iTX™ SMART CLIENT

WEB-BASED MEDIA ASSET MANAGEMENT

System Administrator Guide

v2.10

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About iTX SmartClient

The iTX SmartClient is a web browser based Media Asset and Business Metadata management system that uses the Microsoft™ Silverlight™ platform for its User Interface. The user interface has a 'dashboard' and a number of 'workspaces' that allows the user to browse and annotate media within the iTX system.

In its simplest terms, the SmartClient is managed from a single iTX control service that communicates directly with the iTX Opus service. It uses IIS (Internet Information Services) to send information over http to web browsers that point to a SmartClient website address.
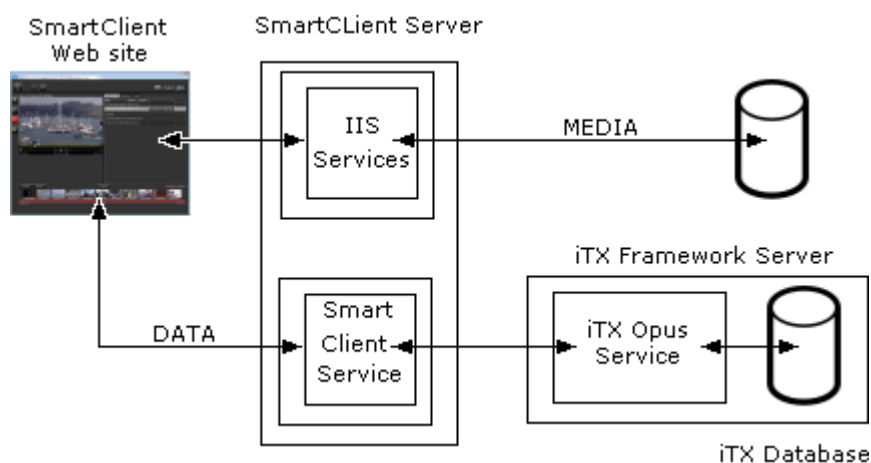
In a typical system, the SmartClient Service will run on its own Windows 2008 Server machine together with the IIS components and other prerequisites required for the installation. The SmartClient Service will communicate with the Framework Server's Opus Service by either of the existing 'Discovery' or 'Locator' methods.

Note: It is not recommended you install SmartClient service on the actual iTX Framework Server unless you are setting up a small demo or test system.

Installing the SmartClient Service

In addition to the SmartClient Service, the SmartClient server must be pre-installed with certain Microsoft software and components. This chapter explains these prerequisites and how to install them.

Summary

Prerequisites for SmartClient Service Server

- **64-bit edition of Microsoft Windows Server 2008** (with Desktop User Experience option enabled)
- **Microsoft .Net version 4**
- **Internet Information Services (IIS) version 7** with the following options:

Feature	Requirement
Web Management Tools	• IIS Management Console • IIS Management Scripts and Tools • IIS Management Service
Word Wide Web Services	• All
Application Development Features	• .Net Extensibility • ASP.Net • ISAPI Extensions • ISAPI Filters
Common HTTP Features	• Default Document • Directory Browsing • HTTP Errors • HTTP Redirection • Static Content
Health and Diagnostics	• HTTP Logging • Request Monitor • Tracing
Performance Features	• Static Content Compression
Security	• Request Filtering • Windows Authentication

- **Opus Service on the iTX Framework server.** If this service is not running, the SmartClient installer will block. If you are installing the SmartClient Service on an iTX

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Framework that also runs the Opus Service, make sure it remains running, even if all other services have been stopped.

- **Proxy Generation Service** running on the iTX Framework server is required for SmartClient to create and view proxy media clips.
- **Keyframe Generation Service** running on the iTX Framework server is required for SmartClient to create and view keyframes.

Port Usage

The IIS Web Server uses TCP ports 80 and 8080 (the standard ports) for data and media streaming. The Silverlight Proxy Service itself uses ports 943 and 4502-4532 for sending events to the client. The Opus Service and the Proxy generation service both use 8080.

Installing Microsoft IIS7

Microsoft IIS7 is installed via Windows Server Manager.

To install IIS:

1 Go to **Start -> All Programs -> Administrative Tools -> Server Manager.**
2 Scroll down to **Roles Summary** in the right hand window pane.
3 Click **Add Roles**.
   The **Add Roles** wizard starts.
4 Check the **Web Server (IIS)** checkbox.
5 Click **Next.** A check list of all available IIS Options appears.
6 Select all of the options listed above and click **Next**.
7 The Wizard will then list the newly installed options. Check the list again in order to ensure all the listed options have been installed. If the list is complete, click Close.
   If you have missed any of the above options, you can click **Previous** and re-add them to the Install Wizard list.
8 After installing IIS7 you will need to repair the Microsoft .Net4 installation. This is a known Microsoft problem with component registration.

Repairing the .Net 4 installation

To repair the Microsoft .Net4 installation after installing IIS7:

1 Go to **Start > Control Panel > All Control Panel Items > Programs and Features**.
2 Double-click **Microsoft.NET Framework 4** from the list.
3 Select the **Repair Option** and click **Next**.
4 The Microsoft .Net4 repair begin.
5 Follow the on-screen prompts to complete the repair.

Configuring Access to Virtual Directories

Once IIS has been installed, you need to configure access rights to the Virtual Directories. You do this from the IIS Manager application.

To configure access rights to the Virtual Directories:

1 Click **Start** > **Control Panel** > **System and Security** > **Administrative Tools**.

   The **Administrative Tools** window appears.

2 Double-click **Internet Information Services (IIS) Manager**

3 Expand the **Connections** tree until you see the Windows name of the IIS Host server and the SmartClient2 website.

4 Double-click **Authentication**.

5 Enable **Anonymous Authentication**.

6 All other methods should be set to **Disabled**.

7 Carry out the following steps for each media share in the list tree:

   a Go to the **Edit Site** section of the **Actions** panel on the far right of the IIS Manager.

   b Click **Basic Settings….**

   c In the **Edit Virtual Directory** dialog, change the **Connect As…** settings.

      Select **Specific User** and enter the framework server windows login credentials.

8 Repeat step 7 for your remaining Media store folders.

Installing Live Smooth Streaming

While clips that are still being ingested via an iTX Encode Server can be loaded and played by the SmartClient provided they have been encoded using a specific Preset Template that allows simultaneous Live Smooth Streaming to a publishing point on a preconfigured IIS server.

Live Smooth Streaming is a Microsoft IIS plug-in service that allows access to video content over http.

The ability to view and annotate Live Smooth Streaming clips in SmartClient is a purchased add in.

To install Live Smooth Streaming of still recording files:

1 Firstly, download IIS Media Services 4.1 64bit from
   http://www.microsoft.com/download/en/details.aspx?id=27955

2 Install this on your IIS Server.

3 Install SmartClient.

   If SmartClient is already installed, run the SmartClient Installer from the ITX
   `Install\PostInstall\SmartClient Installer` folder.

Correcting the MIME type listed in web.config

There is a known issue with installing Live Smooth Streaming after IIS has already been
installed for a standard SmartClient setup. When you attempt to start the Live Smooth
Streaming service from the IIS Manager, it fails to start. This is due to a problem with a MIME
type listed in the `web.config` file.

To fix this problem:

1 Navigate to `C:\inetpub\wwwroot` and open the `web.config` file with notepad.

2 Remove the `<mimeMap fileExtension=".mp4" mimeType="video/mpeg" />` line.

3 Restart the service from the IIS Service Manager.

SmartClient Install will then create the new directory structure for the Smooth Streaming
media files to be written to by the Encode service. The files are written to the following
location:

    C:\inetpub\media\archives\DEFAULT WEB SITE\LSS\clipname\date and time
    created\segment001

This can be reconfigured to a different location, such as a larger storage drive on the IIS
server rather than the system drive. Although a remote location on the network can also be
chosen, it is not recommended that you do this as Live Smooth Streaming has only been
tested using locally attached storage. Please see the section below for details on how to
change the Smooth Stream files' location.

A number of separate files are created for each recording that are composed of video
(.ismv), audio (.isma), caption data (.ismc) and a metadata header/reference file (ism
extension).

These are combined (or 'muxed') when streamed over http to create a single media stream
which can be browsed or annotated as required.

The Smooth Streaming **Publishing Point** directory contains a pointer file with the same
name as the clip being recorded, which references the actual files detailed above.

Reconfiguring Live Smooth Streaming media files' storage location.

Note: Changing this configuration on a live system will cause LSS media
files to be left behind in the `C:\inetpub\media\archives` when Assets
are deleted. These will need to be manually removed.

To change the path where the smooth stream video files are stored:

1 Using **Windows Explorer**, browse to the current storage path and change its properties
   to being unshared.

2 Create the new directory you wish to use as your storage site. Usually you would choose an entirely separate volume of the local machine, specifically designed for storage and therefore not on the same disk as the Operating System (Usually `C:\` in Windows). A typical example for a new store might be `D:\Archive`.

