

## User Guide Version 1.2



# Thank You for Choosing Ross

You've made a great choice. We expect you will be very happy with your purchase of Ross Technology.

Our mission is to:

- 1. Provide a Superior Customer Experience
  - offer the best product quality and support
- 2. Make Cool Practical Technology
  - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at solutions@rossvideo.com.

al Ross

David Ross

CEO, Ross Video

dross@rossvideo.com

## Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

- 1. We will always act in our customers' best interest.
- 2. We will do our best to understand our customers' requirements.
- 3. We will not ship crap.
- 4. We will be great to work with.
- 5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
- 6. We will keep our promises.
- 7. We will treat the competition with respect.
- 8. We will cooperate with and help other friendly companies.
- 9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis do what you know in your heart is right. (You may rent helicopters if necessary.)*

# Raiden User Guide

- Ross Part Number: 3800DR-001-1.2
- Version: 1.2
- Date/Time: 2/25/2025 6:04 PM

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## Patents

Patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B; and other patents pending.

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This End User Software License Agreement is a legal agreement between you (the "**Licensee**") and Ross Video Limited ("**Ross Video**") specifying the terms and conditions of your installation and use of the Software and all Documentation (as those terms are defined herein).

#### **IMPORTANT**:

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- 1. **INTERPRETATION.** In this Agreement, (a) words signifying the singular number include the plural and vice versa, and words signifying gender include all genders; (b) every use of the words "herein", "hereof", "hereto" "hereunder" and similar words shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof; (c) reference to any agreement or other document herein will be construed as referring to such agreement or other document as from time to time amended, modified or supplemented (subject to any restrictions on such amendment, modification or supplement set forth therein); (d) every use of the words "including" or "includes" is to be construed as meaning "including, without limitation" or "includes, without limitation", respectively; and (e) references to an Article or a Section are to be construed as references to an Article or Section of or to this Agreement unless otherwise specified.
- 2. **DEFINITIONS.** In this Agreement, in addition to the terms defined elsewhere in this Agreement, the following terms have the meanings set out below:

"Affiliate" means, with respect to any Person, any other Person who directly or indirectly controls, is controlled by, or is under direct or indirect common control with, such Person. A Person shall be deemed to control a Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the term "controlled" and "controlling" shall have a similar meaning.

**"Agreement**" means this End User Software License Agreement including the recitals hereto, as the same may be amended from time to time in accordance with the provisions hereof.

"**Backup System**" means the secondary piece of Designated Equipment upon which the Software is installed and mirrored for the sole purpose of replacing a Primary System in the event such Primary System is not available or functioning properly for any reason.

"Change of Control" means (a) the direct or indirect sale, transfer or exchange by the shareholders of a Party of more than fifty percent (50%) of the voting securities of such Party, (b) a merger or amalgamation or reorganization or other transaction to which a Party is party after which the shareholders of such Party immediately prior to such transaction hold less than fifty percent (50%) of the voting securities of the surviving entity, (c) the sale, exchange, or transfer of all or substantially all of the assets of a Party. "**Confidential Information**" means all data and information relating to the business and management of either Party, including the Software, trade secrets and other technology to which access is obtained or granted hereunder by the other Party, and any materials provided by Ross Video to Licensee; provided, however, that Confidential Information shall not include any data or information which:

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(iii) is already known to the receiving Party at the time of its disclosure to the receiving Party by the disclosing Party and is not the subject of an obligation of confidence of any kind;

(iv) is independently developed by the other Party;

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- (vi) is disclosed with the written consent of the Party whose information it is.

**"Designated Equipment"** shall mean (a) the hardware products sold by Ross Video to Licensee on which the Software is installed and licensed for use, as the same may be replaced from time to time by Ross Video; or (b) in the case of Software licensed on a stand-alone basis, the equipment of Licensee on which the Software is to be installed and meets the minimum specifications set out in the Documentation.

**"Documentation"** shall mean manuals, instruction guides, user documentation and other related materials of any kind pertaining to the Software (whether in electronic, hard-copy or other media format) that are furnished to Licensee by or on behalf of Ross Video in relation to the Software.

"Freeware" means Software that is available free of charge from Ross Video, and includes, without limitation the master control system software known as "DashBoard".

"Governmental Authority" means (a) any federal, provincial, state, local, municipal, regional, territorial, aboriginal, or other government, governmental or public department, branch, ministry, or court, domestic or foreign, including any district, agency, commission, board, arbitration panel or authority and any subdivision of any of them exercising or entitled to exercise any administrative, executive, judicial, ministerial, prerogative, legislative, regulatory, or taxing authority or power of any nature; and (b) any quasi-governmental or private body exercising any regulatory, expropriation or taxing authority under or for the account of any of them, and any subdivision of any of them.

"**Improvements**" means all inventions, works, discoveries, improvements and innovations of or in connection with the Software, including error corrections, bug fixes, patches and other updates in Object Code form to the extent made available to Licensee in accordance with Ross Video's release schedule.

**"License Fee"** means the fee(s), if any, payable in respect of the Software in accordance with the relevant invoice(s) or other purchase documents delivered in connection with this Agreement.

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**"Order"** means the documents provided by Ross Video to Licensee detailing the Ross Video products contemplated for purchase, the corresponding fees and License Period that may apply to the Software, including any and all quotations, purchase orders, acknowledgments, pro formas, invoices and other purchase documentation.

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"Released Claims" has the meaning ascribed to it in Section 9(b).

"Released Parties" has the meaning ascribed to it in Section 9(b).

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Either party may disclose certain Confidential Information if it is expressly required to do so pursuant to legal, judicial, or administrative proceedings, or otherwise required by law, provided that (i) such Party provides the other Party with reasonable written notice prior to such disclosure; (ii) such Party seeks confidential treatment for such Confidential Information; (iii) the extent of such disclosure is only to the extent expressly required by law or under the applicable court order; and (iv) such Party complies with any applicable protective or equivalent order.

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The Parties acknowledge and agree that any breach of the confidentiality provisions of this Agreement by one Party may cause significant and irreparable injury to the other Party that is not compensable monetarily, as well as damages that may be difficult to ascertain, and agrees that, in addition to such other remedies that may be available at law or in equity, the other Party shall be entitled to seek injunctive relief (including temporary restraining orders, interim injunctions and permanent injunctions) in a court of competent jurisdiction in the event of the breach or threatened breach by such party of any of the confidentiality provisions of this Agreement. The relief contemplated in this Section shall be available to each Party without the necessity of having to prove actual damages and without the necessity of having to post any bond or other security. Each Party further agrees to notify the other Party in the event that it learns of or has reason to believe that any Person has breached the confidentiality provisions of this Agreement. 13. **LIMITATION OF LIABILITY.** The limitation of liability provisions of this Agreement reflect an informed voluntary allocation of the risks (known and unknown) that may exist in connection with the licensing of the Software or Documentation hereunder by Ross Video, and that voluntary risk allocation represents a material part of the Agreement reached between Ross Video and Licensee. Should Ross Video be in breach of any obligation, Licensee agrees that Licensee's remedies will be limited to those set forth in this Agreement. No action, regardless of form, arising out of this Agreement may be brought by Licensee more than twelve (12) months after the facts giving rise to the cause of action have occurred, regardless of whether those facts by that time are known to, or reasonably ought to have been discovered by, Licensee.

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- (2) Either Party shall have the right to terminate this Agreement on notice to the other Party if:
  - (a) the other Party fails to pay any fees or other amounts when due hereunder or under any other agreement between the Parties (or any Affiliates of the Parties, as applicable) in connection with the Software and/or Designated Equipment and such breach is not cured within thirty (30) days after written notice of such failure to pay is given to the defaulting Party by the non-defaulting Party;
  - (b) the other Party shall file a voluntary petition in bankruptcy or insolvency or shall petition for reorganization under any bankruptcy law, consent to an involuntary petition in bankruptcy, or if a receiving order is given against it under the Bankruptcy and Insolvency Act (Canada) or the comparable law of any other jurisdiction (and such is not dismissed within ten (10) days);

- (c) there shall be entered an order, judgment or decree by a court of competent jurisdiction, upon the application of a creditor, approving a petition seeking reorganization or appointing a receiver, trustee or liquidator of all or a substantial part of the other Party's assets and such order, judgment or decree continues in effect for a period of thirty (30) consecutive days; or
- (d) the other Party shall fail to perform any of the other material obligations set forth in this Agreement and such default, in the case of a default which is remediable, continues for a period of thirty (30) days after written notice of such failure has been given by the nondefaulting Party or, in the case of a non-remediable default, immediately upon notice.
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  - (c) Ross Video may terminate the License immediately on the date on which it provides notice to Licensee, if its agreements for Third Party Software are terminated.
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  - (b) Licensee shall immediately deliver to Ross Video any of Ross Video's Confidential Information provided hereunder (including the Software and Documentation) then in its possession or control, if any, and shall deliver a certificate of an officer of Licensee certifying the completeness of same;
  - (c) Licensee shall refrain from further use of such Confidential Information; and
  - (d) Licensee shall forthwith pay all amounts owing to Ross Video or any of its Affiliates hereunder.
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- 16. **FORCE MAJEURE.** Dates and times by which Ross Video is required to render performance under this Agreement shall be automatically postponed to the extent and for the period that Ross Video is prevented from meeting them by reason of events of force majeure or any cause beyond its reasonable control provided Ross Video notifies Licensee of the commencement and nature of such cause and uses its reasonable efforts to render performance in a timely manner.
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- 18. GOVERNING LAW. If Licensee acquired the Ross Product(s) in the United States or Canada, the laws of the state or province where Licensee's principal place of business is located govern the interpretation of this Agreement, claims for its breach, and all other claims regardless of conflict of laws principles. If Licensee acquired the Ross Product(s) in the European Union or the United Kingdom, then the laws of England and Wales apply. If Licensee acquired the Ross Product(s) in any other country, then the laws of the Province of Ontario, Canada shall apply.
- 19. **LANGUAGE.** The Parties have expressly required that this Agreement and all documents relating thereto be prepared in English. Les parties ont expressément exigé que cette convention ainsi que tous les documents qui s'y rattachent soient rédigés en anglais.
- 20. **GOVERNMENT CONTRACTS.** If the Software and/or Documentation to be furnished to Licensee hereunder are to be used in the performance of a government contract or subcontract, the Software and/or Documentation shall be provided on a "restricted rights" basis only and Licensee shall place a legend, in addition to applicable copyright notices, in the form provided under the applicable governmental regulations. For greater certainty, Ross Video shall not be subject to any flow-down provisions required by any customer of Licensee that is a Governmental Authority unless Ross Video expressly agrees to be bound by such flow-down provisions in writing.
- 21. **EXPORT AND IMPORT LAWS.** Licensee acknowledges and agrees that the Software (including any technical data and related technology) may be subject to the export control laws, rules, regulations, restrictions and national security controls of the United States and other applicable countries (the "**Export Controls**") and agrees not to export, re-export, import or allow the export, re-export or import of such export-controlled Software (including any technical data and related technology) or any copy, portion or direct product of the foregoing in violation of the Export Controls. Licensee hereby represents that it is not an entity or person to whom provision of the Software (including any technical data and related technology) is restricted or prohibited by the Export Controls. Licensee agrees that it has the sole responsibility to obtain any authorization to export, re-export, or import the Software (including any technical data and related technology), as may be required. Licensee will defend, indemnify and hold Ross Video harmless from any and all claims, losses, liabilities, damages, fines, penalties, costs and expenses (including attorney's fees) arising from or relating to any breach by Licensee of its obligations under this Section.
- 22. **AMENDMENT AND WAIVER.** No amendment, discharge, modification, restatement, supplement, termination or waiver of this Agreement or any Section of this Agreement is binding unless it is in writing and executed by the Party to be bound. No waiver of, failure to exercise or delay in exercising, any Section of this Agreement constitutes a waiver of any other Section (whether or not similar) nor does any waiver constitute a continuing waiver unless otherwise expressly provided.
- 23. **SEVERABILITY.** Each Section of this Agreement is distinct and severable. If any Section of this Agreement, in whole or in part, is or becomes illegal, invalid, void, voidable or unenforceable in any jurisdiction by any court of competent jurisdiction, the illegality, invalidity or unenforceability of that Section, in whole or in part, will not affect (a) the legality, validity or enforceability of the remaining Sections of this Agreement, in whole or in part; or (b) the legality, validity or enforceability of that Section, in whole or in part, in any other jurisdiction.
- 24. **ENTIRE AGREEMENT.** This Agreement, and any other documents referred to herein, constitutes the entire agreement between the Parties relating to the subject matter of this Agreement and supersedes all prior written or oral agreements, representations and other communications between the Parties.

Updated: November 1, 2023

# Warranty and Repair Policy

Ross Video Limited (Ross) warrants its Raiden systems to be free from defects under normal use and service for the following time periods from the date of shipment:

- Raiden Server 12 months
- Raiden Software Upgrades 12 months free of charge
- System and Media hard drives 12 months

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

## Extended Warranty

For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your Raiden system, contact your regional sales manager.

# **Environmental Information**

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

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E-mail for General Information:	solutions@rossvideo.com
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	• **

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# Introduction

Congratulations on your selection of Raiden, Ross Video's weather broadcast software solution. Raiden is a suite of applications that enables you to extract and localize weather data from a number of data sources and export the data to a renderer (such as XPression or Voyager), a Media Asset Management system (such as Streamline), a DataLing Server, or to the Raiden Story Creator.

Raiden brings ease-of-use to working with complex graphics applications by means of its weather story creation platform, the Story Creator. The Story Creator is a user-friendly platform that interacts with either XPression or Voyager, enabling users to customize visual representations of weather data and create accurate weather stories.

Raiden is compatible with XPression and Voyager.

The Raiden platform consists of these main components:

- The **Data Aggregator Server** retrieves and processes raw weather data from sources such as the National Centers for Environmental Prediction (NCEP), Global Forecast System (GFS), the Storm Prediction Center, the USA High Resolution Window and others.
- The **Local Server** calls the Data Aggregator Server for data specific to a region or point of interest and then outputs that data to various graphical endpoints.
- The **Story Creator** is a web-based tool that enables users to quickly build or update weather stories, and publish rundowns to a graphics engine, such as XPression.



#### Raiden Flowchart

## About This Guide

This guide covers the use of Raiden. Raiden is a multi-component application, each of which is described in the following sections:

Data Aggregator Server 7: provides a description of the Data Aggregator Server user interface and instructions on how to configure the server to retrieve and pre-process weather data.

Local Server 33: provides a description of the Local Server user interface and instructions for using the server.

Raiden Story Creator which provides a description of the Story Creator user interface and instructions for using the application.

If you have questions regarding Raiden, please contact us at the numbers listed in the section Contacting Technical Support. Our technical staff is always available for consultation, training, or service.

## **Documentation Conventions**

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

Bold text	Bold text identifies a user interface element such as a dialog box, menu item, or button.
	For example:
	In the <b>Slug</b> column, type a slug name for the story.
Italic text	Italic text is used to identify the titles of referenced guides, manuals, or documents.
	For example:
	For more information, refer to the DashBoard User Guide.
Courier text	Courier text identifies text that a user must type.
	For example:
	In the Username box, type postgres.
Menu Sequences	Menu arrows are used in procedures to identify a sequence of menu items that you must follow.
	For example:
	If a step reads <b>Server &gt; Save As</b> , you would select the <b>Server</b> menu and then select <b>Save As</b> .
Hypertext	Identifies a hyperlink to a related topic.

