-10%	View/Edit	Delete
4/21/2003	17678	TX83	Ramos Residence	14 Clubhouse Way	Milpitas	CA	92251	OES	Rapid			Dwelling	Restricted Use	0-1%	View/Edit	Delete
4/21/2003	17678	WA221	Tom's Bakery	1851 Creekview St.	Durban	CA	75514	OES	Detail		Wood Frame	Commercial	Unsafe	0-1%	View/Edit	Delete
4/22/2003	17678	M116	Administration Bldg.	Juvenile Hall	San Mateo	CA	52274	OES	Rapid			Offices	Unsafe	60-100%	View/Edit	Delete
4/22/2003	17678		Cerruti Residence	123 cesar chavez	San Francisco	CA	91002	OES	Rapid		Wood Frame	Dwelling	Unsafe	10-30%	View/Edit	Delete
4/22/2003	17678	EX9	Diplomat Appts.	454 Cider St.	Sunnyvale	CA	90002	OES	Detail		Unreinforced masonry	Dwelling	Unsafe	1-10%	View/Edit	Delete

Page 1 of 2

Step 5.

Click the **List Report** button to view a list of inspection records that match the search criteria.

Step 6.

Click the **View/Edit** button next to any inspection record to view the inspection data for that inspection.

4.6 User Account Module (User Management for Inspectors)

The screenshot shows the ATC web interface. At the top, there is a logo for Applied Technology Council (ATC) and the text "Applied Technology Council A Nonprofit Corporation Advancing Engineering Applications for Natural Hazard Mitigation California - Washington DC". Below this is a navigation bar with "Inspections", "Search", and "User Account" links. A welcome message reads: "Welcome Rahul Sanghavi. You are currently logged in as an inspector. Click [here](#) to logout." Below the welcome message is a form titled "All fields other than the password field are required to be filled." The form contains the following fields: Login Username (rahuls), Old Password (empty), New Login Password (empty), Confirm New Password (empty), Name (Rahul Sanghavi), Inspector ID (17678), and Email Address (rsanghavi@buildfolio.c). At the bottom of the form are "Submit" and "Reset" buttons. A red arrow points from the "User Account" link in the navigation bar to the form.

Step 1.

Click the **User Account** link on the menu bar to view and/or modify your account details like name, email address, inspector ID, and password.

Step 2.

Make the necessary changes to account details.

Step 3.

Enter your password in the **Old Password** field.

Step 4.

Click the **Submit** button to update the personal details in the database.

A **User Information Updated** message is displayed once the new data is saved.

The screenshot shows the ATC web interface after the user account update. The navigation bar and welcome message are the same as in the previous screenshot. Below the welcome message, a message reads: "User Information Updated." A red arrow points from this message to the right.

NOTE:

- The account details **cannot** be modified without entering the current password.
- The **New Password** fields are not necessary unless the password needs to be modified.
- Clicking on the menu to navigate to any other page without clicking the **Submit** button will terminate the process of modifying the account details. **All data changes will be lost.** The user details will continue to exist in the database with data that had been stored prior to modification.

4.7 Admin Module (User Management for System Administrators)

4.7.1 Adding a New User

The screenshot shows the 'Add Users' form in the ATC Admin Module. The form includes the following fields and options:

- Login Name:
- Login Password:
- Confirm Password:
- Name:
- Inspector ID:
- User Privilege:
- Email Address:
- Send a delivery email to the user.

Buttons:

Navigation menu: Inspections | Search | Admin | **Users** (dropdown menu)

Dropdown menu options: **Add Users**, View/Edit Users, Delete Users, Full Version Users, Trial Version Users

Step 1.

