TECHNOLOGY

The Local Organising Committee (LOC) should be designed in such a way that local knowledge, skills and expertise are used. The LOC structure should be set up that is effective and efficient.
A proper IT set-up is essential for a successful competition. Please read & follow carefully!

- This document needs to be forwarded to the responsible persons and companies in charge of fulfilment. The experts in each field need to have these requirements as soon as possible.

- Every detail is important. If a specification cannot be fulfilled entirely or certain items cannot be delivered as described: please communicate this beforehand with the IJF IT department. All changes need approval.

- The installation time and effort are easily underestimated. Finishing the set-up late in the night before start of competition is risky. All needs to be properly tested.

  Set the right priorities!

- If there are any questions, please don’t hesitate to contact IJF IT department: it@ijf.org

We are looking forward to a close cooperation and a successful event

Version 2.0 - Please check for updates at https://it.ijf.org
Before start...

The positions in the venue may vary for each event.

We will provide an exact seating plan before the start of cabling.

Additionally, we will add stickers on the tables with the position names and start/end points for each cabling: Local network, internet, audio, video etc.

Therefore, please set the priority to have the podiums (including streaming studio) with tables and covers ready first! Then the cabling can start...
Before and after the event: the equipment needs to be stored and locked in a safe room in the venue.

The IJF IT equipment (video streaming machines, referee replay devices, cameras etc.) will be shipped by a professional logistics company. They will handle all custom procedures.

We need from your federation a contact person. The logistics company will get in touch with you for coordinating the date, time and place for delivery before and the pick-up after the event.

Before and after the event: the equipment needs to be stored and locked in a safe room in the venue.
Accreditation cards and lists

Organiser provides to IJF:
Logos:
• Event
• Federation
• Local sponsors

Responsible Persons with contact mobile number:
• General organisation
• Accommodation
• Transport

IJF finalises the card layout
Organiser gives final approval

Accreditation cards need to be printed, cut and laminated. Everything needs to be ready the day before the start of accreditation at the latest.

Print all front cards on A4 paper (210 x 297 mm) with PDF settings „custom scale: 100%“ (no „fit“ or „shrink“)

Turn all papers and print backsides on the back

Cut all papers two times, horizontal and vertical in the middle. All white borders should have same size

Laminate with A6 pouches (154x111 mm)

Punch hole(s) for lanyard

Don’t attach lanyards. This will be done later
The room needs to be set-up the evening before the start of accreditation. This includes delivery of all equipment plus the printed and laminated accreditation cards.

Network IP addresses from printers need to be set manually to 192.168.2.8 and 192.168.2.9.

The same printers (plus toners) need to be taken afterwards to the draw and then to the venue.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Checklist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color laser printer:</td>
<td>☑</td>
</tr>
<tr>
<td>• 20 ppm or faster</td>
<td>☐</td>
</tr>
<tr>
<td>• network connection</td>
<td>☐</td>
</tr>
<tr>
<td>Complete set of toner</td>
<td>☐</td>
</tr>
<tr>
<td>Copy machine</td>
<td>☐</td>
</tr>
<tr>
<td>Laminating machines</td>
<td>☐</td>
</tr>
<tr>
<td>Paper cutter</td>
<td>☐</td>
</tr>
<tr>
<td>Paper</td>
<td>☐</td>
</tr>
<tr>
<td>A4</td>
<td>☐</td>
</tr>
<tr>
<td>Laminating pouches Exact size: 154x111 mm</td>
<td>☐</td>
</tr>
<tr>
<td>Lanyards</td>
<td>☐</td>
</tr>
<tr>
<td>Multi-outlet power strips</td>
<td>☐</td>
</tr>
<tr>
<td>Wireless Internet</td>
<td>☐</td>
</tr>
</tbody>
</table>
The same printers (plus toners) must then be taken to the venue.
The electricity planning for the whole event must be done by experts using professional power distribution equipment. No line is allowed to come from a simple wall plug!

