CLAIMS

Claim 1 An information processing apparatus, comprising:

a tracker that tracks an authentication target heading from a first region to a second region into which entry is allowed in accordance with a result of authentication processing, the tracker being configured to start tracking the authentication target before the authentication target moves to the first region;

an authenticator that performs the authentication processing on an authentication target situated in the first region;

a processor that manages entry of the authentication target into the second region by tracking the authentication target while associating a result of the authentication processing for the authentication target and a tracking result for the authentication target when the tracker detects that the authentication target has moved to the first region;

a traveling path from the first region to the second region includes a passage path of a gate apparatus, and

the first region includes a region on an upstream side relative to an entrance of the gate apparatus along the traveling path;

the gate apparatus includes a regulator that regulates entry into the second region, and

a boundary on an upstream side of the second region along the traveling path is specified at a position of the regulator;

a third region is specified between the first region and the second region; and

a boundary between the first region and the third region is determined based on a time taken for control by the regulator, and

the processor controls the regulator such that regulation based on an authentication result associated with the authentication target is not executed until the authentication target

situated in the first region moves to the third region.

Claim 2 The information processing apparatus according to claim 1, wherein:

a boundary on an upstream side of the first region along the traveling path is specified by a start line on which the authentication processing is started, and

the authenticator performs the authentication processing on an authentication target for which the tracker has detected entry of the authentication target into the first region.

Claim 3 The information processing apparatus according to claim 1, wherein the authenticator detects an authentication target for which the authentication processing is executable, and performs the authentication processing regardless of whether the detected authentication target is situated on an upstream side relative to the first region.

Claim 4 The information processing apparatus according to claim 1, wherein:

the gate apparatus allows bidirectional entering, and

the first region and the second region are specified in respective entering directions.

Claim 5 The information processing apparatus according to claim 1, wherein the authentication processing is face-authentication processing based on a face image of the authentication target.

Claim 6 The information processing apparatus according to claim 5, wherein the tracker tracks the authentication target by using an image captured from a position and/or an angle different those or that for the face image.

Claim 7 An information processing system, comprising:

an authentication apparatus that performs authentication processing on an authentication target situated in a first region; and

an information processing apparatus that includes a tracker and a processor, the tracker tracking the authentication target heading from a first region to a second region into which entry is allowed in accordance with a result of the authentication processing, the tracker being configured to start tracking the authentication target before the authentication target moves to the first region, the processor managing entry of the authentication target into the second region by tracking the authentication target while associating a result of the authentication processing for the authentication target and a tracking result for the authentication target when the tracker detects that the authentication target has moved to the first region;

a traveling path from the first region to the second region includes a passage path of a gate apparatus, and

the first region includes a region on an upstream side relative to an entrance of the gate apparatus along the traveling path;

the gate apparatus includes a regulator that regulates entry into the second region, and

a boundary on an upstream side of the second region along the traveling path is specified at a position of the regulator;

a third region is specified between the first region and the second region; and

a boundary between the first region and the third region is determined based on a time taken for control by the regulator, and

the processor controls the regulator such that regulation based on an authentication result associated with the authentication target is not executed until the authentication target situated in the first region moves to the third region.

Claim 8 A passage-through management method, comprising:

tracking, by an information processing apparatus, an authentication target heading from a first region to a second region into which entry is allowed in accordance with a result of authentication processing, the tracker being configured to start tracking the authentication target before the authentication target moves to the first region;

performing, by the information processing apparatus, the authentication processing on an authentication target situated in the first region; and

managing, by the information processing apparatus, entry of the authentication target into the second region by tracking the authentication target while associating a result of the authentication processing for the authentication target and a tracking result for the authentication target when it is detected that the authentication target has moved to the first region;

a traveling path from the first region to the second region includes a passage path of a gate apparatus, and

the first region includes a region on an upstream side relative to an entrance of the gate apparatus along the traveling path;

the gate apparatus includes a regulator that regulates entry into the second region, and

a boundary on an upstream side of the second region along the traveling path is specified at a position of the regulator;

a third region is specified between the first region and the second region; and

a boundary between the first region and the third region is determined based on a time taken for control by the regulator, and

the processor controls the regulator such that regulation based on an authentication result associated with the authentication target is not executed until the authentication target situated in the first region moves to the third region.