3 Right-click on the new directory and select **Properties**.

4 Share the folder and make sure that the group `Everyone` is set to have **Full Control**.

Checking this option will automatically check all subsequent options.

5 On the web server, launch Internet Information Services (IIS) Manager.

6 Select the **Live Smooth Streaming** option on the server.
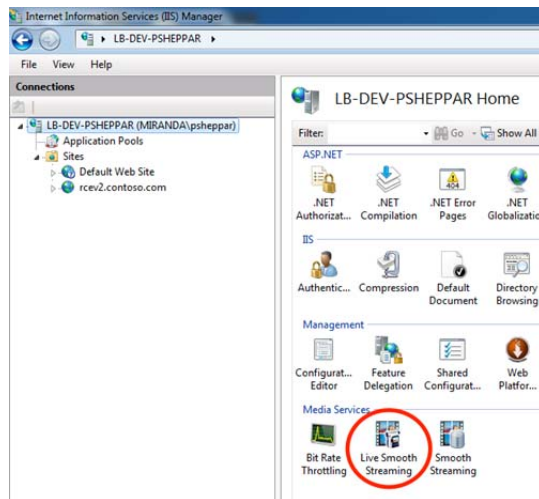
7 The **Archive** path setting can now be changed to the new directory by entering the path in to the **Archive Settings** dialogue.

You can also copy and paste the path itself from the Explorer window you opened to create the new shared directory, or browse to it by pressing the browse button next to the dialogue window in.
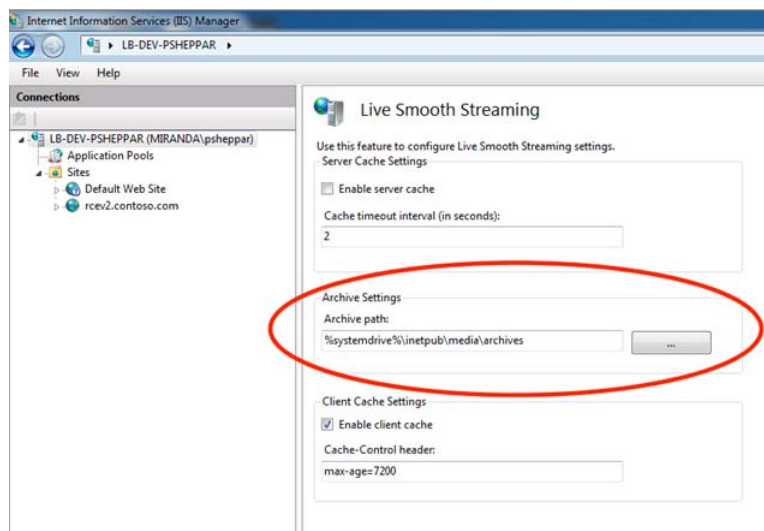
8 Make sure you save your changes before closing the IIS Manager application.

Installing Microsoft™ Silverlight™ runtime version 5

All client PCs need Silverlight 5 runtime installed. The SmartClient Server itself does not need Silverlight, but it is advised that you install it on the server anyway, so that the status of the SmartClient can be checked directly on the server itself.

For more information on Silverlight, visit the Microsoft Silverlight website at:

http://www.microsoft.com/silverlight/

Installing SmartClient Server

To install SmartClient Server service:

1   Access and open the iTX Installer.
2   Right-click the **Setup.exe** file and select **Run as administrator.** The iTX **Select Software to Install** window appears.
3   Expand **Content Management**.
4   Check the **SmartClient Server** option.
5   Click **OK**.

The iTX installer then performs the following tasks:

- Installs the Silverlight Service Proxy application and adds it to the iTX Server Controller's list of controlled applications.
- Creates the SmartClient2 application in IIS.
- Creates Virtual Directories in IIS for each real media store location registered with the system. As SmartClient is a web-based client, it can't access the media directly from a Windows share like the iTX Desktop does.
- The SmartClient installer queries the OPUS system and creates IIS Virtual Directories that point at the Media shares. These Virtual Directories expose the media files over HTTP.

Testing SmartClient is working

Before you can configure users and their rights, you need to check that the basic SmartClient web page is accessible:

- In a web browser, navigate to `http://smartclient server name/SmartClient2`.
- On connection to the SmartClient webpage, you may be prompted to install Silverlight 5 runtime on your client machine if it is not already installed.
- If the website cannot be resolved by name, try the IP address of the server, e.g. `http://192.168.180.100/SmartClient2`
- If you still can't access the application, use a web browser on the web server itself and navigate to `http://localhost/SmartClient2`.

Configuring Business Metadata

Business metadata is customer specific metadata that is associated with a particular asset, usually a piece of media or clip stored within the iTX System. Business metadata can be any information about the clip and its contents, such as the names of the people featured within it, the type of shots used during the filming or even events that take place within the clip itself.

This chapter describes the concepts iTX uses to organize and configure business metadata.

Summary

About Business Metadata Categories

The processing of adding business metadata to a clip's record in the iTX database is called 'Annotation'. In order to annotate content within your iTX system with business metadata, the system must be configured to accept the following metadata categories:
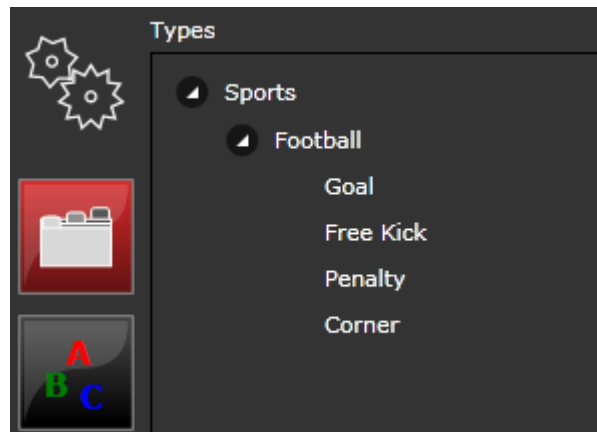
- Types
- Schemas
- Field
- Records
- Events
- Templates
- Alternatives

Types

A type identifies each separate piece of business metadata a customer wishes to associate with an asset. Each type references a schema that contains labeled fields. Types are organized hierarchically, e.g.

```
\Sports
\Sports\Football
\Sports\Football\Goal
\Sports\Football\Free kick
```

In SmartClient this hierarchy would be represented like so:

Schemas

A metadata schema describes the structure of an instance of business metadata. A schema defines a collection of fields, each of which represents an individual item of data. A field has a name and a data type (i.e. a field also has other properties, which define rules for data validation, for rendering on the UI and for specifying a data source for another field where the set of valid values for the field is defined).

A field can be marked as mandatory or options. A field can also be configured to allow alternative values (See Alternates on page 14). The same schema can be referenced by multiple types, but a type can only reference a single schema.

For example, 'News' can be a business metadata type. This type requires a schema to describe its content. A schema can be thought of as a table containing the fields. These fields contain labels to describe the records each field can contain.

News schema example fields:

- Story
- Date Shot
- Location
- Reporter
- Copyright

A schema can have extra fields added, and the fields can be re-ordered without data loss. Although a single schema can have a great many fields, it is recommended that metadata is organized into separate types with separate schemas.
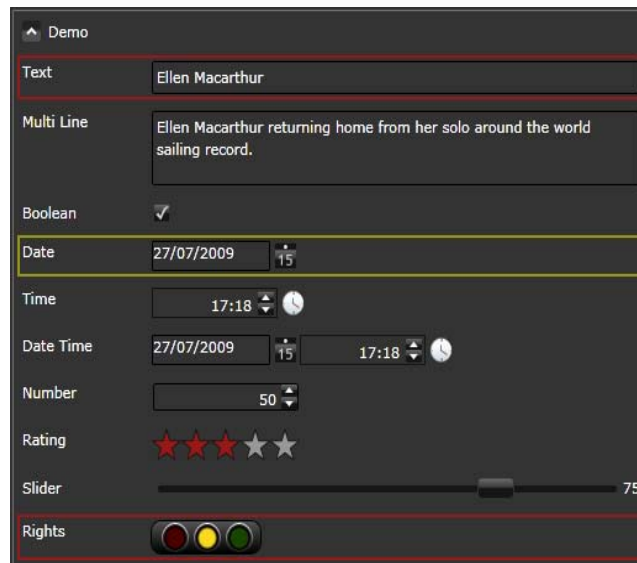
Fields

A number of different field types are provided for the storing of records. Each field type determines the method by which the data is annotated to that field.