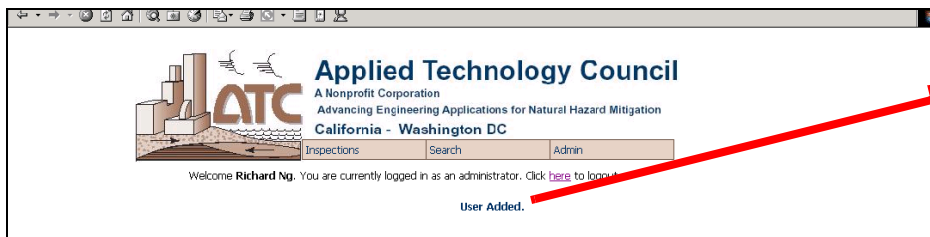
On the menu bar, click on **Admin** → **Users** → **Add Users**

Step 2.

Enter the account details of the new user.

Step 3.

Click the **Submit** button to add the user to the system.



A **User Added** message is displayed once the user has been added to the database.

NOTE:

- All the fields must be filled in.
- The new user should have a unique login name. The system will disallow the addition of a new user if the login name already exists.

4.7.2 Viewing/Editing the Account Details of a User

Applied Technology Council
A Nonprofit Corporation
Advancing Engineering Applications for Natural Hazard Mitigation
California - Washington DC

Welcome Richard Ng. You are currently logged in as an administrator. Click [Users](#)

Found 18 users ...

Results per page: 10 Sort By: Login Name View All Users

Inspector ID	Login Name	Name	Privilege	Email Address	Edit
291081	admin	Richard Ng	Administrator	rng@buildfolo.com	Edit
#892	agarcia	Andy Garcia	Administrator	agarcia@hexnetworks.com	Edit
1212	atc	Chee Song Chern	Normal User	cchern@buildfolo.com	Edit
#341	bfarell	Betty Farrell	Normal User	bfarell@bifinspectors.com	Edit
564	dim	David Lim	Administrator	dim@fareast.org	Edit
#427	gcowper	Gary Cowper	Normal User	gcowper@bchtel.com	Edit
104	Ivan	Ivan Xie Ke	Normal User	ixie@buildfolo.com	Edit
F324	jncdowell	John McDowell	Administrator	jncdowell@axis.com	Edit
653	kfernando	Kenneth Fernando	Normal User	kfernando@usa.net	Edit
785	mgordon	Mark Gordon	Normal User	mgordon@atcouncil.org	Edit

Page 1 of 2

Step 1.

On the menu bar, click on **Admin** → **Users** → **View/Edit Users** to view of a list of the existing users.

The list can be sorted by various criteria and the number of users to be displayed per page can be selected.

Step 2.

Click the **Edit** button next to the details of a particular user to view/modify his account details.

Applied Technology Council
A Nonprofit Corporation
Advancing Engineering Applications for Natural Hazard Mitigation
California - Washington DC

Welcome Richard Ng. You are currently logged in as an administrator. Click [here](#) to logout.

All fields other than the password field are required to be filled.

Login Username:

New Login Password:

Confirm New Password:

Name:

Inspector ID:

Privilege:

Email Address:

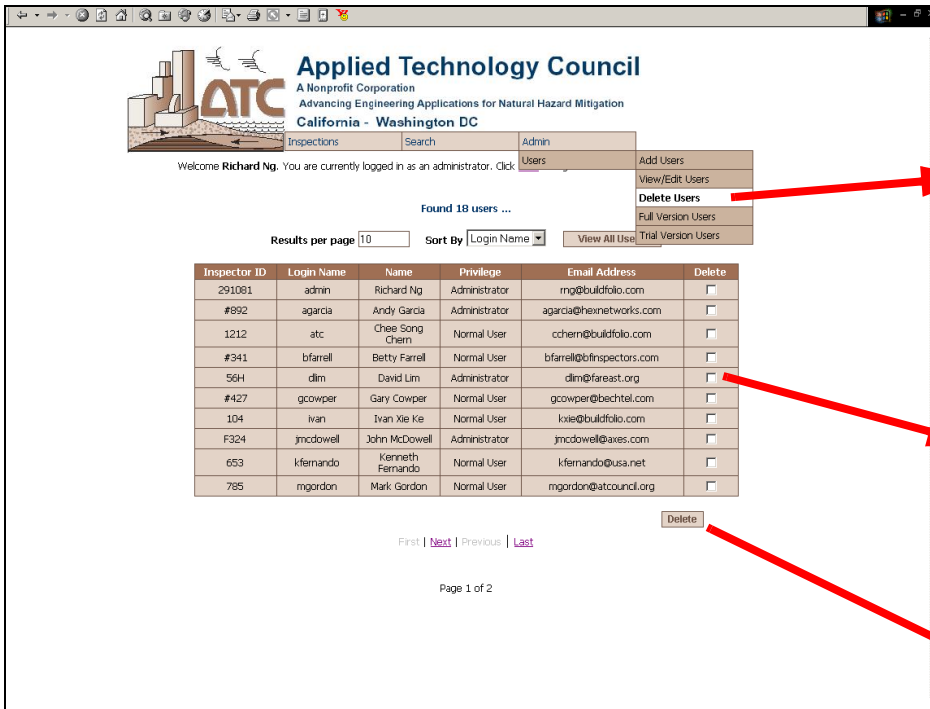
Step 3.

