

Procedure for Using the Research Operations Service Center

General Information:

- The service center tools are available during regular university business hours.
Standard hours: 8:00am – 5:00pm
Holidays, semester breaks, and summer: 7:30am – 4:00pm
- Any researcher/Principle Investigator (PI)/group member who wishes to utilize the service center's instruments and equipment must have a Billing Authorization Form on file which authorizes the service center to electronically bill for those services. PIs will assign a 3-letter code to their funding source. Contact Becky Hellman for more information or with questions.
- Reservations to use equipment are made using an online system called BookItLab. This system is also utilized for logging the equipment use time during a reservation. Users must select the appropriate 3-letter billing code for their reservation. Instructions for using BookItLab are attached to this document.
- For some service center labs, users that are properly trained and will be frequent users of an instrument may be given card key access to that lab. In other cases a temporary lab access card may be available for check-out during the reservation time.
- Undergraduate students are not allowed to work unsupervised in the labs.

Primary Points of Contact:

R1A Lab 1124, 1132, 1138, R2 Lab 152 and Class 100 Cleanroom

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BOOKITLAB EQUIPMENT MANAGEMENT SYSTEM

BookItLab is an online Lab Management Software that has been acquired by the RCA Research Operations Core Facility/Recharge Center for instrument scheduling and management.

Major Aspects of This System:

- (1) Equipment Reservations** **Replaces the Outlook Calendar that has been used previously.**

- (2) Logging Instrument Use Time** **This will be done electronically in the BookItLab app. Replaces the paper log sheets that have been used previously.**

- (3) Incidents/Events** **A user can submit information or a question about events that occurred during the reservation. This automatically notifies the Research Ops staff.**

- (4) Billing** **As before, prior to using equipment a billing authorization form will be filled out and provided to recharge center staff. This information will be entered into BookItLab.**

Billing will occur monthly through Peoplesoft. For NDSU users, the billing information will be an export from BookItLab that is submitted to NDSU accounting. For external users, the billing will be an e-mail invoice.

Detailed information about the monthly billing will be provided to PIs, though the format may be a bit different than previously.

BOOKITLAB EQUIPMENT MANAGEMENT SYSTEM

Training Topics

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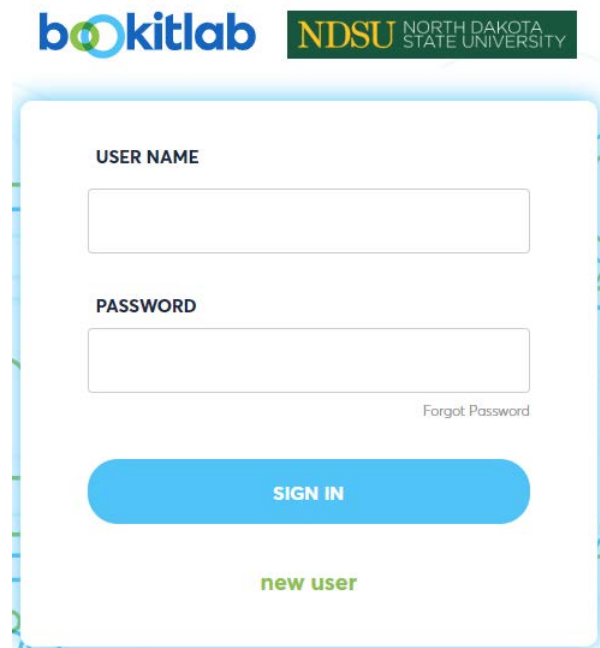
BOOKITLAB ACCOUNT SETUP / LOGIN

A username and a default password will be assigned and provided to you by e-mail.

During your initial login you will be required to set a new password.

