



Frequently Asked Questions

**electronic Productivity Submission
System (ePSS)**

Version 1.0

Updated as of 24 October 2024

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A. Getting Started

A1 What is the aim of the ePSS?

The aim of the ePSS is to help builders monitor their projects' manpower usage and allows them to submit the manpower usage and productivity data to BCA on a monthly basis. The data would also assist BCA to better formulate and strategise policies to aid industry to further boost their site productivity.

A2 Is the submission of the manpower data compulsory?

In accordance with **Reg 10 of Building Control (Buildability and Productivity) Regulations 2011**, it is **mandatory** for builders to submit monthly construction productivity data to BCA. This requirement is applicable to all projects (except those highlighted below under 2(I) – 2(V)) that fulfills the following criteria:

- a. Gross floor area of a new building development
- b. Gross floor area of the existing floor to be reconstructed
- c. Increase in the gross floor area of the existing building that will result from the building works; or
- d. Sum of any combination of (a), (b) and/or (c)

is **5,000 m² or more**.

The following building works are **exempted** from submission (regardless of the size (in m²) of the project):

- I. any culvert, bridge, underpass, tunnel, earth retaining or stabilising structure, slipway, dock, wharf or jetty
- II. any theme park
- III. any place of worship
- IV. any power station; or
- V. any waste processing or treatment plant.

A3 If my project is a waste processing plant with office buildings, how do I know if my project is required to submit ePSS data?

Waste processing plant, as highlighted in 2(V) are not required to submit ePSS data. Whereas office buildings are required to submit as they do not fall into any categories stated in 2(I) – 2(V). Referring to the example below:

Project A	GFA/m ²
Waste Processing Plant	1,000
Office Building	2,000
Total Applicable GFA for ePSS	2,000

Project B	GFA/m ²
Waste Processing Plant	1,000
Office Building	5,000
Total Applicable GFA for ePSS	5,000

Project B is required to submit ePSS data as the applicable GFA is 5,000 m².

A4 How is the industry average project productivity beneficial to the builder?

The industry average project productivity can be used to assess a project's productivity performance, and the builder can use this data to set improvement targets for future projects.

A5 What is the definition of Constructed Floor Area?

For projects that do not involve rail, road, or tunnels, CFA is equivalent to Total Floor Area, which includes GFA, environmental deck, basement carpark, roof area (including linkways) and other concrete area (including ancillary building).

For projects that involve rail, road, or tunnels, CFA is equivalent to Total Constructed Area, which includes Station, Depot, Viaduct, Cut and Cover tunnel, Bored Tunnels, and External Ancillary works area.

An example to calculate CFA for projects that do not involve rail, road or tunnels is as shown below:

Project A	Area/m ²
Gross Floor Area (exclude Basement Carpark , Multi-storey carpark and roof area)	30,000
Multi-storey and/or Basement Carpark (include environment deck i.e. uncovered landscape for residential buildings)	20,000
Roof Area	6,000
Constructed Floor Area (CFA)	56,000

A6 What is the definition of project productivity?

The project productivity is defined as the constructed floor area (CFA; in square meters) completed per manday.

The project productivity is calculated as follows:

[For projects that do not involve rail, road, or tunnels.](#)

$$\text{Project Productivity (m}^2\text{/manday)} = \frac{\text{Total Floor Area (m}^2\text{)}}{\text{Total Mandays (mandays)}}$$

Equation A-1 Calculating Project Productivity (Projects that do not involve rail, road, or tunnels)

For projects that involve rail, road, or tunnels.

$$\text{Project Productivity (m}^2\text{/manday)} = \frac{\text{Total Constructed Area (m}^2\text{)}}{\text{Total Mandays (mandays)}}$$

Equation A-2 Calculating Project Productivity (Projects that involve rail, road, or tunnels)

A7 How do I know if my project is more productive than others?

A project is deemed to be more productive **if a larger floor area can be constructed with the same mandays**. In other words, the higher the figure, the better is the project productivity.

Referring to the example below, Project B's site productivity is better than Project A as it utilised less manpower to complete its project.

	Project A	Project B
Project Typology	Public residential	Public residential
Total Mandays	X	X
Floor Area	100,000	110,000
Project productivity	0.34	0.69 (more productive)

A8 Where do I input the CFA for my project?

Log in to EPSS, click on 'View/Edit Project Details' and then 'Select the project' to input the GFA, roof area, basement and multi-carpark area.



