NPC Japan Sport Data Management System User's Guide

01 July 2017

Document History

Version	Date	Comments
1.0	01 July 2017	First version
2.0	19 September 2017	Chapter 9 added to describe the connector of the IPC SDMS API to get and upload SDMS information to this national application.

Table of Contents

1   Introduction

This chapter provides an introduction to the NPC Japan Sport Data Management System, henceforth called SDMS Japan.

1.1   Objective

This document describes all important functionalities of SDMS Japan, a web-based application designed to securely capture, store and retrieve athletes' personal and classification data managed by the national sport federations (NFs) supervised by the National Paralympic Committee (NPC) of Japan. This manual is targeted to staff members of the NPC, its member federations and their classifiers and aims to assist the users in the following areas of the system:

- System Settings (e.g., federations, sports, classes, additional fields)
- Participant Management (e.g., athlete registration, biography capture, sport class assignment)
- Classification Management (e.g., confirmation of classes, classification file upload and review, medical documents)
- Events Management (e.g., classification events, classifiers registration, classifier availability request tool)

This manual covers all sections of the application even if different user groups have different or limited access to the sections. This is outlined in each chapter.

1.2   History and Development of SDMS Japan

Since 2009, the IPC Sport Data Management System (IPC SDMS) has been running successfully and has become the central tool of the International Paralympic Committee (IPC) and its IPC sports for athlete's data, classification, competition calendar, achieved results, confirmed records, and calculation mechanism of rankings and qualification lists for major events.

In January 2015, the IPC launched the first national version derived from the IPC SDMS that since supports the NPC of the Netherlands in their daily operation regarding athletes registration and classification across all sports. This application runs independent from the IPC SDMS with a separate look and feel and sole focus on athlete registration and classification.

With the increased awareness of the existence of this national SDMS version, consultations between NPC Japan and the IPC took place to outline options and possibilities to make use of

such a version for the Japanese operations. Finally, it was agreed to realise this project, and SDMS Japan was developed in launched in July 2017.

1.3   Structure of the SDMS Japan Manual

The current chapter describes the general objective of this manual and briefly summarizes the history of SDMS Japan development.

The second chapter explains how to get an account for SDMS Japan, how to access this database, the navigation through the application, the menu bars, and general usages of search forms, and buttons appearing on several pages. Please read this chapter if you are not experienced with high security applications in general or with SDMS Japan in specific.

In all following chapters (3 − 8) beginning with the initialization of SDMS Japan (chapter 3), each module of SDMS Japan is considered. The menu sub-structure is reflected by the respective chapter structure for easy navigation and reference.

An exact step-for-step instruction for registration of athletes (chapter 4.1, 4.3 and following) and their classification including file management (chapter 4.2) supports the user to fulfil the requirements and follow the processes efficiently.

Chapter 5 concerns the registration of upcoming classification panels, their classifiers and attending athletes. An extensive tool to request the availability of classifiers for each of these panels minimizes email communication.

The application produces a set of customisable reports for overview of the stored data. These reports are described in chapter 6. Finally, chapter 7 contains information about the user management and security structure built into SDMS Japan.

2 Website, Layout, and Functionalities
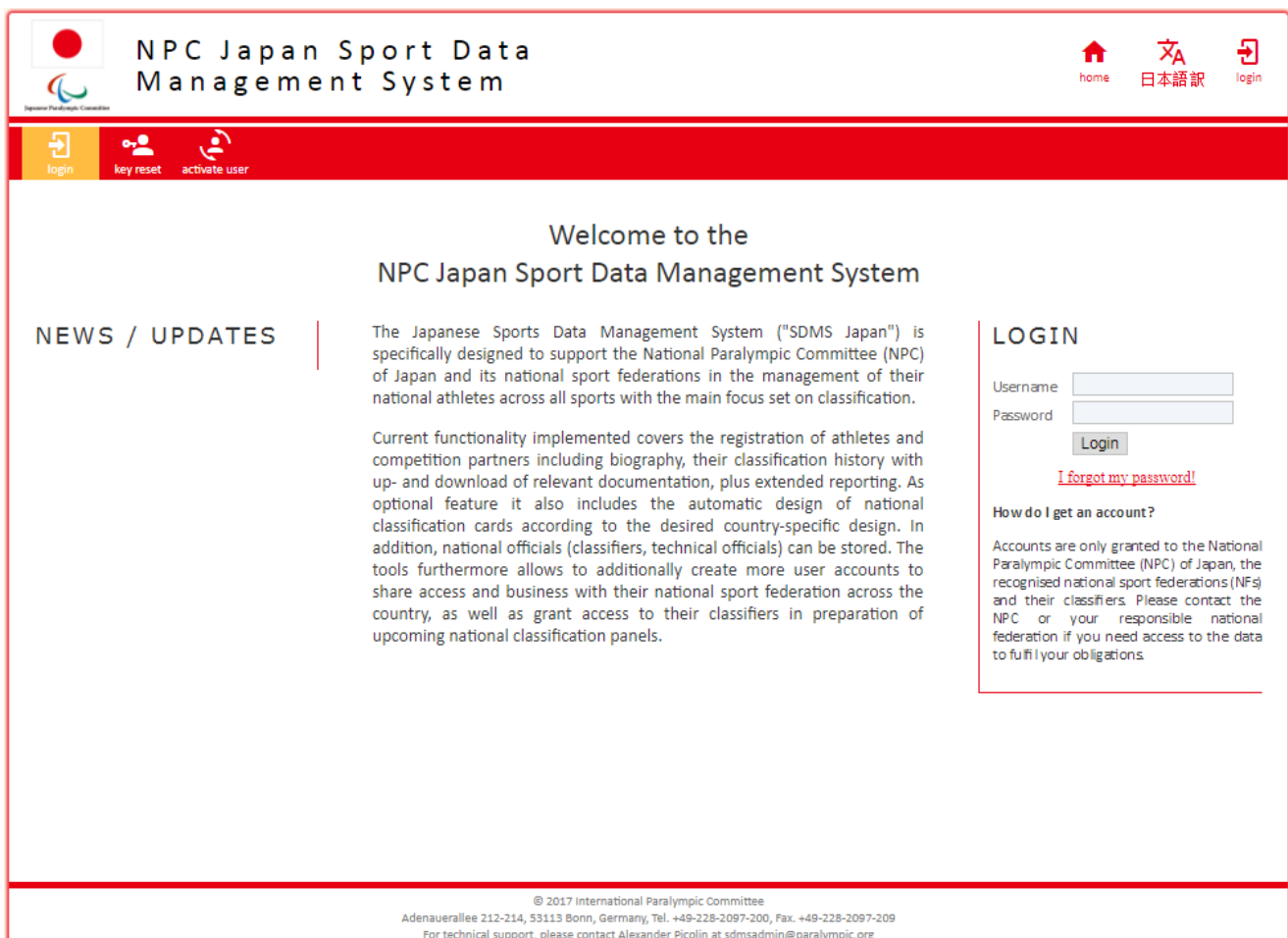
Some general information about the access to SDMS Japan as well as an overview of the structure and general functionalities and tools are outlined in this chapter.

2.1 Access to SDMS Japan

2.1.1 SDMS Japan Website

The NPC Japan Sport Data Management System is an online application accessible on the Internet by inserting the following URL in the browser of your choice

https://db.ipc-services.org/sdms-jpn

Figure 2.1: SDMS Japan Login Page (screenshot)

2.1.2 Recommended Browsers

It is recommended to use most modern and widely used browsers with recent updates installed in order to ensure stable functionality and security. SDMS Japan runs best under Firefox (current version 54) and Google Chrome (version 59). Users of Internet Explorer (version 9 or higher) shall regularly update and inform about potential general security issues and either care for a stable version of look for alternatives. Additionally, JavaScript has to be enabled for correct functionality of SDMS Japan.

2.1.3 User Accounts

Currently, there are four main user groups defined. Besides the administrator account hold by the developer of SDMS Japan (the IPC) to review potential issues and change requests, accounts are granted to the NPC, the national sport federations (NFs) and their classifiers. NPC Japan as supervisor of the Japanese classification processes can create accounts internally and to the NFs. Furthermore, the NFs are allowed to create accounts for themselves and to their classifiers. Classifiers don't have the rights to access the SDMS Japan user management.

> Please share your personal account details with any colleague only if you take on full responsibility for all actions performed through your SDMS Japan account.

2.1.3.1 NPC Accounts

The IPC granted a few accounts to the NPC Japan to hand over full control on all further processes on launch in July 2017. The NPC is able to create further accounts internally to share responsibilities and tasks.

2.1.3.2 NF Accounts

The NPC distributes accounts to the recognized national sport federations after launch. In case of an account issue, the NPC has to be contacted for support.

2.1.3.3 Classifier Accounts

In most cases, the NF management team automatically opens an account for the classifier with access to read out the most updated classification data as required for them to perform their duties at the competition. The classifier might gain rights to change data. Then it is highly recommended to carefully read the respective sections of the SDMS Japan manual about the update of classification values and files to ensure consistent and high data quality.

2.1.4　Security and Passwords

SDMS Japan is a password-protected application. This protection requires high standard beginning with usage of *strong* passwords. Strength of a password is primarily defined by its length and its used character set. To find a compromise between security and user-friendliness, a password for SDMS Japan and all its related modules requires

- ✓ Minimum length of eight (8) characters,

- ✓ At least one (1) lower-case letter [a-z],

- ✓ At least one (1) upper-case letter [A-Z],

- ✓ At least one (1) numeric character [0-9],

- ✓ At least one (1) non-alphanumeric character out of the set [!_%#?-@=$&+].

As it is recommended for all Internet applications, SDMS Japan automatically reminds the user to change his password when 360 days after last password change have passed.

> Your account is automatically disabled after five sequential failed login attempts.

2.1.4.1　Password Reset

The password reset tool can be used if you have forgotten your password, or if the account has been locked as described above. Instructions are given below.

> *How To:* Change your password

1) After you have entered the application, go to *myAccount* (👤⚙) at the upper right corner of SDMS Japan. This screen automatically opens after the 90 days period.
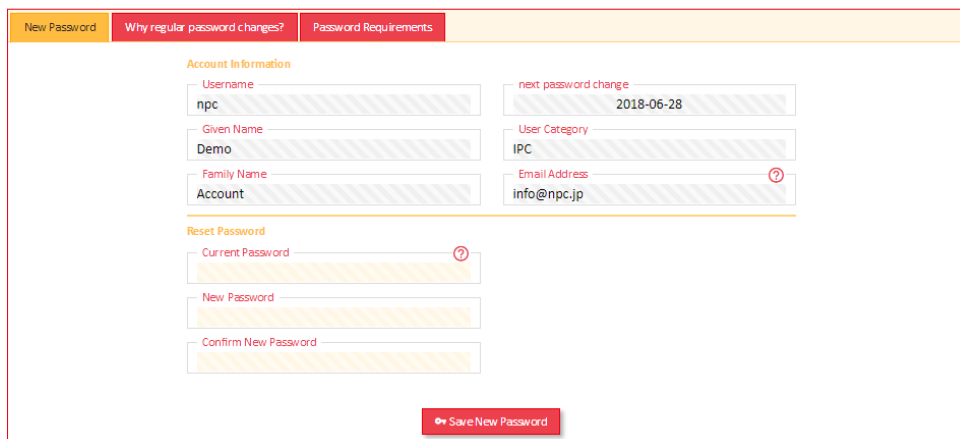
Figure 2.2: SDMS Japan Password Editor

2) Enter your current password in the first field. The new password is automatically controlled against the password requirements. Confirm your new password and submit.

> *How To:* Reset password when you have forgotten it

1) Click on **I forgot my password** or use the menu bar **key reset**.

2) Fill out the form by inserting your username and email address which had been registered with your account.

3) After submission, you receive an automatically generated email with a password reset link. Check your spam folder if can't find the message in your inbox.

4) Follow the link. SDMS Japan opens and allows you to register a new password, respecting the password requirements.

5) After confirmation and submission of your new password, navigate back to the login page.

Please note that after submission of the password reset in step 2, you need to complete the remaining steps within 15 minutes. If this time has been passed without completion, you need to restart at step 1.

Passwords are stored encrypted. That means that no one, even not the SDMS Japan Administrator can read out your password. Same security standard is applied to other sensible information.

SDMS Japan logs you out after one hour of inactivity. This counter applies to each window or tab of your web browser independently from each other; but once your session is deleted in one of these tabs, your access in all of them is denied unless you re-login. This reduces the risk that a stranger with access to your terminal manipulates the data through your account with your knowledge. Especially in a public environment, it is highly recommended to click **Logout** (⏻) when you finished your work in SDMS Japan.

2.2 Header Tools

The header of SDMS Japan consists of two menu bars.

The primary menu bar allows the access to all various modules of SDMS Japan the user is granted to and is located below the application name. Move your mouse cursor over the **modules** icon, and the following list of modules opens, depending on your access rights.
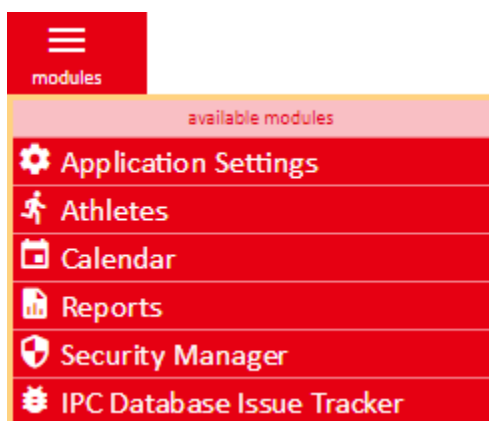
Figure 2.3: List of modules in primary menu bar

Currently, six modules divide the application, they are:

Application Settings	Basic data like federation information and sport structure
Athletes	Athletes registration, classification, duplicate control & handling
Calendar	Competition & classification events, classifier registration, availability feedback tool
Reports	Classification reports and file downloads
Security Manager	User accounts, groups, and permissions
IPC Database Issue Tracker	Change request and defect tracker for the IPC

The secondary menu bar is located at the upper right corner.

Figure 2.4: Secondary Menu Bar

Following options are available (after login):

Home	Goes back to the start page.
日本語 ／ English	Translates the application to Japanese or English
User Guide	Downloads the most updated version of this document.
myAccount	Opens the password editor (see chapter 2.1.4).
Logout	Conducts a user logout.

The hourglass next to 'myAccount' reflects when the user is automatically logged out when no further action is registered to protect the account and data of the application.

2.3 Search Forms & Results Matrix

Each section handling one particular data entity of SDMS Japan, e.g. sports, events, federations or athletes, has a search functionality to target the user's data.

The search page in turns offers a results matrix with an input row for the search criteria. When a new section is opened, the current criteria are automatically applied, along with the user's permission criteria (for example, the athletics federation will only receive search results about athletes registered in that sport), and the results are displayed. Generally, the search returns all

☐	Application Entity ⬆	Code	Label ⬆	Field Type	Field Length	Sort Order ⬆	Sport ⬆
	▼ x	x	x	▼ x			
☐	Biography	CLUBNAME	Club/Team Name	T	50	13	
☐	Biography	JERSEY	Jersey No.	T	10	13	
☐	Biography	POSIH	Team Position (Para Ice Hockey Player)	L		13	
☐	Biography	CLUBCITY	City/Town of Club/Team	T	50	14	
☐	Biography	CLUBCOU	Country of Club/Team	T	50	15	
☑	Biography	EMAIL	Email address	T	50	15	
☑	Biography	COACH	Coach	A	400	16	
☑	Biography	PREFEVENTS	Preferred Events and Styles	A	400	17	
☐	Biography	DEBUT	Debut	A	250	18	
☐	Biography	NICKNAME	Nickname	A	400	19	
☐	Biography	HOBBIES	Hobbies	A	1000	20	
☐	Biography	ACHIEVE	Sporting Achievements	A	400	21	
☐	Biography	INFPERSON	The most influential person	A	120	22	
☐	Biography	HEROIDOL	Who is your hero/idol?	A	120	23	
☐	Biography	OPPONENT	Opponent/Rival	A	120	24	

🗑 ⟳ ☒ ▦ 🖶 🖫 ★   ⏮ ◄◄ Page 4 of 7 ►► ►▮ 15 ▼   View 46 - 60 of 98

+ Add Additional Field   🗑 Delete Selected Additional Field(s)   ⬇ Grid Export   ▼ Clear Filter

Figure 2.5: Search Results Matrix of Additional Fields (Application Settings > Config > Add. Fields)
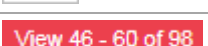
relevant results when initially opened, and the current criteria can then be modified. When changing the drop-down boxes, the search is automatically reset, while when changing text boxes, users must refresh or press the *Return* key on their keyboard.

