MYP on-screen examinations:
IT requirements and school responsibilities

Published January 2021

International Baccalaureate
Baccalauréat International
Bachillerato Internacional

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Introduction

The purpose of this document is to inform schools of their responsibilities regarding the running of on-screen examinations. This includes, but is not limited to, the IT infrastructure, hardware and setup required to run the on-screen examination packages.

The IB will not be held liable for any issues encountered during the on-screen examinations if the policies outlined in this document are not adhered to, prior to, during, and after the examinations take place.

This document must be consulted by the MYP coordinator and school IT team/technicians.

School responsibilities

Schools are responsible for ensuring that their setup is appropriate for running on-screen examinations. If an inadequate IT setup results in technical issues for candidates, the IB will not be held accountable and will not compensate those affected. Further, if a response file is lost or corrupted due to a case of school maladministration, mismanagement or lack of policy compliance, and there is no online back-up available, the IB will not compensate those affected, which may lead to candidates not receiving a grade for the examination.

In advance of the examinations, schools must:

- Ensure they have an appropriate IT setup, as specified in this document.
- Ensure they have a capable IT team/specialist, with comprehensive knowledge of the on-screen examination process, who will be available to prepare for, and subsequently support, the examinations.
- Run the Compatibility Checker package on any device that may be used during the examinations.
- Complete familiarization and run specimen packages on any device that may be used during the examinations, ensuring that all functionality works as expected. Consideration should be taken in the case of rental devices.
- Ensure all examination invigilators are fully trained, have consulted the *MYP on-screen examinations user guide* and are fully familiarized with the examination conduct regulations outlined in *The conduct of IB Middle Years Programme on-screen examinations* booklet.

During the examinations, schools must:

- Ensure that the security of on-screen examination packages and associated login codes is maintained at all times.
- Ensure additional hardware is available, in case of any technical failure.
- Contact IB Answers to seek advice if an IT issue is encountered that cannot be resolved by the school.

After the examinations, schools must:

- Ensure that a response file (or multiple response files, where appropriate) has been uploaded and submitted to the IB for each candidate.
- Delete the examination package and response file from each device (and subsequently from the Recycle Bin/Trash). It is **strongly recommended** that a copy is made of each response file prior to deletion.

Response file management

On a Mac device, response files will save to the Documents folder. On a Windows device, response files will save to a folder within the Documents folder, called IB MYP Runtime. These folders will open automatically when an examination package is exited.

The response file name will include the candidate's name, a reference to the examination subject and the date and time at which the file was created.

It is **strongly recommended** that, after an examination has ended, all candidate response files are transferred to a secure network folder or USB flash drive(s). This may include multiple response files for a candidate, if technical difficulties were experienced. If response files are retrieved using a USB flash drive (or similar), the hardware must be ejected safely, to prevent potential corruption of data.

The response files should subsequently be retained (in a secure location) until the close of the examination session. This practice would support any issues identified by the IB during the marking process.

IT requirements

IT setup

Schools are responsible for ensuring that their setup is appropriate for running on-screen examinations. Failure to follow the below requirements could result in technical issues and/or detrimental performance for candidates and the IB subsequently would not compensate any candidates affected.

Schools **must** ensure:

- The school's infrastructure is appropriate to sustain the number of devices being used simultaneously during the examinations.
- There are no updates/scheduled jobs on devices during the examinations.
- There are no other non-critical system applications or processes running simultaneously with the examination software.
- Examination packages are copied to each device's local disk.
- Examination packages are run locally and not from a network drive or USB flash drive. It is strongly recommended that network user profiles are not used.
- All response files are saved locally and not to a network drive.
- A thin client solution is not used for running the examinations.
- There are no auto clean up routines that will delete temporary files associated with the examinations.
    - On a Windows device, the temporary files are saved in a folder called "IB MYP Runtime". The folder can be located by opening Windows Explorer and typing *%localappdata%* in to the address bar.
    - On a Mac device, the temporary files are saved in a folder called "International Baccalaureate". To view the folder: open the *Go* pulldown menu, press *Alt* on the keyboard, select *Library* and then open the *Application Support* folder.
    - These folders must remain intact in the event of a shutdown/logout/reboot.

In addition, schools should ensure, where possible, that:

- Devices are connected to a power supply for the duration of an examination.
- Devices are connected to the internet.

Hardware

Each candidate must have:

- A Windows PC/Mac (laptop or desktop) with the use of a keyboard and (if required) a mouse.
- A pair of wired headphones.

For language examinations, an external keyboard can be attached to a laptop to allow entry of accented characters; however, this is optional, and candidates will not be penalised for the omission of accents.