Figure A-1 View/Edit Project Details

Gross Floor Area (m ²) (exclude Basement Carpart, Multi-storey Carpark and Roof Area)	<input type="text" value="162,548"/>
Basement Carpark (m ²) (include environmental deck i.e. uncovered landscape for residential buildings)	<input type="text"/>
Roof Area (m ²)	<input type="text" value="0"/>
Multi-storey Carpark Area (m ²)	<input type="text"/>
Buildable Design Score	<input type="text"/>
Constructability Score	<input type="text"/>
Total Manpower for demolition works	<input type="text"/> mandays

Figure A-2 Update of CFA in Project Detail Page

A9 What is the definition of one manday?

One manday is taken as one worker working for 8 hours. Thus, if the worker works for 12 hours on a particular day, the actual manday clocked by worker shall be calculated as $12/8 = 1.5$ mandays.

B. ePSS account and administrative issues

B1 How do I apply for an ePSS corporate account?

ePSS will automatically create a corporate account for builders with projects that satisfies conditions set out in (A2). Each corporate account is tagged to a specific UEN of the entity. If the company is involved in a joint venture, then a separate corporate account will be created, given that the UEN is different from the main company.

Company ABC – UEN 123

JV between Company ABC and Company DEF – UEN 456

B2 What are the different types of users in an ePSS corporate account?

There are 2 types of users in a corporate account – Project Staff and Administrators. Their user rights are as follows:

I. **Project Staff**

- Able to view assigned project(s): staff tagged to the project under Project information. This is only assigned by BCA or Company's ePSS Administrator
- Able to upload monthly manpower data for assigned on-going projects

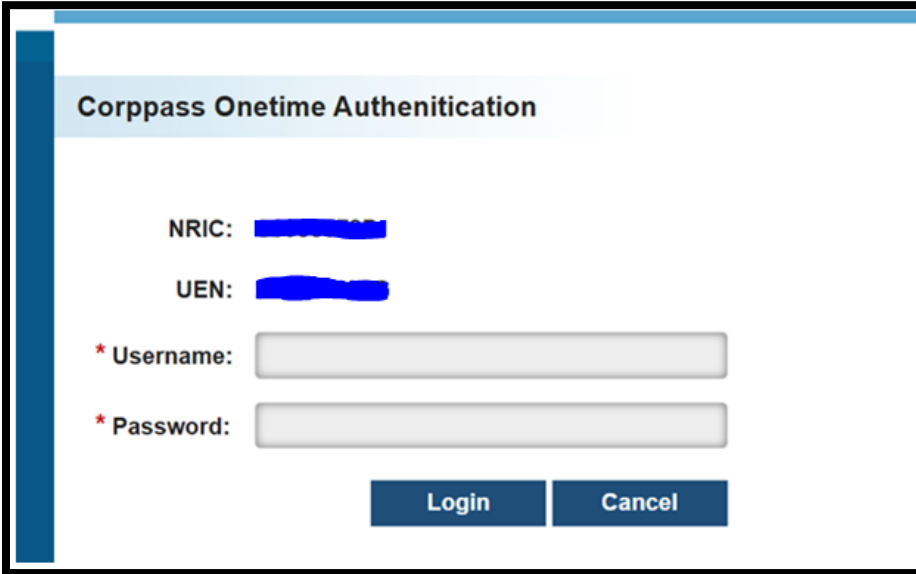
II. **Administrators**

- Able to create 'Project Staff' user accounts
- Able to reset password for fellow 'Administrator' / 'Project Staff' user accounts
- Able to view/edit company details
- Able to view **ALL** project(s) under the company and edit project details
- Able to upload monthly manpower data for **ALL** on-going projects
- Able to assign the specific project(s) for each 'Project Staff' is able to view and submit manpower data

B3 My company requires me to access ePSS portal, what should I do?

With effect from 9 June 2023, users will be able to login and access the ePSS website via Corppass Login. Pls refer to ePSS user guide page 10 to 15 for more details.

B4 The system prompted me to key in Username and Password when I tried to log in? What should I do? Where can I get the username and password as system prompt me for it when I log in?



The screenshot shows a login interface with the following elements:

- Title: Corppass Onetime Authentication
- Fields: NRIC: [redacted], UEN: [redacted]
- Fields: * Username: [input box], * Password: [input box]
- Buttons: Login, Cancel

Figure B-1 Log in page for first time user

You can contact your ePSS administrator to create an ePSS account for you. Once your account is created, you will receive your username and password via email.

