

Advanced Photon Source

User Policies and Procedures

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Industrial Measurement Beam Time

Changes made in this revision:

- Consolidates Use of the APS Beam Time Access System (Procedure # 3.1.115, rev. 0) with parts of APS User Administrative Policies and Procedures (Procedure # 3.1.101, rev. 0).
- Updated and elaborated.

Comments for future revisions:

This document has several sections that are identical (or nearly so) with sections in the other beam time access policies cited in Beam Time Access Framework (Procedure # 3.1.115), Section 3.1/Access Modes. The information is duplicated so that each policy can stand alone for ease of reference by users. Changes to this policy should also be made in the other policies as appropriate.

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Industrial Measurement Beam Time

POLICY

1 PURPOSE

The objective of this policy is to provide an expedited mechanism for access by new users with industrially important measurements.

2 SCOPE

This policy applies to all users of APS industrial measurement beam time. For the overarching policy for access to beam time, see [Beam Time Access Framework, Procedure # 3.1.115](#).

3 POLICY

3.1 Definition

The industrial measurement mode provides a way for industry users to perform one-time, usually nonproprietary measurements to investigate specific problems (e.g. production or performance issues). Initial contact is made through an expression of interest form in the Industry section of the APS web site. The intent is to make time available for proof-of-concept experiments that may lead to other avenues of interaction.

3.2 Available Time

Beamline participation is optional. Participating beamlines set aside three rapid-access shifts, at approximately two-week intervals (approximately 5% of the beam time). This time comes out of the beamline's General User obligation. At each cycle, the time set aside for industrial measurement is included with the beamline's other rapid-access set-aside, if any, and subtracted from the time available for allocation by the General User Beamtime Allocation Committee (BAC), as described in Section 3.6/Available Time in [Beam Time Access Framework \(Procedure # 3.1.115\)](#).

3.3 Calls for Proposals

Requests for industrial measurement access are accepted at any time.

3.4 Proposals and Beam Time Requests

If a request for industrial measurement access is approved, the User Office will create a proposal for the user in the APS Web-based Beam Time Access System. This online

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system enables the APS and beamline management to collect and document beam-time usage and provides the basis for DOE-mandated usage reports.

In this system, a *proposal* describes the work to be performed, and a *beam time request* (BTR) against the proposal identifies where and when the user wants to do that work. The proposal and the first beam time request are created together. For subsequent visits for the same work, a new request must be created against the original proposal; thus, a proposal can have multiple beam time requests.

The Beam Time Access System (in combination with the Beamtime Scheduling System) associates each beam usage with a specific

- Proposal
- Beam time request (BTR)
- Beam time attribute set (e.g., proprietary/nonproprietary, General User, rapid access, beamline commissioning/start-up, National User Facility, etc.)
- Experiment Safety Assessment Form (ESAF).

3.5 Proposal Lifetime

Proposals for industrial measurement access expire after one visit. Further work can be conducted under a General User proposal if required.

3.6 Scientific Review

Requests for industrial measurement access are reviewed on a rolling basis by a special APS staff/management panel. The review criteria are the following: (1) Can it be done here? (2) Can it be done safely? (3) Is there a reasonable chance that useful information can be obtained?

3.7 Beamline Comment

The beamline staff evaluate the feasibility and safety of the requested measurement.

3.8 Allocation

When a request is approved, the User Office creates an industrial measurement proposal with a rapid-access beam time request and notifies the beamline. Beam time requests on proposals of this type are made directly available to the beamline for scheduling in the Beamtime Scheduling System.

3.9 Scheduling

The beamline on which the request was allocated is responsible for scheduling and coordinating the visit. Visits must be scheduled in the Beamtime Scheduling System.

3.10 Alternative Experimental Modes

Some experiments are carried out by “remote users,” that is, users located elsewhere who control the beamline through computer access. Some beamlines accommodate “mail-in users”: the users send samples by mail and local staff collect the data on the users’ behalf. Although mail-in and remote users are subject to slightly different administrative requirements (see [Site Access by Users and Visitors](#), [Procedure # 3.1.43](#)), for the purposes of beam time allocation and reporting, the present policy holds just as it does for conventional experimental visits.

3.11 Declaration of Significance

Within 12 months of completion of the industrial measurement beam time, the spokesperson must provide the APS with follow-up information on the significance of the work, as specified in [Evaluation of Unpublished Research](#) ([Procedure # 3.1.45](#)). This follow-up deadline can be extended on request.

3.12 Responsibilities of Users

Users must complete training, have a user agreement in place, submit forms for safety review in a timely manner, acknowledge the APS and the beamline(s) in publications, and submit publications to the APS. Users who damage equipment owned by a CAT or APS after receiving appropriate training in its use will be held liable for damage, according to the provisions of their institutional user agreements. For a full statement of user responsibilities, see [Beam Time Access Framework](#), Section 3.10 ([Procedure # 3.1.115](#)).