In some schools, candidates use their own personal laptops or are provided with a laptop at the start of the school year. It is permissible to use these devices during the examinations; however, coordinators must ensure that the stipulated system requirements are met, and that the general rules concerning security and conduct are adhered to.

The use of multiple (two or more) displays is not permitted.

System requirements

Candidates can complete the examinations using either a Windows PC or Mac, which meets the following minimum system requirements. The recommended specification should be met, where possible, as this will ensure an optimum user experience.

Component	Minimum	Recommended
CPU/Processor	Intel i5 CPU, equivalent or better	Intel i5 CPU, equivalent or better
Memory	4 GB RAM or more	8 GB RAM or more
Display	1280 x 768 screen resolution or higher 13-inch display or higher	1280 x 1024 screen resolution or higher 13-inch display or higher
Operating System*	The three most recent operating system releases - as of January for a May session and July for a November session - will be supported	
Hard Disk	4 GB of available hard-disk space	
Other	Headphones	Headphones Internet connection

*The IB cannot guarantee compatibility with later operating system updates. Please consider if this could be impacted by any automatic update settings on a device

MacBook Pro (with Touch Bar)

MacBook Pro devices featuring a Touch Bar must have the functionality restricted so that the Touch Bar defaults to the standard F1-F12 function keys. Fully enabled Touch Bar functionality will be considered a breach of IB regulations.

Running the Compatibility Checker

The Compatibility Checker is a standalone software application, which (when executed on a device) will identify whether the device meets the core requirements for running an examination. It is compulsory to use the software on any device that will be used during the examination session and it will not be possible for a candidate to sit an on-screen examination on any device that does not pass the compatibility check.

From 2021, the Compatibility Checker will check that the device meets the new minimum operating system version requirement, as per the table above. If an older operating system is detected, it will not be possible to run an examination package on the device.

Internet connection

The coordinator will require an internet connection to download the examination packages from IBIS, and, upon completion of each examination, to submit candidate response files for marking (via the Admin Console).

It is **strongly recommended** that devices used by candidates are connected to the internet, as response data will be saved at regular intervals to the IB's secure online repository. If devices are internet-connected and technical difficulties are experienced, a candidate can use a replacement device and pick up from the point of the last save. An internet connection will also ensure the automatic upload of candidate response files at the end of an examination.

It is not necessary to switch off the internet connection for perceived security reasons, as the software prevents candidates from escaping the package once it has been opened.

Examination package distribution

The examination package can be copied onto candidate devices via a USB flash drive(s), copied from a secure network folder to the local device, or distributed via a file-sharing tool. Schools must be adequately equipped to support their chosen deployment method.

Examination package sizes can vary between 250-500 MB.

Additional advice

- Ensure that security/privacy settings on a Mac are defaulted to *Allow apps from Mac store and trusted developers*.
- Ensure that the system clock and time zone setting on each device always remains accurate, as candidate responses will be time stamped.
- Connect laptops to a power supply during an examination, as this will prevent devices from entering battery saving mode and potentially impacting the performance of the device/software. This precaution would also mitigate the risks associated with a power failure. If this is not possible, ensure that the battery is fully charged and has the capacity to power the device for upwards of 3-4 hours.

- Ensure that candidates provide their login details if they are using their own personal laptop for an examination, to allow the coordinator/IT specialist to access the device and set up the examination, if required.
- Ensure that any candidates given the responsibility of accessing the package from a shared network folder before the examination begins, **copies** the relevant package into a local directory on their device before running it. It is recommended that candidates do not have the permissions to delete the original file from the shared network location.
- Ensure that the zoom feature is implemented for any candidate that requires enlarged fonts and/or images for an examination. If a large zoom factor is necessary, a higher screen resolution will be required. For the 150% zoom level, a full HD screen (1920 pixels wide) is required and the provision of a larger screen is advised.
- Ensure that Mac Smart Zoom is disabled, or, if not disabled, that candidates are able to revert the action if it occurs during an examination.

Troubleshooting tips – in advance of the examinations

Firewall/proxy server

Potential issue

Firewall/proxy server settings prevent the download of an examination package.

Solution

Reconfigure the firewall/proxy server (it may be necessary to add an exception for IBIS).

The coordinator (responsible for downloading examination packages from IBIS) may need to relax the security settings within the school network for their user account to allow them to download executable files. Alternatively, they should use a login account that has advanced access.

Anti-virus programs

Potential issue

An anti-virus program prevents the installation of an examination package on a device.

Solution

Ensure that any anti-virus software is configured to allow the relevant file types during the installation process.

