# A basic guide to run experiments in the LEMA

#### <u>Who can use LEMA</u>

LEMA is a computer lab devoted to research in the behavioral sciences. Use of the lab must conform to all LEMA criteria; these are

- Lab use is for the purpose of conducting research (classroom use is not permitted).
- Research is conducted by a Smeal faculty or a student working under the supervision of a Smeal faculty. Penn State faculty and students outside of Smeal seeking access to the lab need request special permission from the lab director, Professor Tony Kwasnica (kwasnica@psu.edu).
- The research has been granted a valid Penn State IRB for use of human subjects.
- Subjects are paid monetary incentives based on their earnings (not just a flat fee) for participation.
- There is no deception involved in the experiment.

## Setting things up

**First you need to have completed the IRB training**. This is a requirement of Penn State (<u>http://www.research.psu.edu/training/irb-basic-training</u>).

To gain access to the LEMA room and the online recruitment system, send an e-mail to <u>lemara@psu.edu</u> with your PSU ID number (the 9-digit number in the Penn State ID) and your affiliation. The activation of your card, so you can swipe it at the door of the lab to get in, usually takes between 1 and 2 business days. The access to the online recruit system is granted as soon as we read your e-mail.

#### Using the online recruitment system

To create the sessions for your experiments, log in the following link: <a href="https://lema.smeal.psu.edu/recruit/admin/">https://lema.smeal.psu.edu/recruit/admin/</a>.

Please keep in mind that the norm in the experiments we run at LEMA, is to pay students for their participation, therefore, once sessions are available for signing up, subjects in our pool assume they will earn money. Also, they tend to prefer to receive cash to lioncash credit or gift cards. So please be VERY explicit about how you are going to pay them, when you send the invitation to participate in your sessions.



To check the lab availability click the "Calendar" link in the right top of the page (after you log in). If experiments are being run in a particular day, its number will be orange and you can click on it to see the hours and the room at which they are taking place in that particular day (it will say LEMA if they are run in the lab):

PENSTATE	Manage Studies View Calendar Top Earners Manage Admins Logout
SINIEAL College of Business	
Select a day from the calendar below to see scheduled sessions for that day.	
SERTEMPED 2010	
Sun Mon Tue Wed Thu Fri Sat	
21 22 23 24 25	
26 <mark>27 28</mark> 29 30	
OCTOBER 2010	
Sun Mon Tue Wed Thu Fri Sat	
1 2	
3 4 5 6 7 8 9	
10 11 12 13 14 15 16	
17 18 19 20 21 22 23	
24 25 26 27 28 29 30	
31	

Once you are done reviewing the calendar, click "Manage Studies" in the top (to the left of the "View Calendar" link), and then click on the "New Study" link:

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	Studies		
	New Study	Note: Hol	d down t
	▲ ID 🔶 NAME	description	

Next, you should see a page that asks you the name of your study, a brief description and whether or not the study is password protected. If you type something in the "Study Password" field, subjects will be asked to submit what you typed to be able to sign up for your sessions, so if you want your sessions to be public (meaning anyone with a PSU ID can register for them), leave that field blank. When you are done, click the "Submit" button.



ENNSTATE SMEAL College of Business	Manage Studies Viev
New Study	
<< Return to Studies Management	
Study Name Study Desc.	The name of the study, this is the overarching name for which all your sessions will fall under. Capped at 75 characters. A study description. Could be your name, or something more elaborate. Will <u>not</u> be displayed to users. Capped at 75 characters. (Optional) Use this to lock studies down to specific users. You <u>must</u> diseminate this password to your intend characters.
Submit 77 Dear Fellow Researchers,	
We hope that the resources provided to you by the Laboratory fo services we can make available to you, we would greatly apprecia	r Economic Management and Auctions have made a positive contribution to your research. To make it e te it if you could acknowledge our lab in any papers that result from work done using our lab's resource:
Sincerely,	
Gary Bolton Director, LEMA	

After that, you should get a green message that says the study has been added, and the study should be on the top of the list:

NNSTATE SMEAL College of Business		Manage Studies View Calendar
Studies		
Your study has been successfully added. New Study		
		Note: Hold down the
▲ ID 🜲 NAME	DESCRIPTION	ŧ
270 Screenshots for the manual	Screenshots for the manual	
269 Lema Coffee	Lema Coffee	pr
268 BA 427 Session	BA 427 Session	pr
267 Consumer Purchase Study	Consumer Purchase Study	
266 Private Session	Gary Bolton	
265 MapPoint training	Alumni and Development Department	
264 Face	study of facial properties	
007 MILLING LEAST	Double constants to different mode states	

To add the sessions, click the "View" link, which is located on the column "Actions" (all the way to the right):

RENNSTATE SMEAL College of Business	Manage S	tudies View Calendar Top Earners Mar	age Admins Logout
Studies New Study		Note: Hold down the shift key to select m	ultiple columns to sor
▲ ID 🜲 NAME	DESCRIPTION	🔶 PASSWORD	ACTIONS
269 Lema Coffee	Lema Coffee	private	View Update Delete
268 BA 427 Session	BA 427 Session	private	View Update Delete

and then click on the "New Session" link:





Next you will need to enter the session information. The explanation of each field is written in the front. The "Showup Fee" is the money a subject gets if he or she shows up for the experiment, independent of participating. If you don't plan to pay people for just showing up, leave that blank. The field "Expected Game Earnings" is commonly used when subjects get a fixed amount, independent of their performance. If what they earn depends on how they perform in the experiment, we usually leave that field blank.

INNSTATE		Manage Studies View Calendar Top Earners Manage Admins L
🖱 SME	AL College of Business	
New Session		
<< Return to Studie	es Session List	
Study Name S	creenshots for the manual	
Study Desc. S	creenshots for the manual	
Study Password		
Please always leav	e at least 15 minutes between the end of your s	ession and the beginning of the next session. Researchers need at least 15 minutes to set up the
experiments.		
OPTION	VALUE	DESCRIPTION
Enable After		The date at which this session will become visible to users.
Session Date		The date of the session.
Session Start	8 AM 🔻 00 💌	Indicates the time participants should be arriving for the study.
Session End	8 AM 🔻 00 💌	Indicates the time participants should be leaving the study.
Seats		Number of players wanted.
Session Location	116 Business (LEMA Lab) 💌	If 116 Business, the times will be checked to ensure no double book
Expected Game Earnings	s	If none, leave blank.
Showup Fee	s	If none, leave blank.
Previous Study		If you'd like students from a specific previous study to only be allow
	1	participate in this session, select the study.
Submit		
	E-mail webmaster Copyright © 1996-20	US The Pennsylvania State University Privacy & Legal Statements

The number you enter in "Seats" establishes the number of spots available for people to sign up. We would like to tell you that if you put 20 and 20 people sign up, you'll have 20 subjects the day of the session, but that is not the case. If you absolutely need 20 subjects, you'll need to overbook (keep in mind that you'll have to pay the extras the show up fee). Once you are done entering the data, click "Submit", afterwards the session should be listed in the "Viewing Study" page:



The columns "Avail" and "Used" under "Seats", tell you how many seats are empty and how many are used (so the sum of the two is the number of seats you made available for the session). The links below the "Actions" column work as follows: "View" shows you the list of people registered, you can add users manually by typing their psu user ids, "Update" shows you the information for the session (which you can edit), "Delete" deletes the session (you'll be ask twice, so no session is lost by a single click), "Checkout" produces a form for the financial office, that you need to print and subjects have to sign acknowledging the earnings they made in the experiment. It is imperative that every person that gets money from you signs the form (and it has to be the full signature, not the initials). Even the people you pay only the show up fee. "Invite" sends an e-mail to our subject pool advertising your experiments. If you want to use it, we recommend that you create all sessions in a study first, and then send the invitation e-mail just once, listing all the available sessions.