Users specify their search parameters by entering text or selecting items from the dropdown search fields. Each search field only allows for entries with fewer or the same number of characters defined in the database structure.

In the result of each search conducted the information is displayed in columns and rows (a search results matrix). Users may manipulate the width of each column, change the order of the columns by drag-and-drop and sort by a column according to need. The current sorting column is indicated by a downwards (ascending) or upwards (descending) pointing triangle.

If you wish to remove or clear a search criterion, click the cross next to its drop down box or text field. The application treats most text searches as asking for text strings that 'contain' the supplied text, rather than exact matches.

The footer consists of several icons for handling the data or scroll through the full set of data.

Icon	Description
🗑	Deletes the selected row(s). On attempt to delete data which is related to other information or entities, an error message appears.
↻	Reloads the grid.
☒	Clears all filters.
⊞	Manipulate order and number of columns supported by a small interface. Hidden columns which do not fit in the default view can be added here if necessary.
🖨	Prints all data based on search criteria and column selection and order in one new window.
💾	Exports all data based on search criteria and column selection and order into an Excel file.
★	Save grid settings for later, will be used as default settings until reset or overwritten
◀	Go to first page.
◀◀	Go to previous page.
▶▶	Go to next page.
▶▮	Go to last page.
Page 4 of 7	Direct page selection: change page number and press 'Enter'.
15 ▼	Changes the number of rows per page.
View 46 – 60 of 98	Shows current position and total data rows based on search criteria.

Each row in the matrix represents one data set with some basic information.

- That row the mouse cursor is just selecting is highlighted in orange.
- To select a row for deletion or other actions in specific sections, the user ticks the box on the left hand side. Selected rows are highlighted in yellow. See

☐	Application Entity ⬍	Code	Label ⬍	Field Type	Field Length	Sort Order ⬍	Sport ⬍
	▼ x	x	x	▼ x			
☐	Biography	CLUBNAME	Club/Team Name	T	50	13	
☐	Biography	JERSEY	Jersey No.	T	10	13	
☐	Biography	POSIH	Team Position (Para Ice Hockey Player)	L		13	
☐	Biography	CLUBCITY	City/Town of Club/Team	T	50	14	
☐	Biography	CLUBCOU	Country of Club/Team	T	50	15	
☑	Biography	EMAIL	Email address	T	50	15	
☑	Biography	COACH	Coach	A	400	16	
☑	Biography	PREFEVENTS	Preferred Events and Styles	A	400	17	
☐	Biography	DEBUT	Debut	A	250	18	
☐	Biography	NICKNAME	Nickname	A	400	19	
☐	Biography	HOBBIES	Hobbies	A	1000	20	
☐	Biography	ACHIEVE	Sporting Achievements	A	400	21	
☐	Biography	INFPERSON	The most influential person	A	120	22	
☐	Biography	HEROIDOL	Who is your hero/idol?	A	120	23	
☐	Biography	OPPONENT	Opponent/Rival	A	120	24	

🗑 ↻ ✕ ▦ 🖨 🗄 ★   ⏮ ◀◀ Page 4 of 7 ▶▶ ▶⏭ 15 ▼   View 46 - 60 of 98

[+ Add Additional Field] [🗑 Delete Selected Additional Field(s)] [± Grid Export] [⊼ Clear Filter]

Figure 2.5. To select all rows, click the checkbox in the header row.

- When a data row is clicked, the detail page opens to review and manipulate. Some screens do not have a detail page; in that case, clicking selects the row.

Underneath the search results matrix, three buttons duplicate the functionality of icons in the matrix footer, namely the **Delete** button (same as 🗑), the **Grid Export** button (same as 🗄), and the **Clear Filter** button (same as ✕).

After opening the detail page, you can go back by clicking **Back to Grid** or the ⊞ icon at the upper right corner of the detail page. These buttons re-apply the search criteria and opens the previous search results matrix page. Additional buttons on the detail page open a blank form to create a new data set (**Add New X** or **New**), save, refresh, delete, or clear the loaded detail page. Further buttons designed for a specific detail page are described in the respective chapters of this guide.

When moving the cursor over the 🕓 icon, information about who created the data set at which time and who edited the data set the last time.

2.4   Data Fields

Search criteria forms, entity detail pages and similar generally are simple HTML forms and are composed of free text fields, drop down menus, radio, and tick boxes. Each field is labelled according to its value behind. Some fields have prepended a small red question marker icon ⑦ which contains more explanations and regulations about the field and its content when cursor is moved over.

SDMS Japan has a few additional functionalities or tools behind the fields the user must be aware of:

- *Mandatory Fields* − Fields with a light yellow background are mandatory. Leaving such a field blank upon submission will cause an error, and the data set won't be saved unless the field has a valid value.
- *Value Validity Control* − Each field is subject to a set of specific rules. These rules might consider value length (number of characters), value type (integer, float, text, …) or even specific value formats (dates, NPC Code, …). On validation failure, an error is thrown and the related field is displayed in red.
- *Files* − When a file upload becomes necessary, the file is checked against the maximal file size (in bytes) and file format (photos, PDFs). Photos, in particular, are additionally reviewed for potential limits in image size (in pixels).
- *Character Sets* − Names and other information shall be written in Japanese or English language. When using English, only the Latin alphabet is allowed. Some fields clearly distinguish between English and Japanese spelling and only allow corresponding writing systems. Other fields might be translated when the 文A icon is clicked.
- *Date Field* − The standardized date field format is yyyy-mm-dd (year − month − day). When a date field (e.g., athlete's date of birth) is selected, a small calendar tool appears to automatically allow the user to select the correct date. Drop down boxes on top opens the respective calendar by month and year. The buttons ◖ and ◗ scroll through the calendar by month. Currently selected date is highlighted in yellow. This small window closes automatically when a date is selected, the button **Done** is clicked or another field is selected.

  In some date fields, minimum and maximum dates

are set up. The calendar tool for those fields only displays the acceptable date range.

2.5   File Attachments (technical requirements)

General requirements for upload of files to SDMS Japan are outlined here. Following types of documents might or must be attached under certain criteria. Attempts to upload files exceeding maximum file size (in bytes) or wring file formats will cause an error.

- **Copy of Passport/ID Card**

They can be submitted as PDF file not exceeding 1 MB. The quality of the scan should ensure that all information is legible.

- **Classification Documents**

To be submitted as PDF file not exceeding 2.5 MB. The quality of the scan should ensure that all information is legible.

- **Photo**

Must

- ✓ Be recent and allow for easy recognition of the individual,
- ✓ Be plain white or light blue background with good contrast against the person (face and hair),
- ✓ Not include headgear, dark glasses and hair bands on the individual, except for religious or medical reasons,
- ✓ Have the head of the individual looking face-on,
- ✓ Either be scanned and saved as JPG (preferred), GIF or PNG in medium or high quality. Width-to-height ratio is between 2:3 and 3:4; file size must not exceed 250 kB.
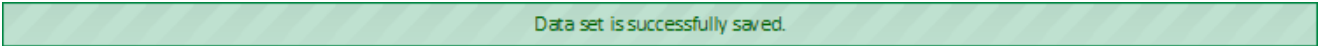
If the photo is submitted in hardcopy, minimum size of the photo must be 35mm x 45mm and include the name and the ID, if known, of the individual on the back.

Photos are only used for license cards. Hence, any uploaded photo is automatically resized to a maximum height of 256 px and a maximum width of 176 px. The user does not need to resize the photo in advance.

2.6 Error Messages and Notices

The application informs the user about the success or error on his actions in any screen or data set. These messages appear at the top of the application, underneath the primary menu bar.

Dark green notices on green background report on the successful actions like submission of data, creation, update, or deletion of a data set etc.
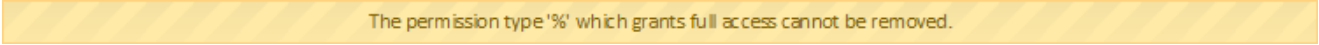
Data set is successfully saved.

On the other hand, dark orange messages indicate that the intended action was not successfully performed to prevent that incorrect data are stored or data sets removed which are associated with other important data sets.

Date of Birth cannot be blank.

A yellow warning message is displayed when the user's action could cause database integrity issues. Usually, the user's action is not carried out.

The permission type '%' which grants full access cannot be removed.

Notices to the user vanish after a short time; they can also be clicked on to remove them immediately.

Reasons for an error are manifold, the most common errors are

- Mandatory fields were not filled.
- Attached files do not meet the requirements (see chapter 2.5).
- The field value has not the right content or format (see chapter 2.4).
- An essential data set (like an athlete) is attempted to be deleted although other essential data sets (like licenses or classifications) are associated.
- User credentials were incorrect on login attempt (see chapter 2.1.4).

All individual errors are shown at once after data submission. In the data set detail pages, the values that the user changed or included are kept, with the exception of selected files from the user's local computer system for security reasons.

Most of the cases can be resolved by the user reading and applying the instructions of the error message. When an unclear or cryptic error message appears, please contact the SDMS Administrator for explanation and support to fix the issue.

3   Application Settings

This chapter describes all screens of the first SDMS Japan module **Application Settings**. Obviously, all basic or core entities can be managed here, like sports, events, organisations, or seasons as well as some more technical settings.

3.1   Configuration

3.1.1   Basic Codes

Basic codes reflect the content of several dropdown boxes which are not populated by basic entities which can be found in the initialization section (see chapters 3.2-3.4). They are categorised into basic code tables.

List	Description
Career Status	Career status of athletes to indicate if an athlete is still active, has retired etc.
Class Status	Class statuses according to international classification rules.
Competition Course Offered	Options for international course offered at a competition.
National Event Type	Competition and event categories for the calendar.
National Meetings	Categories for national meeting calendar.
Nationality Status	Nationality recognition of an athlete (see athlete registration for further information).
Nationality Validation Type	Document types to validate athlete's nationality.
Person Type	Person's category. Defaults to athlete or guide.

Opening the detail page of such a basic code table reveals all basic codes associated with the table and that populate the respective drop-down menus at various locations of the application. These basic codes cannot be changed as they are connected with the application's functionality.

3.1.2   Additional Fields

This section allows the flexible extension of several forms to store more information in a structured way. SDMS Japan has three sections the user may add or remove unused fields.

- Biography

The biography section of an athlete has plenty attributes about athlete's personal and sport-related background. Attributes (= fields in the form) can be added as needed.

- Classification Profile

Besides the basic classification information like class, class status and responsible classifiers, general or sport-specific attributes can be defined to store additional information. This particular section is called 'Classification Profile'. Examples might be the exceptions in swimming, the maximum standing height in athletics or general diagnosis and observation data, extracted from the last uploaded classification sheets. A classification profile field can be defined for all sports or for one specific.

- Classification Files / Classification Files (sensitive)

In addition to the profile in terms of classification, PDF documents can be attached to an athlete's classification. For a proper categorisation of the files content, several categories have been preloaded, like classification files, protest sheets or medical diagnostic form. In order to protect sensitive data, files are separated into *basic* files which are accessible by all users who have been granted to read classification data and files. To access a file stored in a *sensitive* file category, additional criteria must be fulfilled which are outlined in the classification section of this manual.

Field	Format	Comments
Application Entity	drop down with the three sections (class files split into basic and sensitive)	Obligatory, see comments in main text.
Code	text (10)	Obligatory, must be unique inside the application entity.
IPC SDMS Code	text (15)	IPC SDMS identifier; only usable with the IPC SDMS or IBSA ISAS connector (see chapter 9).
Sport	drop down [sport]	Optional, only for classification; if sport is selected, this field only appears for athletes registered in that sport.
Label	text (50)	Obligatory, clear label for the daily user.
Field Type	drop down	Obligatory, desired form element; file upload only works for classification files; does not work for any other entity.
List Values	text (100)	Obligatory only if Field Type = Value List. Creates a drop-down box. List values must be concatenated with vertical line character '|'. If 'countries' is entered, a list of nations is created.
Field Length	integer	Defines the maximum length of characters.
Sort Order	integer	Defines the sorting order of fields within same entity.
Comments	text (200)	

Label and list values (if applicable) must be entered in English and Japanese. When translating the list values, ensure that no list value from the original language is missed.

3.1.3   Application News

On the left-hand side of the SDMS Japan login page, short news can be flexibly published, e.g. about the update the application, introduction of new regulations, links to important documents and more. By default, NPC Japan as owner of SDMS Japan can add, remove and change articles for this news panel.

Each article has a title appearing as bold printed header, a body text and a publication date. The chronologically last three articles indicated as *Published* are shown with the newest article on top. The body text also allows basic HTML tags like

- line breaks `<br>`
- horizontal lines `<hr>`
- `<b>`**bold**`</b>` style
- `<i>`*italic*`</i>` style
- `<a href="http://destination.url" target="_blank">Link Text</a>`

    would add a hyperlink with the respective destination, opened in a new window.

As the news section is not bilingual, any article should be written in Japanese.

3.2   Sport Codes

This section extracts the IPC common codes that are relevant for the handling and registration of data in SDMS Japan. These data cannot be changed through this application with the IPC being the owner of these common codes. The IPC Sports IT team shall be contacted if there is any code, label or translation missing or incorrect. Following common codes tables are shown:

- **Sports** are usually defined as a composition of all disciplines and events governed by a single International Federation (IF). For operational purposes, some exceptions might have been applied. On national level, a national federation might govern one or more sports which are defined in the section for federations (see 3.3.2).
  The sports entity belongs to one out of two specific user permission entities so that a user may only view or manipulate data sets related to a particular sport. That especially applies to users representing the federation which governs that sport (see chapter 7.2).
- **Disciplines** separate a few sports into more logical entities, e.g. the sport of cycling is divided into cycling road and cycling track. The term 'discipline' must not be mixed up with the 'event types'.
- **Event Types** reflects a specific competition format with a discipline. The term 'competition' shall not be mixed up with a competition which consists of the full event programme and is defined by location, start/end date, and the organiser. Event types are defined by a specific set of rules, distances, styles, used equipment or team size. In able-bodied sport, event types and events are synonymous terms; in sports for athletes with a disability, an event is the combination of an event type and specific classification. The definition of event types and events with class combinations are necessary for the treatment of entries, results, records, and rankings, none of which is currently supported by SDMS Japan. Event Types are further divided into event type categories (subdivisions with certain sporting similarities, e.g. road running races and track running races are different categories), and event type groups (used for classification purposes, where a class is valid for one event or several events within the event type group).
- **Event Type Categories** are defined to distinctively group event types. For example, all stadium running events are considered as *Track* events, jumping and throwing events are known as *Field* events. Like class groups, the event type categories are used to specify the validity of a particular athlete's classification. Well-known example is classification in shooting. IPC Shooting consists of several rifle and pistol events as well as the both classes SH1 and SH2. According to the current classification rules, an athlete is classified by weapon and could have different classes for different weapons. In a real example, an athlete is classified SH1 [Pistol] and SH2 [Rifle].

- **Event Type Groups** is a set of several event types combined. Once a new event type group is created with code and name, event types (see **Error! Reference source not found.**) an arbitrary number of event types can be assigned to this group. Finally, in the classification screen of SDMS Japan for a particular athlete, a specific class and class status can be formally limited to such a combination of event types. An obvious example is the T20-classification which is distinguished between track events (400m-10000m) and horizontal jumps (long and triple) so that the athlete can be have different class statuses for each group.
- **Classes** ensure fair competition between athletes with similar or even different types of disability is an additional complicated dimension when one is trying to formalize the structure of sport. This entity is the basis for the entire classification data storage. Each class has a class name and a class code, and are further uniquely associated with an international federation who is in charge of athletes in these classes on the international stage.
- **Class Groups** follow a similar concept like event type categories and are designed to allow classes to be separated in a logical way in sports where athletes are allowed to have several classes for different events in the sports. Some sports like athletics or swimming allow the athlete to have up to three different classes at the same time but usually only one class per 'class group'. Consequently, for these both sports, the class groups *T*, *F*, and *P* as well as *S*, *SB*, and *SM* are already defined. Furthermore, it allows the specification for which class group a pseudo-class like *NE* is applied to. See 4.2.2 for more details how to use class groups in the classification.