Field type	Description
Text	A Text field stores a string of Unicode characters. It can be set to be either display on a single line or multiple lines. The minimum and maximum permitted length can be set and default value can be set.
Date Time	A Date Time field stores a Date, a Time or a Date and Time value. It can have a range and default value set.
Number	A Number field stores an integer number. It can have a range and default value set. It can be rendered as a numeric entry textbox, a slider, rating stars, or a drop down.
Boolean	A Boolean field stores a True/False value. It can have a default value set.
Pick List	A Pick List field stores a string of Unicode characters that the user chooses from a list of permitted values. The list of permitted values can be sorted alphabetically, or displayed in the order specified. A default value can be set.
Traffic Light	A Traffic Light field stores the state of a Traffic light, Red, Amber or Green. It can have a default value set.
UI Label and UI Separators	These two field options are used to add either a Label or a Separator to the business metadata UI panel in order to group fields together and are not actual field types themselves.

The image below provides an example of fields, as they appear in SmartClient:

Controlled List Field Types

A number of field types can be added that are governed by a separate add-on service called the Controlled Lists Service. These field types are populated by a dynamically updated list from outside the system. They work in a similar way to the 'picklist' Type.

An example of a controlled list might be a list of sports teams in a league. Because the teams competing in a league may change regularly, the list needs to change dynamically rather than remain fixed. There are three categories of Controlled List Field types:

Controlled List Field type	Description
CL Pick List	CL Pick List works the same as the normal pick list type but is populated from a dynamically managed list of options, which are passed to the SmartClient via the Controlled Lists Service.
CL Single Value	CL Single Value is a text entry box, where the value entered is used to query the controlled list as each character is input. A list of matching entries that the user can quickly pick from is displayed and updated dynamically as the user types, in similar fashion to an Internet search engine's predictive typing mode.
CL Multiple Value	CL Multiple Value allows multiple values, entered from a controlled list. Each value is entered separately, as per CL Single Value entry detailed above, except all values entered are then displayed simultaneously and are either added or removed from the Asset with + or – buttons.

For more details on using Controlled Lists field types in the SmartClient setup, please refer to the *Controlled Lists Service Engineering Guide.*

Records

A record is an instance of a schema field value attached to an asset. An asset can have an unlimited number of metadata records attached to it, but will normally have only one instance of a particular type.

Events

An event is a record attached to a section of the asset rather than the whole asset. events can only be added to video and audio assets. An example of an event would be a goal or free kick in a football match. Events can be previewed and used in processes like shot selection.

Templates

A template defines the types available for annotating (logging) an asset that will be available to the user. It defines which types can be added as a rec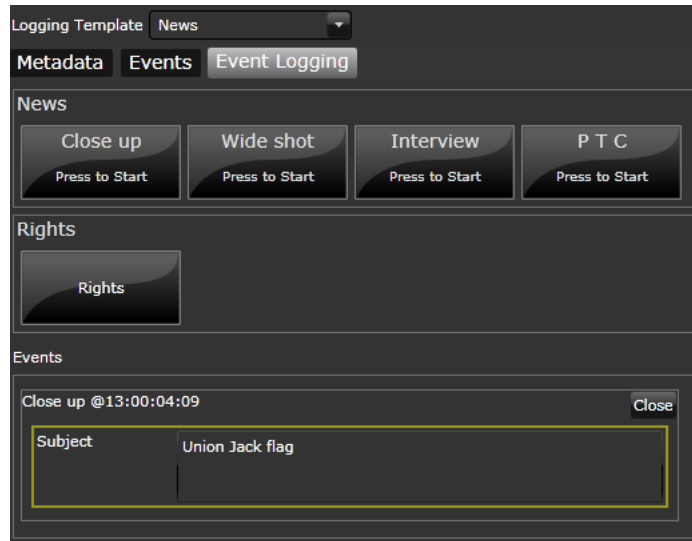ord, and which types can be added as events. Templates remove the need to build custom desktop layouts for annotating logging different things:
'

Alternates

Alternates allow specified fields within a schema to have alternative values. They are organized into groups so that different alternates can be used in different schemas. example alternate groups:

- Rights: Web, Mobile, VOD.
- Languages: English, French, German, Spanish.

Creating Types

Types are created from the Admin workspace of the SmartClient itself. In order to be able to create business metadata categories your Windows domain user account that is registered with the iTX System must be made a member of the Opus Administrator Group via the iTX Security Tool. See the *iTX System Administrator Guide* for details.

To create a type:

1 On the **SmartClient** dashboard, click **Admin** widget . The **Admin workspace** appears.

If you are member of the Opus Administrator Group, but do not have the widget already installed on your dashboard, follow the steps described in See Adding Widgets on page 35.

2 Click the **Types Editor** button .

3 In the **Types Editor**, click the **New** button at the bottom.

4 The **Create new Type** pop-up dialog appears.

5 Enter a name for the new type.
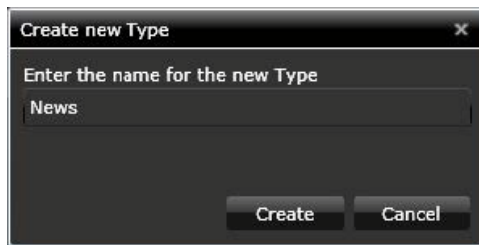
6 Click **Create**. The new type is added to the list.

Creating child types

To create a child type:

1 In the **Admin** workspace, select the type to use as a parent from the **Types** list.

   The **New Child** button becomes active at the bottom of the list.

2 Click **New Child**. The **Create New Child Type** pop-up layout appears.

3 Enter a name for the new type.

4 Click **Create**. The new child type is added to the list, below its parent.

   Parent and child types' hierarchy should then look something like this:
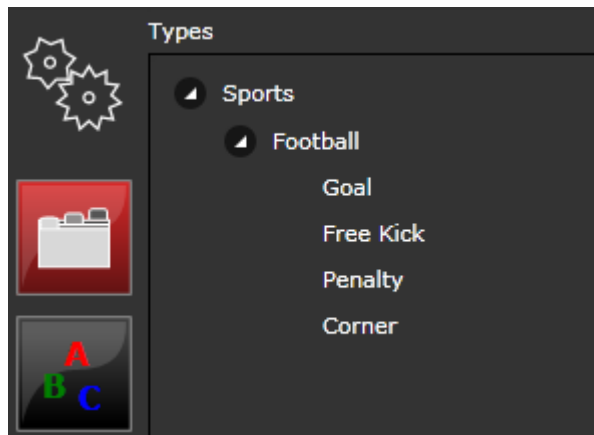
Creating Schemas

In building a schema, you add fields to the schema and select the type of field. You may select any of these previously described field types:

- Text
- Boolean
- Date
- Number
- Pick List
- Traffic Light.

Schema name
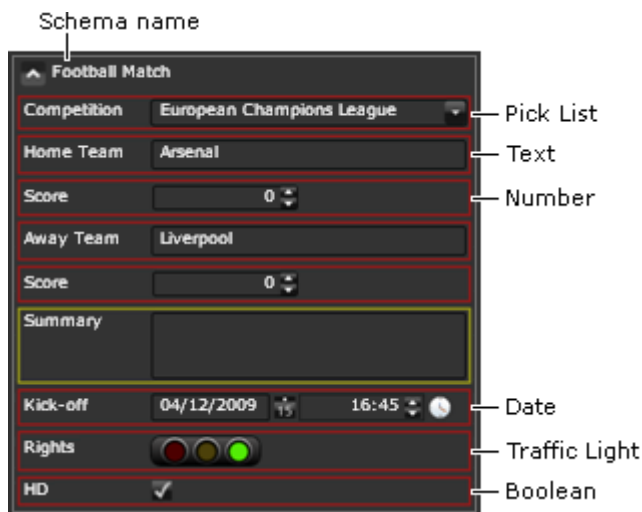
A schema has two names, which you can view and edit in the Schema Editor:

- **Display name**. This identifies the schema in selection lists in SmartClient, it appears as a label for the custom-metadata section on the Metadata panel or other part of the Clip Data pane. This name can contain spaces.

- **Database name**. This is the unique name under which the schema is stored in the database. As an XML tag, this cannot contain spaces.

To create a schema:

1 In the **Admin** workspace, click the **Schema Editor** button .

2 Click the **New Schema** button (to the right of the **Refresh** button). The **Create new Schema** pop-up dialog appears.

3 Enter a name for the new schema.
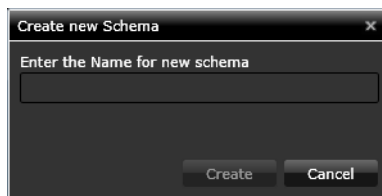
4 Click **Create**.
   The Schema Editor creates the schema and displays its details:

   - In the **Name** box, the database name (which SmartClient automatically enters).

   - In the **Display Label** box, the name you entered is displayed automatically.

   - In the **Fields** list box, a list of the fields in the schema. For a new schema, the list is blank; you have to add the required fields.

5 Click the **New Field** button. The **New Custom Metadata Field** pop-up appears.

6 From the **Field Type** drop-down list, select the required field type.

7 In the **Name** field, enter the name of the field to create.

8 Click **OK**.

   The new field appears in the **Fields** list box.

   The **Preview** area on the right displays a visual representation of how the schema will appear to the user, based on the field types created.