B5 Can a builder have more than 1 user account in the ePSS website?

Yes. Each builder should designate **an ePSS contact person** from his/her company. BCA will issue a Username and Password to the ePSS contact as the first Administrator account in the ePSS website. The Administrator can then log into the ePSS and issue multiple accounts to other users in the company (e.g. one account for each project site). More details can be found in the User Guide (page XXX).

B6 I am unable to recall the previous Username and Password. Can I request for a new Username and Password?

Yes, if you have forgotten the Password or would like to request for a new Username and Password, please write to us through online [BCA Feedback form](#).

BCA will reset the password or create a new account for you once your identity is verified.

B7 How can I change my password?

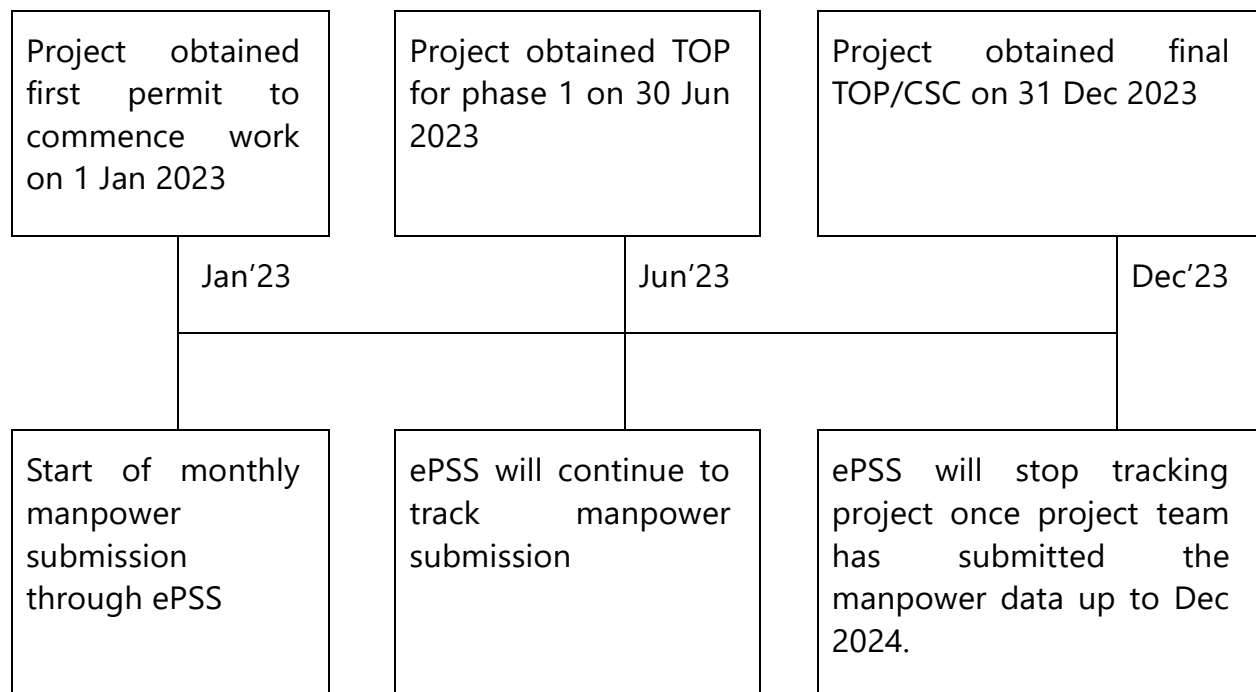
Username and password are required for authentication if you are logging in to ePSS website for the first time. For subsequent log in, you will only require to authentication via Singpass and do not need to enter your password.

B8 How do I change the user account details if our administrator has left the company?

If you are appointed by your company as the new administrator, you may login to the ePSS and change the user account details under the "Admin" tab. Do contact BCA if there is only one administrator in the company.

B9 When is my project required to submit ePSS data?

Projects should start submitting ePSS data from the month in which the project obtains the first Permit to Work. You can stop submitting the monthly manpower data once the project obtains full TOP/CSC.



B10 I am the contact person for the company, but I have left the company. What should I do?

You can write to us through [BCA Feedback](#) to notify us and we will remove you as the contact person.

C. Submission of manpower data

C1 How do I register “new projects” for monthly productivity data submission?