3.3   Regional Data

Besides sport codes, another important group of entities is related to the basic organisational structure of SDMS Japan. Apart from the countries table that is derived from the IPC common codes, the NPC has full access to register any entity.

3.3.1   Countries

The term 'country' does not only consider independent states recognised by the United Nations but also any other overseas territories or other self-governed areas in dependency of an independent state. Storage of historical information requires definition of historical nations or territories.

In this application, countries are used in a few screens, mainly for nationality information of athletes and location of competitions, meetings, and events.

For a better differentiation between countries and organisations (e.g. NPCs) and due to missing organisation codes for some countries, the ISO-3166-1 (Alpha-3) codes are in use as unique country identifier of recent states and territories. Historical countries (Soviet Union, East Germany, Czechoslovakia) are identified by former ISO-codes, or alternatively by the former IOC code.

3.3.2 National Sport Federations

Athletes have to be associated with exactly one national federation which are defined in this section. Each federation has a unique code reflecting the official abbreviation and name. When a national federation is created, it is necessary to assign sports to this federation under the second tab called 'Sports'.
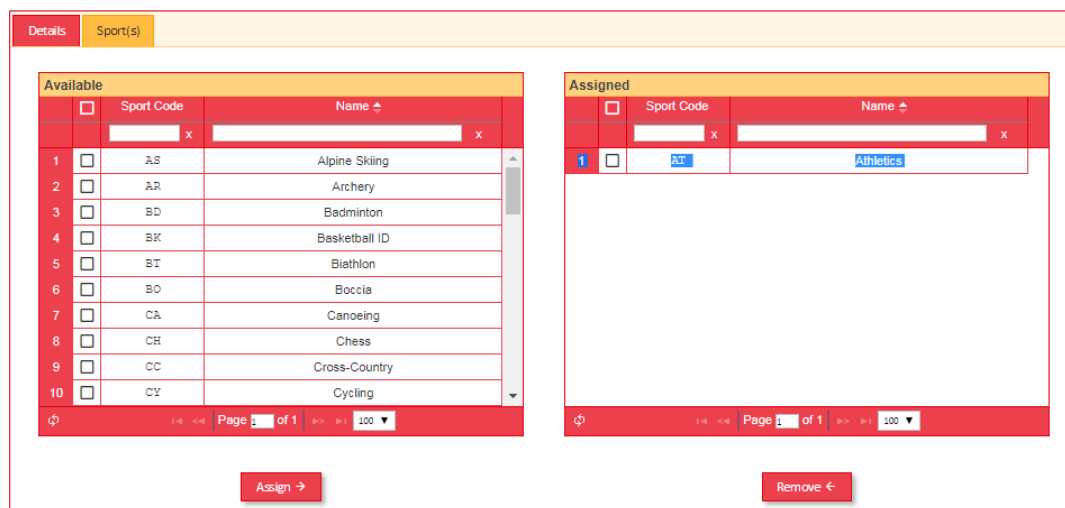
Figure 3.1 Assignment screen of sports to a national sport federation

Besides that, the federation entity belongs to one out of two specific user permission entities so that a user may only view or manipulate data sets related to this federation, especially if the user represents the respective federation (see chapter 7.2).

3.3.3 Clubs

Athletes can be associated with the clubs they are currently affiliated with. To affectively search for athletes from a specific club, they should be predefined here. Main information requires the official club name and the city the club is located in. Contact details can be additionally stored.

3.3.4 National Organisations & Committees

In the national meeting calendar (see 5.4), organisations and individuals can be registered as attendees. In order to perform the registration, these organisations and individuals have to be defined first. This section allows registering any kind of entity that becomes and might become part of an upcoming meeting or conference.

Once the organisation is saved, a small table enables the listing of individual staff currently working for that organisation.

Figure 3.2 List of staff

A new individual can be added by clicking the ⊕ icon and submitting the small form, while an existing staff can be removed by clicking the ⊠ icon in the corresponding row and confirming the removal. Details of any individual may be edited at a later stage by clicking ✎ and perform the changes as usual.

4   Athletes

This chapter described the core section of SDMS Japan, where users can read and modify personal data relating to Japanese athletes with an impairment across all defined sports and national federations, and manage their classification individually.

Once an athlete has been selected from the registration, the classification, or the nationality screen, each other athlete's page can be directly opened clicking the corresponding icon at the upper right corner next to athlete's ID and name.

🧑	Opens the personal detail page
🏃	Opens the classification page
🚩	Opens the nationality page

4.1   Personal Data / Registration

Each athlete must be registered first before any further classification information and files can be associated. From this menu, the user has access to all registered athletes he is allowed to access based on his access federation and sport related access rights.

4.1.1   Details

Users must navigate the **Athlete Registration** search screen before they can modify any participant details. By clicking on a row in the grid or on the *Add Athlete* button, users reach the details tab with fields described in the following table. Yellow fields are always mandatory to fill out on creation or update of an athlete.

Field	Format	Searchable	Comments
Basic Information			
Athlete ID	number	Yes	automatically assigned on participant creation
Category	*Athlete* or *Guide*	Yes	A 'guide' more globally stands for any kind of competition partner (e.g. cycling pilots or football 5-a-side goalkeepers)
SDMS ID	number	Yes	If the athlete is registered in the IPC SDMS, please enter here its SDMS ID for later connection of SDMS Japan and IPC SDMS.
Career Status	*Active*, *Historical* or *Retired*	Yes	always set to active on creation, must be changed at *Career Status* tab

Personal Data			
National Federation	drop down [federation]	Yes	obligatory, loaded from federation basic table
Club Affiliation	drop down [club]	Yes	optional, loaded from club basic table
no Family Name	checkbox	No	if athlete's name has only one part
NF Licence Number	text (30)	Yes	any licence/reference number that the national federation has used
Family Name (Japanese)	text (30)	Yes*	family name in Japanese spelling
Given Name (Japanese)	text (30)	Yes*	given name in Japanese spelling
Family Name (English, passport)	text (30)	Yes*	family name exactly as written in the passport in English spelling
Given Name (English, passport)	text (30)	Yes*	given name exactly as written in the passport in English spelling
Family Name (English, preferred)	text (30)	Yes*	the version of the family name that will be used in all (English) SDMS output. May be left blank on entry, will then be identical to English passport name
Given Name (English, preferred)	text (30)	Yes*	as above
Gender	*Male* or *Female*	Yes	
Date of Birth	date [yyyy-mm-dd]	No	
Photo	Picture File	No	Displays photo of athlete and allows upload from user's hard drive or local network. For photo requirements, refer to chapter 2.5.
Nationality Information			
The fields & formats of this subsection match the structure of the IPC SDMS for later data exchange.			
Nationality	drop down [country demonym]	No	*Japanese* by default
Nationality Status	read-only	No	set by system or by the user under nationality validation, see 4.3
Validation Document	*Passport* or *ID card*	No	type of referenced document
Date of Expiration	date [yyyy-mm-dd]	No	Date this document stops being valid as determined by the issuing authority. The checkbox to the right may be ticked if the referenced document never expires.
Passport/ID Card No	text (30)	Yes	ID number of referenced document
Copy of passport/ID card	PDF file	No	To upload a scan of the referenced document from user's hard drive or local

			network. Once uploaded, the document can be downloaded or replaced.
Previous NPC Representation	drop down [NPCs]	No	only applicable for athletes who have previously competed for other NPCs
Eligibility			
Intellectual impairment	checkbox	No	Checkbox to be ticked if athlete has an intellectual impairment. If ticked, next field is enabled automatically.
INAS Classification No	text (16)	No	For athletes with an intellectual impairment, the INAS Classification No can be entered here for further references
Sport and Sport Class Registration			
Only available and displayed at registration of a new athlete. Any further modification must be done at the *Sports & Classes* tab.			
Sport	drop down [sport]	Yes	
Sport Class	drop down [class]	No	populated upon selection of a sport
Additional Information			
Comments	text	No	further free text information

(*) if application is currently translated to Japanese/English.

The *searchable* column indicates whether this field is offered as a criterion on the search form. The *family name* and *given name* fields of the search form will match in either the passport or preferred name fields, but only display the preferred name, which may sometimes lead to unexpected search results.

🗑 Delete   **Caution:** The 'delete' button is accessible from the participant detail menu. An athlete may be completely deleted from the system once the user confirms a security question. **On deletion, all related classification data and files are irrevocably removed from the system.** In case, you want to remove just a duplicate, it is highly recommended to use the merging tool in the duplicate control section, see 4.4.

How To: Register a new Athlete   **+ Add Athlete**

1. Obtain a blank athlete detail form (Figure 4.1) by clicking the **Add Athlete** button (from the search form) or the **New** button (from the details page).

Figure 4.1: A blank athlete registration form including file upload information

2. Referring to the athlete details table, complete all fields to the best of your knowledge. Yellow fields are mandatory. Cross-check spelling and information with the uploaded documents, in particular the athlete family and given name according to their passport (in Japanese and English spelling).

3. Select the sport of the athlete from the drop down box *Sport*. This is required to give the responsible federation and their classifiers access to this athlete for classification input. For athletes, you must also register a class. Class status will be automatically set to *New*

on national level. If the new cannot be derived from the athlete's impairment, it is recommended to assign the pseudo class *N/A*, if available.

4. Click **Save** to create an Athlete ID for the athlete.

Photo and other documentation can be uploaded during or after first registration anytime. Click the ⬚ icon to select the athlete's photo from your local hard drive or network. The requirements for photos are described in chapter 2.5. For quick reference, the photo should be in passport size format, around 7:10 in aspect ratio, and saved as a JPG file smaller than 250 kB. Click the 🅠 Browse ... icon to select the athlete's passport copy or IPC nationality letter in PDF format from your local hard drive.

After an athlete has been registered, there may be reason to change the details, for example because of errors or omissions in the data entry process, name changes due to change in marital status, etc.

How To: Change Athlete Details

1. Search for the athlete in question from the **Athlete Registration** search form, and click the row in the search grid corresponding to the athlete to enter the athlete details' page.
2. The data stored about the athlete will appear in the form. Edit the incorrect or missing details and click Save.
3. If you change the Japanese and/or English passport name and/or the NF of the athlete, a dialogue box (Figure 4.2) appears to ask you to confirm the reason for the name change. Choose one of the three supplied reasons (error, marriage or nationality change) and, if applicable, enter the date from which the change should be effective.

Figure 4.2: Name Change Dialogue Box

4. If you change the name of the athlete, please bear in mind that changes only apply to the field you enter, i.e., a change of passport name will not change the preferred name, which is how the athlete will be named in publications. Hence, in case of a name change, please change both fields unless there is a specific reason not to; e.g. the athlete wishes to be known under the old name but the passport issuing body will only recognise the new name.

4.1.2   Sports & Classes

This section is designed for non-classifier users who wish to have a quick overview of the classes the athlete is eligible for, as well as entering and removing the class of athletes which have not yet been

Figure 4.3: Classificiation Overview

classified by national or international panels (*New* class status). More detailed manipulation is possible from the Classification section, see chapter 4.2.

All current classifications, with sport, class, and level of classification of the athlete are displayed in this table, alongside the status of the athlete within the class.

A new sport/class can be added by clicking the ⊕ icon and submitting the small form appearing, while an existing class can be removed (archived) by clicking the 🗙 icon. New classes can only be added if the athlete is not already classified; only classes with status *New* can be removed unless it is the last class of the sport.

For any further classification specific issues, please refer to IF rules.

4.1.3   Career & Name Changes

The content of this tab is separated into three parts.

The upper part allows the user changing the career status of the athlete. In order to change the status, enter a reason for the career status change, select the new status and **Save**. Retired and historic athletes can be or are automatically excluded from search grids and reports. Historic athletes can be excluded from user's view by removing the operation *find historic athletes* from the user's roles (see chapter 7.3.3).

The second part reflects all the career status changes including the provided reason and timestamps.

The lower part reflects the changes of the athlete's name and NF association. Each (passport) name change is registered in the database to ensure that the identification of the individual for a particular athlete ID never changes. The table here only shows the changes due to marriage (M) or nationality (N) changes, but all error (E) related changes are still registered in the backend and can be requested by the SDMS administrator.
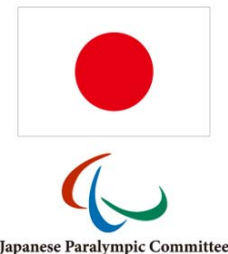
4.1.4   Biography

This tab is designed for adding, modifying and removing data about the athlete's life to date. This is particularly designed for media and fan interaction with the athletes, allowing them to get to know the athletes' personality beyond a statement of their results.

The biography tab is designed to be easily modifiable (see chapter 3.1.2) in case fields need to be added or removed, and should hopefully be self-explanatory. Fields are labelled in the left-hand column and a more detailed explanation, if necessary, is given in the right-hand column.

A few of the predefined biography fields are used to populate the public team rosters for an upcoming event (see chapter 5.1.3). These fields together with their field codes in brackets are:

- City/Town of Residence [RESCITY]
- Occupation [OCCUPATION]
- Type of Disability [DISABILITY]
- Name of Guide [GUIDE]

If any of these biography fields are deleted by mistake, ensure that they are re-registered with the field code as reflected in the brackets to publish relevant information on these team rosters.

4.2 Classification

More detailed information about classification, including signed forms, information about historic classifications, details about the classification event, and so forth, are accessed from this menu. This also allows for restriction of access, as Paralympic classification involves sensitive medical information that should ideally be accessed by as few people as possible.

The section is organised by athlete, with a specifically designed search form for classification relevant information. The athlete specific screen is then split into three or more tabs: the Classification tab for viewing, modifying, adding, archiving and deleting classifications, the Profile tab where medical information about current classifications may be added as text, and one Documentation tab per sport for upload of PDF scans of forms and sheets.

Only active athletes are listed in the classification search screen. To open the classification of a retired or historic athlete, open the personal detail page and directly navigate to the athlete's classification with help of the 🏃 icon.

4.2.1 Classification Search Form

In addition to the fields displayed on the athlete search grid, the grid also shows the sport and class of each athlete. The table below lists the possible search fields; none are compulsory, by default the grid displays all athletes which the user can access. Only active athletes are displayed in this search; if a user wishes to access information of retired athletes, please use the registration search grid and navigate to the classification of the retired athlete from the personal detail page via the 🏃 icon.

Field	Format	Comments
Athlete ID	integer	
Family name	text (30)	searches for passport and preferred versions
Given name	text (30)	searches for passport and preferred versions
Gender	drop down [gender]	
NF	drop down [federation]	
Sport	drop down [sport]	
Class	text (50)	text search (e.g. F3 would find F34, F35 etc)
Licence	text (30)	athlete's national licence or NF number
Classification Date*	date	exact date of classification
Class Status*	drop down [N/R/C]	
Year of Review*	integer	
Level of Classification*	drop down [national/international]	
Classifier*	text (50)	searches for all classifier fields (1-3)

*Data for these fields only appear when the *Grouping* parameter is set to *by class*.

By default, each row represents one athlete. This behaviour can be changed by setting the advanced search parameter *Grouping* to *by class*. Then each class of each athlete in each sport is displayed in a row. However, selecting an athlete opens the classification detail page including all sports the athlete is registered in and the user is granted to access.

<u>Download of classification cards from classification search grid</u>: Filter and select athletes by ticking the checkboxes on the left and click **Download Classification Cards**. A ZIP package with classification cards of all athletes will be downloaded in two versions: each side of the card in credit card size as separate PDF page and both sides of same size on an A4 page.

4.2.2 Classification Details

Figure 4.4: Classification Details (screenshot)

When opening an athlete's classification details page (Figure 4.4), each classification instance has its own row in its respective section (*Current* or *Historical*). Any current classification not with *New* status should be accompanied by documentation and confirmation from classifiers. If the athlete's class changes, this should be documented by adding a new classification row and moving the outdated one to *Historical* status.

