The 'Instant Collaborate' kit

Designed to facilitate mobile online meetings, three cases hold everything needed to present a Collaborate web conferencing session from anywhere that has at least one 13A socket, one (preferably two) RJ45 ethernet sockets and a data projector.

1. Black holdall:

1. Presenter's laptop and its power supply
2. USB headset for moderator's PC
3. Space for moderator's laptop (tablet PC) and its power supply

2. Microphones:

The two radio microphones and their receiver are packed in their own case. If in doubt, change the batteries in the stick mike. Test volume levels so lapel and stick mike are the same as far as Collaborate is concerned (i.e. run audio setup twice, once for each microphone)

3. Aluminium flight case:

4-way 13A extension lead	Because there won't be enough sockets
Long Cat 5 patch cable for moderator's PC	So they can be out of range of the presenter's microphone.
Short Cat 5 patch cable for presenter's PC	To fit podium socket
Logitech X140 speakers	For incoming audio from remote participants that the live audience can hear.
Targus airmouse	Allows PowerPoint-style page turning
Logitech Sphere camera	Power aiming and zooming allows flexible setup
7-way USB hub with PSU and lead	The laptops won't have enough sockets, and a powered hub relieves the laptops' power supplies.
Short USB extension lead	Just in case
VGA display lead	May be better than the one already in use.
Bluetooth dongle	In case it is needed for uploads, printing etc.

Hints:

- Allow 20 minutes for setting up if you are familiar with the room; 30 minutes if not.
- Be gentle when assembling the camera to its stalk.
- Camera angle and zoom level can be set before entering Collaborate.
- If in doubt about any batteries replace them.
- The airmouse dongle should be picked up automatically by the PC/laptop. Check before the session.
- Don't use wireless networking for the presenter – you can't control who else is using the bandwidth of your wireless access point.

Networking - wiring

The presenter's laptop needs a wired Ethernet connection. If you used wireless, you may not have enough bandwidth to run video and audio at acceptable quality, and you wouldn't be able to control how much bandwidth other users were taking up, so your presentation could be sabotaged by somebody in the next room watching a movie on their laptop.

Once the network cable is clicked into place in the laptop, you should get a green Link light, indicating that the circuit is live. You will also get an amber light when the line is actually doing something. No green light = no network!

Often there will be network equipment in the lecture room (typically in a glass-fronted cabinet mounted high up). This too will have amber Activity lights, one for each network socket and ideally these should be flickering, and be 'off' more than 'on'. If they are on solidly, the system is working close to capacity and the bandwidth available for your video may be limited.

The moderator could get away with a wireless connection if that is more convenient and as reliable as a wired connection would be.

Networking – software

Assuming your laptop is known to work when connected to the campus network, all the basics will already be in place. In particular, it will use DHCP to get its network addresses from a server on the local network when it starts up, so should adapt to a new environment automatically.

If you are using a wired connection on a laptop that normally uses wireless, you should ensure that wireless networking is physically turned off before the laptop is booted. That should force it to use the wired connection.

Data projector

Fire up the presenter's laptop before connecting it to the data projector, and ensure it gives a picture on its own display. Then after connecting the external display, Fn + F5 should cycle through the multiple display options.

Sometimes a data projector will force the image to its native aspect ratio, in which case a widescreen laptop won't look right. We use a presenter's laptop with a 16:9 widescreen display and the moderator has a tablet PC with a 4:3 standard-format display. Having both allows either to be used as the presentation PC if the room's data projector objects to being fed a widescreen signal.

If the data projector picture appears weak or unstable (breaking up or showing banding) try substituting the kit's video lead for the one associated with the podium connection to the data projector, and ensure all connectors are seated properly.

Most data projectors will moan about dirty filters or lamp life when first switched on. This can be ignored. Some data projectors need up to 10 minutes to warm up to full brightness.

USB hub

This allows multiple devices to use one USB socket on a laptop. It should preferably be used with the mains power supply, so the laptop isn't having to supply power to external devices. Note that although the hub has 7 ports, they are so close together than you'll be lucky to plug more than 4 devices into it.

Headsets

The moderator needs a headset (headphones + microphone) to communicate with remote participants. USB headsets or wireless headsets tend to be best because they give a stronger microphone signal than analogue headsets with 3.5 mm plugs. This minimises the amount of squishy interference on the line. It is good practice to turn your microphone off in Collaborate when not using it.