New projects are created by BCA while users are only able to view or edit project details. However, if you wish to create your building projects in ePSS where those projects are not subjected to Buildability framework, you may write to us through online [BCA Feedback form](#). BCA will create the project profile in the system for your subsequent submissions of monthly productivity data.

C2 Are there any forms or templates for submission of monthly manpower data?

The manpower report templates can be found on the home page once you have login to the ePSS. You may inform your biometric system supplier to customize the manpower report according to the manpower report template, so that ePSS can recognize and retrieve the relevant information from your report.

Please refer to the User Guide for more details.

C3 How do I amend the submitted data?

Once you have submitted the monthly productivity data, the submission status for the month which you submitted for will be marked as "SUBMITTED". **You are still allowed to make changes to the productivity data if the status is 'SUBMITTED'. Please click the orange rectangular button labelled as 'EDIT DATA' found on the right of the form.**

The screenshot shows the BCA ePSS interface. At the top, there are logos for Building and Construction Authority and Singapore Government. A navigation menu includes Home, Projects, Productivity Data, Reports, Admin, and Logout. The user is logged in as Mervyn Teo. The main content area is titled 'On-Going Projects' and shows 'Project Info' for 'Test 2'. Fields include Project Ref No (A1234-12345-2023), Company Name (Building and Construction Authority), Site Commencement Date (01/01/2023), Site Completion Date (28/02/2025), and Latest Reminder (none). There are two upload sections: one for 'Photograph of project signboard' and another for 'Photograph of Biometric Authentication System installed on site'. Both have 'Choose File' buttons and 'Upload' buttons. A red error message is visible below the second upload section: 'Please upload photograph of Biometric authentication system installed on the site (jpg/ gif/ png format with file size less than 4 MB)'. On the right side of the form, there is a vertical orange button labeled 'EDIT DATA'. At the bottom, a 'Submitted on:' field shows 'Apr 2024 SUBMITTED'.

Figure C-1 Monthly manpower page

C4 Why do I have to submit off-site manpower data?

As DfMA becomes the mainstream way of construction, more on-site construction works would be shifted off-site. To enhance data collection and facilitate overall productivity measurement, builders are required to submit off-site construction productivity data.

C5 How do I submit offsite manpower data if I have multiple offsite suppliers (e.g., one for prefab MEP, one for PPVC, etc.)?

Please inform the respective offsite supplier to fill up the manpower usage using the offsite manpower template. Template can be downloaded from EPSS portal. Thereafter, you can import the excel file through ePSS portal.

C6 I have received email notification to submit offsite manpower data, however my project did not engage offsite supplier(s) during the requested period. So what should we do?

If no offsite supplier is engaged for a particular month, you may declare as '0' mandays for offsite. However, BCA will conduct audit checks on data submitted based on Builders' declaration.

C7 Why do I receive a reminder email for not submitting productivity data?

Construction projects that are mandated to submitted Construction Productivity Data (refer to A2 for more information) will receive a remainder email if there is missing submission detected. ,

The reminder email will be sent to the builders' company contact person and project manager for the months where the manpower data was not submitted.

C8 Why system prompts error message 'Please contact administrator' when I tried to submit monthly manpower data?

There is missing project information that requires your attention. Once you log in to ePSS portal, go to 'Project -> view/edit project details' to update the missing project information.

C9 What is the difference between the unique workers deployed for column C and D for the Building onsite productivity template? Any example?

No. of Unique Workers Deployed (total number)

It would include *Singapore Citizens, Permanent Residents, Employment Pass (E-Pass), Skilled Pass (S-Pass) and work permits holders*

No. of Unique Workers Deployed (Work Permit Holders only)


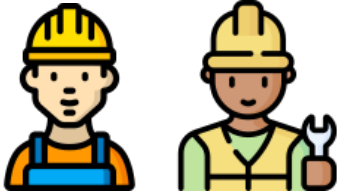


It would include work permit holders.