The icons on the left as well as in official reports from SDMS Japan reflect level of classification:

⬜🔴 National (Japanese) Classification

🌐 International Classification evaluated by the responsible IF

Classification Cards: Clicking the button **Classification Cards** prints a PDF document with classification cards for all sports the athlete is currently registered in. Size of such a classification card is like a standard credit card (85mm x 54mm), with front and back of each card as separate PDF page.

In the table below, those fields are listed in the format that can be accessed from the *New Classification* form (Figure 4.5) when defining a new classification for an athlete.

Field	Format	Comments
Level of Classification	radio buttons	*National* or *International*
Sport	drop-down [sport]	
Class	three drop-downs [class]	Populated on selection of a sport. A new classification is created for each class.
Class Status	*Confirmed*, *Review*, or *New*	Applied to all selected classes.
Year of Review	Year	Year of scheduled review.
Classification Date	date [yyyy-mm-dd]	**Tipp**: the small '+' opens a drop-down to indicate the order of classification panels of the same day.
Classifier 1-3	text (50)	Name of acronyms of the responsible classifier(s)
Reason of Re-Classification	drop-down [BAC, MRR, PuEC]	Only if applicable: **BAC** (Board of Appeal of Classification) **MRR** (Medical Review Request) **PuEC** (Protest under Exceptional Circumstances)
Reason	drop-down boxes [class group, category and event type]	only appears in the classification table, restricted to the selected sport

Following additional fields appear only in the classification table, not in the registration form for new classifications:

Field	Format	Comments
Date of Classification order (+)	integer	Click the small '+' next to the classification date field. A little drop down allows to indicate the order of classification panels of the same day with the numbers 1-3.
Limitation (group)	drop-down [class groups]	Limits the class to the selected class group (see chapter 3.2)
Limitation (category)	drop-down [event type categories]	Limits the class to the selected event type category (see chapter 3.2)
Limitation (events)	drop-down [event type groups]	Limits the class to the selected event type group (see chapter 3.2)

When the outcome of a recent classification panel shall be registered, the old information currently appearing under *Current Classification* should be kept in the history. Therefore, the section of current classification has no delete button. Users may archive current classifications by selecting their row(s) and clicking the **Move to History** button; the classification then ceases to take effect on any future results, but the record remains in the database, can be viewed from the classification analysis, and affects past results. If a classification is added in genuine error, it may be deleted from the historical section by selecting its row and then clicking the **Delete** button.

Figure 4.5: Adding new classes (screenshot)

How To: Report a Change in Classification

1. Search for the athlete from the Classification search form using any criteria available. Click on the row of the athlete to bring up the *Classification Details* screen.

2. Click **New Classification** to bring up the associated entry form.

3. Using the table of fields in this section as reference, enter the details of the athlete's new classification. Sport, one class, the new status and the date of classification are required fields; sport, class and status may not be changed once added.

4. Add any special restrictions to group, category and event(s) in the *Limitation* column.

5. Select the previous class(es) by clicking associated tick box(es) in front of the row(s) and click **Move to History**. All selected classes are moved down to historical classification so that only the most recent classification shall appear in the upper table.

6. If you have any documents to upload, go to the *Files* tab of the relevant sport.

7. Click the **Browse ...** or the icon (if a file is already attached) in the row of the relevant document, e.g. classification sheet, medical form, TSAL form, protest sheet.

8. Select the document from your local hard drive or network, and click Open. If successful, the file has been immediately uploaded and any previously stored file under this category is automatically moved to the file archive underneath.

4.2.3   Classification Profile

The *Profile* tab displays information about the athlete's medical details. This tab is organised in sections by sport, with each section having text fields, drop-down menus or checkboxes specific to the classification report compiled by classifiers in each sport. When data are changed and saved, previous values are overwritten.
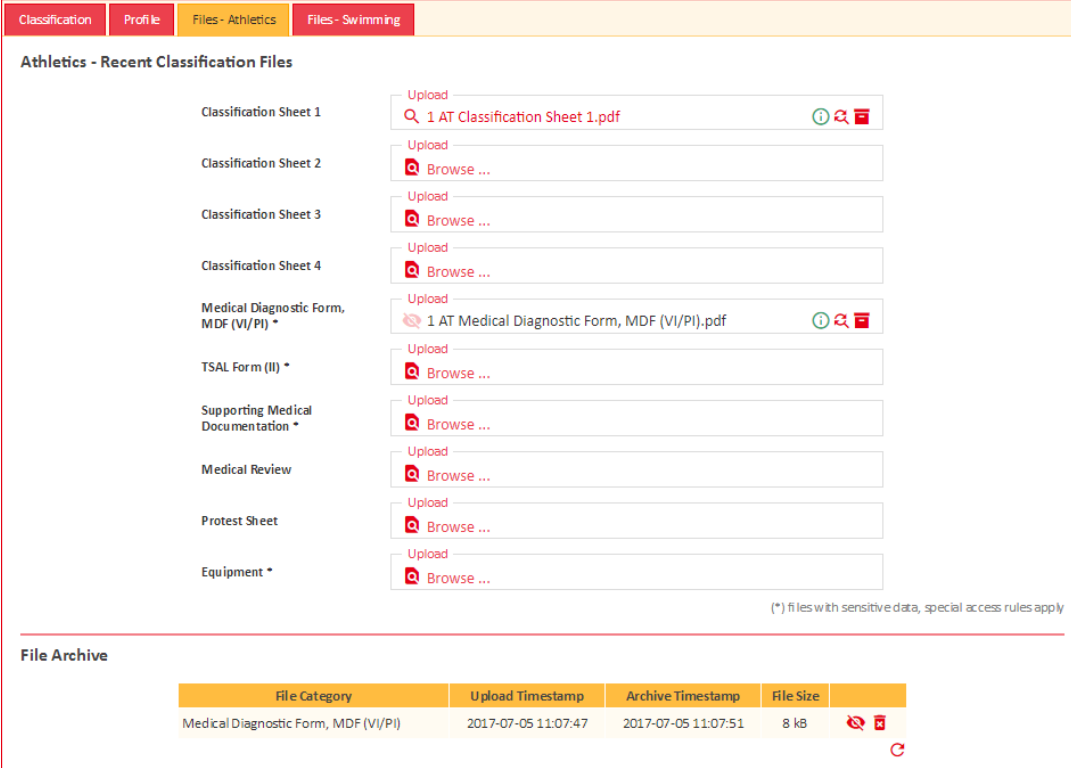
The fields can be defined for all or for a particular sport in the section *Application Sections > Config > Additional Fields*, see chapter 3.1.2. This allows a high degree of flexibility to store important data separately from the generics (class and status) and the PDFs. Information from these fields are exportable in the classification master lists reports (see chapter 6.1).

4.2.4   Documentation

The Documentation tab allows for uploading and accessing sheets and forms relating to classification issues. Each athlete has one files tab per sport they are registered in.

The upload process is described in the How-To *Report a Change in Classification*. The files are stored in one of two sections, recent or historical. The section about recent classification files is separated into several containers. These containers, like the classification profile fields, can be flexibly defined (chapter 3.1.2).

In the section about the additional fields, there are two sets of file categories. The first one, called *Classification Files (basic)*, allow the flexible up- (🔍) and download (🔍) by any user who is granted to access this section. In Figure 4.6, these are the classification, the protest, and the medical review sheets. The second one is called *Classification Files (sensitive)* and is indicated in the classification file section with an asterisk (*). Users with the basic rights to upload files can perform the browse and upload function but are not able to read the file thereafter (🚫). For access to files uploaded to these sensitive categories, the user must fulfil several conditions that are described further down.

Figure 4.6: Classification Documents - upload and access

> ***How To:*** Protect and access a sensitive classification file, e.g. a medical diagnosis.

Some files which have to be accessed by classifiers in particular contain very sensitive data about the athlete's conditions. Due to data protection laws these files must not be accessible all the time and only by a controlled group of persons.

These files should be uploaded to a file category that is defined as *sensitive*. Sensitive categories are marked with an asterisk (*) in the documentation section. Basic users can upload but not download (🚫) a file associated with such a category.

Classifiers require reading the file for the upcoming classification panel. In order to grant one or more classifiers to access the sensitive files, following steps must be undertaken:

1. Under *Calendar > Competitions*, the upcoming classification panel must be registered with an end date later than today (see chapter 5.1.1).
2. The particular athlete must be registered as participant (see chapter 5.1.2).
3. The classifier must be registered as such under *Calendar > Officials* **and** his username of his SDMS Japan account must be included in his classifier profile (see chapter 5.2).
4. The classifier must be registered as classifier of this panel (see chapter 5.1.2).

With help of these settings, the system checks that the user is a registered classifier for the upcoming panel so that he requires and gets access to all documents uploaded to SDMS Japan of those athletes who undergo classification at the same panel.

As soon as the classification panel has passed − this means, the end date of the classification panel is in the past − the respective classifiers won't be able to access the files anymore. The files are again fully protected unless athletes and classifiers are assigned to a new upcoming event.

When immediate action is required for a particular classifier or athlete, the respective person just needs to be unassigned from the panel.

4.3   Nationality Validation

This section is only necessary to consider for athletes who are going to compete at international competitions, in particular in any IPC sport, IPC sanctioned or even the Paralympic Games, in relation to the IPC Athlete Nationality Policy.

The Nationality Validation screen offers a more concentrated view of data relevant to an athlete's ID and nationality, as well as any changes that may have been approved by NPC Japan (or the IPC for internationally competing athletes). The search screen offers filters by athlete ID, name, document number and nationality, as well as nationality status, which means that, for example, the NPC can quickly find all cases which have to be reviewed under national or international nationality regulations.

In addition to the search by nationality status, you can also search for all athletes that may potentially have nationality issues, which returns athletes where the NF users have registered they have competed for another country before. In such cases, a release document from the previous NPC may be required.

The details screen, available from clicking on an athlete, has a section *Nationality Information* which duplicates what is also available from the *Personal Details* screen, as well as a *Nationality Data History* section which details all changes made to nationality documentation, with a timestamp, and also a copy of a scanned document if uploaded. Any change in passport information is registered here. Likewise, replaced nationality documents, e.g. passport copies, are still available from this page, while only the most current version is accessible from the athlete's detail page.

Registration administrators are also allowed to change the nationality status from this screen, as they cannot do this directly from the *Personal Details*.

4.4 Duplicate Control

The duplicate control functionality is used to generate PDF reports indicating possible duplicate entries in SDMS Japan. The search is customisable and automatically restricted by user data access. Additionally, a merging tool allows to easily remove duplicates by merging relevant information to a single profile.

The search criteria are specified by the following fields:

Field	Format	Comments
Sport	drop down [sport]	
Federation	drop down [federation]	
Equality criteria		
Family Name (Japanese)	tick box	These are default selections if no other criteria are applied.
Given Name (Japanese)	tick box	
Family Name (English, passport)	tick box	Does not consider the English preferred names.
Given Name (English, passport)	tick box	
National Federation	tick box	
Gender	tick box	
Date of Birth	tick box	
Passport/ID Card No	tick box	

The criteria work in conjunction − the search only returns items that are equal on all selected criteria, within any possible restriction by NF and/or sport.

Clicking **Search** opens a new tab in the browser with a PDF of the matches. Except for sport, all personal data which can be searched is also displayed here, along with the career status of the athlete.

Most users have additional access to the **Athlete Merging Tool**, a 2-step process to merge the details of two different profiles (= two different athlete IDs). Despite the existence of this tool, users are strongly encouraged to search for already existing athletes in SDMS Japan when registering new athletes; the tool cannot be expected to work correctly in every possible case, particularly if an athlete has been registered for a long time and several different users have asynchronously updated data for both IDs.

After entering the IDs of the two athletes to be merged and clicking **Compare**, SDMS Japan displays the data of both entries for the user to manually check whether the data matches up.

The **Athlete Merging Tool** displays a detailed description of its functionality and the processes carried out when clicking **Merge,** as can be seen from Figure 4.7. The first set of radio buttons lets the user decide to keep which athlete ID and associated personal information. The second pair decides on the photo. The last set allows the decision which classification data to keep. The middle radio button merges the sport classification including all profile values and uploaded files. It is highly recommended to review and control the profile of the athlete after the merging process has been completed.

Figure 4.7: Athlete Merging Tool with potential decisions

4.5 Classification Mass Import

With the continuous growth of sports for people with an impairment, more and more athletes are classified in a single panel whose outcome needs to be registered in SDMS Japan. For simple classification changes, it might be time-consuming to follow the steps as described in chapter 4.2.2 for each athlete one by one.

The classification mass import offers a method to massively change the basic values like class, class status, date, year of review and potential limitations with just a few clicks.
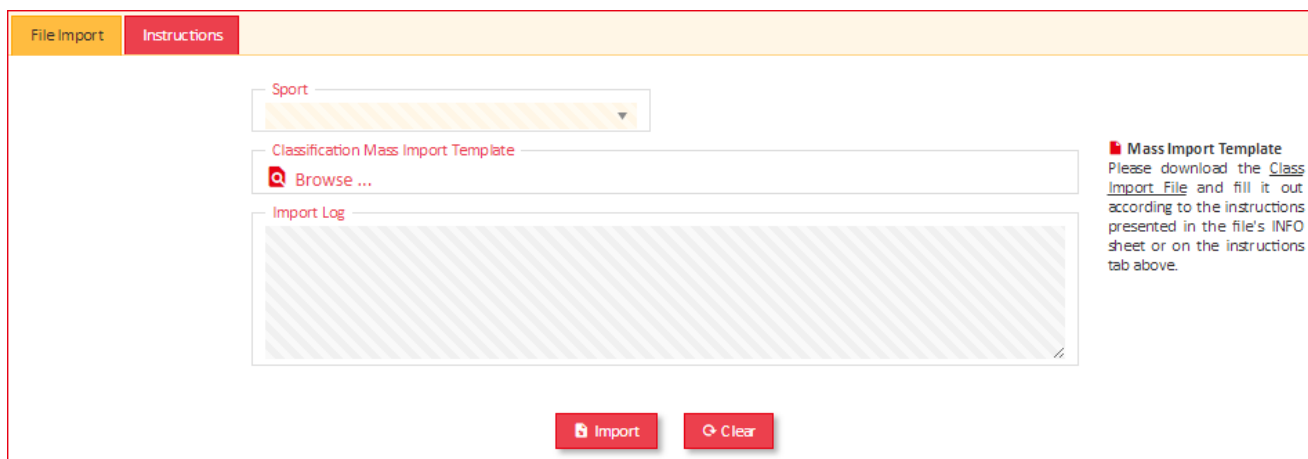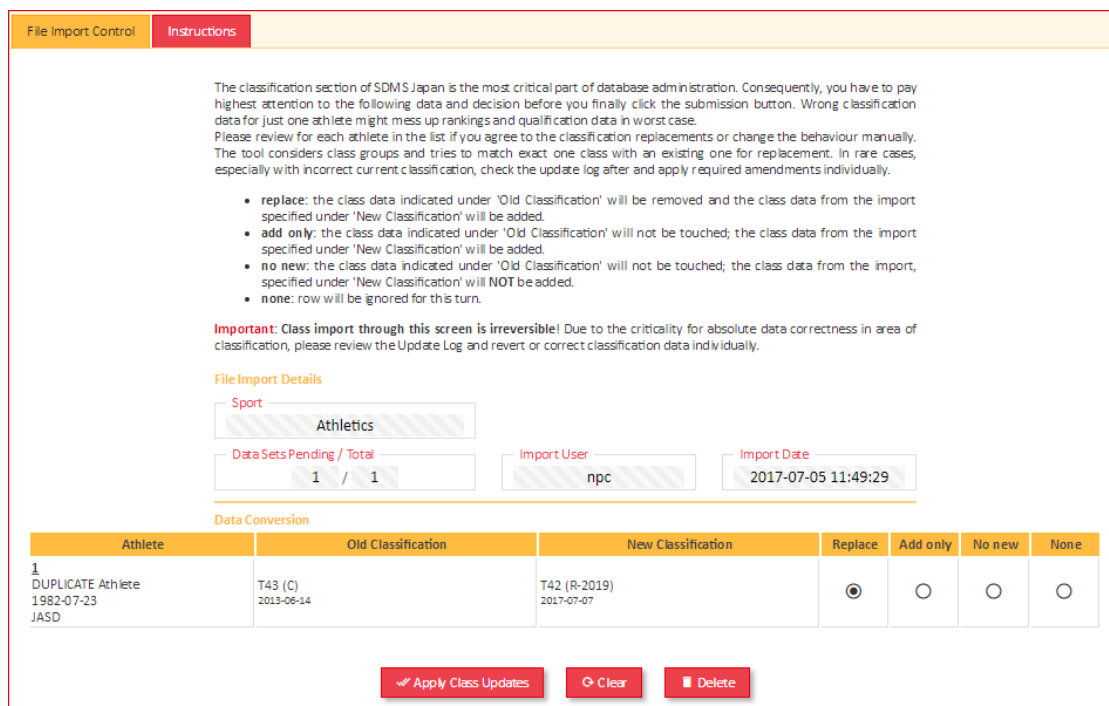
Figure 4.8: Classification Mass Import

It is highly recommend reading the *Instructions* and downloading the Excel template from there. Basically, this template has to be precisely filled out with the relevant information like the Athlete ID, class, class status, and date of classification, year of review, names or acronyms of responsible classifier and the codes for class limitations.