**6x Uninterruptible Power Supplies (UPS):**
- Min. power each UPS: 980 Watts / 1440 VA
- Waveform Type: pure Sine wave

**Exclusive power lines:**
- 2x streaming studio (different phase/circuit than lighting equipment!)
- 1x Event IT
- 2x Referee replay
- 1x IJF TV team

**Multi-outlet power strips:**
- With 5 or more plugs each
- No switches

**Checklist**
- 6 UPS as specified
- Multi-outlet power strips
- Power cable extensions
Electricity points

Do not cascade too many power strips!

Each line = separate line, not cascaded to others

= UPS
**Laptops**

**Hardware Requirements:**
- Up-to-date model
- For scoreboards:
  - 8 GB RAM
  - Resolution 1920x1080
- 200 GB disk space free
- Network input
- HDMI output
- Mouse

**Operating System Requirements:**
- MS Windows 10 Professional
- English language version and keyboard
- Clean installation
- No login password
- Windows firewall: file and printer sharing exception enabled
- No security suite/Antivirus software/3rd party firewall installed
- Screensaver/power saver disabled
- Reduced screen brightness on battery

**Local IP 192.168.2.x**

<table>
<thead>
<tr>
<th>Location</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>IJF Server</td>
<td>3</td>
</tr>
<tr>
<td>Scoreboard</td>
<td>11, 12, 13,...</td>
</tr>
<tr>
<td>Judogi control</td>
<td>21, 22, 23,...</td>
</tr>
<tr>
<td>Warm-up</td>
<td>31, 32, 33,...</td>
</tr>
</tbody>
</table>

Subnet: 255.255.255.0
Gateway: empty
DNS: empty

**Subnet:** 255.255.255.0
**Gateway:** empty
**DNS:** empty
Monitors for Referee Replay + Streaming

All TFT monitors:
- Size: 23”-26”
- Resolution: 1920x1080 Full HD
- Format: 16:9
- Input: HDMI

Checklist:
- Full-HD TFT monitors with HDMI input
Local Network

- **Checklist**
  - 2 24-port gigabit switches
  - 5 8-port gigabit switches
  - CAT-6 Network cables
  - Reserve cable role, R45 plugs and crimping tools

**Network Expert**

- SW1
- SW2
- SW3
- SW4
- SW5

**Technology**

- Local Network
- CAT-6 LAN cables

- **IT Requirements**
  - Scoreboard laptops must be cabled directly to main local switch, no other switch in between!
  - All cables must be labelled at main switch!
  - Local network must be physically separated from internet network!

- **Scoreboard**

- **IJK main local switch**

- **Event control**

- **Judogi control**

- **Warm-up**

- **TV graphics**

- **Streaming Studio**

- **Referee replay**

- **IJF TV team**

- **Two cables (main+backup) needed from main switch to OB van. Additional switch needed to boost signal if distance too long**
## Local Network

### Network switches

<table>
<thead>
<tr>
<th>Switch</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW1</td>
<td>Main local switch (24 port)</td>
<td>✓</td>
</tr>
<tr>
<td>SW2</td>
<td>Middle-mat local switch (8 port)</td>
<td></td>
</tr>
<tr>
<td>SW3</td>
<td>Judogi-control local switch (8 port)</td>
<td></td>
</tr>
<tr>
<td>SW4</td>
<td>Warm-up area local switch (8 port)</td>
<td></td>
</tr>
<tr>
<td>SW5</td>
<td>Optional: TV-graphics local switch (4 port)</td>
<td></td>
</tr>
</tbody>
</table>

### Order of cabling

1. Cable from main local switch to IJF streaming studio place
2. Cables from main local switch to scoreboard laptops mat 1, 2, 3, ...
3. Cable from main local switch to judogi-control local switch
4. Cables from judogi-control switch to judogi-control laptops
5. Cable from judogi-control switch to warm-up area local switch
6. Cables from warm-up area switch to warm-up area laptops
7. Cable from main local switch to middle-mat local switch
8. Cables from middle-mat-switch to IJF replay machines 1+2
9. Cable and back-up cable from main local switch to TV-graphics place (using additional switch if distance too long)
10. Cable from streaming studio to IJF TV team place

### Key points:
- Whenever a cable is ready:
  - Label with target location
  - Ping test
- No broken latches!
All Internet connections need to be wired. Additionally, IJF will create its own wireless network.