Click the **Submit** button to overwrite the account details of the user.

NOTE:

- The **New Password** fields are not necessary unless the password is to be modified.

4.7.3 Deleting a User



Step 1.

On the menu bar, click on **Admin** → **Users** → **Delete Users** to view of a list of the existing users.

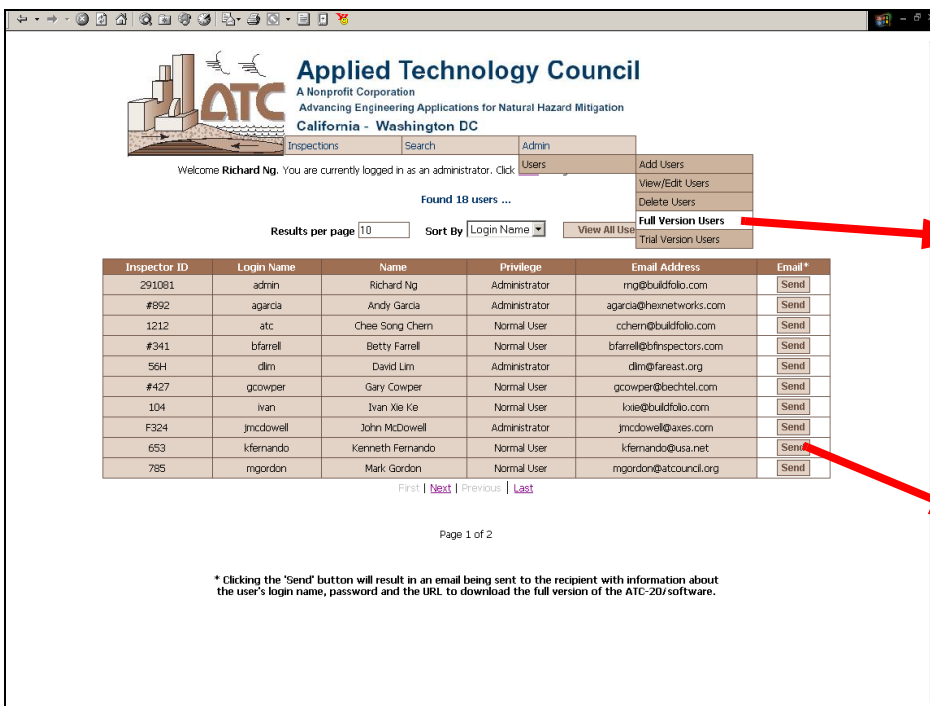
Step 2.

Check the box in the **Delete** column of a user to select that user for deletion.

Step 3.

Click the **Delete** button to delete the user from the system.

4.7.4 Emailing a User his Account Details



Step 1.

On the menu bar, click on **Admin** → **Users** → **Full Version Users** to view of a list of the existing users.

