



# DIGITAL **MASTERWORK**

[partial doc example of Functional Spec for software developers]

## **AIDLearn™ Version 3.0** Functional Requirements Document Revision 12/23/99 LP



DIGITAL **MASTERWORK**



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## DOCUMENT OVERVIEW

The purpose of this document is to communicate the overall functional requirements for AIDLearn Version 3.0. These requirements have been compiled from the requests DigitalMasterwork has received from our existing and potential clients, and from the internal DigitalMasterwork team.

Related documents that can be referred to include:

Conceptual Requirements Document	Education Object description
Learner Interface	Mock up interface, purpose, controls, behaviors, site maps
Administrator Interface	Mock up interface, purpose, controls, behaviors, site maps
General User Cases	Procedural example User Cases and flowcharts
Learner Use Cases	Procedural example User Cases and flowcharts
Administrator Use Cases	Procedural example User Cases and flowcharts

The remainder of this document is structured as outlined below:

- **General Application** - general requirements of the AIDLearn application
  - *Security/Access Control* - requirements for access into AIDLearn and its training content
  - *Learner Interface Design* - requirements to support a customized template-based front end
  - *Content* - requirements to support a reusable object-based inventory of training content
  - *Administration and Management* – requirements to support Learners and Content
- **Core Functionality** -- detailed requirements for each component of AIDLearn
  - *Learner* - detailed requirements associated with the learning environment
  - *Administrator* - detailed requirements associated with the administration and maintenance environment
  - *Author* – detailed requirements associated with the document creation, input, and control environment.
- **System Integration** -- requirements for the integration of AIDLearn with external systems and/or applications

## APPLICATION FUNCTIONAL OVERVIEW

AIDLearn Version 3.0 is a fully web-based application, accessed via a standard web browser. Specifically, Version 3.0 must be designed to support the latest version of Microsoft Internet Explorer, Netscape Communicator, and AOL. However, this does not exclude the use of other web browsers.

AIDLearn Version 3.0 must allow for mass customization of the User Interface by the client, and also allow the client to incorporate the latest web-technologies as they emerge. To support this requirement, the front-end must be template-based (please refer to the User Interface section for more detail regarding customization).

### **SECURITY/ACCESS CONTROL**

**User Types:** AIDLearn must allow a duo-environment that supports **two user types: Learner and Administrator**. The Learner environment represents the “student” and the administration environment represents the “teacher” and "author". Based on the user’s login information and user Type, the system must identify the ‘privileges’ associated with the user’s Type to determine which AIDLearn elements are accessible to the user, regardless of the application installed on the user’s desktop.

**Login:** The user must be assigned a user type prior to login into the system, or the default of Learner user type must be implemented. Upon login into the system, the user must enter his or her User Name and User Password, which the system must validate against the database to determine the user type and applicable environment. The password field must support alphanumeric data. A user with the Administrator user type must have access to both the administrative and the Learner environment.

**Roles:** In addition to the user type, AIDLearn must support a role-based environment where the Administrator must have the ability to assign each Learner a **Role** that governs the access to portions of the education content. After login he/she must have the ability to select at least one Role per session and/or change the default Role(s).

**System Security:** In addition to the user type control, the following security measures must be provided:

- AIDLearn must be within the organization’s security (firewall vs. external server).
- Information within AIDLearn must be automatically backed-up (responsibility of IT).
- AIDLearn code and databases must be secured from tampering and overt copying/manipulation/changes so that the software license agreement is enforceable.

### **ROLES**

As mentioned above, each AIDLearn user must be assigned one or more roles. The role, defined by an Administrator, must allocate or filter one’s View of the content base objects. The mechanism for "filtering" the content object for a Role is via the creation of a study plan (aggregation of modules), assignment of that study plan to a Role, and the ordering of those modules - thereby creating the concept hierarchy for that Role. The system must allow the Administrator to create a Role and define the content domain

within the role. For example, the Role of a NOC technician is very different than the Role of a Sales Assistant. The administration must determine the training content (i.e. modules) that the NOC technician should study in order to be a 'certified' technician

Following login into the system, the user may choose a Role from a pre-defined list. The Role selected must (indirectly) determine the environment that the user may interact with until they choose another Role to study which can happen in the same study session. The User Type determines the environments available to that user. The User may have one or more User Types always associated with the User upon login. This User Type(s) determines the environments available to that user.

The system must allow the user to change Roles at any time. The process for changing roles may be multi-step within different environments, for example from within the Communication Center. Changes to the language database, if allowed, may require the user to end the session and repeat the login process for the change to take effect.

### ***Groups***

A group represents a category of AIDLearn users that share at least one attribute. The Administrator must have the ability to assign a user to a group at any time (the assignment of a user to a group does not change the functionality inherent to the user); however, the Administrator must not be required to assign a user to a group.

A group structure represents an organizational or operational structure like "department" that may or may not be utilized by the client. The purpose of a group is to allow the Administrator to manage the training and progress or the distribution of information to a particular user group(s). For example, the Administrator can assign five persons in five different roles (or functional areas) to one working group. He or she can then run a report detailing the working group's progress within a module or aggregation of test scores. Although at least one Role is required per user, a user does not require a group to utilize AIDLearn.

### **ENVIRONMENTS (USER TYPES)**

The AIDLearn application consists of two environments - **Learner** and **Administration**. The AIDLearn environment that is 'loaded' to the desktop upon login authentication must be determined based on the user type (discussed above). The Administrator must have access to both the Learner and the Administration environments. The Learner must only have access to the Learner environment. These two environments are discussed in more detail below.