You can use the Invite template or you can write your own, but please make sure the information shown in the template is also in your own invitation e-mail:



NNSTATE	Manage Str SMEAL College of Business	udies View Calendar Top Ear	ners Manage Admins Logo
Send	Invitation Emails for Session 1777		
Study Na Enable Af Session S Pre-Requ Study Pa	me Lema Coffee Study Desc. Lema Coffee fter 11/30/-1 Session Date 09/28/2010 Start 02:00 PM Session End 03:00 PM isite ssword private		
Subject	Economics Session: EARN CASH	Email Subject Line	
Nessage	Hello,	The following parameters a	re available for use:
	This is to inform you about a session for the upcoming Economics Study: [~STUDY NAME~]	[~STUDY_NAME~]	Study Name (e.g. Lema Coffee) Study Description (e.g.
		[~STUDY_DESC~]	Lema Coffee)
	[~SESSION_FEE~] for participating, and an opportunity to earn additional money.	[~SESSION_EARNINGS~	Potential Earnings (e.g. \$500)
		[~SESSION_FEE~]	Showup Fee (e.g. \$5)
	[~SESSION_DATE~] at [~SESSION_START~] to [~SESSION_END~]	[~SESSION_DATE~]	11/19/2008)
	([~SESSION_DURATION~])	[~SESSION_START~]	Session Start Time(s) (e. 08:00 AM)
	If you wish to sign up for the above session, and/or wish to receive more information please go to: https://lema.smeal.psu.edu/study/	[~SESSION_END~]	Session End Time(s) (e.g 10:10 AM)
	You can also contact the study administrator at [~ADMIN_EMAIL~] if you have any questions.	[~SESSION_DURATION~]	Session Duration (e.g. 2 hours and 10 minutes)
	Remember, you always earn cash in our experiments. Thank you for your help.		
		[~ADMIN_EMAIL~]	Your Email Address (i.e. nxs287@psu.edu)
	If you would like to stop receiving these messages, please update your account contact preferences at: https://lema.smeal.psu.edu/recruit/user.php? p=update		

On the bottom of the page, you can select the number of people you want to send the e-mail to (we recommend using "All"). You can also specify if you want people that participated in past studies to receive (or not receive) the invitation. The next fields give you the flexibility to narrow the group you want to send the e-mail to:



After you are done editing the e-mail you can click on "Preview" and then on the "Send Emails" button. Once you click, it will take a little while for the message to be sent, so don't close the browser and please wait for it to be done. You should get a



confirmation page and also an e-mail with the list of people that was invited to your sessions.

Once your sessions are online, subjects can sign up here <a href="https://lema.smeal.psu.edu/recruit/">https://lema.smeal.psu.edu/recruit/</a> (or <a href="https://lema.smeal.psu.edu/study/">https://lema.smeal.psu.edu/study/</a>), and they will see something like this (you can go to that link too, to make sure your sessions are visible):

PENNST	ATE	-	SME Vast	Res	COL ourc	LEG	iE O Per	Son al Focus. Directory   Departments   Research Centers	
Home	e > La	borator	y for Ec	onomio	s Man	agem	ent an	d Auctions (LEMA) > Economic Study Signups	
E	<b>COI</b>	10M Ir Profil	ic St °	udy	Sig	nup	DS		-
	SEPT	ЕМВЕР	R 2010					The following are studies that are scheduled in the very near future and are available for registration.	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Lema Coffee	
			21	22	23	24	25	Sep 28, 2010 - 02:00pm to 03:00pm in 116 Business (LEMA Lab) Schedule	
	26	27	28	29	30				
	осто	BER 2	010					Please plan on staying for the full duration of 1 hour.	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	d You will need a password to register for this private session.	
						1	2		
	3	4	5	6	7	8	9		
	10	11	12	13	14	15	16		
	17	18	19	20	21	22	23		
	24	25	26	27	28	29	30		
	31								

If you want to see the status of your sessions, log in and then click "View" in the corresponding study. You'll get the list of the sessions with the corresponding used and empty seats.

Before running a session, make sure you have the items in the following check list:

- ✓ Check-out form for the financial office (remember to print it from the online recruitment system).
- ✓ Copies of the consent form for subjects.
- ✓ Copies of the individual check-out forms.
- ✓ Copies of the instructions.
- ✓ Payment for the subjects (they tend to prefer cash).

We provide the pens. You can find them in the cubicle behind the podium.

After running a session, please go to its "View" link, and enter the attendance and participation information for each subject (with the corresponding earnings). If a subject participated in the experiment please check both columns ("Attendance" and "Participated"), if a subject showed up, but didn't participate please check the "Attendance" link only. It is <u>crucial</u> that you do this as soon as you



are done running the session, to prevent subjects for signing in other sessions of the same study. Also, the system updates the show up rates nightly, and it bans people with 3 non-shows, so please make sure you enter the information as soon as possible.