## Getting Help

Raiden documentation is provided with the installation package. For additional assistance please contact Technical Support.

## **Contacting Technical Support**

At Ross Video, we take pride in the quality of our products, but if problems occur, help is as close as the nearest telephone.

Our 24-hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel. During business hours (Eastern Time), technical support personnel are available by telephone. After hours and on weekends, a direct emergency technical support phone line is available. If the technical support person who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. This team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.

#### Technical Support:

- 1-844-652-0645 (North America)
- +800 3540 3545 (International)
- After Hours Emergency: (+1) 613-349-0006
- E-mail: techsupport@rossvideo.com
- Website: http://www.rossvideo.com

## Installation Notes

### Java Platform

The Raiden weather application is built on top of Azul Zulu Java 21 LTS. This version is included in the installation software and is automatically installed.

### Requirements

Raiden has the following requirements:

#### **Data Aggregator Server**

- CPU: 3.0 GHz 8 Cores or higher
- Memory: 32 GB or higher
- Storage: 512 GB or higher
- Operating System: Windows 10
- Requires internet connection for data acquisition.

#### **Local Server**

- CPU: 3.0 GHz 12 logical processors or higher
- Memory: 32 GB or higher
- Storage for OS: 256GB or higher
- Storage for Media Drive: 2TB or higher
- Operating System: Windows 10
- Requires internet connection for the web map imagery.

#### Story Creator:

- CPU: 2.9 GHz 8 logical processors or higher
- Memory: 16 GB or higher
- Storage: 256 GB or higher
- Operating System: Windows 10
- Recommended Browser: Chrome Version 117
- Recommended Screen Resolution: 1920 x 1080 or higher

#### Each Meteorologist Client PC (recommended):

- OS: Windows 10/11
- Browser: Google Chrome
- Memory: 8GB or higher
- Disk drive: 256GB or higher
- CPU: Intel i7 2.0Ghz or higher
- Screen Resolution: 1920 x 1080 or higher

### Installation and Configuration

- Ensure the above requirements are met prior to installation.
- A qualified Ross Video technician will assist you with the installation and configuration process.
- Administrative privileges are required to configure Raiden.

# Data Aggregator Server

The Data Aggregator Server extracts weather data from various sources, processes the data and feeds it to one or more Local Servers when requested.

Data sources in the following file formats are supported:

- GeoJSON
- GRIB
- GRIB2
- JSON
- KML
- NetCDF
- XML

 $\star$  Other file format types may be supported upon request.

The Data Aggregator has a Web user interface that supports multiple languages and responsive HTML.

Once the Data Aggregator has been set up, it will update the data automatically based on the frequency selected when configuring the data source (such as up to every 6 hours for a global scale model).

The following topics are covered in this section:

Accessing the Data Aggregator Server

Forecast 11

Observations 15

Preview styles 23

Endpoints 27

Statistics 31

Configuration 32

\*Administrative privileges are required to configure the Data Aggregator server. Standard users have read-only access.

## Accessing the Data Aggregator

This section provides instructions for accessing the Data Aggregator Server.

#### To access the Data Aggregator Server:

- 1. Open a Web browser.
- 2. In the **URL** field enter the IP address of the Data Aggregator Server followed by the port number through which you will be communicating with the Local server (**xx.xx.:8082**).

The default port is **8082**, but you can use another port as long as you make sure that the same port is entered in the URL of the Local server.

3. Press Enter.

You will be taken to the Data Aggregator Server **Login** page.

Raiden	User Password Ross Platform Manager Log in
	ROSS

Data Aggregator Login Page

- 4. Log in with the default **User** name and **Password** provided by Ross Video.
- 5. To ensure the security of your account, it is recommended that you change your **Password**.
- $\star$  For instructions on how to change your **Password**, see Changing Your Password 10.

#### To log out of the Data Aggregator Server:

• In the top-right corner of the UI, select the arrow beside your username and select **Logout**.

### Setting the Display Language Preferences

This section provides instructions for setting the user-specific language preferences for the Data Aggregator's web user interface. For instructions on setting the default language for your organization see, Data Visualization 35.



Data Aggregator Home Page - Display Language Options

#### To set the web interface display language:

• In the top-right corner, select the arrow beside the **Language** icon and select the language you want to use.

The options are:

- English Default
- Español
- Français

### Changing Your Password

If you need to change your password, you can do so through the Ross Platform Manager (RPM). The Ross Platform Manager is a web based application that supports common administrative functions (such as licenses and user access) for Ross products.

★You will need your current Raiden User name and Password to access RPM. If you do not know your current User name and Password, you will need to contact your System Administrator to recover your login credentials.

#### To change your User name and Password:

- 1. In the **Data Aggregator Server** login page, select the **Ross Platform Manager** button.
- 2. Sign in to **RPM** with your Raiden login credentials.
- 3. In the navigation bar at the top of your screen, select the **P** Tools button.

#### 4. The **Change Password** dialog opens.

P Change Password		? X
Change Password		
Old Password		j
New Password		
Verify Password		j
	Cancel Change Passwor	-d

RPM Change Password Dialog

- 5. In the **Old Password** field, enter your old password.
- 6. In the **New Password** field, enter a new password.
- 7. In the **Verify Password** field, re-enter the new password.
- 8. Select Change Password.

The **Password** confirmation dialog will appear.

9. Select OK.

### Forecast

In the **Forecast** section, you can add and configure download tasks and pre-process those tasks so that they are ready to be sent to the Local Server 39 when requested.

### Creating a Forecast Download Task

The first step is to create a **Download Task** for a **Forecast** data source. Once you have created a download task, you can modify the task as needed.

**Warning**: Configuring too many download tasks may exceed the server's data limits and cause serverrelated performance issues. It is recommended that you select only the data you will need for broadcast.

#### To add a download task:

- 1. In the **Forecast** section, select the **+Add** button.
- 2. In the **New Download Task** dialog, enter a name for the task.
- 3. From the Data Source drop-down, select a data source.

The drop-down list displays unassigned data sources to select from. Data sources previously assigned to other download tasks are removed from the drop-down list.

4. Use the + and - buttons to zoom in or out on the area of the preview map to view the data source's coverage area.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

If the area of interest is covered by the selected **Data Source**, continue with the next step. Otherwise, select a different **Data Source**.

- 5. Scroll down the dialog to **Time Cycles** and select the **Time Cycles** you want downloaded and processed.
- 6. From the **Maximum Time Slot** drop-down, select the **Maximum Time Slots** you want, which will be the maximum number of timeslots for which **Forecast** data is requested.

For example, 2d 00:00 represents two full days of model data, and all forecast hours up to that point will be acquired.

**Warning**: Requesting data for too many time slots may exceed the server's data limit and cause serverrelated performance issues. It is recommended that you select only the data you will need for broadcast.

- 7. In the Variables section, select the variables you want acquired.
- 8. Select **Create** to save the settings.

The new **Download Task** will be added to the **Process Status** page.

Process Status + Add 28 Aefresh Search										
Data Source 🔶 🕈	Task 🕈	Time Cycles	Maximum Time Slot 🕴	Variables / Levels	Last Executed #	Last Download	Download Speed	Status	Next Cycle	
NCEP Short-Range Ensemble Forecast (USA)	NCEP_SR_USA	03:00:00 - 21:00:00	00:00:00		N/A			Not executed	In 01h32m	щ с <mark>с</mark>
USA High Resolution Window	HIRESW	00:00:00 - 12:00:00	2d 00:00:00		9/15/2022, 9:21:07 AM	9/14/2022, 11:24:49 PM	8.64 MB/s	е ок	In 10h32m	к С <mark>С </mark>
Global Forecast System	GFS	00:00:00 - 18:00:00	5d 00:00:00		9/15/2022, 9:21:07 AM	9/15/2022, 6:19:53 AM	12.37 MB/s	ок	In 04h32m	¤ С <mark>С 1</mark>
Showing 1 to 3 of 3 rows										

Process Status - New Download Task

#### To modify a download task

1. From the **Process Status** list, locate the download task you want to modify, and select the **Edit** button.

The **Modify Download Task** dialog appears, showing the settings that can be modified.

2. When you have made the modifications that you want, select the **Modify** button.

The modifications will be added to the specified download task.

#### To delete a download task:

1. From the **Process Status** list, locate the download task you want to delete, and select the **Delete** button.

The **Delete Download Task** confirmation dialog appears.

2. Select Delete.

The **Download Task** will be deleted from the **Process Status** list.

### Viewing the Details of a Forecast Download Task

With your download task created, you can now view and filter the results of the task.

#### To view the details of a specific download task:

• From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button or select the task line.

Alternatively, you can use the **Search** field to search for a task by entering the name of the task and pressing **Enter**.

The results for the download task will be displayed in the **Task** list.

#### To filter the download task results:

1. From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button.

The	results	for	the	download	task	: will	be	displ	layed	in	the	Task	list.
-----	---------	-----	-----	----------	------	--------	----	-------	-------	----	-----	------	-------

Task: Vedur Stations, Data Source: Icelandic Met Office (Vedur)									
2024-12-10	~								
All Cycles		All Slots	~ All Variables	~ All Statuses	✓ Search			C Refresh	
Date	Time Cycle \$	🗧 Time Slot 🛛 🗘	Local Date/Time	Variable (Level)	Executed	File Size	Status	Preview	
2024-12-10	12:00:00	5d 12:00:00	12/15/2024, 6:00:00 PM	Weather Code (Ground at 2m)	12/10/2024, 8:39:17 AM	33.6 kB	Finished		
2024-12-10	12:00:00	5d 12:00:00	12/15/2024, 6:00:00 PM	Temperature (Ground at 2m)	12/10/2024, 8:39:17 AM	33.6 kB	Finished		
2024-12-10	12:00:00	5d 12:00:00	12/15/2024, 6:00:00 PM	Wind Direction (Ground at 10m)	12/10/2024, 8:39:17 AM	33.6 kB	Finished		
2024-12-10	12:00:00	5d 12:00:00	12/15/2024, 6:00:00 PM	Wind Speed (Ground at 10m)	12/10/2024, 8:39:17 AM	33.6 kB	Finished		
2024-12-10	12:00:00	5d 09:00:00	12/15/2024, 3:00:00 PM	Weather Code (Ground at 2m)	12/10/2024, 8:39:16 AM	33.4 kB	Finished		
2024-12-10	12:00:00	5d 09:00:00	12/15/2024, 3:00:00 PM	Temperature (Ground at 2m)	12/10/2024, 8:39:16 AM	33.4 kB	Finished		
2024-12-10	12:00:00	5d 09:00:00	12/15/2024, 3:00:00 PM	Wind Direction (Ground at 10m)	12/10/2024, 8:39:16 AM	33.4 kB	Finished		
2024-12-10	12:00:00	5d 09:00:00	12/15/2024, 3:00:00 PM	Wind Speed (Ground at 10m)	12/10/2024, 8:39:16 AM	33.4 kB	Finished		
2024-12-10	12:00:00	5d 06:00:00	12/15/2024, 12:00:00 PM	Weather Code (Ground at 2m)	12/10/2024, 8:39:17 AM	33.7 kB	Finished		
2024-12-10	12:00:00	5d 06:00:00	12/15/2024, 12:00:00 PM	Temperature (Ground at 2m)	12/10/2024, 8:39:17 AM	33.7 kB	Finished		
Showing 1 to 10 o	1760 rows 10 + row	vs per page				< 1	2 3 4 5	176 >	

Forecast Download Task - Task Results

- 2. From the **Date** drop-down, select whether to display the results for **All Dates** or for the current date only.
- 3. From the **Cycles** drop-down, select whether to display the results for **All Cycles** or for a specific cycle.
- 4. From the **Slots** drop-down, select whether to display the results for **All Slots** or for a specific time slot.
- 5. From the **Variables** drop-down, select whether you want to display the results for **All Variables** or for a specific variable.
- 6. From the **Statuses** drop-down, select whether to display the results for **All Statuses** or for a specific status.

The filtered results will be displayed in the **Task** page.

#### To preview an image for a download task:

1. From the **Process Status** list, locate the **Download Task** for which you want to view available preview images, and select the **Expand View** button.

The results for the download task will be displayed in the **Task** list.

2. In the **Preview** column, select the **Preview Image** button for the **Task** you want to preview.

The **Preview** window will appear.



Forecast Download Task - Preview

- 3. Use the < and > buttons to view the task changing over time.
- 4. Use the **Show Boundaries** toggle to show/hide **Boundaries** in the preview.
- 5. Select **OK** to close the preview.

#### To view the bounds of a download task:

1. From the **Process Status** list, locate the download task for which you want to view the **Bounds**, and select the **Bounds** button.

The **Bounds** window will appear.



Forecast Download Task - Bounds Preview

2. Use the + and - buttons to zoom in and out of the image.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

3. Select **OK** to close the preview.

## Observations

In the **Observations** section, you can add and configure download tasks and pre-process those tasks so that they are ready to be sent to the Local Server 39 when requested.

### Creating an Observations Download Task

The first step is to create a download task for the **Observations** data source. Once you have created a download task, you can modify the task as needed.

**Warning**: Configuring too many download tasks may exceed the server's data limits and cause serverrelated performance issues.

#### To add an Observation download task:

- 1. In the **Observations** section, select **+Add**.
- 2. In the **New Download Task** dialog, enter a name for the task.
- 3. From the **Data Source** drop-down, select a data source.

The drop-down list displays unassigned data sources to select from. Data sources previously assigned to other download tasks are removed from the drop-down list.

4. Use the + and - buttons to zoom in or out on the preview map to view the data source's coverage area.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

If the area of interest is covered by the selected **Data Source**, continue with the next step. Otherwise, select a different **Data Source**.

- 5. Scroll down the dialog to the Variables section.
- 6. In the Variables section, select each Variable you want displayed.

**Warning**: Selecting too many Variables may exceed data limits and cause server related performance issues.

7. Select **Create** to save the settings.

The new task will be added to the **Process Status** page.

Process Status + Add Search Refresh									
Data Source 🛛 🗍 T	Task 🜲	Variables / Levels	Last Executed 🛛 🖨	Last Download	Download Speed	Status			
Dirección Meteorológica de Chile	DMCh		1/4/2023, 8:42:16 AM	1/4/2023, 8:47:15 AM	0.31 MB/s	🖲 ОК	K 6 <u>6</u> 1		
RTMA Conus Rapid R Update (USA)	RTMA		1/4/2023, 8:42:13 AM	1/4/2023, 8:47:30 AM	42.36 MB/s	ок	к 6. <u>с</u> <u>с</u>		

Process Status - New Task

#### To modify an Observations download task:

1. From the **Process Status** list, locate the download task you want to modify, and select the **Edit** button.

The **Modify Download Task** dialog appears, showing the settings that can be modified.

2. When you have made the modifications that you want, select the **Modify** button.

The modifications will be added to the specified **Download Task**.