Internet for Media/others is handled by the organizer.

Internet speed – dedicated to IJF exclusive:
- **Download** speed: 200 MBit/s or more
- **Upload** speed: 200 MBit/s or more

(Values tested to Frankfurt using www.speedtest.net)
## Internet Network

### Network switches (provided by IJF)

<table>
<thead>
<tr>
<th>Switch</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW6</td>
<td>IJF main internet switch located at IJF streaming studio</td>
<td>☑</td>
</tr>
<tr>
<td>SW7</td>
<td>Middle-mat internet switch (8 port)</td>
<td>☐</td>
</tr>
<tr>
<td>SW8</td>
<td>Event control internet switch (8 port)</td>
<td>☐</td>
</tr>
<tr>
<td>SW9</td>
<td>Judogi-control internet switch (8-port)</td>
<td>☐</td>
</tr>
<tr>
<td>SW10-12</td>
<td>Staff internet switches (8 port)</td>
<td>☐</td>
</tr>
</tbody>
</table>

### Order of cabling

1. Cable from main internet switch to **middle-mat internet switch**
2. Cables from middle-mat internet switch to **speakers** place
3. Cable from middle-mat switch to **event control** place
4. Cable from middle-mat internet switch to **staff internet switches**
5. Six cables from each staff internet switches to nearby **IJF staff** places
6. Cable from main internet switch to **IJF TV team** place
7. Cable from main internet switch to **TV graphics** in OB van
8. Cable from main internet switch to **judogi-control** area
9. Cables from judogi control internet switch to **warm-up** place (TBC)

### Key points:

- Whenever a cable is ready:
  - Label with target location
  - Ping test
- No broken clips

**For main internet line do not use IP 192.168.2.x as it is reserved for the local network!**
Scoreboard Setup

**Checklist**

1. LED screen 55” or bigger 16:9, HDMI input
2. LED board controller
3. converter HDMI to LED board input (if needed)
4. HDMI Splitter (1x in, 2x out)
5. Laptop
6. Scoreboard keyboard
7. HDMI cables
8. Big active speaker
9. XLR audio cables (from laptop to backup speaker and venue mixer)

**Equipment**

- LED screen 55” or bigger 16:9, HDMI input
- LED board controller
- converter HDMI to LED board input (if needed)
- HDMI Splitter (1x in, 2x out)
- Laptop
- Scoreboard keyboard
- HDMI cables
- Big active speaker
- XLR audio cables (from laptop to backup speaker and venue mixer)

**LED pannels scoreboard:** >200 vertical pixel per meter recommended (min. 96 pixel/meter)

**Connection from laptop via HDMI out**

**LED pannels scoreboard:** >200 vertical pixel per meter recommended (min. 96 pixel/meter)

**MS Windows 10 required!**

**IJF USB DI box,** **Peavey USB-P**
Scoreboard operators from local organiser:
- >=18 years old
- English speaking
- Judo referee license

Introduction and briefing:
**New users**: Day before start of competition at 19:00 in the venue
**Experienced**: First day of competition, one hour before start in venue
Check carefully for ground loop hum and buzzing noises!

**Gong & Audio set-up**

- **XLR audio cables**
- Big active speakers with amplifier at each mat, independent from mixer
- **Announcer**
- **Judogi control**
- **Streaming Studio**
- **IJA USB DI box, Peavey USB-P**
- **Audio mixer**
- **Scoreboard**

**Checklist**

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue speaker system</td>
<td></td>
</tr>
<tr>
<td>Professional audio mixer, connected to venue speaker system</td>
<td></td>
</tr>
<tr>
<td>Active speakers with amplifier each tatami</td>
<td></td>
</tr>
<tr>
<td>XLR cables</td>
<td></td>
</tr>
<tr>
<td>Jack connector (¼ inch)</td>
<td></td>
</tr>
</tbody>
</table>

**Audio Setup**

- Expert
  - **RR Venue speaker system**
  - **Professional audio mixer, connected to venue speaker system**
  - **Active speakers with amplifier each tatami**
  - **XLR cables**
  - **Jack connector (¼ inch)**