# Using the lab to run experiments

The lab has 30 computers that are connected to the Internet (the default browser is Internet Explorer), so you can use it to run web-based experiments. If you need to install additional software, please let us know (<u>nsantam@psu.edu</u>) so we can accommodate your request. In the next section we give you the basics of running experiments using z-Tree (http://www.iew.uzh.ch/ztree/index.php).

## Using the lab to run experiments with z-Tree

The lab has 30 computers that can run ztree files using up to 4 channels. You can log in the podium computer with your user ID.

Once you are logged in, open your ztree files using the channel shortcuts from the desktop ("startztree3\_ch1\_podium.bat" for channel 1, "startztree3\_ch2\_podium.bat" for channel 2, "startztree3\_ch3\_podium.bat" for channel 3, and "startztree3\_ch4\_podium.bat" for channel 4):



Note that you may only require 1 channel to run small sessions, for bigger groups, we recommend you use more channels (2-4) and split the bigger group into subgroups for each channel. Next, open the NetSupport Tutor. There is a shortcut in the desktop that looks like this:





Click "Go" in the following window:

Class Wi	izard	×
Ċ	?	<u>88</u> 2 🎾
2	Teacher Name Lesson Title	SCB-LEMA-PODIUM
	Room	
23	Load an existing Lesson Plan	Browse
$\overline{\mathbf{v}}$	What time does this Lesson finish?	Create 14    50 Open lesson
<b>E</b>	Create a Student Register	
۵	Automatically Reconnect Students	
	Optimize Show for Performance Optimize Show for Reliability	Go Help Don't show this dialog again

Since the computers are turned off, the podium won't be able to connect with them. So click "Cancel" in this window:

NetSupport School Pro	
Connecting to SCB-LEMA-7	<b>લ્</b> ર
	Cancel

and "Yes" in this one:





To turn the computers on, select "Client" from the menu, then "Power Management", and finally "Power On":



After you click "Power On" the computers should start turning on. Once all of them are on, you can connect them to the podium by clicking the "Refresh" button below the menu:



After you click on "Refresh", you should see a window that tells you the computers are being connected:



Once the subjects log in the computers, you can connect them to your ztree channels. To connect computers to each of the channels, select the computers and then click on the corresponding button: "zLeaf3ch1" for channel 1, "zLeaf3ch2" for channel 2, "zLeaf3ch3" for channel 3 and "zLeaf3ch4" for channel 4. The buttons are located in the "Execute" bar below the "Refresh" icon:

쓁 NetSupp	ort School Pro :	SCB-LEMA-PODI	ЛW								
School Clien	t Group View Li	ayout Planner Wir	ndow Help								
Refresh Stud	ent Register Show	v Menu View Client	Scan File Transfe	er Send/Collect	9 🕑 🏹	All Blank All Man	age Communicate	Lesson Plans Te	esting Console		
Execute: 🗁	AndrewSample 🖅	lstart day0 b 🖅 char	nnel 3 smallsize 🛛 🗇	channel 2 smallsize	☐start_web_daty0A		🗇 zLeaf 3 ch 4 🖉	zLeaf3 ch3 🛛 🗁 zLea	af_Logo.bat 🖅 zLea	af3 ch2 🗁 zLeaf3 ch1	
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	🔩 All : 29 🎑	8 subj_2 : 8 <u>3</u>	9 subs : 9 🢁 10 :	Subjects : 10 🤮	10 Subjs 2 : 10 🤷	18 Subs : 13 🤷	Abdullah1 : 13	reverseauctions : 1	6 🥺 Simanti : 12	Simanti_small : 6	
<b>&amp;</b>	2		2	2				2	2	2	
	Add Students	SCB-LEMA-1	SCB-LEMA-2	SCB-LEMA-3	SCB-LEMA-4	SCB-LEMA-5	SCB-LEMA-6	SCB-LEMA-7	SCB-LEMA-8	SCB-LEMA-9	
	0	<u>_</u>	0	0	0	0	<b>O</b>		0	<u>_</u>	
Q	<u> </u>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>		
<b>Š</b>	SCB-LEMA-12	SCB-LEMA-13	SUB-LEMA-14	SUB-LEMA-15	SUB-LEMA-16	SUB-LEMA-17	SUB-LEMA-18	SUB-LEMA-19	SCB-LEMA-20	SUB-LEMA-21	
	2	2	2	2	2	2	2				
	SCB-LEMA-24	SCB-LEMA-25	SCB-LEMA-26	SCB-LEMA-27	SCB-LEMA-28	SCB-LEMA-29	SCB-LEMA-30				

Once you have the computers connected to the desired channels, you can go back to the ztree files you opened at the beginning and start running the experiment.