Desktop

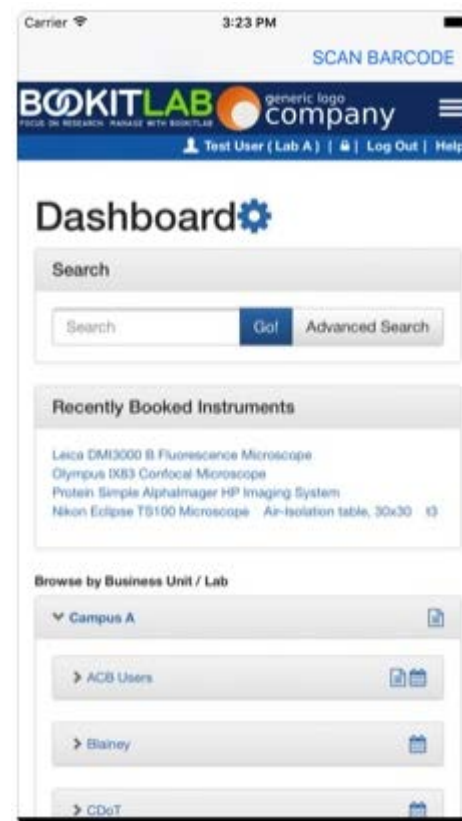
<https://core.bookitlab.com/ndsu>



The screenshot shows the desktop login page for BookItLab at NDSU. At the top left is the BookItLab logo, and at the top right is the NDSU North Dakota State University logo. The main content area contains a login form with two input fields: "USER NAME" and "PASSWORD". Below the password field is a link that says "Forgot Password". A large blue button labeled "SIGN IN" is positioned below the form. At the bottom of the form area, there is a link for "new user".

Mobile App

Available in the Google Play Store and the Apple Store.



USING THE WEB-BASED APP ON A PC

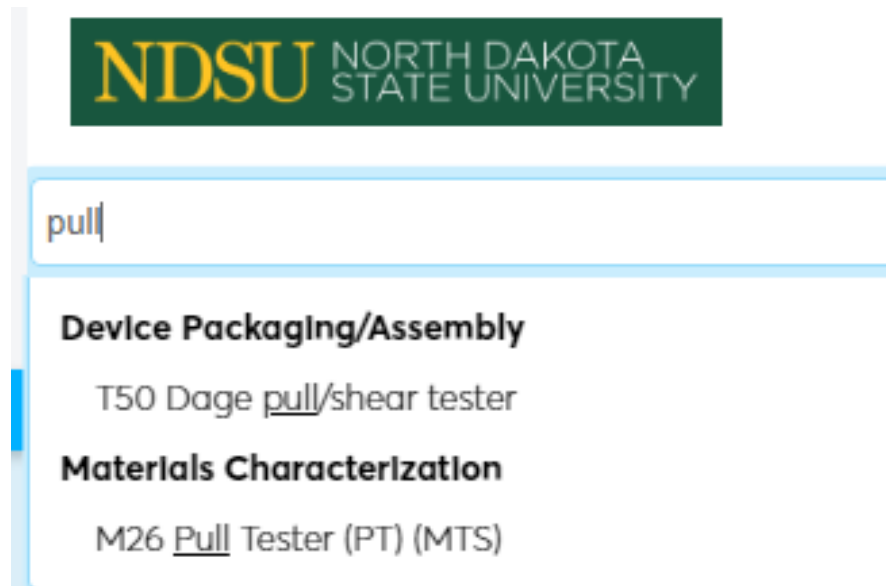
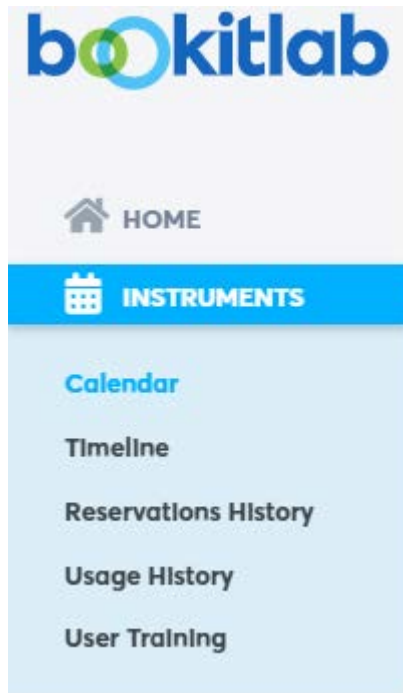
<https://core.bookitlab.com/ndsu>

MAKING AN EQUIPMENT RESERVATION

There are numerous ways to find an instrument to make a reservation. These instructions describe one of these ways.