#### To delete an Observations download task:

1. From the **Process Status** list, locate the download task you want to delete, and select the **Delete** button.

The **Delete Download Task** confirmation dialog appears.

2. Select Delete.

The Download Task will be deleted from the Process Status list.
### Viewing the Details of an Observations Download Task

With your download task created, you can now view the results of the task. You can also view a Preview  $18^{-1}$  of the weather map for a selected task and variable, as well as a Bounds map  $18^{-1}$  showing the area covered by the task.

### To view the details of a specific download task:

• From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button or select the task line.

Alternatively, you can use the **Search** field to search for a task by entering the name of the task and pressing **Enter**.

The results for the download task will be displayed in the **Task** list.

### To filter the download task results:

1. From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button or select the task line.

Task: Task1, Data Source: RTMA Conus Rapid Update (USA)						
2023-02-06	× All T	imes ~ All Variables ~	All Statuses ~		C Refresh	
Date \$	Time \$	Variable (Level)	Executed \$	File Size 🕴 Status	+ Preview	
2023-02-06	18:15:00	Dew Point (Ground at 2m)	2/6/2023, 12:42:05 PM	5.7 MB 😽 Finished	2	
2023-02-06	18:15:00	Wind Gust (Ground at 10m)	2/6/2023, 12:41:52 PM	5.0 MB Finished	5	
2023-02-06	18:15:00	Wind Direction (Ground at 10m)	2/6/2023, 12:41:39 PM	10.3 MB 😽 Finished	2	
2023-02-06	18:15:00	Wind Speed (Ground at 10m)	2/6/2023, 12:41:26 PM	10.5 MB 😽 Finished		
2023-02-06	18:15:00	Temperature (Ground at 2m)	2/6/2023, 12:41:13 PM	5.3 MB Finished	2	
2023-02-06	18:00:00	Dew Point (Ground at 2m)	2/6/2023, 12:32:05 PM	5.4 MB Finished		
2023-02-06	18:00:00	Wind Gust (Ground at 10m)	2/6/2023, 12:31:52 PM	5.2 MB Finished	2	
2023-02-06	18:00:00	Wind Direction (Ground at 10m)	2/6/2023, 12:31:39 PM	9.5 MB Finished		
2023-02-06	18:00:00	Wind Speed (Ground at 10m)	2/6/2023, 12:31:26 PM	9.7 MB Finished		
2023-02-06	18:00:00	Temperature (Ground at 2m)	2/6/2023, 12:31:13 PM	5.0 MB G Finished		
Showing 1 to 10 of	133 rows 10	<ul> <li>rows per page</li> </ul>			14 >	

The results for the download task will be displayed in the Task list.

Observations - Download Task Results

- 2. From the **Date** drop-down, select whether to display the results for **All Dates** or for the current date only.
- 3. From the **Times** drop-down, select whether to display the results for **All Times** or for a specific time.
- 4. From the **Variables** drop-down, select whether you want to display the results for **All Variables** or for a specific variable.
- 5. From the **Statuses** drop-down, select whether to display the results for **All Statuses** or for a specific status.

The filtered results will be displayed in the **Task** page.

### To preview an image for a download task:

1. From the **Process Status** list, locate the **Download Task** for which you want to view available preview images, and select the **Expand View** button.

The results for the download task will be displayed in the **Task** list.

2. In the **Preview** column, select the **Preview Image** button for the **Download Task** you want to preview.

The **Preview** window will appear.



Forecast Download Task - Preview

3. Select  $\mathbf{OK}$  to close the preview.

### To view the Bounds of a download task:

1. From the **Process Status** list, locate the **Download Task** for which you want to view the **Bounds**, and select the **Bounds** button.

The **Bounds** window will appear.



Forecast Download Task - Bounds Preview

2. Use the + and - buttons to zoom in and out of the image.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

3. Select **OK** to close the preview.

# Advisory

The **Advisory** tab in the Data Aggregator is where you configure real-time weather alerts and official guidance products typically from national agencies or networks (e.g. EUMETNET-MeteoAlarm, US National Weather Service). This integration ensures that broadcasters can receive and display critical alerts. The following procedures explain how to add, modify, and delete Advisory Download Tasks to manage these advisory sources efficiently.

### To add an Advisory Download Task:

1. In the **Advisory** section, select **+ Add**.

The **New Download Task** window opens.



New Download Task Window

- 2. From the **Data Source** drop-down, select a data source for the download task.
- 3. Use the + and buttons to zoom in or out on the preview map to view the data source's coverage area.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

- 4. From the **Hazard Type** drop-down, select **Select All** to include all hazard types, or select **Deselect All** and manually select specific hazards for the download task.
- 5. From the **Awareness Level** drop-down, select the awareness level (**Moderate**, **Severe**, **Extreme**) for the hazard types.
- 6. From the **Countries** drop-down, select the countries where the advisory should be applied.
- 7. From the **Preferred Language** drop-down, select the language for the advisory.
- 8. Select Create.

The download task is added to the **Process Status** list.

### To modify a download task:

1. From the **Process Status** list, locate the download task you want to modify, and select the **Modify** button.

The **Modify Download Task** window appears, displaying the available settings for modification.

2. When you have made the modifications that you want, select Modify.

The modifications are applied to the specific download task.

### To delete a download task:

1. From the **Process Status** list, locate the download task you want to delete and select the **Delete** button.

### The **Delete Download Task** dialog appears.



Delete Download Task Dialog

2. Select **Delete**.

The download task is deleted from the **Process Status** list.

### Viewing the Details of an Advisory Download Task

With your Advisory download task created, you can now view the results of the task. You can also view a preview of the advisory for a selected task, as well as a **Bounds** map showing the area covered by the task.

### To view the details of a specific download task:

• From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button or select the task line.

The results for the download task will be displayed in the **Data Source** list.

### To filter the download task results:

1. From the **Process Status** list, locate the download task you want to view, and select the **Expand View** button or select the task line.

The results for the download task will be displayed in the **Data Source** list.

- 2. From the **Date/Time** drop-downs, select a start and end date and time to define the range for displaying results.
- 3. From the **Hazard Types** drop-down, select the hazard you want to view.
- 4. From the **Levels** drop-down, select whether you want to display the results for all levels or for a specific level.
- 5. From the **Certainties** drop-down, select whether to display the results for all certainties or for a specific certainty.
- 6. From the **Urgencies** drop-down, select whether to display the results for all urgencies or for a specific urgency.

Alternatively, you can use the **Search** field to search for a specific detail of a download task.

The filtered results will be displayed in the **Task** page.

### To preview an image and details for a download task:

1. From the **Process Status** list, locate the **Download Task** for which you want to view available preview images, and select the **Expand View** button.

The results for the download task will be displayed in the **Task** list.

2. In the **Preview** column, select the **Preview Image** button for the task you want to preview.

The preview window appears, displaying a map with the affected area or zone outlined. A dialog box overlays the map, showing details of the advisory, such as the identifier, headline, description, public instructions, etc.



Advisory Download Task - Preview

- 3. To view only the map with the outlined zone, select the  $\mathbf{X}$  in the top-right corner of the dialog box to close it.
- 4. Select **OK** to close the preview.

### To view the Bounds of a download task:

1. From the **Process Status** list, locate the task for which you want to view the **Bounds**, and select the **Bounds** button.

The **Bounds** window will appear.



Advisory Download Task - Bounds Preview

2. Use the + and - buttons to zoom in and out of the image.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

3. Select **OK** to close the preview.

# **Preview Styles**

In the **Preview Styles** section, users can add and customize the color preferences for preview images displayed in both the **Forecast** and **Observations** sections. This feature allows users to create a custom color palette that best suits their visualization needs, with the option to export the palette for future use. Additionally, users can easily import a previously exported color palette, enhancing control over the appearance and clarity of data visualizations.

For information on setting the color preferences for images used in broadcast graphics, see the Local Server's **Preview Styles** and section.

### To add a new Preview Style:

1. In the **Preview Styles** section, select +Add.

The Create Preview Style dialog appears.

Create Prev	iew Style						
Name							
							-5
Weather Varial	ole						
911 Telepho	ne Outage Emei	gency (Unitless)	1				~
Color	Opacity	Min. Value		Color	Opacity	Max. Value	
	1	1	>		1	2	+
						Cancel Cr	eate

Create Preview Style Dialog

- 2. In the **Name** field, enter a new name for the style.
- 3. From the **Weather Variable** drop-down, select the **Weather Variable** to customize.
- 4. In the **Color/Opacity/Value** ranges table, select the + button to add additional rows as needed to create a customized color range for your style.

Each row in the table indicates an increment in the range. The left side of the row sets the starting values for an increment and the right side of the row sets the ending values for an increment.

- 5. In each row, set the Color, Opacity, and Min./Max. Value as follows:
  - a. In the left side of the row, use the color picker to set the starting color for the range.

The Color Selector opens.

Create Preview Style							
Name							
Weather Variable							
911 Telephone Outage Emer	rgency (Unitless)	)			~		
Color Opacity	Min. Value	Color	Opacity	Max. Value	•		
1	1	>	1	2	+		
-							
				Cancel	Create		
8							
0 0 0							
R G B ≎							

Preview Styles Color Selector

b. Drag and drop the selector to the color you want.

Alternatively, you can use the eyedropper tool to select a color from another source displayed on your screen or manually enter the RGB values.

- c. In the **Opacity** field, enter or select the value to set the color **Opacity** (values range between 0 and 1).
- d. In the **Min. Value** field, enter or select the starting value.
- e. In the right side of the row, select the color picker to set the ending color for the first increment.

Create Prev	iew Style						
Name							
							->
Weather Varial	ble						
911 Telepho	ne Outage Eme	rgency (Unitless)					~
Color	Opacity	Min. Value		Color	Opacity	Max. Value	—
	1	1	>		1	2	+
_							
						Cancel Cre	eate
		_		ð 🔵 💶			
			_	0	0 0		
				R	G B ≎		

The **Color Selector** opens.

#### Preview Styles Color Selector

f. Drag and drop the **Selector** to the color you want.

Alternatively, you can use the eyedropper tool to select a color from another source displayed on your screen or manually enter the RGB values.

- g. In the **Opacity** field, enter or select the value for the color **Opacity** (values range between 0 and 1).
- h. In the Max. Value field, enter or select the ending value for the Value Range.
- 6. Continue setting the **Color**, **Opacity**, and **Min./Max. Value** for each row you added to the table.

7. When you have finished, select the **Create** button.

The new **Preview Style** will be added to the **Preview Styles** page.

Preview St	yles				+ Add
Name Ø	Weather Variable	Color Ramp	Opacity Range	Value Range	
Wind Speed	Wind Speed				8 1
Wind Gust Speed	Wind Gust Speed				<b>e</b> 1
Wind Gust	Wind Gust				6
Visibility Style	Visibility			0 - 40 (km)	<b>e</b> 1
Total Solid Precipitation	Total Solid Precipitation			0 - 15 (Unitless)	8 1
Total Precipitation	Total Precipitation			0 - 10 (Unitless)	8
Temperature	Temperature			223.15 - 323.15 (K)	ß
Storm (Wind)	Storm Wind			0 - 1 (Unitless)	8
Storm (Tornado)	Storm Hail			0 - 1 (Unitless)	8 1
Storm (Hail)	Tornado			0 - 1 (Unitless)	8
howing 1 to 10 of 15	57 rows 10 + rows	per page	× 1	2 3 4 5	16

Preview Style Page - New Style

### To modify a Preview Style:

- 1. From the **Preview Styles** list, select the **Edit** button next to the style you want to modify. The **Create Preview Style** dialog appears, showing the settings that can be modified.
- When you have made the modifications that you want, select the **Modify** button.
   The new style adjustments are made to the **Preview Style**.

### To search for a specific Preview Style:

• In the **Preview Styles** list, enter the name of the **Preview Style** in the **Search** field and press **Enter**. The search results are displayed in the **Preview Styles** list.

### To delete a Preview Style:

- In the **Preview Styles** list, select the **Delete** button next to the style you want to delete.
   The **Delete Preview Style** confirmation dialog appears.
- 2. Select the **Delete** button.

The style is deleted from the **Preview Style** list.

### To export a Preview Style:

From the Preview Styles list, select the Export button for the Preview Style you want to export.
 The .rsf file will download to your system.

### To import a Preview Style for an existing Style:

- From the **Preview Styles** list, select the **Edit** button next to the style you want to modify. The **Modify Style** window appears.
- Select the **Import** button.
   The File Explorer opens.
- 3. Navigate to the **.rsf** file you want and select **Open**.

The File Explorer closes.

4. Select Modify.

The imported style is applied to the weather variable.

### To import a Preview Style for a new Style:

- While creating a new Style, in the Create Preview Style window, select the Import button.
   The File Explorer opens.
- Navigate to the .rsf file you want and select Open.
   The File Explorer closes.
- 3. Select Create.

The imported style is applied to the weather variable.

# Endpoints

Use the **Endpoints** section to configure API **Endpoints** and view the **API Key** details. In the Data Aggregator server, you can configure endpoints to establish communication between Raiden servers. You can add, modify, or delete as many endpoints as you require for your setup.

### Creating an Endpoint Group

The first step is to create an **Endpoint Group**. Once you have created the group, you can modify or delete the **Endpoint Group** as needed.

### To add an Endpoint Group:

1. In the **Endpoint** section, select **+Add**.

The New Endpoint Group dialog appears.

- 2. In the **Name** field, enter a name for the **Endpoint Group**.
- 3. When you have named the group, select **Create**.

The new group will be added to the **Endpoints** page.

Endpoints		+ Add
Name \$	Endpoints	\$
Local Server (Dev)		+ 0 🗹 🗊
Showing 1 to 1 of 1 rows		



### To modify an Endpoint Group:

1. In the **Endpoint** list, select the **Edit** button next to the **Endpoint Group** you want to modify.

The **Modify Endpoint Group** dialog will appear, showing the setting that can be modified.

The following setting can be modified:

- Name
- 2. When you have modified the name, select **Modify**.

The modification will be saved to the **Endpoint Group**.

### To delete an Endpoint Group:

- 1. In the **Endpoints** section, select the **Delete** button to the right of the **Endpoint Group** you want to delete.
- 2. In the **Delete End Group** dialog, select **Delete**.

The **Endpoint Group** will be deleted from the **Endpoint** page.

### Adding New Endpoints to a Group

Next you'll need to add endpoints to the **Endpoint Group**. Once you have added a **New Endpoint**, you can modify or delete the endpoint if necessary.

### To add a New Endpoint to an Endpoint Group:

1. In the **Endpoints** list, select the **+** Add button for the group you want to add a New Endpoint.

The **New Endpoint** dialog will be displayed.

New Endpoint				
Development				
Name				
API Key				
			Ê	8
Enabled				
Allowed IP Addresses +				
0.0.0.0		0		
	Ca	ncel	Cre	eate



- 2. In the **New Endpoint** dialog, enter a name for the **New Endpoint**.
- 3. Select the **Enabled** box to enable the **API Key.**
- 4. In the **Allowed IP Addresses** section, select the **+ Add** button to add any additional **IP Address** fields that may be required.
- 5. In the **Allowed IP Addresses** field, enter the IP address and subnet mask of the endpoint device.

Alternatively, you can use the **Up** - **Down** arrows to set the subnet mask number.