9 In the **Fields** list box, select the new field.

10 In the **Field Details** section, select the required properties for the field.

11 If you want to allow a field to store alternative metadata:

   a Select a set of alternate elements in the **Alternates** box (top right).

   b Select the **Allow Alternatives** check box.

12 Click **Save** to save the schema.

Note:
- Once you have added additional fields you can re-position them by selecting each one and clicking the **Up** or **Down** arrows or by dragging and dropping them in the light.
- You can remove any selected field by clicking red 'X'
- You may refresh the Schema list by clicking **Refresh**. SmartClient displays details of the first schema in the list.

Edit a Schema
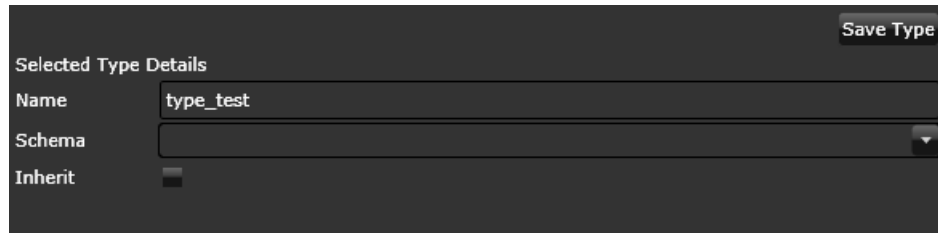
To edit a schema

1 In the **Admin** workspace, select the **Schema Editor**.

2 Select a schema from the drop-down list of available schemas in the **Schema** box.

3 To change the display name, edit the entry in the **Display Label** box.

4 To change the database name, edit the entry in the **Name** box.

5 Modify the field list as required. You can add, delete and re-order fields. You can change the properties of the metadata-section feature for any field.

6 Click **Save**.

Linking a Type to a Schema and Setting Metadata Inheritance

To link a type to a schema:

1 In the **Types** list, select a metadata type.

2 The type name appears in the **Name** box under **Selected Type Details.**
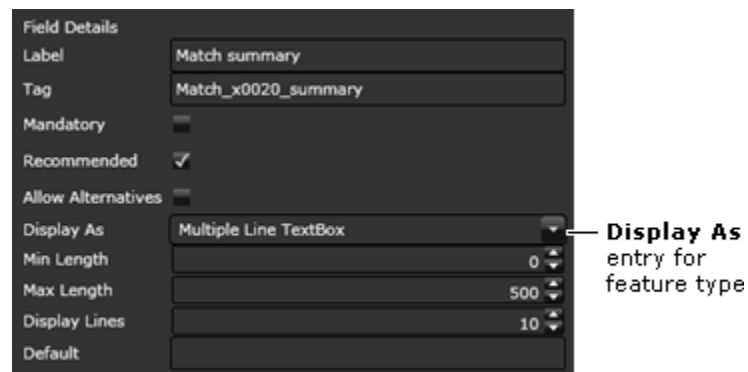
3 Edit the **Name** if required.

4 In the **Schema** box, select a schema from the dropdown list of available schemas.

5 Select the **Inherit** check box if you want co-references to share metadata of this type. clear the check box if you want to cancel this option.

6 Click **Save Type**.

> Note: Inheritance of metadata:
>
> • Inherited metadata between co-references can be annotated and all other associated assets will reference the latest instance.
> • Inherited metadata associated with an EDIT is read only and can only be changed when you annotate the source assets.

Setting Field Properties

As you add fields to a schema, you set various properties for them. These properties are listed in the Field Details section, to the right of the **Fields** list box, when a field is selected. The **Display As** property sets the field type.

Common Field Properties

All fields have a number of common properties:

Field property	Description
Label	The label that identifies the field associated with the feature in a custom-metadata section.
Tag	The unique name (within the schema) of the field in the database. This is an XML tag; it cannot contain any spaces. Two or more fields in a schema cannot have the same tag
Mandatory	The field must contain metadata; if it does not, no metadata in the schema can be saved. In a custom-metadata section, a feature for a mandatory field has a red border.
Recommended	The field should contain metadata, but this is not essential; the metadata in the schema can be saved. In a custom-metadata section, a feature for a mandatory field has a yellow border.
Allow Alternatives	Enable the field to store metadata in an alternative element that is part to the set selected in the **Alternates** box.
Default	The entry in the field before it is edited.

Some fields, depending on their feature type, have additional properties, as follows:

Text

A Text field has properties that affect the appearance and size of its text box.

Field property	Description
Display As	The text box may display text on just one line or on multiple lines.
Min Length	The minimum number of characters that the field must contain before the schema metadata can be saved.
Max Length	The maximum number of characters the field can contain. Once this number is reached, the field cannot accept any more metadata.
Display Lines	The number of lines of text that are visible without scrolling.

Date

The Date field can store date and time values.

Field property	Description
Display As	The feature can display any of three items of information: date only; time only; date and time together.
Min Date	The earliest date the field accepts.

Field property	Description
Max Date	The latest date the field accepts.
Default Mode	SmartClient can use either of two ways to determine the default entry: • It may enter the value you specify in the **Default** box • It may enter the present date and/or time when it opens the Metadata panel.

Number

A number can be expressed as a numeral, a point on a scale or as a series of rating stars.

Field property	Description
Display As	The feature can appear in one of four ways: as a number box that accepts direct entry of a number; as a number box that allows selection from a list of available numbers; as a slider on a scale; as a specified number of rating stars.
Min Value	The minimum value the field accepts.
Max Value	The maximum value the field accepts

Pick List

A pick list displays a preset list of items from which one can be selected.

Field property	Description
Alpha Sort	Selection of this option causes the pick-list items to appear in alphanumeric order rather than the order in which you arrange them in the Items box.
Items	The list of available items. To add an item to the list, enter the item name in the text box below the list and click **Add**. You can use the other buttons below the list (**Up**, **Down**, **Delete**) to re-order or remove items. In a custom-metadata section, items appear in their arranged order unless you select **Alpha Sort**.

Defining Alternates

A custom-metadata field in the iTX system database stores information that is relevant to the scenario in which an asset is used. It can also separately store alternative information for other scenarios; for this, the field uses Alternates.

Using the Alternates Creator in the Admin workspace, you define a set of alternate elements for each situation in which alternative information is required.

For instance, where English is normally used for the entry of metadata, there may be a need to include French and Spanish translations of the same metadata. You can make this possible by defining one set of alternate elements for the French metadata and another set for the Spanish metadata.

When you build a schema, you identify any fields that are to accept metadata in alternate elements.

To define a set of alternates:

1 In the **Admin** workspace, select the **Alternate Elements Creator**.

2 Enter a name for the new set of alternate elements in the **Create Alternate Set** box, below the **Alternates** list box.

3 Click **Add**.

An entry for the new set of alternate elements appears in the Alternates list.

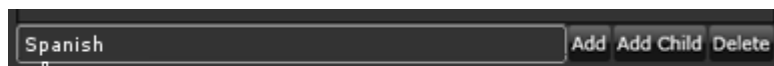4 Click **Save**.

> Note:
> • You may refresh the Alternates list by clicking **R**.
> • You may delete a set of alternate elements by selecting it in the Alternates list and clicking **Delete**.
> • When you select an entry in the Alternates list, its name and XML tag appear in the **Name** and **Tag** boxes under Selected Alternate Details.

Creating a group of related sets of alternate elements

You can create a group of related sets of alternate elements by first defining a parent set (e.g. "Languages") and then creating a child set for each set in the group (e.g. "French" and "Spanish").

To create a group of related sets of alternate elements:

1 Select the parent set in the **Alternates** list.

2 Enter the name of a child set in the **Create Alternate Set** box, below the **Alternates** list box.

3 Click **Add Child**.
An entry for the new set of alternate elements appears offset from its parent entry in the **Alternates** list.

4 Click **Save**.

About logging templates

A logging template contains lists of the metadata types that can be assigned to assets in the Annotate workspace. Custom metadata can be stored with an asset through the schema that is linked to any assigned type.

Types are specified in two ways in the template: some are specified as asset types; others, as event types.

• An Asset type is assigned to a whole asset.
• An Event type is assigned to a marked segment of an asset.

A typical template lists an asset type and a group of event types. For example, a template for annotating a video clip of a tennis match, may contain details of: an asset type ("Tennis") linked to a schema that has fields for storing general information about the match; also, a group of event types ("Serve", "Return", "Set point", "Match point", etc.) for the marking of different types of action in the match.