Select **INSTRUMENTS** and then **CALENDAR**

Begin typing name of an instrument and options will pop-up.
Select the instrument.



MAKING AN EQUIPMENT RESERVATION

ONLINE SERVICE   

START TIME

10/03/2019



03:00 PM



END TIME

10/03/2019



04:00 PM



(1) Select Date/Time For Reservation



Note: The reservation request must be made reasonably far in advance of the start time if it requires approval by the staff.

(2) Select Budget Code From Pull-Down List.
(this will be the same 3 letter code as we've been using)

USER GROUP 

N/A

BUDGET NUMBER 

Account 1  

REPETITIVE RESERVATION



NEED TUTORING FOR THIS RESERVATION 



ORDER STATUS 

Pending 

REMARKS 

(3) Remarks (Optional): Type In Any Information That Is Relevant To The Reservation

The reservation will indicate a status of "pending" if it requires approval by service center staff.

(4) Click on Create Reservation

CREATE RESERVATION

MAKING AN EQUIPMENT RESERVATION

Notes About Reservation Approvals:

- **If you have not been trained on an instrument, then a training time will need to be coordinated with the appropriate Research Ops staff.**
- **If you are trained on an instrument, but it is in a lab that you don't have card access, then a staff member will need to approve the reservation to confirm they're available to let you in.**
- **If you are trained on an instrument and you have access to the lab, then the reservation should be approved automatically.**

CARD ACCESS (UNIVERSITY REGULAR HOURS) PROVIDED TO:

Trained Users Who Will Be Using Equipment Longer Term

Lab 1132 – MCAL (DSC, DMA, TGA, TMA, HPLC, GCMS, BET, Pycnometer)

Lab 1124 – MCAL (NI, CSAM, Optical Profiler, UV, Corrosion)

Lab 112 – Reliability (Temp Chambers, Electronics Testing, Cross-section equipment)

Lab 116 - MCAL (Tensile tester, SEM, Contact Profiler)

USING AN INSTRUMENT (After Reservation Is Approved)

FROM THE HOME / DASHBOARD

Dashboard  

Reservation Started!

Your reservation 21 for T61 Battery Tester has started. To modify this ongoing reservation before its original end time, please [click here](#).

Your reservation time for T61 Battery Tester has arrived. [Start Usage](#)

1) Click

Once the reservation start time has arrived and the reservation is approved, this block should be displayed in the dashboard.

This screen will appear

Usage Screen

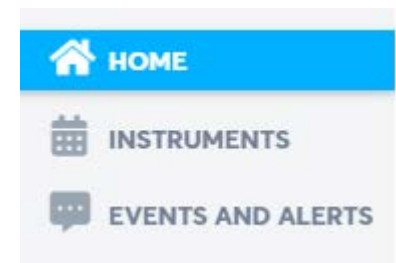
Online Service : T61 Battery Tester
Budget Number: Account 1
Reservation : 10/31/2019 9:00:00 AM - 10/31/2019 9:30:00 AM

[Start Usage](#)

2) Click.
Make sure a message similar to this appears.

T61 Battery Tester - Instrument activated successfully. You can now start using it.

3) Click Home to get back to the Dashboard view



IMPORTANT: When using an instrument you must log in to BookItLab and click “Start Usage”, then Start Usage again on the screen that pops up.


The time log created is what is used for billing. This replaces the paper log sheets that have been used previously. If usage time is not logged, then the full reservation time will be billed.

Note: The equipment usage logging is critically important. It is anticipated that many people will do this through their smartphone, but as necessary we will place some kiosk iPads in the labs to log into BookItLab for this purpose.

USING AN INSTRUMENT (After Reservation Is Approved)

FROM THE HOME / DASHBOARD VIEW


Dashboard  


 Enter an asset name or asset attribute

Reservation Started!