6. When you have configured the **New Endpoint** settings, select **Create**.

The **New Endpoint** will be added to the group.

### To modify an Endpoint within an Endpoint Group:

1. In the **Endpoints** list, select the **Information** button to the right of the group you want to modify.

The **Endpoint Group** details will be displayed.

Endpoints				+ Add
Name		Endpoints	¢	
Development			+ (	) 🗹 🗊
Name	API Key	IP Addresses	Enabled	
Local Server			9	6
Test endpoint 2			0	2 1

Endpoints - Endpoint Group Modification

2. In the **Endpoint** list, select the **Edit** button next to the **Endpoint** you want to modify.

The **Modify Endpoint** dialog will appear, showing the settings that can be modified.

The following settings can be modified:

- Name
- API Key
- Enabled
- Allowed IP Addresses
- 3. When you have made the modifications that you want, select **Modify**.

The modifications will be added to the **Endpoint Group**.

### To delete an Endpoint within a group:

1. In the **Endpoint** list, select the **Information** button to the right of the group containing the **Endpoint** you want to delete.

The **Endpoints** in the **Endpoint Group** will be displayed.

Endpoints					+ Add
Name			Endpoints		
Development				+	3 🗹 🧊
Name	API Key		IP Address	es Enabled	
Local Server	<b>•</b>			ø	
Test endpoint 2	â			0	<b>e</b> 1

Endpoints Section - Endpoints Within an Endpoint Group

- 2. In the Endpoint list, select the Delete button next to the Endpoint you want to delete.
- 3. In the **Delete Endpoint** dialog, select **Delete**.

The **Endpoint** will be deleted from the **Endpoint Group**.

### To search for an Endpoint Group:

• In the **Search** field, enter the name of the **Endpoint Group** and press **Enter**.

The search results will be displayed in the **Endpoint** page.

### Viewing API Key Details

Once you have created your **Endpoint Groups** you can view the **API Key** details within the group.

### To view the API Key details:

• In the **Endpoints** list, select the <sup>1</sup> **Information** button for the **Endpoint Group** for which you want to view the **API Key** details.

The API Keys for the specified Endpoint Group will be displayed.

Name	Endpoints	÷
Local Server (Dev)		+ 0 0 1
PV Test		+ 0 0 1
Task11213		+ 0 2 1
Name API Key	IP Addresses	Enabled
aaa 🗎		• • •
aaaaa 🔒		• •
qə 🗎		• • •
123		· • · · · ·
qə 🗎		o <mark>c 1</mark>
test 🗎		• 🖉 🚺
Test Group	1	+ 0 8 1

Endpoints - API Keys

# Statistics

In the **Statistics** section, you can monitor the **Resource Usage** and **Outbound Network Traffic**. Additionally, you can export the **Statistics** for the server's **Resource Usage**.

### To view the Resource Usage:

• In the **Statistics** section, select the **Resource Usage** tab.

The **7-Day Resource Usage** and **6-Month Resource Usage** graphs will be displayed.



Statistics - Resource Usage

### To view the Outbound Network Traffic.

• In the **Statistics** section, select the **Outbound Network Traffic** tab.



The **Outbound Network Traffic** map will be displayed.

Statistics - Outbound Network Traffic

### To export the Statistics data:

- 1. In the **Statistics** section, select the **Resource Usage** Tab.
- 2. In the bottom-right corner, select the **Export to CSV** button to export the **Statistics** data.

The **Raiden\_dataaggregator\_stats.csv** file will download to your system.

3. Navigate to the location on your system where you want to save the statistics and select **Save**.

# Configuration

In the **Configuration** section, you can view and set the properties related to the **Data Aggregator Server** configuration.

- The directory locations and server location details are stored in the **config.da** JSON file, which is located in C:\Raiden\DataAggregator.
- Administrative privileges are required to make changes to the **Configuration** section.

Use this panel to access the **Configuration** tabs.

Forecast Observations Preview Styles Endpoints Statistics Configuration	
Data Aggregator Configuration	
General Data Visualization Data Files Logging	
Source Data Directory CARaidem\DataAggregator\resource\data\	
Processed Data Directory C:\Raiden\DataAggregator\output\	
Shapefiles Directory C:\Raiden\DataAggregator\resource\shp\	
Icons Directory C:\Raiden\DataAggregator\resource\lcon\	
Downloads Directory C:\Raiden\DataAggregator\input\	
Server Location	
Save	

Data Aggregator - Configuration Section

The **Configuration** panel contains the following tabs:

General 32

Data Visualization 35

Data Files 36

Logging 37

 $\star$  Saving the properties in each tab will override the **config.da** JSON file and reload the information in the system.

### General

In the **General** tab, you can view and configure the **General** directories, as described below.





### To map your General directories:

- 1. Fill in the following fields:
  - **Source Data Directory**-in this field, enter the path to the location where you want to store the source data (such as time zones).

The default path is:

C:\Raiden\DataAggregator\resource\data\

• **Processed Data Directory**—in this field, enter the path to the location where you want to store the output directory where the data downloaded and preprocessed by the Data Aggregator is located.

The default path is:

C:\Raiden\DataAggregator\output\

• Shapefiles Directory-in this field, enter the path to where you want to store the files used to create Forecast and Observations previews.

The default path is:

C:\Raiden\DataAggregator\resource\shp\

• **Icons Directory**–in this field, enter the path to the location where you want to store the icon files used in **Forecast** and **Observations** previews.

The default path is:

C:\Raiden\DataAggregator\resource\icon\

• **Downloads Directory**—in this field, enter the path to the location where you want to store the input directory, where the original files downloaded by the Data Aggregator Server are located.

The default path is:

C:\Raiden\DataAggregator\input\

- 2. In the **Server Location** map, select the point to drag and drop it on the location of your server.
- 3. Select **Save** to apply your changes.

### Data Visualization

Use the **Data Visualization** tab to configure the **Default Language** settings. This setting will establish the default language format for your organization.

Data Ag	Data Aggregator Configuration						
General	Data Visualization	Data Files Logging					
Regional	•						
	Default language	English					
			Save				

Configuration - Data Visualization

### To configure the Default Language settings:

1. From the **Default Language** dropdown, select the language you want to use.

The options are:

- English Default
- Español
- Français
- 2. Select Save.

The **Data Visualization** setting is saved.

### Data Files

Use the **Data Files** section to manage how long forecast and current condition data remains available in the **Process Status** list before expiring. When the data expires, the system will delete the data from the downloads directory and it will no longer be available in the **Process Status** list.

**Warning:** Setting the **Data Files Max Age** too high may result in server-related performance issues. In practice, a Local Server is the one that is important to retain data for broadcast. Once data is processed at a Local Server, it does not need it again from the Data Aggregator. Therefore, these maximum ages can be low on the Data Aggregator.

Data Aggregator Config	uration
General Data Visualization	Data Files Logging
Forecast Data Files Max Age (in days)	4
Observation Data Files Max Age (in days)	5
	Save

Configuration - Data Files

### To configure the Data File settings:

- 1. In the **Forecast Data Files Max Age** field, use the **Up-Down** arrows to enter the maximum number of days you want the **Forecast** data to remain in the **Process Status** list.
- 2. In the **Observations Data Files Max Age** field, use the **Up-Down** arrows to enter the maximum number of days you want the **Observations** data to remain in the **Process Status** list.
- 3. When you have configured the settings, select **Save**.

The settings will be saved in the **Data Files** page.

### Logging

In the **Logging** section, you can access and configure the settings to track error reporting and related data.

### To configure the logging settings:

1. From the **Log Level** drop-down, select the log level you want to use.

Your options are:

- INFO
- ERROR
- DEBUG
- WARNING
- TRACE
- 2. In the **Log File** field, enter the path to the **Log File**.

The default path is:

C:\Raiden\DataAggregator\logs\da.log

- In the File name pattern field, enter the pattern you want to define the format of file name extensions.
   For example: \_yyyy-MM-dd-HH'.log' (Default)
- 4. In the **Log pattern** field, enter the log pattern you want to format your logging information.

For example: %d{yyyy-MM-ddHH:mm:ss}[%p]-%c{2}:%m%n (Default)

5. In the **Maximum Number of Days to Keep Files** field, use the **Up-Down** arrows to select the number of days you want to keep files.

**\star Warning:** Keeping files for too many days is not recommended as it may cause server-related performance issues.

6. When you have configured the settings, select **Save**.

## Events

In the **Events** section, you can access the log data for all task and error events.

### To view executing task information:

The **Executable Tasks** tab is a live event viewer that displays current executing tasks.

1. In the **Events** section, select the **Executing Tasks** tab.

The list of tasks currently being executed is displayed.

- $\star$  If the system is not processing data, the list will be empty.
- 2. Select **OK** to close the window.

### To view logging information:

The **Log tab** displays all server tasks (successful or not).

1. In **Events** section, select the **Logs** tab.

The list of completed tasks and error events is displayed.

2. Select **OK** to close the window.

# Local Server

The Local Server is where you will retrieve weather data specific to your area of interest from the Data Aggregator. The data is processed based on the areas of interest and preferences you have defined locally. You can select the area of interest, store the data and generate the local media output, either images or video.