A template is selected in the Clip Data pane in the Annotate workspace. You access the Annotate Workspace by clicking the pencil Annotate button on the top right of the View screen in the Browse layout. On the Metadata panel, SmartClient displays a dropdown list of types that are available from this template. Features for the entry of asset metadata appear when a type is assigned to an asset.
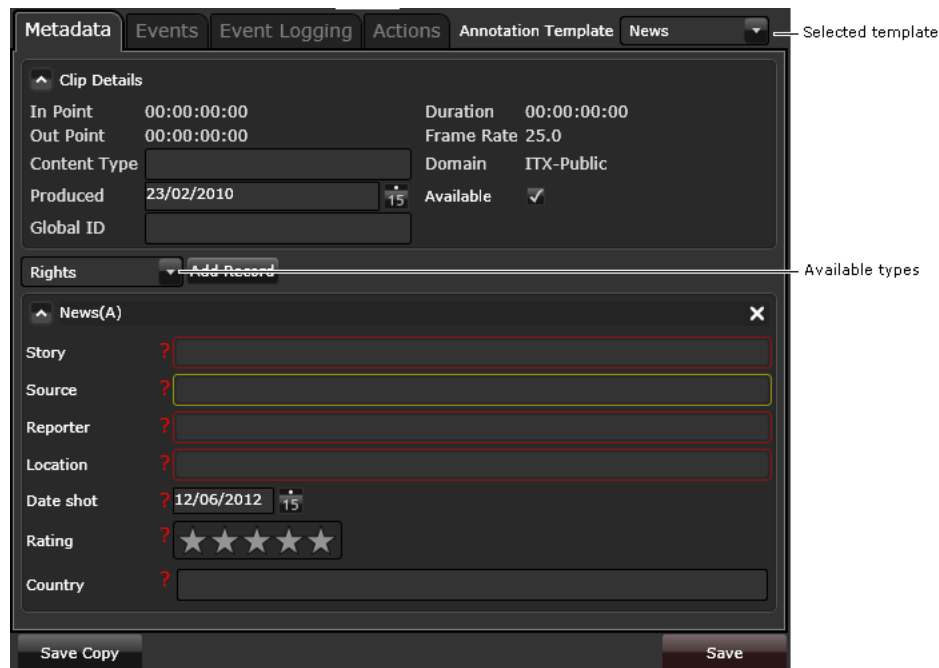

On the Event Logging panel, SmartClient displays an annotation button for each event type in the template. Features for the entry of event metadata appear automatically each time an event in an asset is marked. These features are determined by the schemas linked to the types that the buttons represent.

Selected template — (points to top right dropdown "Tennis Logging")

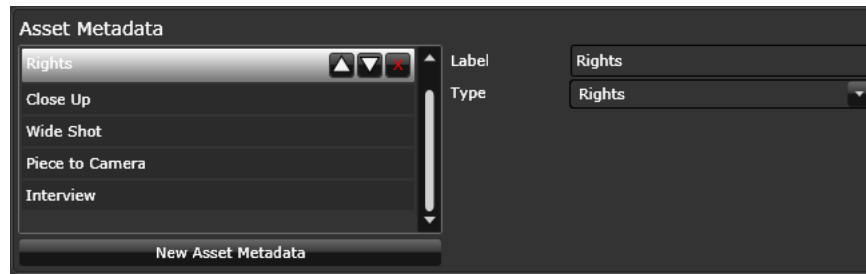Annotation buttons

Schema features
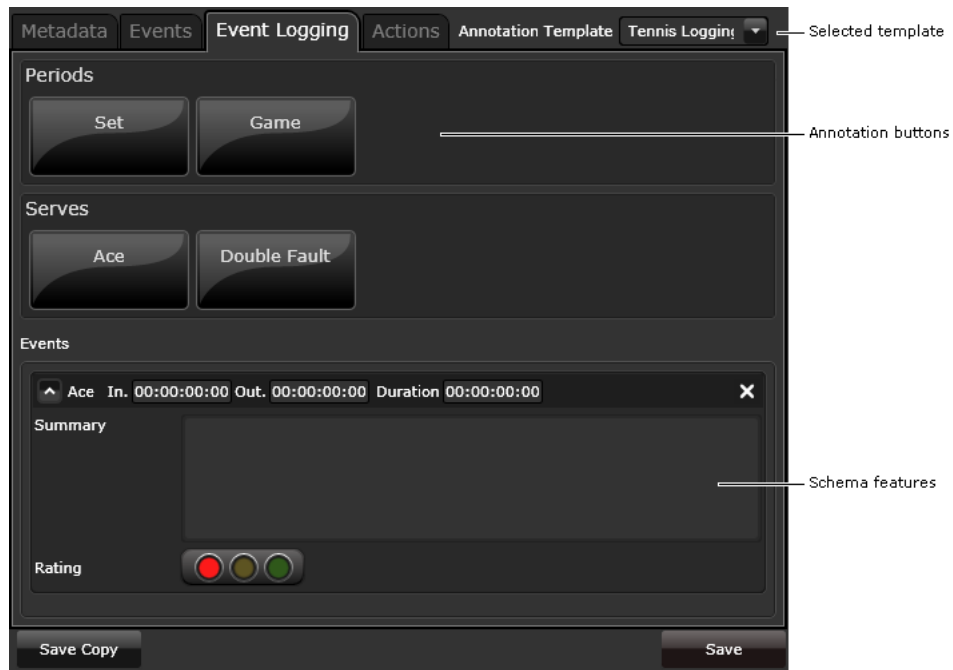
Creating Event Logging Templates

You use the Template Editor in the Admin workspace to create logging templates. You include asset and event types in the template by adding entries to list boxes.
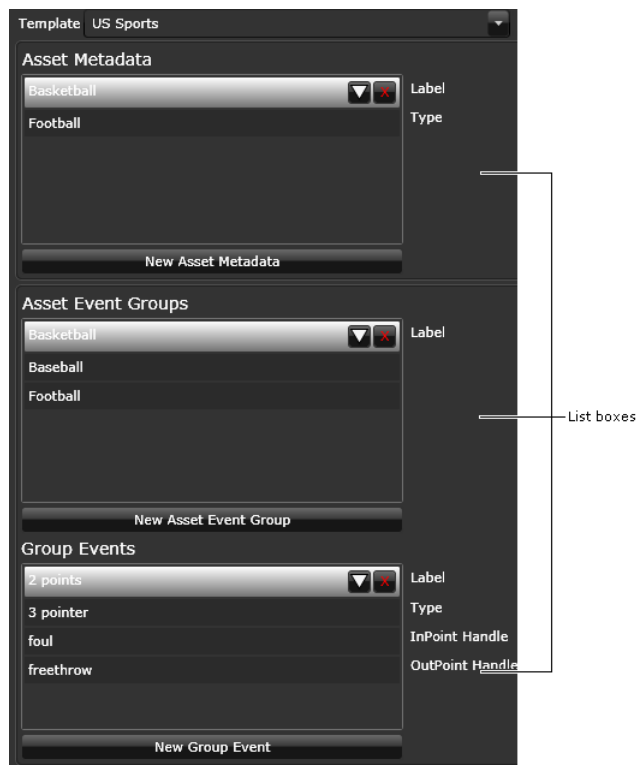
List boxes

When you select an entry in a list box, properties that you can change for that entry appear to the right of the list box. For all entries, you can change their labels (i.e. the names that identify features in the Annotate workspace); for entries in the lists of asset types and event types, you can choose a different metadata type.

You can change the order the different metadata or event types appear in the template by using the arrow buttons to move the selected type up or down. The 'x' button deletes the type from the template.


Annotation buttons for event types

An event type is assigned to an asset through an annotation button on the Event Logging panel in the Annotate workspace. When including event types in a template, you organize them in groups, with related event types belonging to the same group.

For each event type, you also set a property for the type of button that is to represent it on the Metadata panel. An Annotation button can be one of two types: an Event button assigns an event type to a segment that has preset boundary points (in- and out-points); an Open Event button marks the boundary points and assigns an event type to a segment.

As you build groups of event types, SmartClient displays the resulting arrangement of annotation buttons in a Preview panel in the Admin workspace.
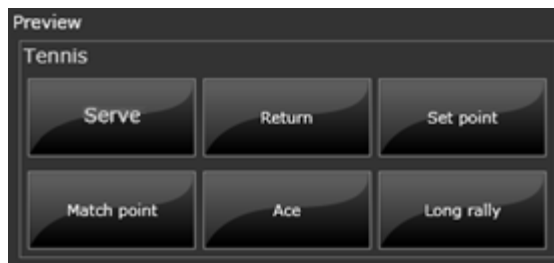
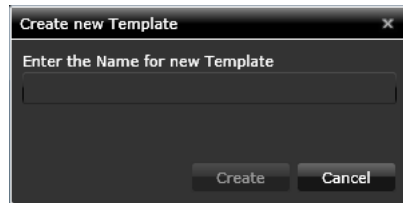

Creating a template

To create a template:

1 In the **Admin** workspace, select the **Template Editor**.
2 Click the **New Template** button.

3 Type the name of the new **Template** in the pop up dialogue box.
4 Click **Create**.

SmartClient creates the template and displays its details:

- In the **Template dialogue** box, the database name of the template.
- In the list boxes, lists of the asset types and event-type groups in the template. For a new template, the list boxes are blank; you have to create the asset types by clicking the **New Asset Metadata**, **New Asset Group** and **New Group Event** buttons respectively.