Your reservation [34](#) for [T29 LPKF Circuit Board Milling Machine](#), [T61 Battery Tester](#) has started. To modify this ongoing reservation before its original end time, please [click here](#).

Your reservation time for [T29 LPKF Circuit Board Milling Machine](#) has arrived. [Start Usage](#)

Currently Active Usages  [More Details](#)

USER	ONLINE SERVICE	DURATION (HRS)	PLANNED TIME OUT		START
NDSU test user	T61 Battery Tester	0.00	10/31/2019 9:30:00 AM		10/31/2019 9:06 AM

This block will appear on the dashboard after you “start usage”.

IMPORTANT: When done using an instrument you must “Log Off” in BookItLab. This establishes the end time for the billing.

USING AN INSTRUMENT **(After Reservation Is Approved)**

Notes About Logging Instrument Time:

- **If there are any issues with the logged time that need to be corrected, please discuss with Research Ops staff or use the Incidents/Events feature to describe the issue. We can manually correct these after the fact if required.**

EVENTS/ALERTS

The Events/Alerts feature can be used to report observations of equipment issues, out of consumable supplies, or other relevant information to recharge center staff.

FROM THE HOME / DASHBOARD

- HOME
- INSTRUMENTS
- EVENTS AND ALERTS**
- Events and Alerts

Events and Alerts

#	EVENT START	REPORTED BY	ASSET	SERVICE GROUP
<input type="text"/>				

? NDSU test user

Click the + to “add new” event.

Enter Info About the Event.
Then click “SAVE”.

EVENT DETAILS

ASSET	<input type="text" value="Please select an asset"/>	
EVENT TYPE	<input type="text" value="Please select an EventType"/>	
EVENT TYPE STATUS	<input type="text" value="Please select an Event Type Status"/>	
EVENT START	<input type="text" value="10/24/2019"/>	<input type="text" value="09:10 AM"/>
ALERT START	<input type="text"/>	<input type="text"/>

RECURRING EVENTS

SUBJECT

DESCRIPTION

EVENT COMMENTS

NEW COMMENT

ATTACHMENT No file chosen

OTHER FEATURES

Update User Info – upper right corner

The image shows a user profile menu on the left and a row of navigation icons on the right. The menu includes options: Help, User Details (circled in blue), Change Password, Log Out, BookItLab, and Administrators. The navigation icons include a question mark, a user profile icon, a refresh icon, a chat icon, a flag icon, a chart icon, and a list icon. A blue arrow points from the 'User Details' menu item to the user profile icon in the navigation bar.

Select User Details, then Edit User Details to update user information (contact info, etc.)

Dashboard ⚙️ 🔔

You can customize the dashboard view a bit by activating/deactivating particular items and moving them up/down in the order they are displayed.