The following topics are covered in this section:

```
Accessing the Local Server 40
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 $\star$  Administrative privileges are required to configure the Local Server. Standard users have read-only access.

# Accessing the Local Server

This section provides instructions for accessing the Local Server.

### To access the local server:

- 1. Open a Web browser.
- 2. In the **URL** field enter the IP address of your local server followed by the port number through which you will be communicating with the Data Aggregator Server (in the format XX.XX.XXX.8082).
- 3. Press Enter.

You will be taken to the Local Server Login page.



Local Server Login Page

Log in with the default User name and Password provided by Ross Video.
 Upon successful login, you will be on the Areas of Interest page.

### To log out of the Local Server:

• In the top-right corner of the UI, select the arrow beside your username and select **Logout**.

### Setting the Display Preferences

This section provides instructions for setting the user-specific display preferences for the Local Server's web user interface. For instructions on setting the default display preferences for your organization see, Data Visualization  $72^{\circ}$ .

### To configure unit display preferences:

1. In the top-right corner, select the arrow beside the **Temperature** icon and select the units of temperature you want to use.

The options are:

- Celsius degrees (°C)
- Fahrenheit degrees (°F)
- Kelvin (K) Default
- 2. Then select the **Speed** icon and select the units of speed you want to use.

The options are:

- Knots (kt)
- Miles per hour (mph)
- Kilometers per hour (km/h) Default
- Meters per second (m/s)
- 3. Select the Language icon and select the language you want to use.

The options are:

- English Default
- Español
- Français

### Changing Your Password

If you need to change your password, you can do so through the Ross Platform Manager (RPM). The Ross Platform Manager is a web based application that supports common administrative functions (such as licenses and user access) for Ross products.

★ You will need your current Raiden User name and Password to access the RPM. If you do not know your current User name and Password, you will need to contact your System Administrator to recover your login credentials.

### To change your User name and Password:

- 1. In the **Data Aggregator Server** login page, select the **Ross Platform Manager** button.
- 2. Sign in to the **RPM** with your Raiden login credentials.
- 3. In the navigation bar at the top of your screen, select the **P** Tools button.

### 4. The Change Password dialog opens.

Change Password		? X
Change Password		
Old Password		
New Password		
Verify Password		
	Cancel Change Pas	sword

RPM Change Password Dialog

- 5. In the **Old Password** field, enter your old password.
- 6. In the **New Password** field, enter a new password.
- 7. In the **Verify Password** field, re-enter the new password.
- 8. Select Change Password.

The **Password** confirmation dialog will appear.

9. Select OK.

# Areas of Interest

In the **Areas of Interest** section, you can define a point of interest (such as a city), a region of interest (a larger area), or a station (point of interest based on an official weather station) for which you want to download weather data. Once defined, you can save that point, region, or station and its associated data for later recall. Additionally, you can import Shapefiles [51] to add predefined areas of interest.

The following topics are covered in this section:

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Regions 46

Shapefiles 51

Stations 52

Groups 54

### Points

In the **Points** tab, you can define a point of interest (such as a city) in a specific region on the map. Once defined, the point's associated data will be available for later recall.

### To add a new Point of interest:

1. the **Areas of Interest** section, on the left side of the page, select the Search button.

The **Reference Lookup** dialog appears.

2. In the **Search by Name** field, enter the name of the city that you want to use as a point of interest.

Reference	e Lookup			×		
Search by N	lame					
San Franc	isco		<b>Q</b> s	earch		
San Francisco Gotera, El Salvador 🔶						
Find Geoloc	ation					
Latitude	e.g. 33.4546	Longitude	e.g125.74	Go!		
				ОК		

Area of Interest - Reference Lookup

3. Select Search.

The results are displayed in the drop-down below the **Search** field.

- 4. In the results, select the city for which you want to create a point of interest.
- 5. Select the **Go!** button.

Alternatively, in the **Find Geolocation** field, you can enter the **Latitude** and **Longitude** of the city and select the **Go!** button.

The map moves to the city you selected.

- 6. On the left side of the page, select the **Draw a Marker** button.
- 7. Select the spot on the map for where you want to place the **Marker**.

The New Area of Interest dialog appears.

- 8. Use the **General** tab to set the name and time zone as follows:
  - a. In the **Name** field, enter the name for the New Area of Interest that you want to appear on broadcast graphics by default.
  - b. From the **Time Zone** drop-down, select a preferred time zone.
- 9. Use the **Data Selection** tab to set the **Forecast** and **Observations** data sources as follows:
  - a. From the **Data Source** list, select the a data source.
  - b. From the **Weather Variable** drop-down, select the weather variables you want to include for that point of interest.

Additionally, you can use the **Select All** or **Deselect All** buttons to either select all weather variables or clear all previously selected weather variables in the list.

#### 10.Select Create.

The area of interest will be added to the bottom **Point** list and a green message is displayed in the lower-right corner indicating that the point of interest was successfully added.

Poi	nts	Regions	Stations			
Shov 🔽	w Layer					
	ID	Name	Da	ata Sources	Time Zone	
		Reykjavík	4		Atlantic/Reykjavik	N C 1
	13	Brandon			America/Regina	N C î
	14	Winnipeg			America/Winnipeg	N C î
	16	Vancouver			America/Vancouver	N C î
	17	San Diego	3		America/Los_Angeles	r <b>c</b> i



#### To preview a Point of Interest:

• In the **Points** list, select the **Map** button next to the **Point** you want to preview. The **Point** will be displayed on the map.

### To modify a Point of interest:

1. In the **Points** list, select the **Edit** button next to the point you want to modify.

The **Area of Interest** dialog will appear, showing the settings that can be modified. The following settings can be modified:

- General Name
- Data Selection Data Source, Weather Variable
- When you have finished modifying the settings, select Modify.
   The modifications will be saved to the Points list.

#### To delete a Point of interest:

- 1. In the **Points** list, select the **Delete** button next to the **Point** you want to delete.
- 2. In the Area of Interest dialog, select Delete.

The **Point** will be deleted from the **Points** list.

### Regions

In the **Regions** tab, you can search for a specific location, configure the location using the shape elements, and save your results as a defined region. **Regions** define specific areas that imagery will be generated in advance for graphics. For example, you may intend to have local, regional, and national views for mapbased graphics, and therefore you should create **Regions** for all three of those sizes to get the maximum resolution imagery option each time.

Additionally, you can import **Shapefiles** is to add your own pre-defined **Regions** and download a region's files for creating base layers in your graphics engine.

### To add a new Region:

1. In the **Areas of Interest** section, on the left side of the page, select the **Search** button.

The **Reference Lookup** window appears.

2. In the Search by Name field, enter the name of the city that is central to your area of interest.

Reference Lookup ×								
Search by N	lame							
San Franc	isco			<b>Q</b> 56	earch			
San Franc	San Francisco Gotera, El Salvador 🗘 Go!							
Find Geoloc	ation							
Latitude	e.g. 33.4546	Longitude	e.g125	5.745	Go!			
					ОК			

Area of Interest - Reference Lookup

3. Select Search.

The options found for that city are displayed in the results below the **Search** field.

4. From the results drop-down located below the **Search** field, select the name of the city that is central to your area of interest and click the **Go!** button.

Alternatively, in the **Find Geolocation** field, you can enter the **Latitude** and **Longitude** of the city and select **Go!**.

The map moves to the city you selected.

5. On the left side of the page, select either the **Polygon** button or the **Rectangle** button to draw either a polygon or a rectangle around your **Region** of interest on the map.

New Area	of Interest		
General	Data Selection	Additional Styles	
Name			
English			
Español			
Français			
Time Zone			
(UTC-12:0	0) Etc/GMT+12		~
Isobars Stro	ke Size		
1			
Wind Particl	es Stroke Size		
1			
Wind Particl	es Velocity Scale		
0.005			
Wind Particl	es Density		
200			
			Create Cancel

The **New Area of Interest** window appears.

Local Server - New Area of Interest Window

6. Use the **General** tab to name the **Region** and configure the **Isobars** and **Wind Particles** settings as follows:

**\star** For additional information on the recommended settings for wind particle sizing values, refer to Appendix C: Wind Particle Sizing 218.

- a. In the **Name** field, enter the name for the **Region**.
- b. In the **Isobars Stroke Size** field, enter or select the desired stroke size for the isobars, which is the width in pixels (starting from 1 and increasing in whole numbers like 1, 2, 3, etc.).
- c. In the **Wind Particles Stroke Size** field, enter or select the desired stroke size for the wind particles, which is the width in pixels (starting from 1 and increasing in whole numbers like 1, 2, 3, etc.).
- d. In the **Wind Particles Velocity Scale** field, enter or select the parameter for the wind particles' velocity, which is a measure of their speed in the rendered output. Larger numbers indicate faster movement. The range is from 0.00001 to 1.0, although typically values will not exceed 0.1.
- e. In the **Wind Particles Density** field, enter or select the desired density for the wind particles, which is the number of particles visible in the rendered domain. The range is from a minimum of 150 to a maximum of 10,000. For the World domain, it is recommended to use 5,000 or fewer particles to avoid significant storage impact on the Local Server media drive.

- 7. Use the **Data Selection** tab to set the **Forecast** and **Observations** data sources as follows:
  - a. From the **Data Source** list, select a data source.
  - b. From the **Weather Variable** drop-down, select the weather variables you want.

Additionally, you can use the **Select All** or **Deselect All** buttons to either select all weather variables or clear all previously selected weather variables in the list.

c. From the **Smoothing** drop-down, select a smoothing setting.

Smoothing is a data selection option available only in the **Forecast** tab. Smoothing is used to create fluid playouts during animations. The higher the smoothing setting, the more storage and processing required in the Local Server. Selecting a lower setting will allow new datasets to be available earlier in each cycle.

- 8. Use the **Data Selection** tab to configure the **Advisory** data source as follows:
  - a. In the Data Selection tab, select the Advisory tab.
  - b. From the **Data Source** list, select a data source.
  - c. From the **Weather Variable** drop-down, select the weather variable you want.
- 9. Use the Additional Styles tab to add additional styles for output as follows:
  - a. Select the + Add Additional Style button.
  - b. In the first column, use the drop-down to select a variable.
  - c. In the second column, use the drop-down to select the unit of measure for the variable.

#### 10.Select Create.

The Region will be added to the **Regions** tab at the bottom of the list.

Poir	nts	Regions	Stations		
Shov 🗹	w Layer				
	ID	Name	Data Source	s Time Zone	
•		World	2	UTC	N 🛃 🗹
	12	Brandon		America/Regina	N 🛃 🗹 🧊
	39	lceland	6	Atlantic/Reykjavik	N 🛃 🗹 🧊
	51	E Coast US	2	America/New_York	N 🛃 🗹 🧊
~	52	Florida		America/New_York	n 🛃 🗹 🧻

Area of Interest - Regions

Alternatively, you can add a pre-defined **Area of Interest** to the **Regions** tab by importing a **Shapefile** 51.

### To show or hide the Points/Regions/Stations panel:

1. In the **Areas of Interest** section, to the top-right of the screen, select the **Down** arrow above the **Areas of Interest** panel.

The **Points/Regions/Stations** panel list will be hidden.

-	Poi	nts	Regions	Stations				~
۹	🕑 Sho	w Layer						^
n		ID	Name		Data Sources	Time Zone		
8			Reykjavík		4	Atlantic/Reykjavik	n <mark>c i</mark>	
			Brandon			America/Regina	n <u>c</u> 1	
10 A.		14	Winnipeg			America/Winnipeg	N 🗹 📋	
		16	Vancouver			America/Vancouver	N C 🗎	
2	2	17	San Diego		3	America/Los_Angeles	N C 1	÷

Area of Interest - Points/Regions/Stations List

2. Select the **UP** arrow, to show the **Areas of Interest** panel.

### To modify a Region of Interest:

In the **Regions** tab, select the *Edit* button next to the region you want to modify.
 The **Area of Interest** dialog will appear, showing the setting that can be modified.

The following settings can be modified:

- General Name
- Data Selection Data Source, Weather Variables, and Smoothing (Forecast).
- Additional Styles Add Additional Style
- 2. When you have modified the **Region** settings, select **Modify**.

The modifications will be saved.

### To preview a Region of Interest:

• In the **Regions** panel, select the **Map** button next to the region you want to preview.

The Region will be displayed on the map.



Areas of Interest - Region Preview

### To delete a Region of Interest:

- 1. In the **Regions** list, select the **Delete** button next to the region you want to delete.
- 2. In the Area of Interest dialog, select Delete.

The **Region** will be deleted from the **Regions** list.

### To download the files for a Region of Interest:

1. In the **Regions** tab, select the **Download** button next to the region for which you want to download the files.

The files will download to your system.

2. Navigate to the location on your system where you want to save the **Region** file and select **Save**.

### Shapefiles

A **Shapefile** is a Geographic Information System (GIS) vector format that contains the spatial and attribute components of features displayed on a map. The spatial component provides the vector data (line, polygon, and point) for spatial features and the attribute component provides the descriptive information of the feature (such as the name, type, and status of a road).

A **Shapefile** can be imported as a compressed file into the **Local Server**. The **Shapefile** must include the following four files with specific extensions:

- Main File Feature geometry (.shp)
- **dBase File** Attribute information (.dbf)
- Projection File Coordinated system and projection information using plain text format (.prj)
- Index File Index of feature geometry (.shx)

Each of these files must be contained in the compressed file and must have the exact same file name.

Example:

Main file:	provinces.shp
Index file:	provinces.shx
dBase file:	provinces.dbf

Projection file: provinces.prj

 $\star$  If the four required files are not included in the compressed file, or they do not have the exact same file name, the file upload will fail.

### To import a Shapefile:

1. In the **Areas of Interest** section, to left side of the screen, select the **Import** button.

The Import Shapefile dialog appears.

- 2. Select the Browse button next to the Choose file (.zip) field.
- 3. Navigate to the zip file and select **Open**.

The New Area of Interest dialog appears.

4. In the Name field, enter the name of the New Area of Interest and select Create.

The new Area of Interest, defined by the Shapefile data, will be added to the Regions tab.

### Stations

In the **Stations** tab, you can add a weather station to your **Area of Interest**. Once defined, the station's associated data will be available for later recall.

### To add a Station:

1. In the **Area of Interest** section, on the left side of the page, select the **Weather Stations** button.

The Add Weather Station window appears.

- 2. From the **Station Data Source** drop down, select the data source for which to search for an available weather station.
- 3. In the **Weather Station** field, enter the name of the local **Weather Station**.

A drop-down with a list containing the available stations with that name will appear.

4. Select the station you want from the results drop-down list.

The map will display the location of the station.

5. Use the + or - buttons to zoom in and out of the map.

Alternatively, you can use the scroll wheel on your mouse to zoom in and out.

6. Select Continue.

The New Area of Interest window opens.

- 7. Use the General tab to set the Name and Time Zone settings as follows:
  - a. In the **Name** field, enter the name of the station that you want to appear on broadcast graphics by default.
  - b. From the **Time Zone** drop-down, select the time zone you want.
- 8. Use the Data Selection tab to set the Forecast and Observations data sources as follows:
  - a. From the Data Source list, select a data source.
  - b. From the Weather Variable drop-down, select the preferred weather variables.
- 9. Select Create.

The Weather Station will be added to the Stations list.

Poi	nts	Regions	Stations			
🕑 Sho	w Layer					
	ID	Name		Data Sources	Time Zone	
	4	Santiago		0	America/Santiago	1 2 1
	18	Reykjavík		3	Atlantic/Reykjavik	N C î
	21	Santa Barbara		1	America/Los_Angeles	N 🗹 î
	22	Oxnard		1	America/Los_Angeles	1 2 1
2	23	San Bernardin	0	1	America/Los_Angeles	N C î

Areas of Interest - Stations
#### To preview a Station:

• In the **Stations** tab, select the **Map** button next to the station you want to preview on the map. The station will be displayed on the map.

#### To modify a Station:

- 1. In the **Stations** list, select the **Edit** button next to the station you want to modify. The **Area of Interest** window will appear.
- 2. Use the **General** tab to modify the name of the **Station**.
- The Area of Interest dialog will appear, showing the setting that can be modified.
   The following settings can be modified:
  - General Name
  - Data Selection Data Source, Weather Variables.
- 4. When you have finished modifying the **Station** settings, select **Modify**.

The modifications will be saved to the **Stations** tab.

#### To delete a Station:

- 1. In the **Stations** tab, select the **Delete** button next to the **Station** you want to delete.