4 DEFINITIONS

Beamline: All instrumentation and facilities that extend from the source in the storage ring to an experiment station.

Beam Time Access System: Web-based proposal submission and management system used for requesting all types of beam time.

Beam time request (BTR): A web form (and the resulting electronic record) associated with a specific proposal, used to request beam time during a particular cycle on a particular beamline. This form is used both when the proposal is initially submitted and for subsequent cycles as long as the proposal is active.

Beamtime Scheduling System: Web-based system used by beamline staff to schedule all APS beam time. A specific beam time request is associated with each unit of beam time.

Proposal: Electronic document comprising the description of the proposed research and all associated beam time requests (BTRs). Created in the Beam Time Access System.

Proposal spokesperson: Person identified on the proposal submission form as the primary point of contact for communication about the proposal.

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5 ASSISTANCE

The initial point of contact for questions about this policy is the APS User Program Manager.

6 RELATED POLICIES

- Parent policy: Beam Time Access Framework ([Procedure # 3.1.115](#))
- User Access and Administration Framework ([Procedure # 3.1.101](#))

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Industrial Measurement Beam Time

PROCEDURE

1 INTRODUCTION

Establishing access to beam time involves navigating interactions with the various data systems the APS uses to manage and report on user activity. Two numbers are key to these interactions: the user **badge number** and the **proposal number**. Once a badge number is assigned to an individual, he or she keeps that number forever. The badge number is used both for authorizing site access and for associating an individual with specific experimental activity. The proposal number is key to scientific review, safety review, scheduling, and evaluation.

1.1 Purpose

This procedure establishes how users, User Office staff, and beamline staff interact with APS data systems so that, in the end, a specific industrial measurement user group is scheduled to do a specific experiment at a specific beamline at a specific time.

1.2 Scope

The procedure does not address the choice of an appropriate beamline, proposal development, or processes internal to individual beamlines.

1.3 References

The APS User Calendar, published on the APS web site, lists deadlines for proposal submission, run start and end dates, and schedules for proposal review and beam time allocation.

2 BACKGROUND

As a national user facility and publicly funded resource, APS has a responsibility to ensure that beam time is utilized efficiently and to best effect. As a result, APS must document, monitor, and report on the usage of the facility and the impact of the science carried out. Because of the volume of activity and the specificity of reporting requirements, the APS relies on many complex and interconnected data management systems to track and report on people, time, experiments, and experimental resources. Each request for beam time follows a path through these systems.

3 PRECAUTIONS AND LIMITATIONS

The user group must respond promptly to requests for information from the APS.

4 PREREQUISITE ACTIONS

- [1] Team Leader See User Access and Administration Framework ([Procedure # 3.1.101](#)) for an overview of the process of managing an experiment at APS.
- [2] User Office Manage expiration of proposals in the Beam Time Access System after beam time access.

5 PROCEDURE

NOTE User Mgr. is the User Program Manager; Dep. Dir. is the Deputy Director for X-ray Science; BL Coord. is the beamline coordinator.

- [1] User Complete the expression of interest form under the Industry menu item on the APS home page (<http://www.aps.anl.gov/industry/>).
- [2] Webmaster Distribute expression of interest form to APS Deputy Director for X-ray Science, User Program Manager, and Manager, Scientific Information Services [automated by Web interface].
- [3] User Mgr. E-mail requester to acknowledge receipt of form.
- [4] Dep. Dir. Contact principal investigator for further information. If review criteria are met, arrange contact between the user and the beamline scientist where the work will be done, and notify User Program Manager that the request has been accepted.
- [5] User Mgr. Work with user to initiate administrative processes in accordance with User Access and Administration Framework ([Procedure # 3.1.101](#)) (e.g., user registration, user agreements, user accounts).
- [6] BL Coord. When agreement has been reached on date of visit (next available rapid-access period), schedule user visit in APS Beamtime Scheduling System and notify User Program Manager.
- [7] User Office Create Industrial Measurement proposal and communicate proposal number to user.
- [8] User Prepare for experiment: see User Access and Administration Framework ([Procedure # 3.1.101](#)) for the requirements for safety, training, and follow-up.

6 DOCUMENTS/RECORDS CREATED BY THIS PROCEDURE

The documents/records listed below will be created in the execution of this procedure. The documents created will depend on the type of proposal concerned.

Description of Document/Record	Custodian	Storage Location and Medium
Inquiry	User Program Manager	Email
Decision record	User Program Manager	Email
Proposal	User Program Manager	Beam Time Access System
Scheduled beam time record	AES/Project Specialist	Beamtime Scheduling System
Scheduled beam time notification email	Beamline Coordinator	Beamline email server, with backup in Information Services if sent from Beamtime Scheduling System

7 TRAINING REQUIRED

No training is required to execute this procedure.

8 FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the [APS Policies and Procedures Comment Form](#)* to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure ([APS 1408152](#)).

* http://centraldocs.aps.anl.gov/comment_form.php