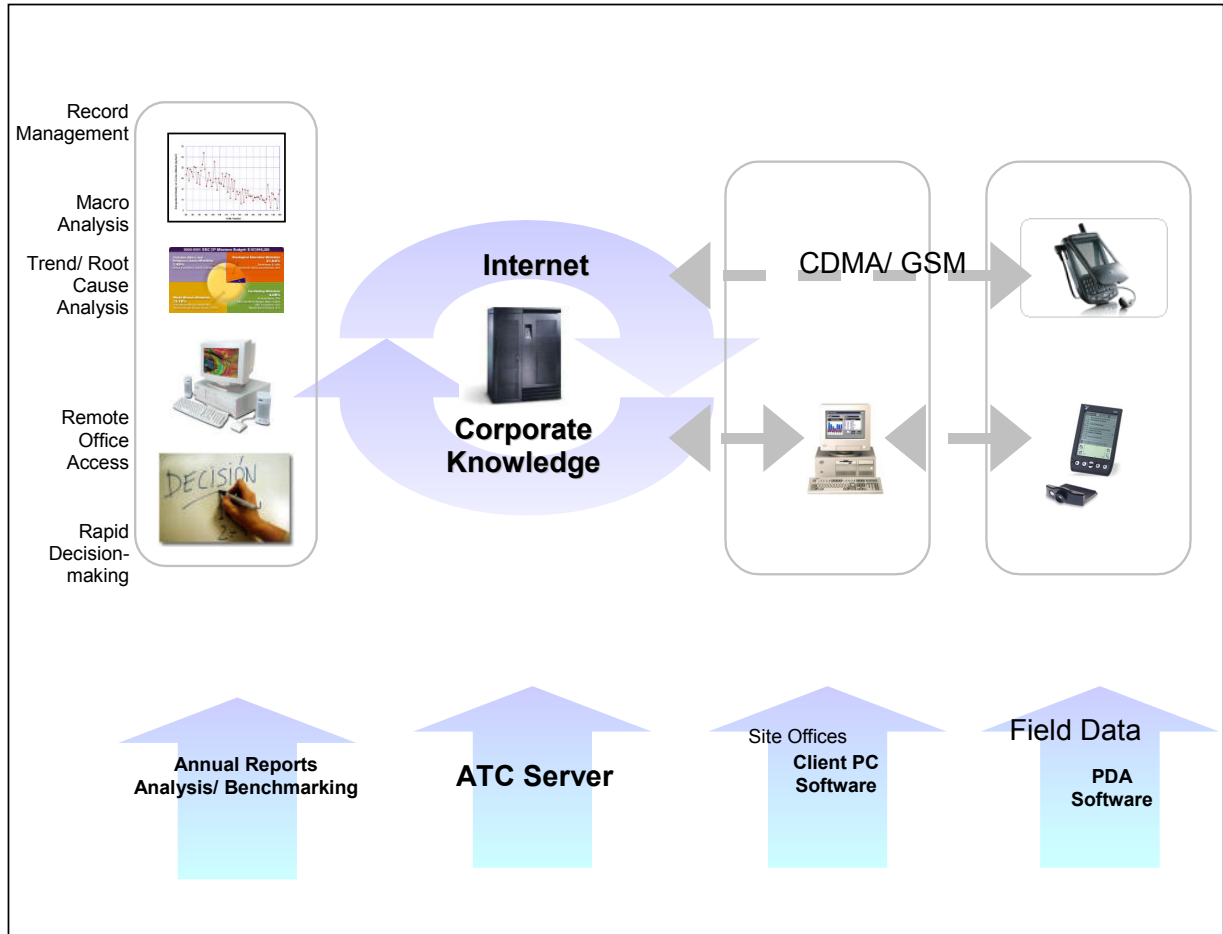
Step 2.

Click the **Send** button to send an email to the user containing his account details.

NOTE:

- An email will be sent to the user only if his account details have an email address.