- 2. In the Area of Interest dialog, select Delete.

The Station will be deleted from the Stations list.

### Groups

In the **Groups** tab, you can define sets of stations or points that can be added to scenes in a single action, making it easier to manage frequently used locations for forecasts and observations.

#### To add a Group:

1. In the Area of Interest section, select the Groups tab.

Point	ts Regions	Stations	Groups	
+ Add	Group			
ID	Name	Points	of Interest	
1	LA Area			<b>8</b>

Area of Interest - Groups Tab

2. Select + Add Group.

The Add Group window opens.

- 3. In the **Name** field, enter a name for the new group.
- 4. From the **Points of Interest** drop-down, select the point(s) of interest to add to the group.

Additionally, you can choose **Select All** to add all available points or **Deselect All** to clear the selection.

5. Select **Add** to save the group.

The new group is added to the Groups list.

#### To modify a Group:

1. In the **Groups** list, select the **Modify** button next to the group to modify.

The **Modify Group** window opens, displaying the settings that can be modified (**Name** and **Points of Interest**).

2. After modifying the groups settings, select **Modify** to save the changes.

The modifications are saved to the group.

#### To delete a Group:

1. In the **Groups** tab, select the **Delete** button next to the group you want to delete.

The **Delete Group** dialog opens.

2. Select **Delete**.

The group is deleted from the Groups list.

## Forecast

In the **Forecast** section, you can preview incoming data for a specific data source, enabling you to validate that all the parameters are successfully generating for your **Area of Interest**. The results are temporary and update every time you preview the **Forecast** data.

## Previewing Forecast Data

When previewing **Forecast** data, the server will retrieve and create a list of all available data from the specific data source that you select. Then you can filter the results and preview the available data for that source. If you selected to retrieve data from a region, your filtered results will include preview images. Preview images are not available for point or station data.

#### To filter forecast data:

- 1. From the **Data Sources** drop-down, select whether to display the results for **All Data Sources** or for a specific source only.
- 2. From the **Dates** drop-down, select whether to display the result for **All Dates** or for a specific date only.
- 3. From the **Cycles** drop-down, select whether to display the results for **All Cycles** or for a specific cycle only.
- 4. From the **Slots** drop-down, select whether to display the results from **All Slots** or for a specific slot only.
- 5. From the **Variables** drop-down, select whether to display the results from **All Variables** or a specific variable.

Alternatively, you can use the **Search** field to find a particular variable.

- 6. From the **Place Types** drop-down, select whether to display the results from **All Place Types** or a specific place type.
- 7. From the **Places** drop-down, select whether to display the results from **All Places** or a specific place.

The forecast data you selected will be displayed in the **Process Status** page.

Process Sta	atus								
Global Forecast Syst	tem	~			Search			🔁 Re	fresh
2023-01-21	~ 18:00	0:00 ~	01:00:00	~ Categ	orical Rain ( 🛛 🗸	Region	~	SoCal (Reg	gion) ~
Data Source	Date 🗘	Time Cycle 🗍	Time Slot	Variable (Level)	Area of Interest	Executed 🔶	Valu	es	Preview
Global Forecast System	2023-01- 21	18:00:00	01:00:00	Categorical Rain (Surface)	SoCal	1/21/2023, 8:49:39 PM	maxi avera mini	i <b>mum</b> =0.00 age=0.00 mum=0.00	
Showing 1 to 1 of 1 ro	ws								

Forecast - Process Status Results

#### To preview an image:

- 1. From the **Process Status** list, select the Preview Image button next to the data source you want to preview.
- **★** Preview images are not available for **Line** or **Station** data.

The **Preview** dialog will appear.

Preview	\$	ε
Data Source	Icelandic Met Office (IGB)	
Name	Iceland	
Variable (Level)	Mean Sea Level Pressure (Mean Sea Level)	
Date	2023-02-09	
Time Cycle	06:00:00	
Time Slot	2d 18:00:00	
<	k land Mask No Mask Show Background	
	ок	

Forecast - Preview

- 2. Select a toggle button to enable the following layers in the preview image:
  - Region Mask
  - Land Mask
  - No Mask
  - Show Background
- 3. Use the < and > buttons to view the variable changing over time.
- 4. Select **OK** to close the preview.

# Observations

In the **Observations** section, you can preview incoming data for a specific data source, enabling you to validate that all the parameters are successfully generating for your area of interest. The results are temporary and update every time you preview the **Observations** data.

## Previewing Observations Data

When previewing **Observations** data, the server will retrieve and create a list of all available data from the specific data source that you select. Then you can filter the results and preview the available data for that source. If you select to retrieve data from a region, your filtered results will include preview images. Preview images are not available for point or station data.

#### To filter Observations data:

- 1. From the **Data Sources** drop-down, select whether to display the results for **All Data Sources** or for a specific source only.
- 2. From the **Dates** drop-down, select whether to display the result for **All Dates** or for the current date or the previous day.
- 3. From the **Variables** drop-down, select whether to display the results for **All Variables** or for a specific variable only.
- 4. From the **Place Types**, select whether to display the results from **All Place Types** or for a specific type only.
- 5. From the **Places** drop-down, select whether to display the results from **All Places** or a specific place.
- 6. In the **Search** field, enter the name of the **Point** or **Region** of interest and press **Enter**.

The data you selected will be displayed in the **Process Status** page.

Process Status										
RTMA Conus Rap 🖌										
2023-01-23 ~ Temp	erature (Gro	~ All	l Places ~			<b>C</b>				
						Refresh				
Data Source	Variable (Level)	Area of Interest	Timestamp 🔶	Executed \$	Values	Preview				
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Los Angeles	1/23/2023, 7:00:00 AM	1/23/2023, 7:19:06 AM	8.71 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Ottawa	1/23/2023, 7:00:00 AM	1/23/2023, 7:19:06 AM	-2.55 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Montreal	1/23/2023, 7:00:00 AM	1/23/2023, 7:19:06 AM	-2.69 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Montreal	1/23/2023, 6:45:00 AM	1/23/2023, 7:08:48 AM	-2.74 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Ottawa	1/23/2023, 6:45:00 AM	1/23/2023, 7:08:48 AM	-2.43 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Los Angeles	1/23/2023, 6:45:00 AM	1/23/2023, 7:08:48 AM	7.69 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Montreal	1/23/2023, 6:30:00 AM	1/23/2023, 6:59:06 AM	-2.27 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Ottawa	1/23/2023, 6:30:00 AM	1/23/2023, 6:59:06 AM	-2.08 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Los Angeles	1/23/2023, 6:30:00 AM	1/23/2023, 6:59:06 AM	7.52 °C					
RTMA Conus Rapid Update (USA)	Temperature (Ground at 2m)	Montreal	1/23/2023, 6:15:00 AM	1/23/2023, 6:38:48 AM	-2.27 °C					
Showing 1 to 10 of 75 rows 10 🔺	rows per page			< 1 2 3	4 5	8 >				

**Observations - Process Status Results** 

#### To preview a variable image:

- 1. From the **Process Status** list, select the Preview Image button next to the variable you want to preview.
  - $\star$  Only data from a **Region** contains preview images.

The **Preview** dialog will appear.



Observations - Preview Image

- 2. Select a toggle button to enable the following layers in the preview image:
  - Region Mask
  - Land Mask
  - No Mask
  - Show Background
- 3. Select **OK** to close the preview.

# Advisory

In the **Advisory** section, you can preview incoming data for a specific Advisory data source, enabling you to validate that all the parameters are successfully generating for your **Area of Interest**.

## Previewing Advisory Data

When previewing **Advisory** data, the server will retrieve and create a list of all available data from the specific data source that you select. Then you can filter the results and preview the available data for that source.

#### To filter Advisory data:

- 1. From the **Data Sources** drop-down, select a data source.
- 2. From the **Date/Time** drop-downs, select a start and end date and time to define the range for displaying results.
- 3. From the **Hazard Types** drop-down, select the hazard you want to view.
- 4. From the **Places** drop-down, select an area of interest.
- 5. From the **Levels** drop-down, select whether you want to display the results for all levels or for a specific level.
- 6. From the **Urgencies** drop-down, select whether to display the results for all urgencies or for a specific urgency.
- 7. From the **Certainties** drop-down, select whether to display the results for all certainties or for a specific certainty.

Alternatively, you can use the **Search** field to search for a specific detail in the Advisory data.

The filtered results will be displayed in the **Process Status** page.

#### To Preview an Advisory image:

1. From the **Process Status** list, select the Preview Image button next to the variable you want to preview.

The **Preview** window will appear.

NWS Alerts
Winter Storm Watch
E Coast US
Lucas
NWS Alert Style 126
The Background

Advisory - Preview Image

- 2. Select **Show Details** to view additional advisory information, including the language, headline, description, impacts, and any recommended instructions.
- 3. Select the **Show Background** toggle button to show/hide the background layer in the preview image.
- 4. Select **OK** to close the preview.

# **Output Styles**

In the **Output Styles** section, you can add and customize the color palette of weather variables displayed on a map, enabling you to control the color and style of your weather map layers. Some weather variables use standardized color schemes, such as the <u>MeteoAlarm warning system</u> (a), which categorizes severe weather alerts into three awareness levels—Moderate, Severe, and Extreme.

Color palettes are available for export to use as a template or to share with other Stations. Users can then easily import a previously exported color palette to modify an existing style or to use as a starting point for creating additional styles.

The following topics are covered in this section:

Adding Output Styles to a Weather Variable

Modifying Output Styles

MeteoAlarm Warning Colors

## Adding Output Styles to a Weather Variable

The first step is to add Output Styles to a weather variable. After adding the Output Style, you must choose one to set as the default for the weather variable, as only a single Output Style can be designated as the default.

When adding an output style, the available settings depend on the selected weather variable. Some weather variables allow defining a full color range  $\boxed{100}$  with multiple increments, while others use only fill and outline colors  $\boxed{100}$ . Follow the appropriate procedure based on the selected weather variable.

#### To add an Output Style for a full color range weather variable:

1. In the top-right corner of the **Output Styles** list, select **+Add**.

Alternatively, you can select the **+** Add button next to the weather variable to which you want to add a style.

#### The Create Style window opens.

Create Style	9						
Name							
							-5
Weather Varia	ble						
911 Telepho	ne Outage Eme	rgency (Unitless)	)				~
Default							
Color	Opacity	Min. Value		Color	Opacity	Max. Value	
	1	1	to		1	2	+
						Create Ca	incel

Create Styles Window

- 2. In the **Name** field, enter a name for the new style.
- 3. From the **Weather Variable** drop-down, select the weather variable you want to customize.
- 4. Select the **Default** checkbox if you want to set the style as the default for the variable.

 $\star$  If you have created multiple styles for a single weather variable, ensure that only one style is selected as the default.

5. In the style settings table, select the + button to add additional rows as needed to create a customized color range for your style.

Each row in the table indicates an increment in the range. The left side of the row sets the starting values for an increment, and the right side of the row sets the ending values for an increment.

- 6. In each row set the **Color**, **Opacity**, and **Min./Max. Value** as follows:
  - a. In the left side of the row, use the color picker to set the starting color for the range.
     The color picker opens.



Output Styles Color Picker

b. Drag and drop the selector to the color you want.

Alternatively, you can use the Eyedropper tool to select a color from another source displayed on your screen or manually enter the RGB values.

- c. In the **Opacity** field, enter or select the value to set the color opacity.
- d. In the **Min. Value** field, enter or select the starting value.

 $\star$  The **Min. Value** is the minimum value for the measurement unit of the weather variable.

e. In the right side of the row, use the color picker to set the ending color for the first increment.

The Color Picker opens.



Output Styles Color Picker

f. Drag and drop the selector to the color you want.

Alternatively, you can use the Eyedropper tool to select a color from another source displayed on your screen or manually enter the RGB values.

- g. In the **Opacity** field, enter or select the value for the color opacity.
- h. In the Max. Value field, enter or select the ending value.
- 7. Continue setting the color, opacity, and Min./Max Value for each row you added to the table.
- 8. When you have finished, select **Create**.

The new **Output Style** will be added to the weather **variable**.

#### To add an Output Style for a variable that uses only Fill and Outline options:

1. In the top-right corner of the **Output Styles** list, select **+Add**.

Alternatively, you can select the button next to the **Weather Variable** to which you want to add a style.

#### The Create Style window appears.

Create Style						
Name						
						-5
Weather Variab	le					
911 Telephor	e Outage Emerg	ency (Unitless)				~
Default						
	Fill			Outline		
Color	Opacity	Min. Value	Color	Opacity	Max. Value	
	1	1	to	1	1	
				C	reate Ca	ncel

Create Style Window

- 2. In the **Name** field, enter a name for the new style.
- 3. From the **Weather Variable** drop-down, select the weather variable you want to customize.
- 4. Select the **Default** checkbox if you want to set the style as the default for the variable.

 $\star$  If you have created multiple styles for a single weather variable, ensure that only one style is selected as the default.

- 5. Use the color picker to select a **Fill** color.
- 6. Use the color picker to select an **Outline** color.
- 7. In the **Opacity** fields, enter or select the value to set the color opacity.
- 8. When you have finished, select **Create**.

The new **Output Style** will be added to the **Weather Variable**.

#### To set the default Output Style for a Weather Variable:

- 1. In the **Output Styles** list, select the **Up** arrow next to the **Weather Variable**.
- 2. Select the **Edit** button next to the **Output Style** you want to set as the default style.
- 3. In the **Modify Style** dialog, select the **Default** checkbox and select **Modify**.

Weather Variable		St	Styles					
Severe Thunderstorm Warning			1 + -					
Name	Color Ramp		Opacity Range	Value Range	Default			
NWS Alert Style 90			1 - 1	0 - 1 (Unitless)	⊘	6		
Test Style for Severe Tstorm war			1 - 1	1 - 2 (Unitless)		C I		
Showing 1 to 1 of 1 rows								

Output Styles - Default

4. In the **Default** column, confirm only one **Output Style** is set as the default.

#### To search for a specific Output Style:

• In the **Output Styles** list, enter the name of the **Output Style** in the **Search** field and press **Enter**. The search results will be displayed in the **Output Styles** list.

## Modifying Output Styles

Once you have created **Output Styles**, you can modify or delete them as needed. You also have the option to export your selected palette for future use and easily import a previously exported color palette. This provides an easy way to ensure consistency of color palettes and styles between the Data Aggregator and the local server.

#### To modify an Output Style:

- 1. In the **Output Styles** list, select the **Up** arrow next to the **Weather Variable** you want to modify.
- 2. Then select the **Edit** button.

The **Modify Style** dialog will appear, showing the settings that can be modified.

The following can be modified:

- Name
- Weather Variable
- Color, Opacity, and Value ranges
- Default
- 3. When you have made the modifications that you want, select the **Modify** button.

#### To delete an Output Style:

- 1. In the **Output Styles** list, select the **Up** arrow next to the **Weather Variable** you want to delete.
- 2. Then select the **Delete** button.
- 3. In the **Delete Style** dialog, select **Delete**.

#### To export an Output Style:

- 1. In the **Output Styles** list, select the **Up** arrow next to the **Weather Variable** from which you want to export the style from.
- 2. Select the **Export** button.

The .rsf file downloads to your system.

#### To import an Output Style for an existing Style:

- 1. In the **Output Styles** list, select the **Up** arrow next to the **Weather Variable** to which you want to import a style.
- 2. Select the **Edit** button.

The Modify Style window appears.

3. Select the **Import** button.

The File Explorer opens.

4. Navigate to the **.rsf** file you want and select **Open**.

#### 5. Select Modify.

The imported style is applied to the weather variable.

#### To import an Output Style for a new Style:

- While creating a new Style, in the Create Style window, select the Import button.
   The File Explorer opens.
- 2. Navigate to the .rsf file you want and select Open.
- 3. Select Create.

The imported style is applied to the weather variable.

## MeteoAlarm Warning Colors

The MeteoAlarm warning system provides a standardized way to display severe weather alerts across multiple European countries. Instead of categorizing warnings by weather type (such as wind or ice), it uses a three-level color scale to indicate severity:

Moderate (Yellow): Conditions may cause some disruptions but are generally manageable.

**Severe (Orange)**: Weather events that could lead to significant impacts and require precautionary measures.

Extreme (Red): High-risk conditions that may pose threats to safety and require immediate attention.