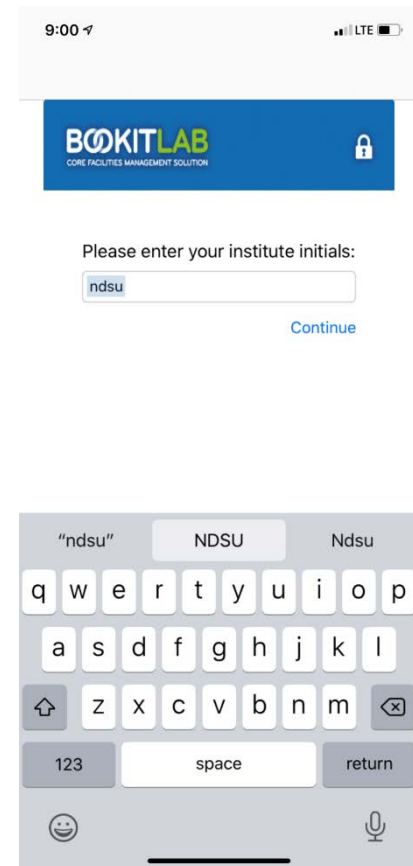
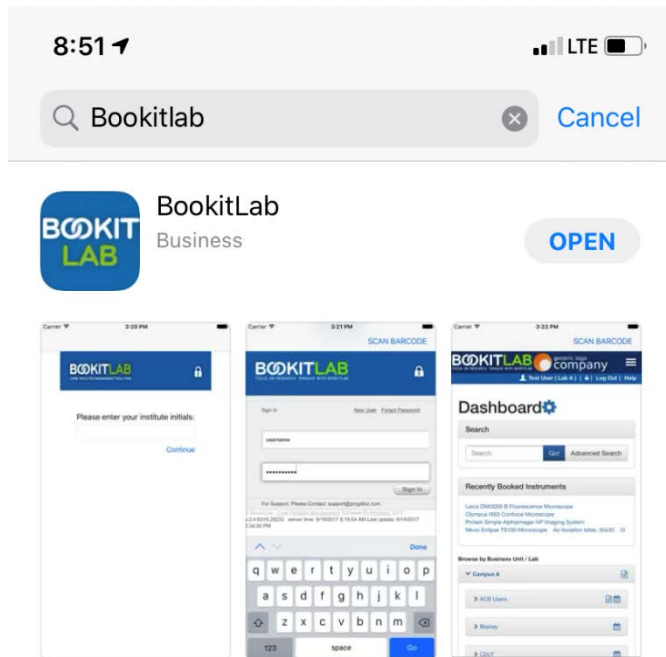
The image shows a window titled 'USER DASHBOARD SETTINGS' with a close button (x) in the top right corner. Below the title bar is a list of dashboard items, each with a checkbox, a name, and up/down arrows for reordering. The items are:

Item Name	Checked	Order
All	<input type="checkbox"/>	
Currently Active Usages	<input checked="" type="checkbox"/>	1
Instrument Incidents/Events	<input checked="" type="checkbox"/>	2
Request Charts	<input checked="" type="checkbox"/>	3
My Upcoming Schedule	<input checked="" type="checkbox"/>	4
Pending Service Request Projects	<input checked="" type="checkbox"/>	5
Ongoing Requests	<input checked="" type="checkbox"/>	6
Browse By Unit Tree View of All Resources	<input checked="" type="checkbox"/>	7
Awaiting Requests/Steps	<input checked="" type="checkbox"/>	8
Credits And Balance	<input checked="" type="checkbox"/>	9
TimeLine	<input checked="" type="checkbox"/>	10

USING THE MOBILE DEVICE APP

MOBILE APP INSTRUCTIONS

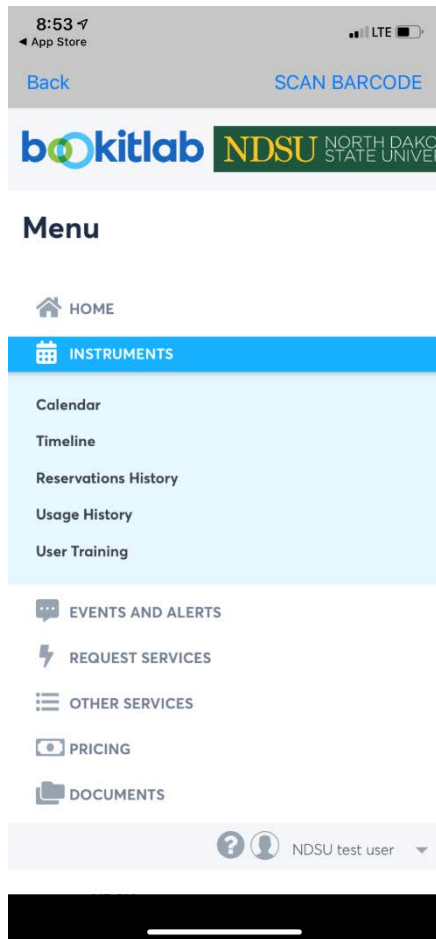
- (1) Search on BookItLab in Apple store or Google Play store
- (2) After loading the app and opening, type “ndsu” when it prompts for institution initials.