Virus scanning software updates/tasks

Potential issue

Virus scanning software updates/tasks (or similar) are scheduled to occur during an examination, which would result in a loss of focus incident.

Solution

Ensure that there are no software updates/tasks scheduled on devices on the day of the examination.

File management (network/device settings)

Potential issue

Any files created during/after the examination – i.e., candidate response files or temporary files – are deleted due to settings/rules on the local device or school network.

Solution

Ensure there are no such settings/rules in place.

Power management settings

Potential issue

If there is a period of inactivity by the candidate during an examination, their device may go in to "sleep" or screensaver mode, which would result in a loss of focus incident.

Solution

Ensure that power management settings are configured appropriately on each device.

Volume settings affecting media content

Potential issue

The volume level can be adjusted via the media player controls within an examination; however, the maximum volume level that can be achieved will be dependent upon the pre-determined settings of the specific device.

Solution

It is recommended that the volume on each device is set to maximum before the examination package is accessed. In case of an oversight, the volume can be altered during the examination via the appropriate keyboard shortcuts for the device.

Troubleshooting tips – during the examinations

If technical issues are experienced during an examination, the following course of action may be appropriate. However, always contact IB Answers if unsure.

- Move away from the question page and return
- Use the "Leave package" button in the Invigilator Menu and log back in to the package using the same candidate credentials
- Use a replacement device
- Contact IB Answers for further advice/support
- Always provide any additional time lost as a result of the issue

The MYP Technical Support Team, contactable via IB Answers, provides 24-hour assistance throughout the examination weeks. Please do not hesitate to contact the team if you require any advice or support.

A device does not work, and the examination is about to begin.

A replacement device should be provided to the candidate to avoid any delay.

A candidate/candidates are experiencing software issues.

Please report any critical software issues to IB Answers immediately, who will advise on the best course of action.

Minor software issues (for example, the calculator not functioning correctly or a video/audio clip not playing) may be resolved by simply navigating away from the question and then returning.

If the problem persists, you may wish to use the *Leave Package* option, or it may be necessary for the candidate to complete the examination on a replacement device.

A device has crashed during the examination.

Complete a "soft reset" by powering the device off and back on again.

If possible, the candidate should then log back in to the examination. If problems persist, it will be necessary for the candidate to complete the examination on a replacement device. The candidate's original login credentials should be used in both scenarios.

The examination package has frozen/crashed.

Complete a "soft reset" by powering the device off and back on again.

The candidate should then log back in to the examination package (using the same login credentials). If problems persist, it is advised that the candidate completes the examination on a replacement device.

A device has run out of battery power during the examination.

If power can be restored to the device (and maintained thereafter), the candidate should log back in to the examination package. If this is not possible, the candidate should complete the examination on a replacement device.

There has been a power failure.

If the power failure is likely to be for a short period of time (and if the circumstances allow), the candidates should remain seated in silence until the examination can resume. Once power is restored, the candidates can log back in to the examination.

If the power failure is likely to last for a long or indeterminate period, the examination should be suspended. Please contact IB Answers if further support is required.

System requirements for conducting Chinese and Korean Language and Literature examinations

Preparing for an examination

Keyboard layout

For Chinese Language and Literature examinations, the *Full Pinyin* keyboard language should be installed and selected.

For Korean Language and Literature, the *Microsoft IME* keyboard language should be installed and selected.

Note: These input methods can only be used in the applicable examinations.

Additional requirements – Mac

To enable input of Chinese and/or Korean characters, ensure that the *Automatically switch to a document's input source* box is unticked. This option can be accessed via: *System Preferences* > *Keyboard* > *Input Sources*.

Using the keyboard during an examination

Keyboard icon

If a device has multiple keyboard layouts installed, a keyboard icon will be displayed on the login screen, the *Instructions* screen and on the header bar throughout the examination. This icon can be used to switch between keyboard layouts.

Switching keyboard using Windows hotkeys

The Chinese and Korean keyboard layouts on Windows do not support switching between an "English mode" and "Chinese mode", even if the relevant keyboard layout is selected.

If the Chinese/Korean keyboard is selected and it is still not possible to type in the appropriate characters, the keyboard can be switched using a hotkey.

By default, the hotkey for switching between the English and Chinese mode is the left Shift key and, for the Korean mode, the right Alt key.

Liability

The IB, along with the company that has developed the software for the on-screen examinations, has taken all reasonable measures to ensure that installation of the software will not cause any issues with a school's IT system. However, the IB can take no responsibility, and will not be liable, for any technical issues (or otherwise) beyond its control. Further, the IB holds no liability for any loss or damage suffered as a result of the use of, or access to, the platform, relating to school devices or any other device.

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