Data-U Service Level Description

FRIB-S30206-RC-009582-R001

November 12 November2025

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11/21/2025

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Revision History

Revision	Issued	Changes
R001	12 November 2025	Original Issue

Authorizing Document

None.

Authorized Documents

None.

Authorized Committees and Boards

None.

Named Program Roles

None.

Awareness Training

None.

Enabling Training

None.

1 Objective

This document outlines the service levels FRIB will provide to support users in preparing, testing, and conducting experiments, detailing the use of Data-U areas, expectations for their condition, and procedures for accommodating special requirements.

2 Data-U Overview

The five Data-U areas are provided by the FRIB laboratory to support users in preparing, testing, and performing their scheduled experiments. The Data-U areas are located adjacent to the Accelerator Control Room (ACR), as shown in Figure 1.

Each Data-U is assignable to any experimental area, allowing for maximum flexibility. In practice, some customization is applied based on special user requests. Every Data-U provides the infrastructure necessary for the successful completion of experiments.

It is essential that the state of each Data-U before and after an experiment remains identical to minimize management overhead between experiments, in line with FRIB User Training requirements. Special requirements beyond what is covered in this Service Level Description may be accommodated within available resources, and users should communicate these needs during the Experiment Readiness Review (ERR) process. Clearly specifying needs during the

Figure 1. Location of the FRIB Data-U (top) and a representative photo of one Data-U unit (bottom). All five Data-Us are identical in design.

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ERR ensures that proper accommodation can be arranged in advance. User feedback is welcomed and serves as an important tool for continuous improvement.

3   Standard Equipment and User Facilities

Each Data-U unit is equipped with a standard set of hardware to support experimental operations. Computing resources include 2–3 Windows and 5–7 Linux machines connected to the controls, data acquisition, and office networks. For visual monitoring, the Data-U is equipped with an average of 12 standard monitors plus 4 large displays. One or two of these large displays are reserved for machine and instrument status, while the others are available for general user applications. Infrastructure includes a dedicated electronics rack connected to the experimental area's clean ground, along with a patch cable panel providing BNC connections to that same area. Refer to Appendix A for a typical list of computers and detailed network configurations.

A digital oscilloscope is available in each Data U, with two additional oscilloscopes shared among the Data-Us. Printers, also shared between Data-Us, are accessible from the laboratory networks. They are in Data-U2&3. A central table is provided with power outlets for users' laptops and mobile devices; however, this table and its power sources are not intended for use with additional electronics, larger computer systems, or high-power appliances (limited to a single 20 Amps circuit). Additional power outlets are available on the side tables and may be used as well.

A special rack space is available and equipped with coat hangers for user convenience. A white board and dry erase markers are provided in each Data-U, as well as vertical space to post paper documents. The capacity of each Data-U is about 10 people (6 at the desktops and 4 at the central table). The MSUnet Guest 3.0 WiFi network is reachable throughout the Data-Us as well as the eduroam network.

4   Data-U Allocation and Pre-Experiment Requirements

Each experiment is assigned to a specific Data-U during the preparation phase, a task managed by the Manager for User Relations. If the assigned Data-U is not already connected to the proper ground and patch panel for the relevant experimental area, the Data-U area coordinator will ensure the necessary reconfiguration is completed. If a private network connection (LAN) is needed between the Data-U and the experimental area, this requirement must be identified during the ERR process. A corresponding request will be submitted to the IT department to establish the connection in time for the experiment.

## 5   Data-U Conduct Guidelines

Experimental groups are expected to remain within their designated Data-U throughout the course of their experiment. If additional space is needed, the user area may be utilized as necessary. Data-Us must be kept clean and orderly; users are responsible for disposing of their own waste and for ensuring that unnecessary equipment or tools are not left in the area.

While food consumption is allowed in the Data-Us, the kitchen located in the atrium area is available to prepare food. At the conclusion of their activities, users are expected to leave the Data-U in the same condition they would wish to find it upon arrival for their own experiment.