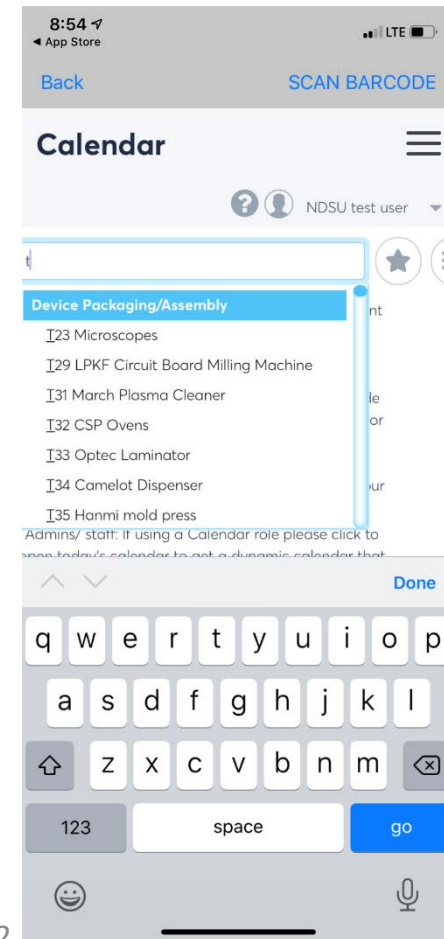
MAKING AN EQUIPMENT RESERVATION

There are numerous ways to find an instrument to make a reservation. These instructions describe one of these ways.

Select **INSTRUMENTS** and then **CALENDAR**



Begin typing name of an instrument and options will pop-up. Select the instrument.



MAKING AN EQUIPMENT RESERVATION

The screenshot shows a mobile application interface for creating a reservation. At the top, the status bar displays the time 10:47, LTE signal, and battery level. Below the status bar, there are 'Back' and 'SCAN BARCODE' buttons. The main title is 'New Reservation' with a hamburger menu icon to its right. Below the title, there is a user profile section showing a question mark icon, a user icon, and the text 'NDSU test user'. The main form area contains several fields: 'ONLINE SERVICE' with a dropdown menu showing 'T61 Battery Tester'; 'START TIME' with two input fields for 'Feb 18, 2020' and '2:00 PM'; 'END TIME' with two input fields for 'Feb 18, 2020' and '3:00 PM'; 'USER GROUP' with a dropdown menu showing 'N/A'; 'BUDGET NUMBER' with a dropdown menu showing 'select an item'; 'REPETITIVE RESERVATION' with a toggle switch that is currently off; 'I NEED TUTORING FOR THIS RESERVATION' with a toggle switch that is currently on; 'ORDER STATUS' with a dropdown menu showing 'Pending'; and 'REMARKS' with a text input field.

(1) Select Date/Time For Reservation

(2) Select Budget Code From Pull-Down List

(3) Remarks (Optional): Type In Any Information That Is Relevant To The Reservation

(4) Scroll down and click on Create Reservation

MAKING AN EQUIPMENT RESERVATION

Notes About Reservation Approvals:

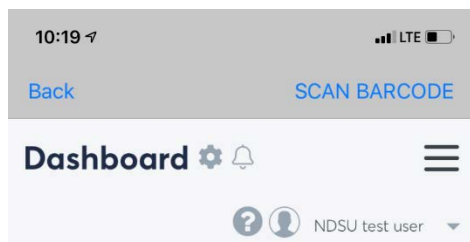
- **If you have not been trained on an instrument, then a training time will need to be coordinated with the appropriate Research Ops staff.**
- **If you are trained on an instrument, but it is in a lab that you don't have access, then a staff member will need to approve the reservation to confirm they're available to let you in.**
- **If you are trained on an instrument and you have access to the lab, then the reservation should be approved automatically.**

USING AN INSTRUMENT (After Reservation Is Approved)

FROM THE HOME / DASHBOARD VIEW

IMPORTANT: When using an instrument you must log in to BookItLab and click “Start Usage”, then Start Usage again on the screen that pops up.

The time log created is what is used for billing. This replaces the paper log sheets that have been used previously. If usage time is not logged, then the full reservation time will be billed.



Enter an asset name or asset attribute

Reservation Started!