5 Add asset types and event types (in groups) to the template as described below.

6 Check the template looks how you require via the preview box on the right.

7 If the template is complete, click **Save Template (top right, above the preview)** to save the template.

Adding an asset type to a template

For each asset type you want to include in a template, add an entry in the Asset Metadata list box.

To add an asset type to a template:

1 In the Asset Metadata list box, click the corresponding **New Asset** button, i.e.
   - **New Asset Metadata**
   - **New Asset Group**
   - **New Group Event**

2 From the drop-down list box, select a metadata type. The name of the type is the name that identifies in selection lists in the **Annotate** workspace.
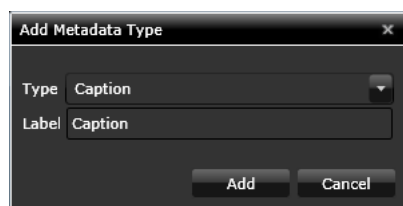
3 You may edit the type's display **Label** if you wish.

4 Click **Add**.

   The **Template Editor** displays an entry for the type in the **Asset Metadata** list.

5 The order of the types can be rearranged by using the up and down arrow buttons on the right when the type is highlighted. You can also remove the type by clicking **X**.

6 Click **Save** Template when you want to save the template with your changes.

Creating an event type group

To include any event type in a template, you add it to a group. Before you can do this, you need to create the group. Add an entry in the Asset Event Groups list box for each group you want to use.

To create an event type group:

1 Click **New Asset Event Group**. The **Create Event Group** pop-up appears.

2 Type the title of the group.

3 Click **Create**.

   The Template Editor adds an entry for the group in the **Asset Event Groups** list.

4 Click **Save Template** when you want to save the template with your changes.

Adding an event type to a group

To add an event type to a group:

1 Select a group in the **Asset Event Groups** list.

2 Add an entry in the **Group Events** list box for each event type you want to include in the group.
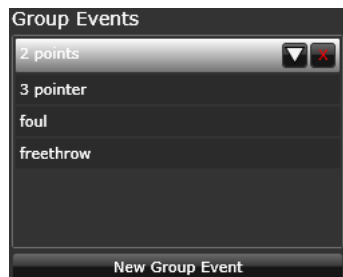
3 From the dropdown list to the right of the list box, select a metadata type. The name of the type appears in the **Label** box. This is the name that appears on the annotation button for the event type.

4 You can change the name in the **Label** box as required.

5 Click **Save Template**

6 To see your saved changes, click refresh on your web browser, then reload the template via the templates dialogue box.

> Note:
>
> As you add types, you can re-position them relative to each other by selecting them and clicking the up or down arrows.
> You can remove any selected type by clicking **'x'**.

Using the Menu Organizer

The filter-type menu is used in defining search criteria in SmartClient (and in PinPoint, the iTX search tool). It lists the database fields that SmartClient (or PinPoint) may be requested

to search for specified metadata. Some of these fields may store standard metadata, others may store custom metadata.

When it starts for the first time, SmartClient has a default filter-type menu. Through the Menu Organizer, you can modify the menu in a number of ways:

- You can add and remove fields.
- You can group related fields together in sub-menus.
- You can change the names of menu items.

The Menu Organizer has two main parts:

- The menu pane, on the left, displays the fields in the menu.
- The field selector, on the right, enables you to select items for adding to the menu.
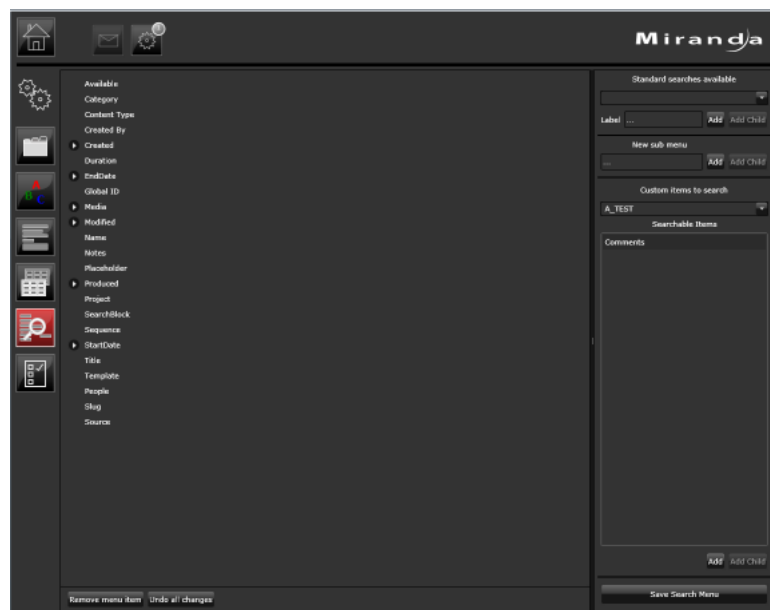
From the field selector, you can add three types of item to the menu:

- A standard-metadata field.
- A custom-metadata field, from the schema of a selected type.
- A sub-menu label.
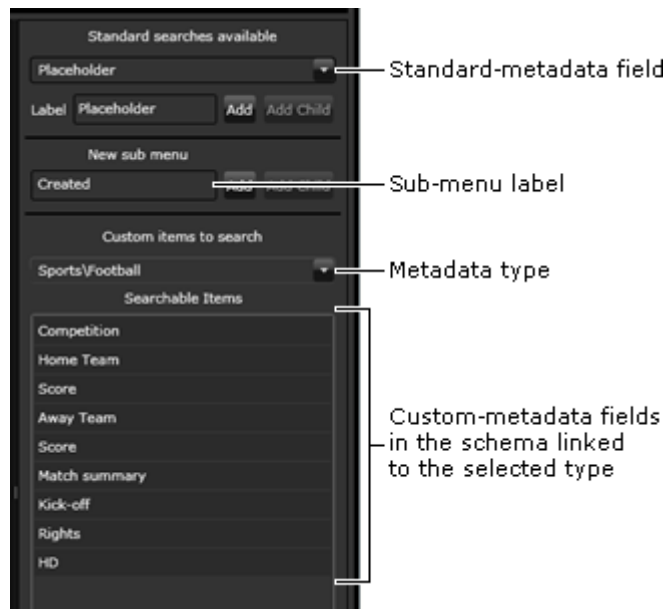
Configuring the filter-type menu

To configure the filter type menu:
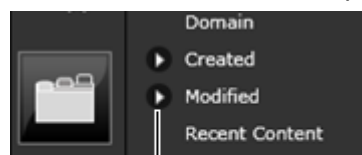
1 In the **Admin** workspace, select the **Menu Organizer.**

2 Modify the menu in the menu pane by adding or deleting items. See Adding a field to the menu on page 28 or See Adding a sub-menu to the menu on page 29.

3 To change the name of any menu item:

   a Select the item in the menu pane. The item name appears in a text box under the menu pane.

   b Edit the name in the text box.

   c Click **Save**.

   Note: After modifying the menu, you can return to the last-saved version by clicking **Undo all changes.**

Adding a field to the menu

To add a field to the menu:

1 Do one of the following, depending on where you want to locate a field.

   • If you want to add the field to the main level of the menu, ensure no sub-menu label is selected in the menu pane.

- If you want to add a field to a sub-menu, select the sub-menu label in the menu pane. The **Add Child** buttons for fields in the field selector become active.

2 To add a standard-metadata field to the menu, do the following in the **Standard Searches Available** section.

- Select a field from the dropdown list.
- Check the entry in the **Label** box. This is the name that will appear in the menu for the item. You may edit the entry later, if required.
- Click **Add** or **Add Child**.

The **Menu Organiser** adds the field to the menu pane.

3 To add a custom-metadata field to the menu, do the following in the **Custom Items To Search** section.

- Select a metadata type from the dropdown list. SmartClient displays a list of fields for this type in the **Searchable Items** list.
- Select a field in the **Searchable Items** list.
- Check the entry in the **Label** box. This is the name that will appear in the menu for the item. You may edit the entry later, if required.
- Click **Add** or **Add Child**.

The **Menu Organiser** adds the field to the menu pane.

Adding a sub-menu to the menu

To add a sub-menu to the menu:

1 Do one of the following, depending on where you want to locate a sub-menu.

- If you want to add the sub-menu at the main level of the menu, ensure no sub-menu label is selected in the menu pane.
- If you want to add the sub-menu within another sub-menu, select the label for that sub-menu in the menu pane. The **Add Child** button in the field selector becomes active.
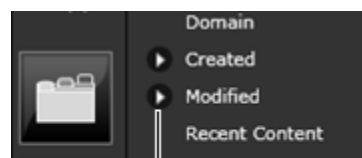
2 Do the following in the **Custom Items To Search** section to add a label for the new sub-menu.

- Enter the name for the sub-menu in the text box.
- Click **Add** or **Add Child**.
- Add fields the sub-menu as described above.