> *How To:* Use the classification mass import.

1. Download the Excel template from the tab *Instructions* and fill it out according to the instructions. The examples in the template might help to understand. Save the file.
2. Open the tab *File Import*, select the sport and browse for the saved template. Click **Import**.
3. The *Import Log* indicates any potential problem like an unknown athlete ID, wrong class name, an incorrect date format and similar. When errors are detected, correct them,

save the file again and repeat step 2 until the import is completed and the tab *File Import Control* appears, see Figure 4.9.

Figure 4.9: File Import Control

4. The import does not immediately replace classification data. Actually, the control view shows one athlete per row with his current (*Old*) classification and the data uploaded from the template (*New*). Sports with several classes like athletics and swimming distinguishes the potential replacement by class group (see chapter 3.2).

5. For each row, decide to (1) replace the current classification as stored in the database with the new one uploaded from the template (by class group), (2) only to add the new class, (3) to ignore the new class, necessary by errors, (4) to ignore the data for now. The replacement (1) is set as default value.

6. Once the decisions are made, click **Apply Class Updates**. Now all changes are irreversibly applied to the SDMS Japan classification table! Replaced classification is automatically moved to the history section, the new classes appear under *Current Classification*, see chapter 4.2.2).

7. When all data are processed, an import log shows the final processes. This import log can be reviewed anytime later from the mass import search grid.

It is important to understand from the instructions above that the upload of the template with data does not immediately change any classification values but the user is obliged to review the proposed replacements before the data in the classification section is affected.

> **Caution:** The class updates process with click on *Apply Class Updates* is irreversible! This means that the old classification if replaced cannot be massively restored. However, the user still has the option to perform the necessary adjustments for each athlete individually. The import log acts as a helper to know which athletes were affected and which classes were replaced or added.

4.6   File Access Log

Each time when any user of SDMS Japan opens or downloads a classification document from the classification detail page of an athlete (see 4.2.4) or generates a package with classification files for a major selection of athletes (see 6.2), the access to these files are logged here.

The access log finally contains the information about which user identified by the username opened/downloaded which file (file ID and file category) for which athlete (ID, family and given name) at which exact time. This information is required to fulfil national obligations to prove and monitor the accesses to these files, especially in case of sensitive information like the medical documentation.

5   Calendar

This chapter describes the menu items related to the administration of events and attendance of classifiers and technical officials to competitions or classification panels. The calendar allows for panels in all sports to be entered, including athletes and classifiers to participate that also influences the access rights of SDMS Japan classifier users to open sensitive files of these athletes (see chapter 4.2.4).

5.1   Competitions

From this screen, competitions or classification panels not associated with a competition can be created and deleted. Each event has one or more sports associated with it that participants (athletes and classifiers) can be assigned to.

An event is uniquely identified by its 6-character code, which is generated during the registration in SDMS Japan. This code has the format SSCCDD, where the digits signify

- SS: the sport code for the event
- CC: arbitrary combination of letters and numerals that may reflect the event level, name, or city.
- DD: last two digits of the year of the event, derived from event start date.

The first and the last parts of the code are automatically generated based on the select sport and season of the event. The middle part can be either specifically defined. If not defined, the system will automatically find out a unique but random combination.

A new competition or classification event is created by clicking **Add Event** from the competitions & events search grid. The button **Prepare Officials Request** is discussed in chapter 5.3.

The following data is available to enter from the details screen.

Field	Format	Searchable	Comments
Basic Information			
Sport	drop-down box [sport]	Yes	Only available on new registration. Defines the sport that is handled at this event. In case of multi-sport events, further sports can be added after first submission; the first sport defines the initial two digits of the event code.
User-defined code	text (2)	Yes, part of event code	Only available on new registration. Defines the middle two digits of the event code. Keep blank to let SDMS Japan find a random code.

Competition Code	text (6) A-Z or numbers	Yes, also as substring	Auto-generated based on sport, user-defined code and competition start date.
Type	drop-down [value list]	Yes	see chapter 3.1.1
Responsible NF	drop-down [federation]	No	defines which NF is responsible for this event and defines the editing rights
Name, Time and Location			
Name	text field (150)	Yes	Name of event. Must be unique in combination with start date and city.
Dates	two date fields	Yes, as a date period	Start and end date of event. End date is used to determine how long a classifier can access the classification files of the athletes.
Cancellation	check box	No	
City	text field (25)	Yes	
Venue	text field (100)	No	e.g. name of arena, stadium, lake
Country	drop-down [country]	Yes	
Contact Information			
Organiser	text field (100)	No	Name of organising body
Official Website	text field (100)	No	Competition website. No validity checks are performed, the user must make sure they enter a valid link
Contact Name	text field (100)	No	Name of contact person
Contact Email	text field (60)	No	Email address. Checked for valid format.
Postal Address	text field (200)	No	
Phone, Fax & Mobile	text fields (5, 10, 20)	No	Text fields for 'area', 'city' and 'local'. Valid symbols: Area: 0-9 and + City: 0-9 and brackets () Local: 0-9 and spaces
Comments	text field	No	Other comments
Publish Team Roster	checkbox	No	see chapter 5.1.3

5.1.1 Sport-specific management

Once the event is saved, two more tabs appear, labelled *Sports* and the name of the sport initially selected during first registration.

Figure 5.1: Adding more sports

To register a new sport, go to the *Sports* tab and click the 🔴 icon. A small dialog opens to select the sport and specify, if needed, the sport-specific competition dates and venue. Upon submission, the sport will appear in the list of registered sports and another tab with the sport name is added.

The list of sports to review is not filtered by the user's sport restriction.

Each sport detail tab has the following information. All fields are optional but might provide sport-specific details, in particular in case of a competition.

The section about start/end of classification and class groups for classification have a further meaning for the classifiers attendance request process, see chapter 5.3.
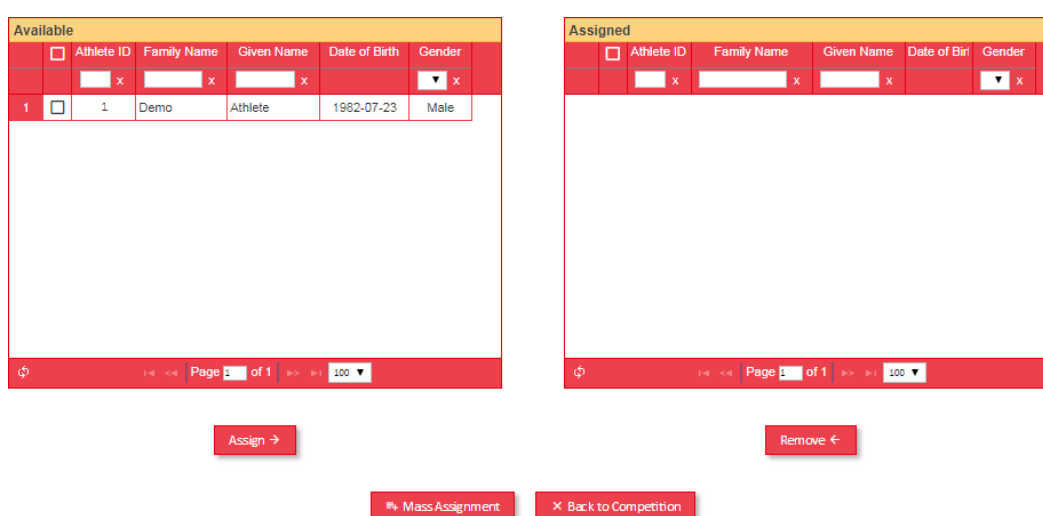
Field	Format	Comments
Event details		
Competition Code	text field, unmodifiable	These fields are included for cross reference and must be modified at the competition details tab.
Competition Dates	text field, unmodifiable	
Sport-specific details		
Sport	text field, unmodifiable	Name of sport for reference
Sport Dates	Date fields	Start date and end date for this sport at the competition. Only useful for multi-sport events with sport-specific start and end dates.
Venue	text (100)	Venue for the sport (e.g. name of swimming pool for a multi-sport event)
Entry Deadline	date field	Last date entries will be accepted. No check for whether this is before start date
Participation	drop-down	Specify the entry format: open, closed or by invitation
Indoor/Outdoor	drop-down	
Competition Classes	text (100)	List of classes for a competition (e.g. only 50's in athletics or only VI (S11-13) in swimming)
Course (Swimming)	drop-down	Long course, short course, or open water.
Dates of	date fields	If classification is offered for this sport (or the

Classification		referring event is a pure classification panel), enter its start and end dates.
Class Groups for Classification	tick boxes [VI, PI, II]	If classification is offered for this sport, specify which impairment categories are considered. It affects the pre-selection of potential classifiers for the classifier availability request process (5.3).
Courses Offered	drop-down	If a teaching course is offered at the competition, and for what kind of officers. Possible choices are: Classifiers, Technical Delegates, Technical Officers, or combinations classifiers & officials, delegated & officials, or all three
Dates for Courses	text (100)	dates of the available courses, entered as text
Additional Info	text	further comments, particularly regarding courses and classification schedule

Additionally, sport-specific contact details can be registered. The fields are identical to those from the general detail page of the event without organiser and website reference.

5.1.2   Assigning Athletes and Classifiers

At the bottom of the sport-specific event page, there are two buttons labelled *Athletes* and *Classifiers.* Each of them opens an assignment page to register athletes and classifiers, respectively, in this particular sport for the current event.

Figure 5.2: Athletes assignment to an event

On the left side, all available athletes/classifiers as registered in SDMS Japan are listed. The right table shows all registered (assigned) persons to this particular competition sport. Registration or removal is handled by either moving a row by drag&drop from one table to the other one, or by selecting several persons and clicking either the button **Assign** or **Remove**.

Both assignment pages additionally offer the **Mass Assignment**. It opens a dialogue box to enter or copy&paste from an Excel table a list of athlete or classifier IDs. The separator between each ID can be any character like line breaks, the comma, semi-colon etc. When the **Assign** button in the dialogue is clicked, SDMS Japan tries to find all athletes/classifiers with the entered IDs and assign them to the event in the given sport. Invalid numbers will be ignored and the user will be informed about that to review potential typing errors or registration information of the associated person.

The user might be reminded the criteria to grant a classifier access to an athlete's medical documents outlined in chapter 4.2.4: only if the classifier and the athlete are assigned to the same event, the classifier registered as SDMS Japan user is able to open files categorised as *sensitive* for this particular athlete. As soon as the event has passed, the files are automatically locked unless classifier and athlete are assigned to a new event in future. It is not necessary to manually undo the assignment for past events.

5.1.3   Team Roster

Besides the classification master list widget (see chapter 6.1.5), a second widget is designed accessible by any public user and ready to be embedded into any website of NPC's choice.

This page is a simple static overview of all participants assigned to a specific competition by sport as outlined in chapter 5.1.2. In order to activate the online team roster, the checkbox *Publish Team Roster* on the general detail page of the respective competition must be checked. Then and only then the following link works properly:

https://db.ipc-services.org/sdms-jpn/web/roster/[:competition]

with [:competition] representing the six-digit competition code.

The team roster is composed of a sport overview (only if it is a multi-sport event), and legend of the nine items that is shown for each athlete, and the participating athletes grouped and sorted by sport with the following information and the photo uploaded to SDMS Japan:

1. Japanese name of the athlete

2. Gender

3. Age in years, based on the first day of competition (given in brackets)

4. Current address (based on the biography value *City/Town of Residence*)

5. Work place (based on the biography value *Occupation*)

6. Affiliation (based on the club associated with the athlete)

7. Disability type (based on the biography value *Disability*)

8. Class(es) from the current classification in the respective sport

9. Competition partner if any (based on the biography value *Guide*).

As indicated in the list above, some information are extracted from the biography pages of the athletes. It is important that these biography fields are not deleted from the *Additional Fields* settings or that they are registered with the same field code as indicated in chapter 3.1.2.

5.2   NPC/NF Officials

Officials of the NPC or the national federation can be classifiers, technical officials or judges. While all groups are/ can be handled in the competition availability request process (see chapter 5.3), classifiers in particular are assigned to competition sports (see chapter 5.1.2). Similar to the athletes, each classifier obtains a unique ID holding a very few personal details and a list of his/her roles active and inactive roles.

Field	Format	Searchable	Comments
Personal Data			
Official ID	number	Yes	automatically assigned on registration
Family Name	text (50)	Yes	separate fields for Japanese and English
Given Name	text (50)	Yes	separate fields for Japanese and English
Gender	radio buttons	No	male or female
Date of Birth	date	No	
Country of Residence	drop-down [country]	No	
Email	email (50)	Yes	correct email address of the classifier; required for availability request process
Application	text (50)	No	see comments below

Username			
Mobile Phone	text (20)	No	
Landline Phone	text (20)	No	
Photo	image	No	optional, same requirements as for athletes
Comments	text	No	
Roles			
Sport	drop-down [sport]	No	
Category	drop-down	No	Classifier, Technical Official, Referee, Judge, Linesman (depending on sport)
Impairment	drop-down [VI, PI, II]	No	Obligatory for classifiers; identifies in which impairment category the classifier is educated and allowed in assessing athletes. It is used to pre-select the classifiers based on the offered classification panel, in particular which group of athletes are going to be classified (see chapter 0, field *Class Groups for Classification*)
Activity	*active* or *inactive*	No	Set to *inactive* to avoid the classifier as available in assignment pages or for the attendance request process
Languages			
Name	text (50)	No	Name of language the official is skilled in (English and local)
Skill	drop-down	No	Skill level: native, fluent, good, basic

Each official must retain at least one role and one language. During first registration, the first role is registered and automatically activated. In addition, the native language is registered.

After submission of first registration, further roles and languages can be added by clicking the ⊕ icon under the corresponding table. Once a role or language is registered, it cannot be edited (except the activity status for roles and the skill level for spoken languages) but deleted (🗙) and newly registered if necessary.

Classifier Registration vs Classifier User Account

Classifiers must be registered in this section here separately as (1) not each classifier directly has an account to SDMS Japan, and (2) when the classifier user account is removed, information stored about or from the classifier still should remain in the system.

The picture below visualises the various entities that must relate to each other to grant a classifier access to sensitive files of an athlete.

Figure 5.3: Role of classifier registration to access sensitive files

Both, the classifier and the athlete must be assigned to the same classification event in the SDMS Japan calendar whose end date must be in the future. To allow a classifier user to access now the athlete's classification marked as *sensitive*, the classifier registered here must be linked to the user account. This link is established by entering the username under *Application Username*. Then SDMS Japan knows that the user is a proper classifier (the user group is not involved in this identification) and runs the control algorithm to grant or lock access to the sensitive files. Further information can be found in chapters 4.2.2 and 5.1.2.

5.3   Officials Availability Management

Finding available classifiers, technical officials and judges for an upcoming competition or classification is often a time-consuming and challenging task with a lot of communications when which person might or might not have time to attend.

The process to support the NPC/NF in finding available officials consists of these three steps:

1. The NPC or NF selects one or more upcoming events from the calendar and prepares an email online to request the classifiers availability for each panel.
2. Each classifier can login to SDMS Japan and give feedback of being 'available' or 'busy' with the option to provide detailed comments.
3. When the deadline has passed, NPC/NF reviews the feedback, finally decides on who is assigned to each panel, and closes the process to avoid further changes.

The advantages of this process are that only one email should be sent out by an NPC/NF staff member that is even prepared by SDMS Japan and that any further communication is directly handled inside the application.