Always run the audio wizard to set up audio within Collaborate, and encourage other participants to do the same e.g. by writing instructions on the first whiteboard slide so everybody sees them when they log in.

Set maximum speakers to 5. That way if you get locked out of the system e.g. because you have to reboot, you can get back in by temporarily increasing speakers to 6.

Air mouse (right)

This has two parts: a dongle which plugs into the USB hub, and the hand controller. If the hand controller was packed away switched on (G), don't trust the batteries – replace them (2xAAA).

Press and hold the right mouse button (C) until the LED on the dongle flashes quickly.

If the Collaborate whiteboard has the focus:
Page-down (F) = Next slide and
Page-up (E) = Previous slide

The joystick (A) is not as flexible as a mouse or touch-pad and most people avoid using it.

The laptop's normal controls (touchpad and touch screen) still work even when the air mouse is connected.

The air mouse uses 2.4 GHz (Bluetooth) radio frequencies.

The pointer is a red laser. It should only be used to point at the screen, never at people.

Function Description

A. Cursor Stick : Move the cursor with the stick. Pressing down on the stick is the same as left click on the mouse.
B. Function Key: Click once -- F5 (play PowerPoint File) Click twice -- ESC (escape button)
C. Right Button: the same as the right button of the mouse
D. Left Button: the same as left button of the mouse
E. Page-up
F. Page-down
G. Power Switch
H. Laser Pointer Trigger (back of presenter)
I. LED indicator: Green -- mouse activity indicator Red -- laser pointer activity indicator
J. Laser pointer

Webcam

Although there may be a webcam in the lid of the laptop, it isn't used. You get a better picture and more control over it using the external webcam.

The Logitech Sphere autofocus webcam is normally used on its stalk. There is a webcam controller application on the VCD in the flight case. It has a Quick Capture function which can be used to set the pan, tilt and zoom of the camera to give the desired field of view.
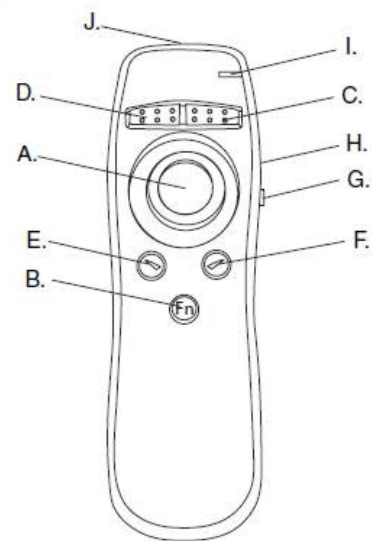
Warn the presenters where the field of view stops (masking tape on the floor often works), and avoid pointing the camera at a room light. Stripy clothes can give the camera a hard time – plain colours are best. The presenter will probably be in fairly dim lighting, especially if you capture the presentation as well. The camera will adjust the exposure as best it can, within its limits.

Close the camera controller before starting up Collaborate. The camera will retain its settings.

The webcam contains a microphone which could be used as the Collaborate audio source, but the radio microphone gives clearer audio, especially if the presenter moves about a lot. Use the Audio Wizard to select and set up whichever microphone you will be using. When using the stick microphone, it is best to talk down the length of it rather than across the top.

Collaborate settings

Most of these should be set during your dummy run. Although the Audio and Video settings could be done using a script, the preferences settings are done on a per-PC basis so can't be part of a Plan! script.

Tools > Audio > Audio Wizard	You should always run the Wizard, and encourage other users with audio to do so, before the session starts.
Tools > Audio > Maximum Simultaneous talkers	5
Tools > Video > Maximum Simultaneous Cameras	5
Tools > Preferences > Audio > Microphone	Amplify quiet sounds dynamically – YES (but not if it causes squishy interference) Adjust volume automatically – Single speaker Transmit all, even if it seems silence – YES Sample rate – 22050 Hz
Tools > Preferences > Audio > Speakers	Mute speakers when Talk is pressed – YES Sample rate – 22050 Hz
Tools > Preferences > Recording	Remind me to start recording when I am a moderator - YES
Tools > Preferences > Session Plans > Viewing Options	Suppress error messages when executing actions - YES
Tools > Preferences > Video > Device Disconnection	Disconnect device when not in use - YES
Tools > Preferences > Video > Frame Rate	Set to 25 fps Display actual frame rate in Video window – YES for moderator only

If you would like to borrow the Instant Collaborate kit, please contact the Teaching Centre.