Deleting an item from the menu

To delete an item from the menu:

1 Select a field or sub-menu in the menu pane.

2 Click **Remove menu item**.

Configure the Search Scope of a Menu Item

The 'Scope' of a menu item search can be defined by specifying which Asset types Menu Item is valid for. This speeds up the search process by removing categories that need not be searched. They can also be used to make searching more accurate or granular.

The default setting for a menu item is All Assets. You use the check boxes to select the search categories you wish to scope for that menu item.

When a menu item is selected, the scrollable selection check box menu appears on the bottom of the Menu workspace, towards the right. Check-box the categories you require and click Apply Changes.

Securing Menu Items

Menu Items can also be made secure - access to an item can be limited to members of a specified security group. These would typically be users who only need access to certain asset types. This can either be for easier asset management or simply prevent users making changes to or accessing assets that they should not have access to, such as items that are QC'd and awaiting air. Accidentally editing an asset of this nature could cause the channel to go off air.

A multiple option scrollable check box menu is available immediately to the right of the search scope selector.

The default group setting for this menu is Everyone, but this is changed by ticking which groups you wish to have access to this particular Menu Item. To save your selection, click Apply Changes.
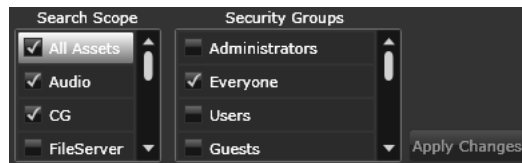
Configuring the Dashboard 4

The SmartClient Dashboard Workspace is the user configurable 'home page' that loads when you open SmartClient in your web browser. It is usually composed of a number of control panels called 'widgets' that load different User Workspaces for specific user tasks.

Summary

About the Dashboard Workspace

The default Dashboard loads with the **Activities Widget** by default, provided you are a member of a user group, which contains the following buttons:

- Browse
- Place Holders
- Shot List

You can also add any number of the following widgets to your Dashboard if you have Dashboard Authoring rights.

Each of these widgets can then be configured within themselves in order to meet your user requirements.

Once a dashboard is configured as required, it can be saved to the system so that the same dashboard is loaded every time you log on to the SmartClient.

Once a dashboard has been loaded by a user, the next time the user logs on to the system, that dashboard will be loaded by default. If the user changes the dashboard he wishes to use, then the new dashboard will become the default automatically.

These custom dashboards can also then be made available to other users who require the same configuration.

Dashboards are made available to user groups by an administrator. The administrator assigns dashboards to user groups via the SmartClient's Dashboard Access Management tool.

Administrating which users are members of which group is done via the iTX Security Tool.
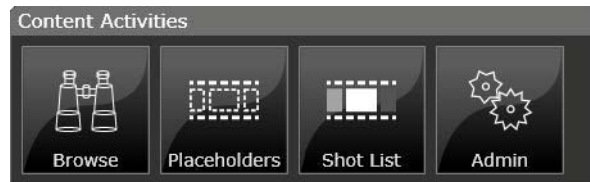
Dashboard Widgets

As well as the default Activities Widget, the following widgets are available to be added to the dashboard:

- Analog Clock
- Asset Search
- Jobs
- Jobs Query
- Service Monitor

Each can be individually configured for specific user tasks as detailed below.

Activities Widget

The Activities Widget has the following buttons available to be added to it:

Icon	Name	Description
	Browse	This button loads the Browse workspace, which is used to search and view media on the system.
	Admin	This button loads the Admin workspace, where the user can configure Business Metadata Types, Schemas and Templates and carry out other metadata related configuration tasks.
	Placeholders	This button loads the Placeholder workspace, where users can create and search placeholder clips on the system, that will later become actual media.
	Shot List	This button loads the Shot List workspace, where the user can mark up sections of media on the system and annotate them with information and searchable metadata.
	Job Management	This button loads the Job Management workspace. Here the user can search for any type of iTX Workflow jobs that are currently in their system, together with what their current status is.
	After Effects Management	This button loads the After Effects workspace, that can be used to browse and edit AE Pages, AE Templates and AE Project files.

In order to add or remove any of these buttons from the widget, the SmartClient must be in Edit Mode. This mode unlocks the SmartClient dashboard enabling the user to be able to move (via drag and drop) any of the widgets already on the dashboard. The user can also add or delete widgets as required.

At the same time, each widget becomes editable in itself and by clicking the ⬚ button that appears in the top right area of the widget when in edit mode you can add or remove buttons that are available to that widget. See Editing Widgets on page 35.

Analog Clock

This widget is simply an analog clock that displays the local PC time, useful if the SmartClient is run full screen and the client PC clock is not visible. The clock can be resized as required to fit an area of workspace simply by clicking and dragging one of the corners.

Asset Search
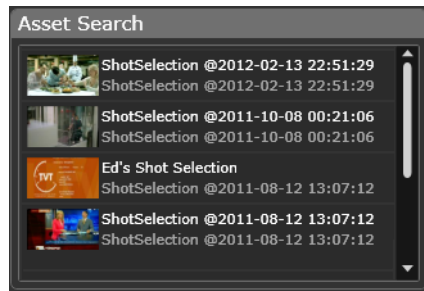
This widget allows you to save a predefined automatic search of the asset database that can be set to refresh regularly with in a time frame of 1-100 seconds. You can also configure whether you would like the results of the search displayed in a tile or thumbnail arrangement exactly like the searches performed in the Browse workspace.

You may also configure the size of the asset thumbnails displayed. This is useful if you are considering using multiple Asset Search widgets on the dashboard and have limited display space.

An example usage of a pre-configured search on the dashboard might be for any clips annotated as 'News' being registered throughout the day that a journalist needs to keep track of.
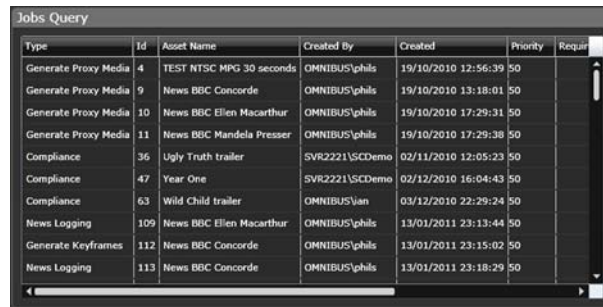
Jobs Management
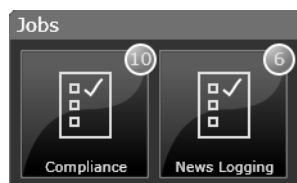
Depending on what type of jobs you have pre-configured in the system, buttons of these job types appear in this widget provided they are active on the system. They will also display a 'badge' in the top right of the button that shows the number of jobs of this type waiting to be processed.

An example of a job type might be clips awaiting journalist annotation or quality control approval. Clicking on a job type button will load a specially filtered job search grid for that job type. The user can then take control of any jobs in the queue and complete them.

Jobs Query

The Jobs Query widget allows you to load a filtered version of the Jobs workspace with a specific set of user defined search criteria used to query your iTX workflow operations. This works in similar way to the Asset Search widget but queries the iTX workflow system.

The frequency of the query can be configured (1-100) seconds along with details of the individual job you might require, such as job ID number, the Asset Name associated with the job, the priority, current state and which user is working on that job currently. The search criteria itself can be based on a job type e.g. Keyframe Generation, a job status, e.g. a list of jobs currently active on the system, or both.

Service Monitor
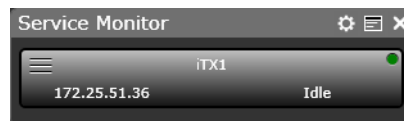
The Service Monitor widget allows you to select any service running on the system via drop down list and monitor it's current status. Information available to the user include the IP address and URI location details, whether the service is active (performing a task) or idle, and most importantly, if the service is live. Each instance of the Service Monitor widget displays details for one service, so multiple widgets need to be added for each service you wish to monitor.

Editing the dashboard

As a user, if you are a member of a group that has rights to edit and create Dashboards, you can right-click anywhere in the Dashboard home workspace and load the Dashboard Editing Menu, which contains the following options:

- **Dashboard:** The title of the currently loaded Dashboard.
- **Edit Dashboard:** Unlocks the dashboard to allow the user to edit widgets and their components.
- **Add Widget:** Allows the user to add widgets to the Dashboard.
- **Create Dashboard:** Allows the user to create a new Dashboard.
- **Load Dashboard:** Allows the user to load an existing Dashboard.
- **Save Dashboard:** Allows the user to save the currently edited, if an existing Dashboard has been modified.
- **Copy Dashboard:** Allows the user to save an existing dashboard under a new name - useful if a user requires a version of an existing Dashboard that can then be modified but the original Dashboard mus t be retained.
- **Manage Access:** This option allows administrators to assign Dashboards to user groups in order control which users have access to which Dashboards. Users are in turn added to those user groups via the iTX Security Tool.

- **Import Dashboard:** Allows the user to load a dashboard exported from another system.
- **Export Dashboard:** Allows the user to publish an existing dashboard as an XML based file that can be loaded by other SmartClient Systems.
- **Close:** re-locks the dashboard and closes edit mode.