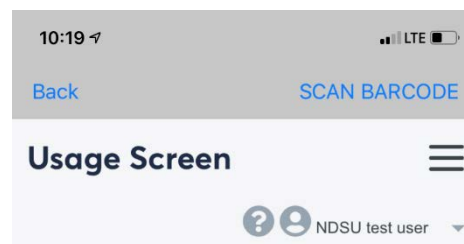
Your reservation 136 for T61 Battery Tester has started. To modify this ongoing reservation before its original end time, please [click here](#).

Your reservation time for T61 Battery Tester has arrived. **Start Usage**

1) Click

Once the reservation start time has arrived and the reservation is approved, this block should be displayed in the dashboard.

This screen will appear



Online Service :
T61 Battery Tester
Budget Number:
Account 1
Reservation :
02/04/2020 10:15:00 AM - 02/04/2020 11:15:00 AM
Start Usage

2) Click. Make sure an “instrument activated successfully” message pops up.



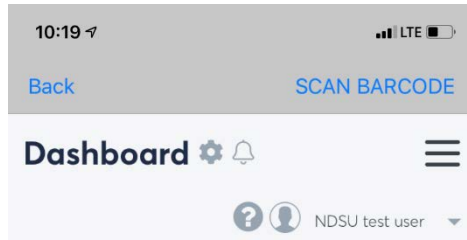
Then select Home to get back to the main Dashboard view.

USING AN INSTRUMENT (After Reservation Is Approved)

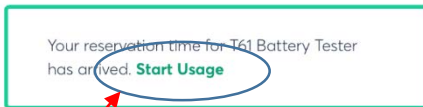
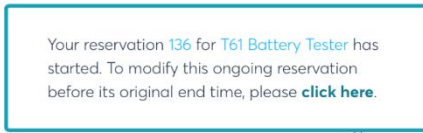
FROM THE HOME / DASHBOARD VIEW

IMPORTANT: When using an instrument you must log in to BookItLab and click “Start Usage”, then Start Usage again on the screen that pops up.

The time log created is what is used for billing. This replaces the paper log sheets that have been used previously. If usage time is not logged, then the full reservation time will be billed.



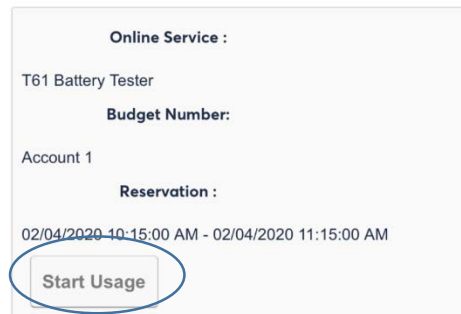
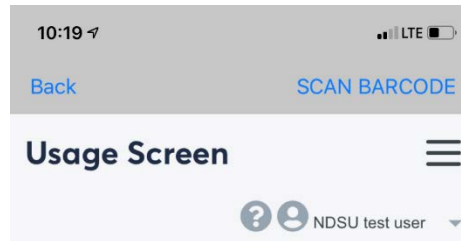
Reservation Started!



1) Click

Once the reservation start time has arrived and the reservation is approved, this block should be displayed in the dashboard.

This screen will appear



2) Click.

Make sure a message like this pops up.

T61 Battery Tester - Instrument activated successfully. You can now start using it.



3) Click. Then select Home to get back to the main Dashboard view.

USING AN INSTRUMENT (After Reservation Is Approved)

FROM THE HOME / DASHBOARD

This block will appear on the dashboard after you “start usage”.

The screenshot shows the BookItLab dashboard interface. At the top, there are links for 'Back' and 'SCAN BARCODE'. The main header includes 'Dashboard' with a settings gear and a notification bell icon, and a hamburger menu icon on the right. Below the header is a section titled 'Currently Active Usages' with a refresh icon and an upward arrow. A table lists active usages with columns: USER, ONLINE SERVICE, DURATION (HRS), PLANNED TIME OUT, and START. One entry is visible: NDSU test user, T61 Battery Tester, 0.03, 02/04/2020 11:15:00 AM, and 2/4/2020 10:19 AM. A 'Log Off' button is circled in red in the 'PLANNED TIME OUT' column. Below the table, there is a 'Show 3 entries' dropdown and 'Previous 1 Next' pagination. The footer contains copyright information, version details, server time, system time, and a 'Terms Of Use' link.