When you are done, the file(s) with your data can be found in "C:\Experiments". Sort the files by "Date Modified" (from newer to older), and yours should be on top:



C:\Experiments					
File Edit View Favorites To	ools Help				1
🔇 Back 👻 🌍 🖌 🏂 🔎	Search 🌮 Folders	Folder Sync			
Address 🛅 C:\Experiments					🖌 🄁 Go
	Name	Size	Туре	Date Modified 🔻	
File and Folder Tasks 🔗	100909_1402.gsf	1 KB	GSF File	9/9/2010 2:02 PM	
C Males a new falder	server.eec	1 KB	EEC File	9/9/2010 2:02 PM	
Make a new tolder	100908_1219.xls	1,572 KB	Microsoft Office Exc	9/8/2010 2:22 PM	
Publish this folder to the	🖬 100908_1219.gsf	74,500 KB	GSF File	9/8/2010 2:22 PM	
WED	🗐 @db.txt	1 KB	Text Document	9/8/2010 2:22 PM	
	🖳 🖳 100908_1220.xls	1,555 KB	Microsoft Office Exc	9/8/2010 2:19 PM	
Other Places	100908_1220.gsf	73,753 KB	GSF File	9/8/2010 2:19 PM	
	100908_1221.xls	709 KB	Microsoft Office Exc	9/8/2010 1:46 PM	
Local Disk (C:)	🖬 100908_1221.gsf	10,277 KB	GSF File	9/8/2010 1:46 PM	
🚽 😼 My Computer	🖬 100908_1221.sbj	1 KB	SBJ File	9/8/2010 1:19 PM	
	@lastclt.txt	1 KB	Text Document	9/8/2010 1:19 PM	
	🔁 @963.ztt	23 KB	zTree Treatment	9/8/2010 1:19 PM	
Details	🗾 🛅 100908_1220.sbj	1 KB	SBJ File	9/8/2010 1:17 PM	
	🛅 100908_1219.sbj	1 KB	SBJ File	9/8/2010 1:17 PM	
	📓 @962.ztt	107 KB	zTree Treatment	9/8/2010 1:17 PM	
	📓 @961.ztt	107 KB	zTree Treatment	9/8/2010 1:17 PM	
	🖭 100907_1232.xls	1,515 KB	Microsoft Office Exc	9/7/2010 2:18 PM	
	🛅 100907_1232.gsf	69,601 KB	GSF File	9/7/2010 2:18 PM	
	🛅 100907_1236.gsf	1 KB	GSF File	9/7/2010 1:22 PM	
	🛅 100907_1232.sbj	1 KB	SBJ File	9/7/2010 1:21 PM	
	📓 @960.ztt	107 KB	zTree Treatment	9/7/2010 1:21 PM	
	100906_1211.xls	692 KB	Microsoft Office Exc	9/6/2010 1:46 PM	
	🛅 100906_1211.gsf	17,913 KB	GSF File	9/6/2010 1:46 PM	
	💾 100906_1207.xls	1,083 KB	Microsoft Office Exc	9/6/2010 1:45 PM	
	🛅 100906_1207.gsf	23,712 KB	GSF File	9/6/2010 1:45 PM	
	💾 100906_1210.xls	1,052 KB	Microsoft Office Exc	9/6/2010 1:38 PM	
	🖬 100906_1210.gsf	29,276 KB	GSF File	9/6/2010 1:38 PM	~

Before you leave, please close the z-Tree leaves in the computers (you need to hit Alt+F4 in each of them), and then turn them off from the podium: go to "Group" in the menu and click on "Select":



then select "All" and click "OK":





After you do that, go to "Client", "Power Management" and click on "Power Off":



Message windows displaying disconnection status of each computer should start popping out, click "OK" (or hit "Enter") in all of them. After that, you can close NetSupport.

Remember to log off the podium, and please make sure lights and computers are off when you leave (you don't need to turn the podium computer off).