Raiden includes 14 weather variables that use the MeteoAlarm color scheme:

- Avalanche
- Coastal Event
- Drought
- Flood
- Fog
- Forest Fire
- High Temperature
- Low Temperature
- Marine Hazard
- Rain
- Rain Flood
- Snow or Ice
- Thunderstorm
- Wind

Each of these weather variables includes three preset styles—one for each level of severity. These styles come pre-configured and do not need to be manually added. However, users can modify them if necessary.

Flood			-	<b>~</b>	
Name	Color Ramp	Opacity Range	Value Range	Default	
Moderate Flood Alert			1 - 1 (Unitless)	0	2 2 1
Severe Flood Alert			1 - 1 (Unitless)	0	± 🗹 🚺
Extreme Flood Alert			1 - 1 (Unitless)	⊘	± 🗹 🚺

Output Styles - MeteoAlarm Warning Color Scale

# Configuration

In the **Configuration** section, you can view and set the properties related to the **Local Server** configuration.

- The directory locations and server location details are stored in the **config.ls** JSON file, which is located in C:\Raiden\LS.
- Administrative privileges are required to make changes to the **Configuration** section.

Use this panel to access the configuration tabs.

Raiden	Areas of Interest	Forecast	Observations	Preview Styles	Configuration				A 0 - 2	0 -
	Local S	erver Con	figuration							
	General	Data Visua	lization Data F	iles Logging	Geographic					
		Source Data	Directory E:V	taiden\LS\resource\	\data\					
	P	rocessed Data	Directory E:\F	taiden\LS\processe	d\					
		Shapefiles	Directory E:\F	taiden\LS\resource\	\shp\					
		lcons	Directory E:\F	taiden\LS\resource\	\icon\					
							Save			

Local Server - Configuration Panel

The **Configuration** panel contains the following tabs:

General 70

Data Visualization 72

Data Files 74

Logging 75

Geographic 76

 $\star$  Saving the properties in each tab will override the **config.ls** JSON file and reload the information in the system.

## General

In the **General** tab, you can view and configure the **General** directories, as described below.

Local Server Configuration	Local Server Configuration							
General Data Visualization	Data Files Logging Geographic							
Source Data Directory	C:\Raiden\LS\resource\data\							
Processed Data Directory	C:\Raiden\LS\processed\							
Shapefiles Directory	C:\Raiden\LS\resource\shp\							
Icons Directory	C:\Raiden\LS\resource\icon\							
XPression Video Coder	C:\Program Files (x86)\XPression Video Coder\VideoCoder.exe							
	Save							



#### To map your General directories:

- 1. Fill in the following fields:
  - **Source Data Directory**—in this field, enter the path to the location where you want to store your source data (such as time zones).

The default path is:

C:\Raiden\LS\resource\data\

• **Processed Data Directory**—in this field, enter the path to the location where you want to store the downloaded and preprocessed data.

The default path is:

C:\Raiden\LS\processed\

If you need to change the target folder for the **Processed** path, see Changing the Target Process Path 7h.

• Shapefiles Directory—in this field, enter the path to the location where you want to store the files used to create Forecast and Observations previews.

The default path is:

C:\Raiden\LS\resource\shp\

• **Icons Directory**—in this field, enter the path to the location where you want to store the icon files used in the **Forecast** and **Observations** previews.

The default path is:

C:\Raiden\LS\resource\icon\

• XPression Video Coder—in this field, enter the path to where the XPression Video Coder file is located.

The default path is:

C:\Program Files(x86)\XPression Video Coder\VideoCoder.exe

2. Select **Save** to apply your changes.

The settings will be saved to the **General** tab.

## Changing the Target Folder for the Processed Path

If you need to change the target folder for the **Processed** path, you will need to do so in the **config.ls.json** configuration file, in the "processed\_path" element:

"processed\_path": "C:\\Raiden\\LS\\processed\\"

Once you have changed the target folder, you will need to restart the Local Server to apply the change.

The system will write the new generated files, with the exception of the following two folders that are only generated when you add a new data source or new poi:

#### processed/grid

#### processd/poi

These two folders are not regenerated automatically and must be manually copied and moved into the new target folder.

**Warning**: If you do not manually move these two folders into the new target folder, the Local Server will experience performance issues when generating new data layers.

## Data Visualization

In the **Data Visualization** section, you can set the default language and define the custom date, time and number formats for your region.

Local Server Configuration						
General Data Visualization	Data Files Logging Geographic					
Regional						
Default language	- English					
	✓ Show time zone					
Date and Time formats						
Default date format	YYYY/MM/DD ~					
Default time format	24H					
Number Format						
Default decimal separator						
Default digit grouping separator						
Default number of decimals	0					
	Save					

#### Configuration - Data Visualization

This section describes the following procedures:

To configure the Regional preferences: 72

To configure the Date and Time formats: 72

To configure the Number Format preferences: 73

#### To configure the Regional preferences:

1. From the **Default Language** dropdown, select the language you want to use.

The options are:

- English Default
- Español
- Français
- 2. From the **Time zone** dropdown, select the time zone that you want to use.
- 3. If you want to enable the **Time Zone** preference, select the **Show Time Zone** checkbox.
- 4. When you have finished configuring the settings, select **Save**.

#### To configure the Date and Time format preferences:

1. From the **Default date format** dropdown, select the date format you want to use.

Your options are:

- YYYY/MM/DD
- DD/MM/YYYY
- MM/DD/YYYY
- YYYY-MM-DD
- DD-MM-YYYY
- MM-DD-YYYY

2. From the **Default time format** dropdown, select the time format you want to use.

Your options are:

- 12H
- 24H
- 3. When you have finished configuring the settings, select **Save**.

#### To configure the Number Format preferences:

1. From the **Default decimal separator**, select the decimal separator that you want to use.

Your options are:

- Comma (,)
- Period (.)
- 2. From the **Default digit grouping separator**, select the digit grouping separator that you want to use. Your options are:
  - Comma (,)
  - Period (.)
- 3. In the **Default number of decimals**, use the **Up-Down** arrows to set the number of decimals you want to use.
- 4. When you have finished configuring the settings, select **Save**.

The settings will be saved in the **Data Visualization** section.

## Data Files

Use the **Data Files** section to manage how long forecast and current condition data remains available in the **Process Status** lists before expiring. When the data expires, the system will delete the data from the downloads directory and it will no longer be available in the **Process Status** lists or the broadcast graphics.

**Warning:** Setting the **Data Files Max Age** too high may result in server-related performance issues. After receiving data from the Data Aggregator, the Local Server processes and retains the data for broadcast and no longer needs the data again from the Data Aggregator. Therefore, the maximum age can be configured to a lower setting on the Data Aggregator.

Local Server Configurat	ion
General Data Visualization	Data Files Logging Geographic
Forecast Data Files Max Age (in days)	
Observation Data Files Max Age (in days)	
	Save

Configuration - Data Files

#### To configure the Data Files settings:

- 1. In the **Forecast Data Files Max Age field**, use the **Up-Down** arrows to enter the maximum number of days you want the **Forecast** data to remain in the **Process Status** list.
- 2. In the **Observations Data Files Max Age** field, use the **Up-Down** arrows to enter the maximum number of days you want the **Observations** data to remain in the **Process Status** list.
- 3. When you have configured the settings, select **Save**.

The settings will be saved in the **Data Files** page.

## Logging

In the **Logging** section, you can access and configure the settings to track error reporting and related data.

Local Server Configurat	Local Server Configuration						
General Data Visualization	Data Files Logging Geographic						
Log Level	v						
Log File	C:\Raiden\LS\logs\ls.log						
File name pattern	∵yyyy-MM-dd-HH						
Log pattern	%d{yyyy-MM-dd HH:mm:ss} [%p] - %c{2}: %m%n						
Maximum number of days to keep files	6						
	Save						

Configuration - Logging

#### To configure the logging settings:

1. From the **Log Level** drop-down, select the log level you want to use.

Your options are:

- INFO
- ERROR
- DEBUG
- WARNING
- TRACE
- In the Log File field, enter the path to the location on your local computer where log files will be stored.
   C:\Raiden\LS\logs\ls.log (Default)
- 3. In the **File name pattern** field, enter the pattern you want to define the format of file name extensions. For example: \_yyyy-MM-dd-HH'.log'
- 4. In the Log pattern field, enter the log pattern you want to format your logging information.

For example: %d{yyyy-MM-ddHH:mm:ss}[%p]-%c{2}:%m%n

- 5. In the **Maximum Number of Days to Keep Files** field, use the **Up-Down** arrows to select the number of days you want to keep files.
- 6. When you have configured the settings, select **Save**.

The settings will be saved to the **Logging** page.

## Geographic

In the **Geographic** section, you can access and configure the base map, digital elevation model, and source tile preferences for the maps displayed in the Local Server.

The Geographic tab contains the following sections:

Configuring the Base Map preferences 76

Configuring the Labels Map preferences  $\boxed{m}$ 

Configuring the Digital Elevation Models 78

Configuring the Source Tiles 79

The directory locations and server location details are stored in the **config.ls** JSON file. The **config.ls** JSON file is located in the Raiden project files that were provided with the installation package.

#### Configuring the Base Map Preferences

In the **Base Map** section, you can configure the base map settings for the map displayed in the **Areas of Interest** section.

General Data Visual	ization C	Data Files	Logging	Geographic
Base Map				
Tiles	Protocol	WMS		
Tile	s Format	image/pn	8	
		https://ow	s.terrestris	is.de/osm/service
Map Attr	ributions	© <a< td=""><td>target='_8</td><td>BLANK<sup>*</sup> href="https://www.openstreetmap.org/copyright"&gt;OpenStreetMap contribut-</td></a<>	target='_8	BLANK <sup>*</sup> href="https://www.openstreetmap.org/copyright">OpenStreetMap contribut-
		Transpar	ent	
	Layers			
		OSM-WMS		×
Labels Map				
		Enable	Disable	
Tiles	Protocol	WMS		
Tile		image/pri	8	
		http://		/geoserver/rossvideo/wms
Zoom Ti	hreshold	4		
		Transpar	ent	
	Layers			
		ne_50m_p	opulated_j	_places 🗙
Digital Elevation Models				
Direct	ory Path	C:\Raiden	LS\dem\st	strm3
Sou	rce Type	SRTM3		
Source Tiles				
Direct	tory Path	C:\Raiden	LS\tiles	
Sou	rce Type	BING		
				Save

Configuration - Base Map

#### To configure the Base Map preferences:

- 1. From the **Tiles Protocol** dropdown, select **WMS**.
- 2. From the **Tiles Format** dropdown, select the image format that you want to use.

The options are:

- image/png
- image/jpeg
- image/tiff
- 3. In the **URL** field, enter the URL for the Web Map Service (WMS).

- 4. In the **Map Attributes** field, enter the path to the map service provider's attribution information (supports HTML code).
- 5. If you want to enable transparent tiles for the WMS protocol, select the **Transparent** checkbox.
- 6. Select the **+Add Layer** button to add additional WMS protocol layers.
- 7. In the **Layers** field, enter the layer name from the base URL you selected.
- 8. When you have finished configuring the settings, select **Save**.

#### Configuring the Labels Map Preferences

In the **Labels Map** section, you can configure the label map settings if you want to use your own maps server to display map labels. Map labels are the geographic labels (such has country, state, city, etc.) displayed when you zoom in on a map in the Local Server.

**\*** The **Zoom Threshold** setting determines when the map labels will appear as you zoom in on a map. The **Zoom Threshold** of 4 is recommended.



Configuration - Labels Map

#### To configure the Labels Map preferences:

- 1. In the Labels Map section, select Enable to enable the Labels Map in the Local Server.
- 2. From the **Tiles Protocol** drop-down, select **WMS**.
- 3. From the **Tiles Format** drop-down, select the image format for the tiles.

Your options are:

- image/png (default)
- image/jpeg
- image/tiff
- 4. In the **URL** field, enter the URL for the **Web Map Service** (WMS), as follows:

http://xx.xx.xxx:8080/geoserver/rossvideo/wms

5. In the **Zoom Threshold** field, enter a value for the zoom threshold.

**★**A **Zoom Threshold** of 4 (default) is recommended.

- 6. Select the **Transparent** checkbox to enable transparent tiles for the WMS protocol.
- 7. Select the **+ Add Layer** button to add additional WMS protocol layers.
- 8. In the Layers field, enter the layer name for the Labels Map URL.
- 9. When you have finished configuring the settings, select **Save**.

#### Configuring the Digital Elevation Models Preferences

Once you have configured the **Base Map** and **Label Map** settings, you will need to configure the **Digital Elevation Models** (DEMs) settings. DEMs are files that use either Shuttle Radar Topography Mission 1 (SRTM1) or Shuttle Radar Topography Mission 3 (SRTM3) radar observations to provide digital representations of surface elevations on a map. Your Raiden installation package comes with SRTM 3 data files, which contains over 14,000 DEM files. SRTM1 files are supported but not included.

General	Data Visualization	Data Files Logging Geographic	
Base Map			
	Tiles Protocol	WMS	
	Tiles Format	image/png	~
	URL	https://ows.terrestris.de/osm/service	
	Map Attributions	© <a href="https://www.openstreetmap.org/copyright" target="_BLANK">OpenStreetMap</a> cont	ribut
		✓ Transparent	
	Layers	+ Add Layer	
		OSM-WMS	×
Labels Map			
		Enable Disable	
	Tiles Protocol	WMS	
	Tiles Format	image/png	~
	URL	http:// /geoserver/rossvideo/wms	
	Zoom Threshold	4	
		Z Transparent	
	Layers	+ Add Layer	
		ne_50m_populated_places	×
Digital Elevat	ion Models		
	Directory Path	C:\Raiden\LS\dem\strm3	
	Source Type	SRTM3	~
Source Tiles			
	Directory Path	C:\Raiden\LS\tiles	
	Source Type	BING	~
	API Key		8
		Save	

Configuration - Digital Elevation Models

#### To configure the Digital Elevation Models preferences:

- 1. In the **Directory Path** field, enter the path to the location where you want to store the DEM files, where the SRTM1 data is located.
- 2. From the **Source Type** drop-down, select the source type for the DEM you are using.

The options are:

- SRTM1
- SRTM3
- 3. When you have finished configuring the settings, select **Save**.

#### Configuring the Source Tiles Preferences

Next, you will need to configure the **Source Tiles** preferences. To complete this section, you will need to select an online map service (such as Bing or Mapbox) which provides the source tiles of geographic data (such as maps or other geographic images).

General	Data Visualization	Data Files	Logging	Geographic			
Base Map							
	Tiles Protocol	WMS					
	Tiles Format	image/pr	ng				
	URL	https://ov	vs.terrestris	.de/osm/service			
	Map Attributions	© <a< td=""><th>target='_Bl</th><td>ANK' href='http:</td><td>://www.openstreetmap.org/copyrigh</td><td>t'&gt;OpenStreetMap contribu</td><td></td></a<>	target='_Bl	ANK' href='http:	://www.openstreetmap.org/copyrigh	t'>OpenStreetMap contribu	
		Transparent	rent				
	Layers	+ Add La					
		OSM-WM	s				•
Labels Map							
		Enable	Disable				
	Tiles Protocol	WMS					
	Tiles Format	image/pr	ıg				
	URL	http://	http:// /geoserver/rossvideo/wms				
	Zoom Threshold	4	4				
		Transparent	rent				
	Layers	+ Add La	+ Add Layer				
		ne_50m_p	populated_p	laces			•
Digital Eleva	tion Models						
	Directory Path	C:\Raiden	\LS\dem\sti	rm3			
	Source Type	SRTM3					
	Directory Path	C:\Raiden	\LS\tiles				
	Source Type	BING					÷
	API Key					8	ł
						Save	٦

Configuration - Source Tiles

#### To configure the Source Tiles preferences:

- 1. In the **Directory Path** field, enter the path to the location where you want to store the downloaded map tiles used to create the **Regions** base layers.
- 2. From the **Source Type** drop-down, select the source type you want to use.

The options are:

- BING
- MAPBOX
- 3. In the **API Key** field, enter the **API Key** for the map tile source you selected.
- 4. When you have finished configuring the settings, select **Save**.

The settings will be saved in the **Geographic** section.

# Story Creator

The Story Creator is where you will create weather stories based on the data from the Data Aggregator and the Local server.

The Story Creator retrieves data from the Local Server and interacts with your graphics engine to retrieve a list of scenes you can customize by adding graphics, overlays, and weather data.

Several base scenes (such as 3D World scenes and Media scenes) have been provided to help make setting up your project easier. This is the recommended method for creating weather stories as the base scenes are pre-defined with the required metadata and settings. You can still import Raiden generated data into your graphics engine to create a weather project from scratch using DataLinq.

For more information on creating a weather project from scratch using DataLinq, see Raiden for XPression using DataLinq

Before you begin, make sure that you have the latest version of your graphics engine running with the Raiden plugin enabled and your weather project open.

The following topics are covered in this section:

Accessing the Story Creator 81

Story Browser 83

Editor 92

Graphics Objects 148

Configuration 153

# Accessing the Story Creator

This section provides instructions for accessing the Story Creator.

#### To access the Story Creator:

- 1. Open a Web browser.
- 2. In the URL field enter the IP address of the **Story Creator** followed by the port number through which you will be communicating with the **Local Server** (in the format XX.XX.XXX.8085).
- 3. Press Enter.

You will be taken to the **Story Creator Login** page.

Raiden	Story Creator User Password Ross Platform Manager Log in
	ROSS

Story Creator Login Page

- 4. Log in with the default **User Name** and **Password** provided by Ross Video.
- 5. Upon successful login, you will be on the **Raiden Story Browser** page.

Raiden	Editor	Story Browser Graphics C	bjects Configuration	<b>4</b> ¢ - 2 -
Stories	Story	+ New Story	Templates Q Search Template	

Raiden Story Browser