4.8 Diagrammatic Representation of the System Architecture



Project Participants

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ATC Projects and Report Information

One of the primary purposes of Applied Technology Council is to develop resource documents that translate and summarize useful information to practicing engineers. This includes the development of guidelines and manuals, as well as the development of research recommendations for specific areas determined by the profession. ATC is not a code development organization, although several of the ATC project reports serve as resource documents for the development of codes, standards and specifications. Applied Technology Council conducts projects that meet the following criteria:

1. The primary audience or benefactor is the design practitioner in structural engineering.
2. A cross section or consensus of engineering opinion is required to be obtained and presented by a neutral source.
3. The project fosters the advancement of structural engineering practice.

Brief descriptions of completed ATC projects and reports pertaining to postearthquake safety evaluation of buildings are provided below. Other available ATC reports are identified in the ATC Online Store (www.ATCCouncil.org).

ATC-20: The report, *Procedures for Postearthquake Safety Evaluation of Buildings*, was developed under a contract from the California Office of Emergency Services (OES), California Office of Statewide Health Planning and Development (OSHPD) and FEMA. Available through the ATC office (Published 1989, 152 pages)

ABSTRACT: This report provides procedures and guidelines for making on-the-spot evaluations and decisions regarding continued use and occupancy of earthquake damaged buildings. Written specifically for volunteer structural engineers and building inspectors, the report includes rapid and detailed evaluation procedures for inspecting buildings and posting them as “inspected” (apparently safe, green placard), “limited entry” (yellow) or “unsafe” (red). Also included are special procedures for evaluation of essential buildings (e.g., hospitals), and evaluation proce-

dures for nonstructural elements, and geotechnical hazards.

ATC-20-1: The report, *Field Manual: Postearthquake Safety Evaluation of Buildings*, was developed under a contract from OES and OSHPD. Available through the ATC office (Published 1989, 114 pages)

ABSTRACT: This report, a companion Field Manual for the ATC-20 report, summarizes the postearthquake safety evaluation procedures in a brief concise format designed for ease of use in the field.

ATC-20-2: The report, *Addendum to the ATC-20 Postearthquake Building Safety Procedures* was published under a grant from the NSF and funded by the USGS. Available through the ATC office. (Published 1995, 94 pages)

ABSTRACT: This report provides updated assessment forms, placards, including a revised yellow placard (“restricted use”) and procedures that are based on an in-depth review and evaluation of the widespread application of the ATC-20 procedures following five earthquakes occurring since the initial release of the ATC-20 report in 1989.

ATC-20-3: The report, *Case Studies in Rapid Postearthquake Safety Evaluation of Buildings*, was funded by ATC and R. P. Gallagher Associates. Available through the ATC office. (Published 1996, 295 pages)

ABSTRACT: This report contains 53 case studies using the ATC-20 Rapid Evaluation procedure. Each case study is illustrated with photos and describes how a building was inspected and evaluated for life safety, and includes a completed safety assessment form and placard. The report is intended to be used as a training and reference manual for building officials, building inspectors, civil and structural engineers, architects, disaster workers, and others who may be asked to perform safety evaluations after an earthquake.

ATC-20-T: The *Postearthquake Safety Evaluation of Buildings Training CD* was developed by FEMA

to replace the 1993 ATC-20-T Training Manual that included 160 35-mm slides. Available through the ATC office. (Published 2002, 230 PowerPoint slides with Speakers Notes)

ABSTRACT: This Training CD is intended to facilitate the presentation of the contents of the ATC-20 and ATC-20-2 reports in a 4½-hour training seminar. The Training CD contains 230 slides of photographs, schematic drawings and textual information. Topics covered include: posting system; evaluation procedures; structural basics; wood frame, masonry, concrete, and steel

frame structures; nonstructural elements; geotechnical hazards; hazardous materials; and field safety.

ATC TechBrief 2: The ATC TechBrief 2, *Earthquake Aftershocks - Entering Damaged Buildings*, was developed under a contract with the United States Geological Survey. Available free of charge through the ATC office. (Published 1996, 12 pages)

ABSTRACT: The technical brief offers guidelines for entering damaged buildings under emergency conditions during the first hours and days after the initial damaging event.