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Appendix A

Typical Data-U computer configuration as of August 2025. The exact current configuration can be provided upon request.
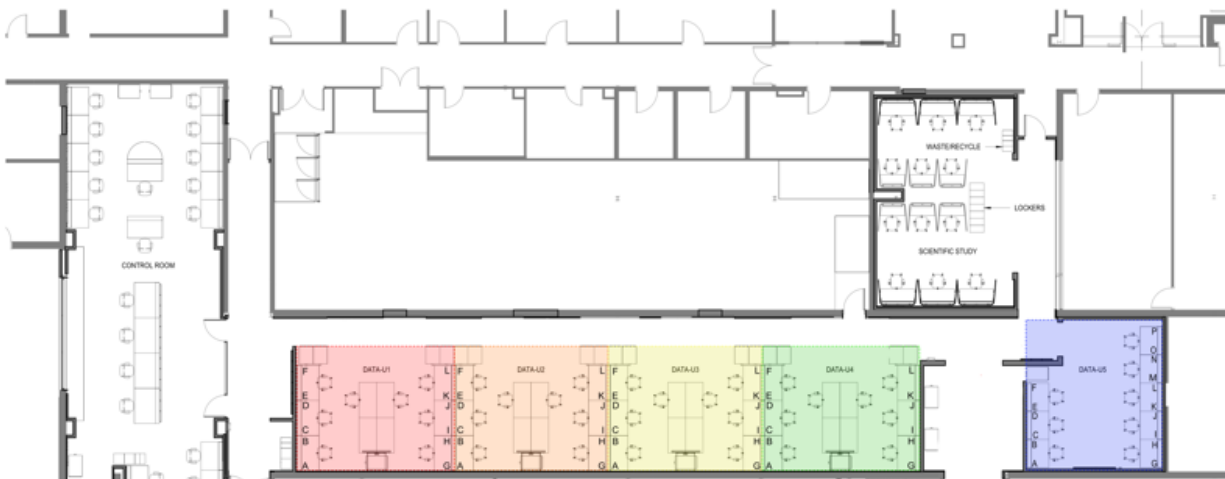
Data U	Location	Name	Network	OS
U1	A	WORK-EXP-DATAU1-01		
	B			
	C	U1PC8	Office	Windows 10
	D	U1PC3	DAQ	Debian 10
	E			
	F	U1PC5	DAQ	Debian 10
	G	U1PC2	DAQ	Debian 10
	H			
	I	U1PC4	DAQ	Debian 10
	J	U1PC1	Controls	Debian 10
	K			
	L	U1PC7	Controls	Windows 10
U2	A	WORK-EXP-DATAU2-01		
	B			
	C	U2PC8	Office	Windows 10
	D	U2PC3	DAQ	Debian 10
	E			
	F	U2PC4	DAQ	Debian 10
	G	U2PC5	DAQ	Debian 10
	H			
	I	U2PC2	DAQ	Debian 10
	J	U2PC1	Controls	Debian 10
	K	U2PC6	Controls	Windows 10
	L			

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Data U	Location	Name	Network	OS
U3	A	WORK-EXP-DATAU3-01		
	B			
	C	U3PC1	Controls	Debian 10
	D	U3PC6	Office	Windows 10
	E			
	F	U3PC4	DAQ	Debian 10
	G	U3PC2	DAQ	Debian 10
	H			
	I			
	J	U3PC7	Controls	Windows 10
	K			
	L	U3PC8	Controls	Windows 10
U4	A	U4PC1	DAQ	Debian 10
	B	WORK-EXP-DATAU4-01 STATDISP-FTC-DATAU4-01		
	C			
	D	U4PC6	Office	Windows 10
	E	NSCLOFFLOAD	Gretina	Ubuntu
	F	USBCOPY	Gretina	Ubuntu
	G	U4PC2	DAQ	Debian 10
	H			
	I	U4PC4	DAQ	Debian 10
	J			
	K	STATDISP-EXP-DATAU4-01		
		U4PC3	DAQ	Debian 10
	L	U4PC9	Office	Windows 10
U5	A			
	B	U5PC10	Controls	Windows 10
	C	U5PC6	Office	Windows 10
	D	U5PC2	DAQ	Debian 11
	E			
	F	U5PC3	DAQ	Debian 11
	G	U5PC8	Controls	Debian 11
	H	U5PC9	Controls	Debian 11
	I	U5PC5	Controls	Debian 11
	J			
	K			
	L	U5PC7	Office	Windows 10
	M			
	N	U5PC4	DAQ	Debian 11
	O			
	P	U5PC1	Controls	Debian 11