Switching a Dashboard to Edit Mode

To switch the Dashboard Management Menu to Edit Mode:

1 Right-click in any blank area of the Dashboard. The menu pop-up will appear.

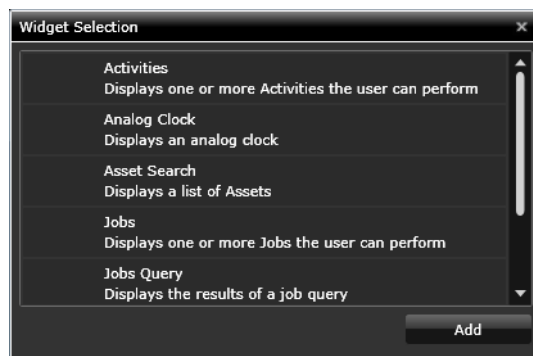2 Select **Edit Dashboard**. All grayed out editing options will become available for use.

Adding Widgets

If you are a user who is a member of an administrative group, you can customise your Dashboard layout by adding widgets.

To add widgets to the dashboard:

1 Switch the dashboard to Edit Mode.

2 Select **Add widget**

The **Widget Selection** menu pop will appear.

3 Select the widget you wish to add from the scroll-list.

4 Click **Add**. The new widget will appear on the Dashboard workspace.

5 Use the menu bar at the top of the widget to click and drag the control to where you would like to position it.

6 Click and drag on either top, bottom or the corner of the widget to resize it to your requirement.

Editing Widgets

After you have added a widget to your Dashboard, you may need or want to customise the controls it has available. When the Dashboard is in Edit Mode, the widget's configuration menu bar is visible across the top of the widget. If this is not visible, the Dashboard workspace is not in Edit Mode.

There are 3 Edit Mode menu controls available:

| Icon	Name	Description
⚙	Widget Properties	This control edits specific properties for that particular widget, e.g. the predetermined search criteria required.
▤	Layout Properties	This control allows you to edit the widget label and add or remove an aesthetic border for the control.
✖	Remove Widget	Removes the selected widget from the dashboard.

To edit a widget's properties:

1 Select a widget and click the **Widget Properties** button. The properties dialog for the selected widget appear.

2 From the dialogue dialog you can do the following:

- Select the button you wish to add
- From the **Opus Search** dialogue, configure the **Asset** or **Job** query criteria you would like the widget to display

3 Click the **Layout Properties** button and type the name you would like this instance of this widget to be known as.

4 Check the border/no border check box depending on whether you would like the widget to have a defining border or not.

5 Click **OK**
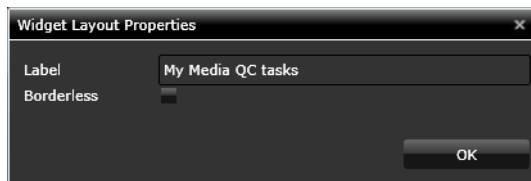
6 Right-click on a blank area of dashboard and select **Save Dashboard**.

Managing Dashboards

Normal users can load different dashboards available on the system. Each time a user logs into Smart Client, the last dashboard they were using is reloaded.

If you are a member of a user group that has administrative rights, you can also:

- Create new Dashboards
- Save modifications to your current Dashboard
- Copy existing Dashboards
- Manage user access to Dashboards

Creating New Dashboards

> **WARNING**
>
> Make sure you have saved any modifications to your current Dashboard before you create a new one, otherwise your changes will be lost. Your 'new' Dashboard will load immediately you click **OK**.

To create a new dashboard:

1 Right-click on a blank area of the dashboard and select **Create Dashboard** from the pop-up menu. The **Enter Dashboard Name** pop-up dialog appears.

2 Type the name of your new Dashboard.
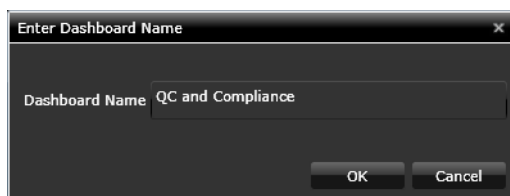
3 Click **OK**.

4 A new Dashboard is loaded with the **Content Activities and Jobs** widget as default. Widgets can be added and removed as detailed above after that, once the new dashboard is placed in Edit Mode.

5 When you have added the widgets and configured them as required, right-click in a blank area of the dashboard and click **Save Dashboard**.

You must remember to save your new Dashboard after it is built, otherwise only the default configuration will exist.

Loading an Existing Dashboards

To load an existing dashboard:

1 Right-click on a blank area of the dashboard and from the pop-up menu select **Load Dashboard**.

2 Select the dashboard you require from the scrollable list that pops up.

> **WARNING**
>
> Make sure you have saved any modifications to your current Dashboard before you load a new one, otherwise your changes will be lost. Your new dashboard will load when you click **OK**.

Saving Your Current Dashboard

To save you current dashboard:

• Right-click on a blank area of your current Dashboard and select **Save Dashboard**.

Copy Existing Dashboards

You may want to build a new dashboard that is similar to, or based on, an existing dashboard. By copying an existing dashboard, you can then modify its properties without changing the original.

To copy an existing dashboard:

1 Load the dashboard you wish to copy.

2 Right-click on a blank area of the dashboard and select **Copy Dashboard**. The **Enter Dashboard Name** pop-up dialogue appears.

3 Make any changes to the layout and configuration of the current newly named version of the Dashboard

4 Click **Save**.

Managing User Access to Dashboards

Which Dashboards users have access to is determined by Access Groups. The iTX Security Tool (see iTX User Guide) is used to create Access Groups.

Each group created has a set of access rights applied to it. A typical user group might be 'Journalists'. Journalists would not have administrative rights, but would need access to certain Dashboards that are based around Annotating and Event Logging.

Another group might be 'Quality Control'. They might need access to a different set of Dashboards altogether, mainly used in Asset Approval tasks as created in iTX Workflow.

A further group - Administrators would have full rights to be able to create, delete and edit Dashboards and would have access to all the Dashboards on the system.

Individual users are added to the iTX database by an iTX System Administrator. The Administrator uses the same credentials the users have been assigned by their Windows Domain administrator. This is because all iTX users' transactions are authenticated by the Windows Domain Controller.

When all users and their groups have been created, you can assign Dashboards to Access Groups.

To assign Dashboards to Access Groups:

1 Right-clicking on a blank area of the dashboard you currently have loaded and select **Load Dashboard**.

2 Choose the dashboard you require from the drop down list. The required dashboard loads.

3 Right click in a blank area of the dashboard and select **Manage Access**. The Dashboard Access Management pop-up menu appears.
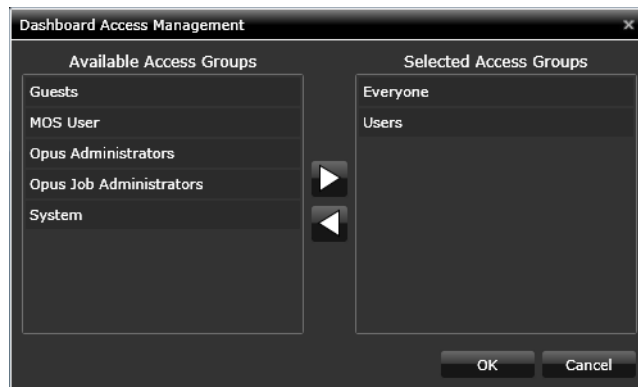
The Dashboard Access Management pop-up dialog is divided into two sections. On the left side is a list of all available access groups. On the right side is a list of selected access groups assigned to the currently loaded Dashboard.

4 Use the ◄ and ► buttons to move groups of users between the **Available Access Groups** and **Selected Access Groups** columns. Those in the **Selected Access Groups** columns will be able to access the current dashboard.

5 Click **OK** to confirm your selections and close the **Dashboard Access Management** dialog.

Exporting a dashboards

Dashboards can be exported for use in another, unconnected SmartClient system or to use as a back up. When exported, dashboards are saved as XML-based `.scdb` files.

To export your current dashboard:

1 Right-click in a blank part of the desktop to load the **Dashboard Management** menu pop-up.

2 Select **Export Dashboard**. A standard Windows Explorer dialog opens.

3 Browse to the location you wish to save the `.scdb` file to and enter a filename.

4 Click **Save**.

Importing a dashboard

You can import dashboards that have been exported as `.scdb` files. The Dashboard you are importing will immediately replace your current dashboard, so you need to make sure that any unsaved changes to your current Dashboard are saved prior to importing a new one.

To import a Dashboard:

1 Right-click in a blank part of the desktop to load the Dashboard Management menu pop-up.

2 Select **Import Dashboard**. A standard Windows Explorer dialog opens.

3 Browse to the location of the `.scdb` file you require and click **Open**. The dashboard will be imported to your SmartClient.

4 Right-click in a blank area of the Dashboard and select **Save Dashboard**.

Contact Us

Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

Corporate Head Office

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