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IT Requirements
Gong & Audio set-up

At each mat: Additional big active speakers with amplifier and XLR input
- Used solely for gong signals from each mat as backup
- Directly connected to DI boxes from scoreboard laptops
- Gong signal must be heard in venue with noisy crowd
Video cabling organiser

Option 1: when TV is providing front camera signals from all mats on all days

- Use high quality HD-SDI cables (RG59, 75 ohm)
- Use HD-SDI repeater or BNC <-> optical fibre for long distances!
IT Requirements

Video signals from TV

All signals as HD-SDI with audio embedded!
Use HD-SDI repeater or BNC <-> optical fibre for long distances!

Checklist
- HD-SDI video cameras with tripods for each mat
- HD-SDI video cables BNC
- HD-SDI distributors
- HD-SDI repeater / optical fibre converters
- HD-SDI test monitor
- Reserve: HD-SDI cable role 100-200 m, BNC connectors & crimping tools

HD-SDI video cameras with tripods needed for each mat

Use high quality HD-SDI cables (RG59, 75 ohm)

Use HD-SDI repeater or BNC <-> optical fibre for long distances!
Video camera operators

Camera operators from local organiser:
- >=18 years old
- English speaking
- Judo background

Introduction and briefing:
First day of competition, one hour before start in venue

List of names of all camera operators

With TV covering front mats:
- 6x
- 8x
- 8x
- 12x
- 6x
- 12x
- 8x
- 16x

Without TV covering front mats:
- 6x
- 8x
- 8x
- 12x
**IT Requirements**

**Streaming Studio**

- **OB van**
- **Audio connection**
- **Video signals**

**Checklist TV**

1. Commentator box with intercom
2. Headsets
3. Video signals in HD-SDI with audio embedded:
   - Front cameras each mat
   - PGM dirty
   - PGM clean

**Checklist**

1. Podium (with carpet) and stairs
2. Frame construction
3. Turnable office chairs
4. Normal chairs
5. Barrier

**Construction**

- **Audio venue**
- **Video screen**
- **Local network**
- **Internet**

**Technology**

- **Streaming Studio**
- **Checklist TV**
- **Frame construction for IJF green screen**

**Dimensions**

- Width: 2.85 m
- Height: 2.00 m
- Length: 5.00 m
- Depth: 0.80 m

**Turnable office chairs**
**IT Requirements**

**Information system**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Information system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment</strong></td>
<td></td>
</tr>
<tr>
<td>LCD screens size 50” or more</td>
<td>□</td>
</tr>
<tr>
<td>Touchscreens for coach assistant</td>
<td>□</td>
</tr>
<tr>
<td>Laptops connected to local network</td>
<td>□</td>
</tr>
<tr>
<td>HDMI cables</td>
<td>□</td>
</tr>
<tr>
<td>Video cables</td>
<td>□</td>
</tr>
</tbody>
</table>

**Checklist**

- **Referee Draw**
  - Number of screens can be reduced by showing more than one mat on each screen. Number of laptops can be reduced by using HDMI splitters and long HDMI cables cloning the signals.

- **Contest order**
  - 2x

- **Coach Assistant**
  - Touchscreens recommended
  - 1-2x

- **Live TV from each mat**
  - Signals and cabling done by organiser. IJF can provide HD-SDI signals from IJF Streaming Studio. HD-SDI to HDMI or analogue converters and cables needed.
  - 1 per mat
Referee Radio System

Only needed for countries where the IJF radios are not allowed to use!

Equipment

- 7x
- 14x
- 21x
- 28x

Checklist

- Radios
- Security headset
- Charger

Each tatami needs its own frequency!
After the competition is finished our teams still need time to finalise the work (interviews, video highlight editing, news uploading etc.). Therefore, it is essential that **electricity**, **internet** and **lights** are kept on and intact until the last working person from IJF gives green light that it is no longer needed.

**Important:** Please inform all persons and companies involved in the dismantling on the **last day**!

**Have the save storage room** ready for all IJF IT equipment cases! Make sure you have agreed with the logistic company the **pick-up time** of the IJF IT equipment!