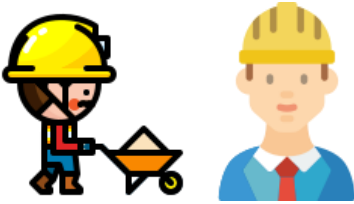


14				
15	SECTION B - MONTHLY ON-SITE MANPOWER USAGE			
16	Trades	ManPower Used (mandays)	No. of Unique Workers Deployed (Total Number)	No. of Unique Workers Deployed (Work Permit Holders only)
17	Site Management Team			
18	Site Management Team			
19				
20	Basement			
21	Site Clearance & Mobilisation			
22	Machine Operator			
23	Excavation Work			
24	Temporary Retaining Structure			
25	Carpentry			
26	System Formwork Installation			
27	Steel Reinforcement Fixing			
28	Concrete Placement			
29	Pre-stressing Work			
30	Precast Concrete Installation			
31	Waterproofing			
32	Architectural Works			
33	M&E Works			
34	Others			
35	SubTotal(Basement)	0	0	0

Figure C-2 Monthly Onsite manpower template

Please refer to example below.

Example: Assume that there were only 3 working days in Feb 2024,

Day	No. of Unique Workers Deployed (total number) i.e. Column C:	No. of Unique Workers Deployed (Work Permit Holders only) i.e. Column D
<p>Monday 5 Feb</p>	<p>Workers working on site:</p> <ul style="list-style-type: none"> - Mr Z (PMET) - Mr A and Mr B (work permit holders)  <p>Total number of workers deployed =</p> $1 + 2 = 3$	<p>Work permit holders working on site:</p> <ul style="list-style-type: none"> • Mr A and Mr B  <p>No of Unique workers deployed = 2</p>
<p>Tuesday, 6 Feb</p>	<p>Workers working on site:</p> <ul style="list-style-type: none"> - Mr Z (PMET) - Mr A and Mr B (work permit holders)  <p>Total number of workers deployed =</p> $1 + 2 = 3$	<p>Work permit holders working on site:</p> <ul style="list-style-type: none"> • Mr A and Mr B  <p>No of Unique workers deployed = 2</p>
<p>Wed, 7 Feb</p>	<p>Workers working at site:</p> <ul style="list-style-type: none"> - Ms Y 	<p>Work permit holders working at site:</p> <ul style="list-style-type: none"> • Mr C and Mr D

	<p>- Mr C and Mr D</p>  <p>Total number of workers deployed:</p> <p>= 1 + 2 = 3</p>	 <p>No of Unique workers deployed = 2</p>
<p>Total for the month</p>	<p>Total no. of unique workers working on site for the month: 6</p>  <p>Note:</p> <p>On Mon and Tue, Mr A, Mr B and Mr Z were working at site.</p> <p>On Wed, Ms Y, Mr C and Mr D were working at site.</p>	<p>Total no of unique work permit holders: 4</p>  <p>Note:</p> <p>On Mon and Tue, Mr A and Mr B were working at site.</p> <p>On Wed, Mr C and Mr D were working at site.</p>

Assuming these staff are in 'Site management Team and work 8 hrs per day (=1manday), you will update the onsite manpower template as follows:

Trades	ManPower Used (mandays)	No. of Unique Workers Deployed (Total Number)	No. of Unique Workers Deployed (Work Permit Holders only)
Site Management Team	9	6	4

D. Biometric Authentication System (BAS)

D1 What are the hardware requirements for BAS?

The hardware requirements shall include the following:

- I. Biometric readers that have the following features:
 - Located at all worksite entrance and exit for the purpose of electronically monitoring and tracking the manpower usage throughout the contract duration.
 - Robust and durable design that is suitable for rugged construction environment.
 - Fast and secure sensor that accurately captures and authenticates distinguishing physiological traits. At each controlled access location, the system shall be able to achieve a maximum clearance time of 1 minute for every 10 persons.
- II. Provision to guide the flow of workers (e.g. turnstiles and railings)
- III. A real time monitoring and recording device installed at each controlled access point to prevent any fraudulent attempt by the site personnel.
- IV. Suitable measure(s) (e.g. backup battery supply etc.) such that the integrity of the manpower monitoring data is not affected during power outage.

D2 What are the software requirements for BAS?

The software requirements shall include the following:

- I. Accurately monitor and track the manpower under their respective trade
- II. Generate raw data or output in the required format which shall include employee name, date, clock in time, clock out time, tabulation on the number of hours at site
- III. Generate the manpower report according to BCA's current ePSS in Microsoft Excel format. The Contractor shall refer to BCA's website (<https://www.bca.gov.sg/EPSS/>) for the latest requirements on manpower submission to ePSS.

D3 Is the installation and operation of the BAS compulsory?

Refer to A2, projects highlighted in Q2 must install BAS.