USER	ONLINE SERVICE	DURATION (HRS)	PLANNED TIME OUT	START
NDSU test user	T61 Battery Tester	0.03	02/04/2020 11:15:00 AM	2/4/2020 10:19 AM

IMPORTANT: When done using an instrument you must “Log Off” in BookItLab. This establishes the end time for the billing.

USING AN INSTRUMENT **(After Reservation Is Approved)**

Notes About Logging Instrument Time:

- **If there are any issues with the logged time that need to be corrected, please discuss with Research Ops staff or use the Incidents/Events feature to describe the issue. We can manually correct these after the fact if required.**

OTHER FEATURES

Other Features of the App – similar to instructions for web-based PC app.

- **Events/Alerts**
- **Other Features**

NON-STANDARD USE CASES

Equipment with Per Experiment Rates:

Follow the standard procedure for making a reservation and logging use time.

In addition, within the reservation (after it is approved) there will be an “Offline Services” box. Either the User or the Service Center Staff can enter the number of samples that will be processed. The billing will be based on the number of samples rather than the amount of time the equipment is used.

OFFLINE SERVICES

SERVICE TYPE	QUANTITY	UNITS	DATE	REMARKS
No matching records found				

Previous Next Show 10 entries

Add New

1) Click

2) Select the appropriate sample type (e.g. BET Samples)

3) Enter the number of samples

4) Click Submit button

Add New Offline Service

SERVICE TYPE: BET Samples

SERVICE DATE: 03/03/2020 03:00 PM

USER GROUP: BookItLab Administrators

USER: Aaron Reinholz

BILLING CODE NUMBER: B1

QUANTITY: 10

REMARKS: Reference reservation 157 on instrument C49
BET Surface Area Measurement

NON-STANDARD USE CASES

Equipment that you start running during business hours and let run automatically after-hours:

Follow the standard procedure for making a reservation. If you know the time duration in advance that is to be run, enter it in the remarks.

Start using equipment during business hours and initiate the log using the “Start Usage” process. Do not “Log Off”.

The next day service center staff will log off and adjust the end time to the appropriate time.

NON-STANDARD USE CASES

Equipment With Per Day Rates:

Follow the standard procedure for making a reservation. The reservation will automatically be made for an 8 hour period.

Follow the standard procedure to “Start Usage” and “Log Off”.

The fixed daily charge will be applied.

If you are using the instrument for multiple days, this process will need to be followed for each day individually.

NON-STANDARD USE CASES

Sputterer Charges for Deposition Material:

Follow the standard procedure for making a reservation and logging use time.

In addition, within the reservation (after it is approved) there will be an “Offline Services” box. Either the User or the Service Center Staff can select gold target or platinum target. In the Quantity box indicate the thickness of the deposition in 1000 angstrom units. For example if the deposition is 1000 angstroms enter 1. The billing will be a combination of the time the sputterer was used plus the gold or platinum material charge.

The screenshot shows a table titled "OFFLINE SERVICES" with columns: SERVICE TYPE, QUANTITY, UNITS, DATE, and REMARKS. Below the table, it says "No matching records found". There are "Previous" and "Next" buttons, and a "Show 10 entries" dropdown. A blue "Add New" button is located below the table.

1) Click

2) Select Gold Target or Platinum Target

3) Enter the deposition thickness for quantity (1 = 1000 angstroms)

4) Click Submit button

Add New Offline Service

The form contains the following fields:

- SERVICE TYPE: Gold Target
- SERVICE DATE: 03/04/2020, 04:15 PM
- USER GROUP: BookitLab Administrators
- USER: Aaron Reinholz
- BILLING CODE NUMBER: B1

The form contains the following fields:

- QUANTITY: 1
- DISCOUNT FACTOR: 1
- REMARKS: Reference reservation 162 on instrument T04 Kurt Lesker CMS-18 Sputterer (PVD1)