5.3.1 Step 1: Preparing and sending the request

1. Go to *Calendar* > *Competitions*. Search and select all upcoming competitions you would like to send out a request for by ticking the box on the left side of each row. Click **Prepare Classifiers Request**.

   <u>Important:</u> If you need to involve classifiers, you need to ensure that all selected events have proper classification start and end dates as well as the impairment categories registered in the particular sport. Without these information, the system assumes that there is no classification panel at all and automatically excludes classifiers from the request.

2. The Request for Officials Availability opens with *Step 1 − Pre-Filter.* This overview shortly summarises how many events were selected and asks which sport should be considered. Certain categories of officials such as classifiers or technical officials can be individually excluded from the next steps. Make your selection and click **Proceed**.

3. *Step 2 − Final Competition and Officials Selection* opens. In the upper half, all valid events are listed automatically shortened from your initial selection. Past events or events without the selected sport are automatically removed. If only classifiers remained in your selection of officials in *Step 1*, events without a classification panel are excluded, too. The remaining events are shown with classification dates and class groups as stored in the sport-specific calendar page, see chapter 5.1.1. If dates and groups are not well-defined, the process might fail. The lower table includes all registered officials (see chapter 5.2) with *active* status in any of the desired roles for the current sport. Classifiers are excluded automatically, if there is no competition with a classification panel in the table of *Selected Competitions*. Otherwise, only classifiers with impairment groups matching those groups of the events remaining. For example, only classifiers with PI education are shown if all selected events are only registered as pure PI classification. Individual events and classifiers can be removed from the lists by clicking the ✖ button in front of the row. Click **Create Request**.

4. In this moment, the system internally creates the request and allows giving feedback for each classifier related to each event (e.g. when five classifiers are requested to give feedback on three events, a total of 15 feedbacks is generated). *Step 3 − Email Information* opens. An email text and a list of email addresses taken from the officials' registration table (chapter 5.2) are prepared and can either be copied to a new email in the email client of your choice or by clicking **Open Email**. This button opens your default email programme (e.g. Outlook) like creating a new email there and sets all email addresses in blind copy (BCC) and your own email address from your user account as recipient. With informing your classifiers via email, the first step of the availability process is concluded.

Important: The NPC/NF should ensure that each official has an account to SDMS Japan and that this account is uniquely linked with the official's profile by saving the username in the official's detail page as indicated in chapter 5.2.

It is always possible to repeat these steps anytime for the same events for all officials. During this process, only those requests are newly created that do not already exist. That is important when new officials have been registered but should be also asked for their availability of an event coming, soon, even if other already provided their feedback.

5.3.2   Step 2: Officials to provide feedback on their availability

The feedback is manageable for officials and NPC/NFs under *Calendar > Officials Availability Management*. Each request set is registered under a unique ID with all events and classifiers included.

The grid offers to search for a specific request set, event or official by name. In the list of the advanced search parameters above the grid, several additional filters can be used. The parameter *grouped by* combines the individual feedbacks together:

Figure 5.4: Search grid of availability requests

- **by request**: The column *Request* shows the request ID for multiple classifiers and competitions/events and reflects all requests generated during a single performance of *Step 1*. The column *Start* [*End*] reflects the earliest start date [latest end date] of all events. The other columns *Requests, positive, negative* and *assigned* counts how many requests (= officials times classifications) were made and how many positive and negative responses classifiers have given so far and how many officials were assigned by the NPC/NF.
- **by official** (see Figure 5.4): Groups the grid by each individual official.

- **by event**: Similar to the grouping by official but each row represents one particular event with all classifiers feedback. In the example of Figure 5.4, changing to this grouping, again two rows would be shown up, but reflecting now each event by name.
- **by feedback**: Each single feedback request is displayed per row with request number, classifier name, and classification name. The column *Requests* will always show '1'.

Further columns can be added to the grid by clicking the ▦ icon. These columns are:

- <u>rej.</u>: Counts all officials available but explicitly not assigned by the NPC/NF.
- <u>Latest Request</u>: Timestamp of the latest request generated.
- <u>Category</u>: When assigned, the category of the official.
- <u>Role</u>: When assigned, the event-specific role of the official.
- <u>Impairment</u>: When assigned, the event-specific impairment group the classifier is responsible for.
- <u>Comments</u>: The individual feedback by each individual.

The last four of these fields only show proper information if the *grouped by* filter is set to *by feedback*. This filter is in particular recommended for **Grid Exports** and deeper analysis.

The grid automatically excludes requests for competitions that have already passed for more than three months.

Users that are uniquely linked to an official's profile via the *Application Username* connection will be automatically redirected to the request detail page for their own person; they eventually do not see the search grid.

Clicking the row brings up an overview table by event and official with buttons to provide appropriate feedback on the availability. Which events and officials are displayed depends on the grouping parameter of the search grid. Clicking the first row in Figure 5.4 would only list the requests of official "Test Official" for all events while using the *by request* method, clicking on the row would bring up all four (two classifiers times two events) combinations like in Figure 5.5.

The official only has three icons to click (the corresponding status in brackets):

☑ click to indicate that you as official are available for this event (*available*)

☒ click to indicate that you cannot attend (*busy*)

✏ click to enter a free text comment that appears in *Feedback by Official*

Figure 5.5: Feedback Details Screen from NPC/NF's view

The traffic lights give a visual overview of the feedback as follows:

○ feedback requested and not provided by the official, yet

🟡 feedback by official that she/he is available

🔴 feedback by official that she/he is not available

🟢 final approved assignment by NPC/NF

5.3.3   Step 3: NPC/NF to review and decide

After a well-communicated deadline has passed, the NPC/NF can review the feedback for a specific request or event by going to *Calendar > Officials Availability Management* and open the request as described in the previous chapter. A screen like in Figure 5.5 provides a full overview about which official is available.

The NPC/NF can also flexibly change the feedback like the officials. In addition following actions are available (new status in brackets):

click to assign the official to the event (assigned)

click to explicitly inform the officials that they will be not nominated (not assigned)

click to reset the availability feedback (requested)

click to close the editing rights for officials for this particular event **and** category

click to re-open the editing rights for officials

Consequently, the only step to be performed by the NPC/NF is to finally assign officials by clicking the 👤✓ icon (which is only available if the current status is *available*).

Based on international standards, several options to specify the classifier's role are available on assignment of a classifier. A dialogue box opens to indicate the category if the classifier is educated in two impairment groups (e.g. PI and II) and which particular role the classifier obtains, e.g. standard classifier, chief classifier or lead classifier. The decision is displayed in the status field, e.g. *assigned (PI)* or *assigned (Chief)*.

Similarly, a dialogue box opens for technical officials to determine a more specific role, e.g. technical delegate (TD).

Once all officials are assigned, the NPC/NF should close the process by clicking the 🔓 icon. It changes to the 🔒 icon to indicate that the feedback process is closed and only NPC/NF can amend the status.

Important: When a classifier is assigned in this view, it is still necessary to manually add the classifier to the event as it was described in chapter 5.1.2 that has an impacts on the access rights of the classifiers to the athletes' sensitive files.

5.3.4   Step 4: Officials to review NPC/NF's decision

The officials can finally review when and where they have been assigned to by opening their request view as explained before.

Officials cannot change the status if they are explicitly assigned to or excluded for a particular event. They cannot change any status or provide any feedback, if the process is closed (🔒).

This means, officials need to contact their NPC/NF for any short-notice changes in their availability to re-open the process or change the nomination.

5.4   Meetings

The meeting calendar is designed to easily register any kind of meetings or conferences of the NPC or its members that do not directly belong to a competition or any other sport-related event.

Such a meeting or conference belongs to exactly one of the following categories:

- NPC Meetings/Events
- NPC Membership Meetings/Events
- NPC Competition Meetings
- NOC Meetings/Events
- External Conferences
- NF Sport Meetings

Each meeting consists of following attributes:

Field	Format	Searchable	Comments
Category	drop-down	Yes	see list above
Responsible NF	drop-down [federation]	Yes	for NPC membership and NF sport meetings
Sport	drop-down [sport]	No	for NF sport meetings
Organiser	text (100)	Yes	for External Conferences
Start Date	date	Yes	obligatory
End Date	date	Yes	optional
Cancellation	tick box	No	cancelled meetings are excluded in reports
City	text (100)	Yes	
Venue	text (100)	Yes	
Country	drop-down [country]	Yes	
Website	text (100)	Yes	
Comments	text field	No	

When the meeting is registered, attendees of this meeting can be registered by clicking the ⊕ icon underneath the table of attendees. Potential national organisations or committees and their staff must have been registered in the *Application Settings* beforehand (see chapter 3.3.4).

All the information registered here can be exported as PDF or Excel report in the SDMS Japan report section (see chapter 6.4).

6 Reports

When administrating large numbers of athlete data, it is often a good idea to print database extracts as PDF or Excel files in a report. These reports can be generated as **Grid Export** from each search table, but the specifically designed report section of SDMS Japan combines data from various tables for more comprehensive reporting.

The Report section is available to both NPC and NF users. NF users can only download data related to their sport's own athletes.

6.1 Classification Master List

The *Classification Master List* is the main report produced by SDMS Japan, and the one with the most customisable options. It can be used to prepare classification schedules for competitions, get an overview of all athletes from a national federation, club, and/or sport. A classification report can only be produced for one sport at a time; therefore, the *Sport* drop-down box is compulsory. The user must be aware that athletes with pseudo-class 'N/A' are excluded from all reports.

The PDF reports generated in SDMS Japan are generic across all sports. They only include the athlete data and some basic information like class, class status, year of review, date of classification and classification level (national/ international) for each athlete.

6.1.1 Competition Search

It is possible to specify the competition/ classification event code for the search (see chapter 5.1). This produces a report for all athletes registered to that event through the sport-specific assignment page (chapter 5.1.2), particularly useful for the preparation of classification schedules. If the competition code is not set, all athletes from the database are considered based on the other criteria.

6.1.2   Other Options

A comprehensive table of all search options follows.

Field	Format	Comments
Core Parameters		
Sport	drop-down [sport]	
National Federation	drop-down [federation]	select by responsible NF (1 or all)
Club	drop-down [club]	select by club (1 or all)
active athletes only	checkbox	If checked, only athletes with career status *Active* are included in the report
load personal status	checkbox	If checked, nationality status, career status and yes/no flag for an uploaded photo are included
Competition Parameters		
Competition Module	*Calendar*	
Competition Code	text (6)	Enter the six-digit competition code from the calendar to limit the list of athletes to those assigned to this event in the selected sport.
Sorting		
Sort Order	by *Athlete Name* or *Athlete ID*	
Additional Columns (only for Excel report)		
General Profile Fields	checkboxes	Lists all classification profile fields that are globally registered for all sports (see chapters 3.1.2 and 4.2.3). Each field checked includes a column with the classification profile information currently stored for all athletes.
Sport-Specific Profile Fields	checkboxes (automatically adjusted based on selected sport)	Lists all classification profile fields that are specific for the selected sport (see chapters 3.1.2 and 4.2.3). Each field checked includes a column with the classification profile information currently stored for all athletes.
General Classification File Containers	checkboxes	Lists all classification file containers that are globally registered for all sports (see chapters 3.1.2 and 4.2.4). Each field checked includes a column indicating whether and when a file for this category has been uploaded.
Sport-Specific Classification File Containers	checkboxes (automatically adjusted based on selected sport)	Lists all classification file containers that specific for the selected sport (see chapters 3.1.2 and 4.2.4). Each field checked includes a column indicating whether and when a file for this category has been uploaded.

6.1.3　PDF Export

PDF reports are printed in landscape format, with a set number of columns varying from sport to sport when you click the *Open as PDF* button. The report is also timestamped and verified with the official logos of the NPC Japan.

From the left, each row includes personal data − Athlete ID, full name (Japanese), full name (English), gender, date of birth − the athlete's current class in each of the major class groups, the class status, and the year of review. If the athlete has different classes for different events and/or disciplines, this is also shown next to the class name. The row concludes with the icon to flag national (Japanese flag) or international (globe icon) classification and the date of classification.

The classification master list report tries to find any inconsistencies in the classification of athletes, e.g. an athlete in a single-class sport like alpine skiing has two classes currently registered. Such inconsistencies are indicated as red message underneath the respective athlete and should be immediately fixed.

6.1.4　Excel Export

The Excel export is similar to the PDF, but meant for internal use and analysis. The athletes are listed in rows by the sorting order specified; as there is no restriction on horizontal space in a spreadsheet, all classification data (profile and file upload information) is displayed in a single row.

This also allows enough space to include the additional columns with registration status and uploaded form data; see 6.1.2 how to include specific information.

In Excel, you may manipulate the report with your own search filters, sorts, etc., but this is spreadsheet-specific and outside the scope of this manual.

6.1.5　Classification Master List Widget

For SDMS Japan, a publicly accessible widget is available that can be accessed on

https://db.ipc-services.org/sdms-jpn/web/cml

Figure 6.1: The public Classification Master List Widget

The widget has a maximum width of 720px and is intended to be included via an HTML <iframe> into any webpage. The public visitor selects the sport and decides on the format as they are a browser version in HTML, a PDF version, an Excel sheet, and the underlying XML as possible outputs.

It is also possible to publish links to these reports on any webpage which might be useful to give the public a direct insight into the current classification master lists of the Japanese national sport federations as all data are directly extracted live from SDMS Japan. The format of the link is

https://db.ipc-services.org/sdms-jpn/web/cml/[:sport]/[:format]

with

- [:sport] as sport code in lowercase, e.g. *at* for athletics or *sw* for swimming. The sport codes are defined in SDMS Japan under *Application Settings > Sport Codes > Sports* (see chapter 3.2).
- [:format] as desired output format of the report. Allowed values are:
  o *html* for the HTML version of the master list
  o *pdf* for the PDF version
  o *excel* for an Excel version (xlsx extension, Excel 2007+)
  o *xml* for a proper data exchange format based on the standard of the Olympic Data Feed (ODF) but with several application specific adjustments and codes

In comparison to the PDF reports of the password-protected SDMS Japan environment (see 6.1.3), the reports generated by this widget are designed for public use. Date of birth is removed and replaced by the year of birth, some basic error indicators like duplicated classes for single-class sports are removed and some specific classification profile fields, like the extensions in swimming are included upon request of the responsible federation.

6.2   Classification Files

In this section, you may download one or more ZIP archives of all uploaded classification forms of athletes in SDMS Japan. Each ZIP archive will be at maximum 25 MB in size; if larger downloads are required, they will be split automatically and must be downloaded separately.

Field	Format	Comments
Sport	drop-down [sport]	
Class Status	radio boxes	One of six options to limit the considered athletes based on their current classification status: • All • Confirmed & Review • Review • Review without year or < current year + 1 • Review & New • New
Historical Files	checkbox	If checked, packages include all archived files!
Competition Module	drop-down	see 6.1.2
Competition Code	text (6)	see 6.1.2

When you click **Prepare Packages**, a new page is opened with a list of archive(s) that have been prepared. The packages and files inside are sorted by Athlete ID, and the smallest and largest ID's in each archive are listed on the download page for reference. Each archive should be downloaded separately by clicking the 🔻 icon.

Each ZIP packages contains one folder by athlete ID, and each folder all current (and historical files if requested) labelled by the additional field code of the related file container.

6.3   Classification Cards

This section offers another alternative to download classification cards. Based on similar search criteria like for the classification report (see chapter 6.1), a ZIP package with all athletes registered in the selected sport is dynamically generated. This package contains two PDF files for each athlete. The basic file which is also individually available for an athlete in his classification detail page (see 4.1.1) has the credit-card-sized classification cards with front and back on credit-card-sized paper. The second file contains the same credit-card-sized cards on A4 papers for easier printing.

When printing the cards from Adobe Reader, the user is requested to use the option 'Actual Size' in the print menu under Page Sizing & Handling to maintain the correctly scaled card size.

6.4   Meeting Calendar Report

Meetings and conferences as registered in the meeting calendar (see chapter 5.4) can be exported as Excel or PDF report together with all organisation and staff members attending each of them.

Field	Format	Comments
Categories	checkboxes	Check all categories to be included. If none is checked, all categories are included by default.
Dates	dates	Date range; can be left blank to include all. By default, all upcoming meetings are filtered.
Cancelled Events	checkbox	By default, cancelled events are excluded. Check this box to re-include them.
Participating Organisation	drop-down [national organisations]	If selected, only meetings that particular organisation is registered as attendee.

Once the filter options are set, click **Excel Report** or **PDF Report**. The Excel sheet will repeat information of a particular event in each row for each individual organisation or staff member.

7 Security Manager

The *Security Manager* module is where the database administrators (respective NPC and NF staff) create, modify and access data related to user access of SDMS Japan. SDMS Japan needs to provide access control to provide only relevant data for each user and to protect data privacy of all athletes; this is implemented through Role-Based Access Control (RBAC). For a more thorough, accurate and academic description of this system, please refer to introductory textbooks such as *Role-Based Access Control, Second Edition* (Ferraiolo, Kuhn & Chandramouli, Artech Print, 2007).

The basic principle of RBAC is that a user has access permissions based on the job they perform in the organisation. Each logically connected job is coded as a *user group*, with each user able to be assigned to one or more groups. As several groups may share a similar role – e.g. both NPC and NF officers should have access to the personal data about athletes in their sports – the user groups function as an intermediate step linking to the *user roles*. The system checks whether the users are a member of a role which has a certain access right before allowing their access.

Continuing our example, consider the operation of viewing registered athletes, which is accessible through several registration roles (administrative or read-only, or associated with a specific NF), and full-access classification roles. Each user group can have several roles, with permission being allocated on an OR basis, that is, it is only necessary for the user to be member of one group with a particular functionality to access the pages enabled by that functionality.

SDMS Japan also allows for a further layer of restriction permissions relating to sport and national federation. Such permissions can be awarded directly to a user, for example if that user is an officer of a specific NF, or to a user group. The sport and federation restrictions are implemented on an AND basis with the roles as described above, so that the data must be both relevant to one of the user's roles and the user must have access to the sport and the country of the data to be able to access it.

The sport and federation restrictions are set to none by default on user creation. For the user to have an effective account, at least one sport and one federation must be set. NPC officers should in most cases have access to information for all sports and federations (%-code).
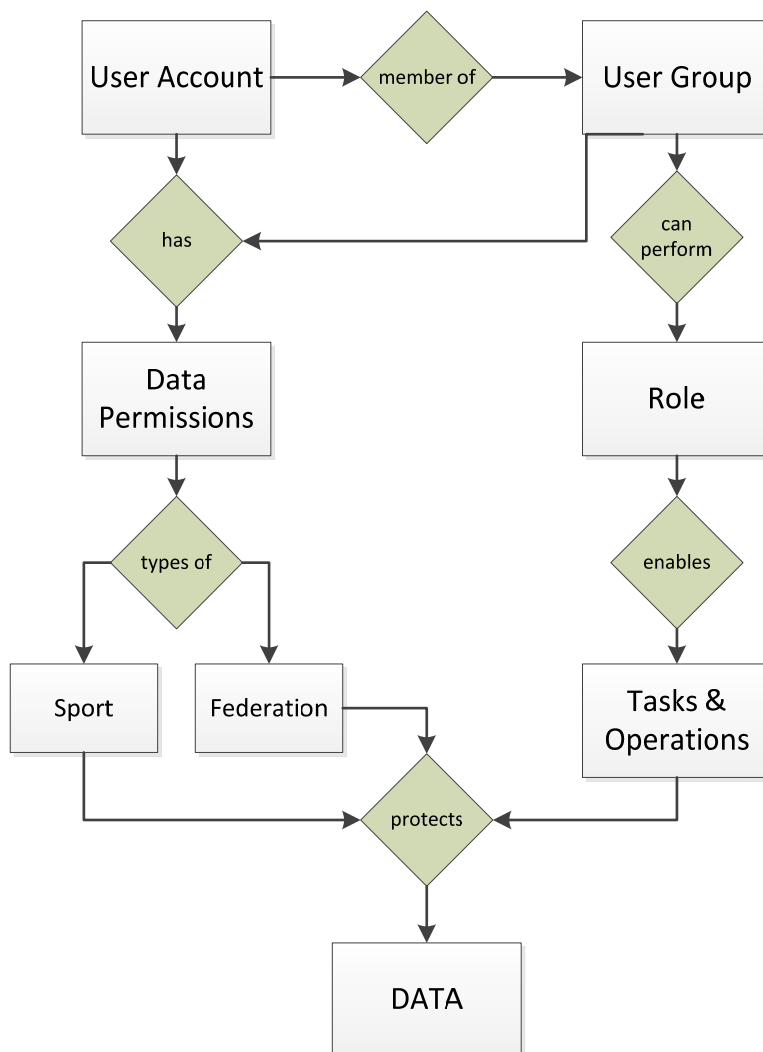
Figure 8.1: SDMS Japan data security

7.1 User Accounts

User accounts are created, deleted and modified in this section. The modification of user accounts also includes adding and deleting the user groups and permissions. This can, however, also be modified from the group screen or the permission screen.

Currently, user accounts are available for the following broad of categories of users, described in more details in section 2.1.3:

1. NPC Staff Members

2. NF Staff Members

3. NF Classifiers

The following fields are available from the User Account Details page.

Field	Format	Comments
Username	text (50 characters; case-sensitive letters, numbers, or underscore)	must be unique
User's Level	drop-down [NPC, NF, Classifier]	see comments below
Given Name	text (50)	
Family Name	text (50)	
Email Address	text (50)	searchable; this email is used for password resets
User Category	*JPC*	default value, cannot be changed
Logout Time	integer in seconds	how much time before inactivity logout, defaults to 600 seconds (10 min), maximum 3600 s.
Failed Login Attempts	integer, auto-count	counter of failed login attempts (when reaching 5 account is locked and must be manually reset)
Account Expiry	date	If set, the account automatically locks **after** this specific date. When user tries to login, the message 'account disabled' appears.
Password Expiry	date	After this date, the user is forced to change his password.
Account Disabled	checkbox	Completely locks the account. When user tries to login, the message 'account disabled' appears.
Password Change	checkbox	If checked, it forces the user to change the password after next login (even if password has not expired by date).
2-Step Authentication	checkbox	if checked, user needs a mobile device to retrieve a special 30-seconds-valid token to login as additional security aspect to SDMS Japan
Authenticator Secret		Indicates if user has generated the secret for the 2-step authentication; see below.
New Password	text	Must conform to the password specifications
Repeat Password	text	Must be the same as new password

7.1.1   Username and Password

The user must know his username and the associated password. When a new account is generated, the username must be unique and the password obeys the password requirements as described in section 2.1.4. The user details page also includes a *Password*

Requirements & Generator tab, which generates a random password conforming to SDMS Japan standards by clicking **Generate**. Clicking **Focus** selects the generated password, which can then be copied and pasted to the user account page.

<div style="border:1px solid red; padding:10px; color:red;">

Security Warning: When creating a new account for a new staff member or client, **DO NOT SEND THE PASSWORD** by email alongside the username. Either send the password by a separate device (e.g. mobile phone) or instruct the user to use the *Account Activation* from the SDMS Japan login page. During that process, the user requests to set up one's own password online after identification with username, email address, and a token valid for 15 minutes sent to this email address.

</div>

7.1.2   User's Level

Each user account, user group, role and operation unambiguously belongs to exactly one *user level*; these levels are *NPC*, *NF*, and *Classifier* in that order. Internally, these levels are just representing by a number to define the order.

The value assigned to a specific user account finally determines which other user accounts, user groups, roles and permissions the user might have access to if (!) this person has access to the *Security Manager* at all.

Technically, it means: when a user is assigned to the user level X, he can read, add, delete and manipulate users, user groups, user roles and related operations of levels X and below. In an explicit case, level *NPC* can edit all as *NPC, NF* or *Classifier* flagged items; level *NF* can only edit *NF* and *Classifier* so that superior organisations are protected. An NPC user can therefore create accounts for colleagues and their members; an NF can handle accounts for colleagues as well, and for classifiers – but it prevents NFs to change NPC accounts.

Besides the vertical limitation between organisation levels, SDMS Japan also limits access to user accounts across national federations. If a user has no global federation rights (see permissions in chapter 7.1.6), he can only create and edit user accounts that have access to the same federation and sport data as himself. That prevents users from the national athletics federations to create and manipulate accounts from the swimming federation and vice versa.

7.1.3 Logout Time and Failed Login Attempts

After the user has logged in, each page has a counter shown at the upper right corner (⧖) next to the logout icon that ticks down (shown in minutes). When this counter equals zero, a dialogue informs about the session's expiration and requests to login again. The maximum value is 3600 s (= 60 minutes) but it is recommended to keep a value of 600 s (= 10 minutes) or lower. Users who do not properly log out might risk unauthorised access in an open network environment.

Each time the user failed to login with the correct username but with the wrong password, the *Failed Login Attempts* counter increases by one. As soon as this counter has a value of five (5) or higher, the user cannot login anymore unless the counter is reset manually clicking the 🔟 icon or the user requests a new password.

7.1.4 Account and Password Expiration

In order to grant a temporary access to SDMS Japan, the *Account Expiry* has to be set to the last day SDMS Japan shall be accessible for this user. After that date the account is disabled. The user receives a respective message on login attempt with correct credentials. An account can also be immediately disabled by checking *Account Disabled*.

Similar behaviour is applicable to the password. *Password Expiration* indicates when the user is requested to change the recent password. On the first login attempt from that day onwards, the *Edit Password* screen automatically opens and the user must enter follow the procedure; alternatively, he can only logout and do that step at a later point. Once the password is changed, the value here is automatically set to the date 360 days from today onwards. An account can also be requested to apply this behaviour immediately on next login of the user by checking *Password Change*.

7.1.5 2-Step Authentication

If this feature is enabled, the designated user not only needs his username and password, but also a "token", in this case a six-digit number generated by an application the user has to install (for free) on his mobile phone.

First Set-Up

If the user has never logged in, yet − indicated by the fact that the *Authenticator Secret* is not generated − he will receive an instruction page and the secret for this account to set up his mobile phone after next login with correct credentials. Detailed instructions for Android

devices, iPhone and similar, Windows Phone and BlackBerry devices are available on this page. Basically, the user needs to download one of the free available Authenticator apps, enter account and secret and save this information. Alternatively, to avoid typing errors, he can use the QR-code for direct import. Now the mobile app produces a six-digit number every 30 seconds. It is important that the mobile's internal time settings are accurate (more than one minute difference to atomic time might cause login problems).

Once the mobile has been correctly configured and the user finds the code generating and changing each 30 seconds, he confirms his settings and clicks *Continue*.

This setting has to be done only once.

<u>Login</u>

Each time the user now logins with correct username and password, he is asked for the number the mobile application currently shows. The user enters the number and clicks **Validate**. If correct, the user is redirected to his personal welcome page.

Potential issues and first aid is listed in a small FAQ section underneath. In case, the user needs further support, direct contact to the responsible NF or NPC is recommended.

<u>Reset Configuration</u>

In the case that the user lost the token (uninstalled the authenticator application on his mobile phone or similar), the responsible SDMS Japan security manager can open his account details and click the ⚷ icon. That removes the token registered so that the First-Setup page will show again after next login of the user.

7.1.6   User Groups & Permissions

To display the user's access rights, use the *User Groups* and *User Permissions* tabs. This shows all possible groups and permissions, and the user can be added to or removed from a group to change the account's permissions. This is done by assigning from a list – the groups and/or permissions suitable to the user's role are selected from the *available* result matrix and then moved to the *assigned* result matrix by clicking the assigning arrow. You can also drag and drop between the two lists to assign or remove objects, and use the header fields to restrict your search if you want to access certain permission.

Figure 6.2: Assignment page of user groups for a user

Please refer to the following sections for more information about the possible groups and permissions.

7.2 Groups, Roles and Permissions

As explained in the previous sections, user groups function as an intermediary link between users, roles and permissions. The name and code of the group are connected to the lists of users in the group and the roles and permissions enabled by the group membership.

The search form lists all currently existing groups with links to each group's list of users, roles and permissions. As assigning groups are important for creating an account with correct permissions, this section will outline the currently existing groups and list the permissions enabled by the account. All groups enable the password role, as this is obligatory for every account to function.

7.2.1 Full access and limited access roles

Broadly, the roles can be divided into two main groups – those that give full access to adding, modifying and removing data, and those that only give access to reports and reading of data. The list of full access roles is virtually identical to those assigned to the administrator group labelled "NPC"; all other roles are limited in operations.

7.2.2   Permission types

The permissions in SDMS Japan are divided into two types:

- Federation: Determines which federations the user has access to. All codes for the NPC members are possible selections. When a new federation is added, it must be registered as potential data permission under *User Management > Permissions*.

- Sport: If the user will only work with one particular sport. Same sport codes as in initialisation section. On initialisation of SDMS Japan, all Paralympic, IPC and IBSA sports plus the remaining sports governed by NPC Japan are already preloaded.

A user can have multiple permissions of one type, or the % permission which means the user has no restrictions that particular data permission.

> **Caution:** Even if the section about federations (see chapter 3.3.2) links federation and sports, each user must have a permission granted either directly to the user or through his user group for both types, namely federation <u>and</u> sport.

For example, a user of JPAF (Japan Para Athletics Federations) should have following settings:

- **NF** or any other similar user-defined group that includes the roles and operations this NF representative requires,

- **JPAF** as federation data permission, and

- **Athletics** as sport data permission.

7.3 Management of Groups, Roles and Permissions

Setting up an SDMS Japan user account requires that administrators grant the exact permissions that allow the user to carry out their tasks within SDMS Japan, but no more. As mentioned, users get functionality access through their groups and data permissions either through groups or individually. In this section, you will find explanations of how to adapt individual user accounts, user groups, roles and permissions in order to design SDMS Japan accounts reflecting requirements from all users.

7.3.1 Roles

Each naturally connected role in SDMS Japan should be defined as a role, where you can define the functions (tasks and operations) the user is allowed to carry out. Several roles are predefined that intended to distinguishes between the responsibilities on each level of NPCs, NFs, and classifiers. To define a new role, click **Add Role** from the *User Roles* search form and complete the following details:

Field	Format	Comments
Role Code	text (30)	Cannot be changed after creation; should not contain spaces; it is recommend to follow the CamelCaseSpelling like for already existing roles.
Application	*SDMS_JPN*	
Level	drop-down	see 7.1.2
Description	text (200)	Descriptive label of the user roles; it is recommended to follow the examples of the predefined roles.
Task Category	text (8)	Each operation and task is grouped. You can define which group(s) should be displayed only for this role by inserting the beginning of the group names. For a list of all existing task categories, see 7.3.2

After a role is created, all tasks (left column) and operations (right column) appear in the second part of the detail page. Click all tasks the role should allow and **Save** again. The slider in the middle reflects whether all, partial or no operations of the related tasked are enabled.

In addition, the tab of *Role Groups* appears allowing you register the new role to one or more existing user groups.

7.3.2   Item Groups

The item groups for a role define which functions appear in the lower part of the role detail page. As there are more than 200 different tasks and operations defined, it is recommended to restrict each role to one item group. The following item groups are defined, mostly representing one of the six SDMS Japan modules:

- ATHLETES – registration and classification of athletes
- CALENDAR – competitions and their officials, events and meetings
- C_CODES – sport and regional codes (including federations and clubs)
- REPORTS – SDMS Japan report section
- SEC – Security manager
- SETTINGS – Application settings (basic codes, additional fields, news)
- TRACKER – access to the IPC Database Issue Tracker

7.3.3   Role Functions

Each role the user has enables to complete certain tasks within SDMS Japan. The most common tasks are the so-called CRUD tasks:

- Create: add a new item
- Read: read data on an item
- Update: edit an item
- Delete: remove an item from the system

These tasks are defined for nearly every section: e.g. athlete registration, athlete classification, license, competition, and so forth. Obviously, the tasks of creating, updating and deleting items are only useful if the user is allowed to read data from this section.

In addition, there are certain special tasks that enable only some parts of each section. For example, the *download sensitive class files* means the user is granted to download files uploaded under categories indicated as sensitive – it is designed for classifier to download these files while NPC/NFs can only upload but not open the documents in SDMS Japan.

7.3.4   User Groups

The roles are gathered together into specific *User Groups*, which correspond broadly to the categories of user accounts described in chapter 0. When creating a new user account, you assign one or more groups with the specific roles and permissions.

User groups can be added and removed from two screens: the user account details screen has a list of the user's group, and the group details screen has a list of all users assigned to the group. This principle works generally for all types that are directly connected, as described in Figure 6.2; hence you cannot, for example, associate a user with a role or operation directly, but you can assign a user group to a data permission from the permission screen.
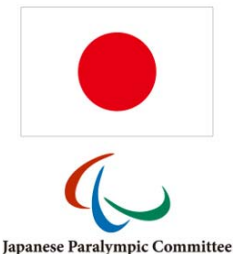
Some permissions, such as the federation permission, are badly suited for the assignment to a specific group; this would require a separate group for each country. Therefore, this permission is better set from the user page.

As elsewhere in SDMS Japan, clicking on the code or name will bring up the details page for that item, and the details page also offers links to all users assigned to that item.

Any of these methods will bring up a list of all available and assigned items of that particular type. Below is described how to add and remove user groups from a user whose account has already been created. The process for adding and removing roles and permissions works nearly analogously.

> *How To:* Add User Groups to an Account

1. Go to the *Security Manager* module and open the *User Accounts* search form.

2. Find the relevant user by entering required search criteria or scrolling through the result pages.

3. Click the user's row to open the user's details page; then click the *User Groups* tab to access the groups.

4. Find the desired group to add, either by scrolling through the result matrix for the available groups or by using the search form in the *User Groups* tab (Figure 6.2).

5. Move the group between the available and assigned lists by dragging and dropping or selecting with the checkboxes and clicking **Assign**.

To remove groups, you can select groups in the assigned groups list, and click **Remove**. The group will be moved to the available section and all relevant access derived from the associated roles is removed from the account.

7.3.5 Data Permissions

SDMS Japan defines two categories of data permissions, one for sports and one for (national) sport federations. Each user must have access to at least one in each category; otherwise the user will not be able to access any athlete at all as each athlete is associated with one federation and registered in one or more sports.

Two data permissions are pre-registered and allow full access to all data associated with sports or federations, coded with the %-character. These global permissions cannot be deleted.

In order to register a new data permission, go to the search screen and click **Add Permission**. Select the permission category *Sport* or *Federation* and enter the permission codes as follows:

- For a new sport data permission, just enter the two-letter sport code like CY for cycling. You find all sport codes accepted in the sport code section (see 3.2).

- For a new federation data permission, please check the federation code as registered in regional application settings (see 3.3.2). Then enter as permission code `JPN_` and then the federation code. For example, if the federation code is `JPAF`, then you need to enter `JPN_JPAF` as federation permission code.

Finalise the registration with a clear description of the data permission that could be just the sport or federation name, and **Save**. Now the data permission is available for assignment to individual users or user groups.

8 IPC Database Issue Tracker

This tool is a centralised tracker of change requests and defect (bug) reports for all SDMS-like applications developed by the International Paralympic Committee (IPC).

Consequently, only the licence holder of the relevant application, in this case the NPC of Japan, has access to that section.

8.1 Change Requests

A change request is the desire to change, adapt or extend the current functionality of the tool that has not been included in the initially launched version. Each change request belongs to one of the following categories:

- New feature: Anything related to a complete new functionality request to get rid of otherwise manual or paper-related handling of data.
- Business process: Required adjustment of the tool according to recently implemented changes in the business processes of the NPC or NF.
- User experience: Related to the user-friendliness of the tool in order to enhance the quality of reports, handling of data inside the system, or the look&feel of the application.
- Rule change: When sport and classification rules change, it is often required that the software developed based on the previous rules have to change likewise to cover again the new rules and regulations of a sport or the Paralympic movement.

When registering a new change request, following fields appear:

Field	Format	Comments
Application	*SDMS_JPN*	
Requestor	text (50)	Automatically populated with the username of the person who is about to submit the request.
Request Time Stamp	datetime	Automatically populated with the timestamp when the change request has been submitted.
Priority	dropdown	How important is the change request? (low, medium, high)
Severity	dropdown	How severe is the change request, how much are the current business processes affected/slowed down unless the request is accepted and realised? (low, medium, high)
Category	dropdown	To which change request category does the request belongs to (see list above for details)

Title	text (100)	Short (!) descriptive title what the change request is about
Description	text	Free text to describe now the details: • Which module(s) and tables of the applications are affected? • What is the underlying business process? • What are potential further impacts?
Requested Completion	date	Date by when the completion of the change request is optimal?
Attachment	file	Any supporting file (rule book, template, screenshots, drawings, images) can be attached here as supporting material
Feedback by IPC Sports IT team		
Request Status	dropdown	Reflects the current process status of the change request. The NPC can only amend a change request if status is *New* or *Imprecise*. *Rejected* or *Cancelled* change requests will not be further handled.
Responsible Developer	text (50)	Username of the IPC Sports IT Team staff member that is in charge of the change request.
Estimated Delivery Date	date	
Estimated Working Time	float	Number of hours that the team will likely spend on the implementation of the change.
Developers Feedback	text	The Sports IT team will provide further information and feedback in here.

The IPC Sports IT team will be automatically informed about the registration of any new change request by email. The IPC will come back to the NPC to discuss the impact of the change request or clarify further questions if necessary.

In any case, the responsible developer will change the request status and populate further information. The requestor is then automatically informed about any change in the request status or delivery date by email but can also go into SDMS Japan and check the information online.

8.2   Defects

Application defects, also known as 'bugs', prevent the user from using the system. They are either of syntactical or semantical nature. Syntax errors will produce a cryptic error message to the end user or just a browser error, sometimes with error code 500.

Semantic errors refer to a wrong implementation of a business process. While the application itself works, the data stored or results calculated differ from the expectations or logical outcome.

In both cases, the NPC shall immediately register this defect.

The registration process is similar to change requests as explained in chapter 8.1. Defect reports automatically have high priority and are based on user experience. The IPC considers and fixes each defect at their earliest convenience so that a *completion date* is not necessary. However, especially for defects it is of high importance to describe the steps until the error appeared as detailed as possible so that the developer in charge can reproduce it, find the issue, and fix it immediately. A screenshot of the error messages or screen appearing should be uploaded that often helps much more than long explanations.

Like change requests, each submission of a defect triggers an automatic email notification to the IPC Sports IT team for their immediate awareness. Once the issue is fixed, the status will be changed to *Completed* and the detector of the issue personally informed.

9   IPC SDMS / IBSA ISAS Connector

The IPC SDMS and ISAS offers a common API (application programming interface) for any external client to send specific requests to SDMS/ISAS to get and push information about athletes and their classification. SDMS Japan makes use of this API and implements a feature that does the job to synchronise the local profiles with the international profiles in these IF databases.

This features basically consists of five different operations:

1. Establish the connection between SDMS Japan and IPC SDMS and/or ISAS.
2. Link the local with the international profile.
3. Synchronise personal details and international classification.
4. Download classification profile information.
5. Review available international classification sheets from the IF database.

With SDMS and ISAS sharing the same central athlete's tables of the IPC and IBSA, these both databases are combined under the term 'IF database'. Each of these five operations are explained in the following subchapters. Obviously, operation (2) must be run after the connection of the databases have been established (1) and before any synchronisation or data download is possible (3-5).

9.1   Establish the connection

For full operability, the SDMS Japan user must possess an account to the relevant IF database. This user account must give the IF database user access to read and update personal athlete information and reading the classification information. For further information, it is recommended to consult the respective manuals available online.
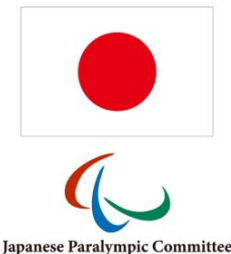
To establish the connection, open the personal profile of an athlete. If that athlete is currently registered in an IPC or IBSA sport, a tab called 'IPC' or 'IBSA' appears next to the tab 'Biography', see picture above.

Click the button *Login to [IF Database]* to open a small login window asking for your username and password that you obtained for that IF database. If the combination is correct, a message confirmed the connection occurs. In all other cases, an API error with code 401 *Unauthorized* appears, caused by incorrect user credentials.

> **Important:** Before a specific IF database user account can be used to establish the connection between SDMS Japan and the IF database, you must contact the IPC and/or IBSA to ask for permission. Then and only then the specific IF database user account is granted to use the API to send IF database requests.

Connection expiration

The connection persists for 60 minutes only. If the connection is established, a small counter underneath the hourglass at the secondary navigation bar (compare Figure 2.4) reminds about the expiry of the connection. When the API counter goes down to zero, a small window appears informing the SDMS Japan user that the connection with the IF database is broken. In this case, go back to any athlete's personal page, open the IF database tab and re-connect.

"Invalid API key sent"

In rare cases, the steps of re-connection might be necessary at any earlier stage if the API key that is automatically sent each time data is requested from the IF database has been deleted or replaced in the meantime so that the message 'Invalid API Key sent' appears at each page reload. That happens when any other SDMS user establishes the IF database connection with the same IF database user credentials or if the IF database server has been restarted.

Forced disconnection

The connection to the IF database can be cancelled anytime. Open the 'IPC' or 'ISAS' tab on the athlete's personal detail page and click the icon inside this tab. It is recommended to manually disconnect when further synchronisation processes with the IF database are not necessary anymore to speed up other operations in SDMS Japan significantly.

9.2   Link local and international profile

The local (SDMS Japan) profile is correctly linked with the IF database if the local profile has the **SDMS ID** registered as shown on the *Personal Details* and the *IPC/IBSA* tab **and (!)** if both profiles have the same NPC, the same gender, and the same date of birth. That additional control minimizes the risk that wrong profiles are linked with each other.

Unlinked profile

By default, a new athlete in SDMS Japan has no SDMS ID. Then two options are available.

- **Link**: Click this button if the athlete is also registered in the IF database with a unique ID already. When clicked, a dialog opens to enter that ID from the IF database. On attempt to link the profiles, the criteria as listed above and in the dialog are controlled. If this check fails, the profiles will not be linked. On success, the synchronisation page opens.
- **Register**: If and only if the athlete is not registered in the IF database, yet (please check first before clicking this button), click this button to register the athlete in the IF database with a new profile and IF database ID. SDMS Japan will automatically retrieve the new ID and link the local profile with the new one generated in the IF database, eventually opening the synchronisation page.

Incorrect link

If an SDMS ID is registered in SDMS Japan but any other value (NPC, gender, date of birth) are different between the local and IF database profile, the SDMS Japan is informed about that. There might be two reasons and related solutions:

- If the SDMS ID is incorrect, the SDMS Japan user should **Unlink** the profiles and then **Link** the local profile with the correct IF database profile providing the accurate SDMS ID.

- If just the gender or date of birth is incorrect, the respective value should be corrected either locally or in the IF database directly.

The **Unlink** button is also available for correctly linked profiles but should not be used.

9.3   Synchronisation

After the database connection is established and the athlete's local and international profiles correctly linked, the synchronisation table opens. This table includes all values from SDMS Japan and from the IF database comparing them and highlighting differences. There are four

groups of attributes compared with different timestamps used to determine with information is considered as "newer". These values appear in green, "older" values in red.

1. The personal details such as the athlete's name uses the profile's time stamp of last modification. NPC, gender, and date of birth are not compared as they must be equal in both profiles; otherwise, the entire synchronisation does not appear, see chapter 9.2.

2. Passport information uses the date of expiration as comparison indicator which passport data set are more accurate.

3. Documents such as the athlete's photo, passport and IPC nationality confirmation letter uses their individual upload timestamps. The IPC nationality confirmation letter can only be downloaded from but never uploaded to the IPC SDMS.

4. The information about the international classification can only be downloaded from the IF database completely replacing the international classification in SDMS Japan for those sports the athlete is registered in the IF database. All class differences appear in red; synchronised classification appear in black font colour.

Each attribute has a **Sync** option to let the user decide how to synchronise the data when clicking the **Synchronise** button underneath the table.

✓	Values in SDMS Japan and the IF database are the same.
⤬	Values of this attribute cannot be synchronised.
←	Value/file from the IF database will be downloaded and replace the value/file in SDMS Japan. Click to change the synchronisation direction.
→	Value/file from SDMS Japan will be uploaded and replace the value/file in the IF database. Available only for attributes than can be edited in the IF database by an NPC user. Click to change the synchronisation direction.
⤬	Value/file will not be synchronised. Click to synchronise SDMS Japan with the IF database.

When the decision of the synchronisation has been made or kept untouched from the preloaded recommendation based on timestamp comparison, click the **Synchronisation** button. Personal values and files will be up- and/or downloaded. Changes in the international classification will be downloaded to SDMS Japan for those sports represented in the connected IF databases.

> **Note:** When a photo is sent to the IF database, the photo is automatically rescaled and converted to JPG. That might cause small differences in the local photo and the photo finally stored in the IF database. It is recommended to then perform a second synchronise to get the adjusted photo from the IF database.

When now opening the classification page of the athlete, the international classification is loaded from the IF database including full history except historical classes with *New* classification status.

The link of the athlete to the IF database prevents SDMS Japan users to change international classes in the respective sports. As example, when an athlete is linked to IPC SDMS and her international classification from World Para Athletics is downloaded, all these classes cannot be changed, removed, or new international athletics classes added. Even other IPC or IBSA classes cannot be added with *International* level of classification. Of course, at any time national classes can be arbitrarily added and manipulated.

On the classification page of the athlete, the button **IF Database Synchronisation** appears if the IF database connection is established and the athlete profiles linked. This button then opens the synchronisation tag of the athlete's personal detail page to run the synchronisation as outlined above.

9.4   Download Classification Profile

On the *Profile* tab, the button **IF Database Profile** appears. It opens a dialog window reflecting the data stored in the IF database for all registered IF sports alongside the IF database field name.

Profile fields from the IF database can be linked with the profile fields in SDMS Japan. The field code from the IF database as shown in this dialog must be registered as **IPC SDMS Code** in the detail page of the related additional field, see chapter 3.1.2.

If the profile field of the IF database is linked with a particular field in SDMS Japan, a small icon indicates that connection in the IF Database Profile dialog. Then the button **download** transfers all IF database profile values to SDMS Japan **overwriting any previous value** in these fields! The user shall be careful with initiating this data transfer as overwritten values cannot be restored.

9.5   Open Classification Sheets from IF Database

The classification files tab for each (IF) sport might include an additional column indicating whether a file for that file category is uploaded to the IF database.

In order to let SDMS Japan check the existence of IF classification files, the file containers in SDMS Japan defined as additional fields must be connected in the same way as the profile fields setting the IF database code for the respective IF file container.

Figure 6.3: Classification files with IF database connection

In Figure 6.3, all five different scenarios are shown, they are:

no file	A classification file is not stored for this file container in the IF database.
🔍	A classification file is stored for this file container in the IF database. Click the icon to open file.
👁	A classification file is stored for this file container in the IF database but cannot be opened. The local file container is defined as sensitive and applies the same rules as for the local files stored in this container.
☁	Click this icon to upload the sensitive file to the IF database. It only works for file containers in the IF database that the NPC can upload a file for. If both a local and an IF database file exist, the upload is only possible if the files are different, otherwise the 👁 icon appears instead.
	If the **IPC SDMS** cell is missing in the matrix (as for classification sheet 3, 4, and the TSAL Form), the local file container is not defined with a valid IF database file container ID.

SDMS Japan has been prepared to enable a download function for classification files, like passport copies or photos, storing the international files in the local system. However, this feature has been currently disabled for all users until the SDMS API and the implementation in SDMS Japan has been further evaluated in their usefulness and efficiency.

10 Glossary

BAC

Board of Appeal Classification

CNC (class)

Classification Not Complete

ID

Identification, e.g. ID number or ID card

IF

International Federation

II

Intellectual Impairment

IM (class)

Intentional Misrepresentation

IOC

International Olympic Committee

IPC

International Paralympic Committee

ISAS

IBSA Sport Administration System

MDF

Medical Diagnostic Form

MRR

Medical Review Request

NE (class)

Not Eligible

NF

National Sport Federation

NOC

National Olympic Committee

NPC

National Paralympic Committee

NSDMS

National Sport Data Management System

PI

Physical Impairment

PuEC

Protests under Exceptional Circumstances

(IPC) SDMS

IPC Sport Data Management System

VI

Visual Impairment