## Setting the Display Preferences

This section provides instructions for setting the user-specific display preferences for the Story Creator's web user interface. For instructions on setting the default display preferences for your organization see, Data Visualization.

#### To configure unit display preferences:

1. In the top-right corner, select the **Settings** icon.

Raiden	Editor Story Browser Graphics Objec	ts Configuration	<b>≜ ≎∼ 2</b>
Stories Q Search Story	+ New Story	Templates Q Search Template	●* Temperature (*)         Celsius degrees (*C)         > Farenheit degrees (*F)         Kelvin (K)         •\$ Wind Speed (mph)         Knots (kt)         > Miles per hour (mph)         Kilometers per hour (km/h)         Meters per second (m/s)         ● Language (English)         ■ English         ● Español         ■ Italiano         ● islenska



The **Settings** drop-down menu appears.

2. From the drop-down menu, select the units of temperature you want to use.

The options are:

- Celsius degrees (°C)
- Fahrenheit degrees (°F)
- Kelvin (K) Default
- 3. Then select the units of wind speed you want to use.

The options are:

- Knots (kt)
- Miles per hour (mph)
- Kilometers per hour (km/h) Default
- Meters per second (m/s)
- 4. Select the language you want to use.

The options are:

- English Default
- Español
- Français

# Story Browser

The **Story Browser** is where you will create new stories and manage previously created stories and templates.

The **Story Browser** has two panels as seen below:

Raiden	Editor Story Browser	Graphics Objects	Configuration	<b>≜ ¢ • ≥</b> •
Stories			Templates	
<b>Q</b> Searc	+ New	Story	<b>Q</b> Search Template	

Story Browser

#### Stories

On the left side of the user interface is the **Stories** panel. Use this panel to access the tools to create stories and manage existing stories.

For information about creating and managing stories, see Creating Stories at.

#### Templates

On the right side of the user interface is the **Templates** panel. Use this panel to access the tools to create stories from a template.

For information about creating templates, see Creating Templates .

## Creating Stories

The first step is to create a story from scratch within the **Story Browser**.

Once you've created your story you can then customize each scene in the Editor geh, save it for future use and then edit it, when necessary.

For information on customizing scenes in the **Editor**, see Customizing Scenes 3.

The following procedures are described in this section:

To create a story from scratch:

To create a story from a template:

To copy a story: 87

To delete a story: 87

To search for an existing story:

To edit an existing story: 88

#### To create a Story from scratch:

1. In the **Stories** panel, select the + New Story button.

The Create Story dialog opens.

Create Story	
Story Name	
Engine	
XPression Engine	~
	Create Cancel

Create Story Dialog

- 2. In the **Story Name** field, enter a name for your story.
- 3. From the **Engine** drop-down, select the graphics engine you are using.
- 4. Select Create.

The **Editor** opens.



Story Creator - Editor

5. In the left panel, select the + New Scene button to add scenes to your story.

The scene menu opens.

- 6. Select one of the following tabs to view and add scenes to your story:
  - **Base scenes only** contains scenes that are pre-defined with metadata and ready to use in Story Creator.
  - **Shared scenes only** contains scenes that are shared between stories. For more information on shared scenes, see Sharing Scenes 1421.
  - All scenes contains all available scenes.

If you need to find a specific scene in the scene menu, you can use the **Search** field to search for a scene.

- $\star$  Scenes outlined in yellow are not pre-defined with metadata.
- 7. Select the scene you want to add to your story.

The scene is created and added to the left panel.

To delete the scene, right-click on the scene and select **Delete Story Item** from the shortcut menu.

8. Select the **+** New Scene button to continue to add additional scenes to your story.

Additionally, a scene can be rearranged by clicking and dragging it to a new position.

9. When you have finished adding scenes, you can start customizing each scene (see Customizing Scenes 3) or you can select the **Story Browser** tab to return to **Story Browser**.

The story is saved and added to the list of stories in the Story Browser.

#### To create a story from a template:

1. In the **Templates** panel, select the **Create Story** button for the template you want to use to create a story.

Templates						
<b>Q</b> Search Te	emplate					
Sample Template 1 1/2/2024, 8:47:12 AM		2	Create Story	Ľ	ī	
		scene(s)				

Templates Panel - Create Story

The Create Story window opens.

Create Story	
Template	
Sample Template 1	
Story Name	
	Create Cancel

Create Story Window

- 2. In the **Story Name** field, enter a name for the story.
- 3. Select Create.

The story will be saved to the list of stories in the **Stories** panel.

#### To copy a story:

1. In the **Stories** panel, select the **Copy Story** button for the story you want to copy.



Stories Panel - Copy Story

The Copy Story window opens.

Copy Story
Original Story
Sample Story 1
Story Name
Create Cancel

Copy Story Window

- 2. In the **Story Name** field, enter a name for the story.
- 3. Select Create.

The story is copied and added to the list of stories in the **Stories** panel.

#### To delete a story:

1. In **Stories** panel, select the **Delete** button for the story you want to delete.

The **Delete Story** dialog appears.



Delete Story Dialog

2. Select Delete.

The story is deleted from the list of stories.

#### To search for an existing Story:

• In the **Stories** panel, enter the name of the story or template in the **Search Story** field.

The story will appear in the **Stories** panel.

#### To edit an existing story:

 $\star$  If you created a story, you can edit it at any time. To edit a story created by another user, you must first enable editing for their story. By default, stories created by other users are accessible in read-only mode.

1. In the **Story Browser**, select the story you want to edit.

The Editor opens.

2. Select the **Edit Mode** toggle switch.

The story reloads and the **Edit Mode** toggle button is now orange.



Edit Mode Enabled

The story can now be edited.
# **Creating Templates**

With your basic story created, you can create a template from that story to use as a base to quickly create future stories.

The following procedures are described in this section:

To create a Template from a story: 90

To copy a Template:

To delete a Template:

To search for an existing Template:

To edit an existing Template:

# To create a Template from a story:

1. In the **Stories** panel, select the **Create Template** button next to the story you want to save as a template.

Stories					
<b>Q</b> Search	Story		+ New Sto	ory	
	Sample Story 1 1/2/2024, 8:12:08 AM	2	Create Template	Ľ	ī
		scene( s)			

Story Browser - Create Template

The **Create Template** window opens.

Create Template	
Original Story	
Sample Story 1	
Template Name	
	Create Cancel

Create Template Window

- 2. In the **Template Name** field, enter a name for the template.
- 3. Select Create.

The template is saved to the list of templates in the **Templates** panel.

# To copy a Template:

1. In the **Templates** panel, select the **Copy** button next to the template you want to copy.

The **Copy Template** dialog opens.

Copy Template		
Original Template		
Sample Template 1		
Template Name		
	Create	Cancel

Copy Template Dialog

- 2. In the **Template Name** field, enter a name for the template.
- 3. Select Create.

A copy of the template is saved to the list of templates.

# To delete a Template:

- In the **Templates** panel, select the **Delete** button next to the template you want to delete.
   The **Delete Template** dialog opens.
- 2. Select **Delete**.

#### To search for an existing Template:

• In the Templates panel, enter the name of the template in the Search Template field.

The template will appear in the **Templates** panel.

#### To edit an existing Template:

1. In the **Story Browser**, select the template you want to edit.

The Editor opens.

★ If you are the creator of a template, editing is available at any time. Templates created by other users open in read-only mode. Enabling editing is required before making changes to a template created by another user.

2. Select the **Edit Mode** toggle switch.

The template reloads and the **Edit Mode** toggle button is now orange.



Edit Mode Enabled

The template can now be edited.

# Editor

The **Editor** is a core component of the Story Creator, enabling you to manage and customize scenes for your weather stories. It serves as the workspace where scenes are added, organized, and tailored to fit specific storytelling needs.



Story Creator - Editor

In the **Editor**, you can retrieve scene information, duplicate or share scenes across multiple stories, and finalize scenes for playback or export. Additionally, the Editor interacts with your graphics engine and Local Server to provide tools for detailed customization of scene elements, ensuring your weather stories are both engaging and precise.

Once a scene has been customized, it can be duplicated, previewed, published for use on broadcast, and exported as a video file for future use.

When working in the **Editor**, if you haven't yet sent your configurations to the graphics engine, the send Scene to Engine button glows red with a **Never Sent** notification. After sending the configurations to the graphics engine, the send Scene to Engine button stops glowing and displays a **Last Sent** notification.



Before and After Sending Scene to Engine

# Scene Types and Customizations

With your basic story created, you can now customize each scene in your story.

Each scene type has a different set-up. Go to the section corresponding to your selected scene for further scene-specific instructions:

Media Scene

3D World Scene - Forecast

3D World Scene - Observation 114

Daily Forecast Scene

Current Conditions Scene

Headlines Scene

Next Hours Scene 138

# Media Scene

The **Editor** contains one tab for customizing the **Media** scene as seen below:



Scene Configuration Panel - Media Scene

In the **Data Editing** tab, you can incorporate media files, such as still images and videos, into your scene to include intros, outros, or advertisements in your story. Additionally, you have the flexibility to overlay text and add timestamps to your media files, with the option to show or hide the text and timestamp individually.

The following video file is supported:

• AVI files (XPVC codec for XPression) are supported. You can use XPression Video Coder to convert other video types to the supported type.

# To add a media file to the scene:

1. In the **Data Editing** tab, select the **Browse** button.

The **File Explorer** window appears.

- 2. In the **File Explorer**, navigate to the media file you want to use and select the file.
- 3. Select Open.

The File Explorer closes.

- 4. In the **Text** field, enter the text you want to display in the scene.
- 5. In the **Timestamp2** field, enter the time you want displayed in the scene.
- 6. Use the Show/Hide button to show/hide the text and timestamp in the scene.
- 7. Select the Send Scene to Engine button.

The media file, text, and timestamp will be assigned to the weather project running in your graphics engine and shown in the preview panel.

# Forecast 3D World Scene

The **Forecast 3D World Scene** is used when creating modeled forecasts.

You can customize and edit the Forecast 3D World Scene using the Data Editing, Map Layers, Animations, and Drawing Tools tabs, as shown below:



Forecast 3D World Scene

# Definitions

**Data Editing**—use this tab to add places of interests, timestamps, custom texts, and edit the scene's data (such as the values that visualize the weather variables for the region and the data source).

For information about configuring the data editing settings, see Data Editing .

**Map Layers**—use this tab to access the tools for adding map layers for current and forecasted weather variables.

For information about configuring the map layer settings, see Map Layers 102.

Animations—use this tab to add visual effects to your weather story.

For information about adding and managing animations, see Animations 105.

Drawing Tools—use this tab to add graphics objects to your scene.

For information about using the drawing tools, see Drawing Tools 104.

#### Workflow

The **Data Editing** settings should be configured first, followed by configuring the **Map Layer** settings prior to working with the **Animations** and **Drawing Tools**.

At anytime after configuring the **Data Editing** and **Map Layer** settings, you can return to your scene and work with the **Animations** and **Drawing Tools**, without having to reconfigure the **Data Editing** and **Map Layers**.



3D World Scene - Workflow

# Data Editing

In the **Data Editing** tab, you can add places of interests and edit the scene's data. The options available to edit will change depending on the scene's metadata.

The following topics are covered in this section:

Configuring the Parameters for Receiving Data

Adding and Configuring Places of Interest

Setting the Timestamp Format 100

Adding Custom Texts 101

#### **Configuring the Parameters for Receiving Data**

The first step is to set the start date and duration for when you want to start receiving data and select the number of timeslots per cycle of data. The **Start Date**, **Timeslot**, and **Duration** settings are located above the scene preview board, as seen below:

+ New Scene	Start Date 2025-01-23	Timeslot 00:00	<ul> <li>Duration 1 Hours</li> </ul>	Animations Drawing Tools Data Edition Map Lavers	
				Use unit symbol	
30World211			Tit	Places 💼	
2	1 1 1 2 2 2		°	Timestamp Format	
		A Charles and the	Rich	No Year v No Month v No Day v 2-digit v 2-digit v No Seconc v 24h	•
30World213				Timestamp 00:00	
				Custom Texts	
		1 an 11 1/2		Copy Option:   No copy  Next only  Blanks only  All	
	A Car			Text 00.00 01/23/25	
		[4 ↔ ► ↔ ▶]	070 🎆	Header_Text Custom Header	•
				Subheader_Text Custom Header	•
	Set Default Camera	🖨 Go to Default Camera	🛊 Camera View Favorites 🔸		

Data Editing Tab - Start Date, Timeslot, and Duration Settings

#### To configure the Start Date, Time, and Duration settings:

- 1. From the **Start Date** calendar, select the date you want to start retrieving data.
- 2. From the **Timeslot** drop-down, select the time you want to start retrieving data.
- 3. In the **Duration** field, enter or select the number of timeslots you want displayed for each place of interest.

#### The **Modify Duration** window appears.

Modify Duration			
Duration			
2			
	[	Modify	

Modify Duration Window

- 4. In the **Duration** field, enter the duration in hours.
- 5. Select Modify.
- 6. Next, you will need to add and configure places of interest settings. Proceed to the Adding and Configuring Places of section.

# **Adding and Configuring Places of Interest**

After configuring the parameters for receiving data, the next step is to add and configure the places of interest.

A key part of this process is the **Source** and **Cycle** table, which simplifies managing data cycle settings. By centralizing these settings for all locations tied to the same source(s), the table eliminates the need for individual configuration, reducing repetitive tasks and ensuring consistency. If needed, you can override these centralized settings and make location-specific configurations, providing additional flexibility. This approach saves time and minimizes the risk of errors, particularly when working with multiple locations and data sources.

This section explains how to add points of interest, set data source and cycle settings, and adjust weather variables associated with each place.



Data Editing Tab - Places Section

This section contains the following procedures:

To add and configure a Place of Interest:

# To delete a Place:

#### To add and configure a Place of Interest:

1. Select the **Places** button.





The Add Place to Map window opens, presenting two tabs: Single and Group.

- 2. Choose one of the following options:
  - Select the **Single** tab to add one or more individual locations.
  - Select the **Group** tab to add a group of locations.

3. Enter the name of the place in the **Place** field for the **Single** tab or select a group from the **Group** dropdown for the **Groups** tab.

If the name of the place or group you entered does not appear in the results, ensure that it has been configured in the Local Server.

**Note: Points** are user-defined locations extracting data from models. **Stations** are official datasets associated with a physical observation station from a local meteorological agency.

- 4. From the results, select the place or group you want.
- 5. From the **Template** drop-down, select the XPression template you want to use.

The options are:

- T\_Wind Select this option to use the Wind template.
- **T\_TempCond** Select this option to use the **Temperature and Weather Condition** template.
- **TempCondLoc** Select this option to use the Location with **Temperature and Weather Condition** template.
- TempCondWind Select this option to use the Temperature, Wind, and Weather Condition template.
- TempCondLoc1 Select this option to use the Location with Temperature and Weather Condition template.
- 6. Select Add and Close to return to the Editor.

Alternatively, you can select Add, to add additional places and then select Close to return to the Editor.

The place and its configuration options are displayed in the **Data Editing** tab.



Data Editing - Place of Interest Settings

7. In the **Source** and **Cycle** table, from the **Cycle** drop-down, select the data cycle you want applied to all locations that use the source listed in the **Source** column.

Source: Displays the forecast sources (e.g., Euro, GFS, etc.) used in your locations (read-only).

**Cycle**: Provides a drop-down menu to select the cycle time for the data source specified in the table, with the latest cycle pre-selected by default.

8. Configure the location-specific settings for each place of interest if location-specific overrides are needed, as follows:

Below each place of interest are the weather variables and their default values, grouped by timeslot.

• Select the field next to the weather variable you want to change and enter a new value.

 $\star$  The weather variables available to edit depend on the selected template.

Additionally, you can recover the default value by double-clicking the column to the right of the value, which will reappear in the value field.

1 Amsterdam					Globa	l Fore	ast Sy	/stem			~ 🗊
Temperature	288	288	(1)	289		289	(1)	290	290	(1)	
Weather Code	⇒ Windy •	-	(1)	⇒ Windy	·	-	(1)	⇒ Windy •	-	(1)	

Data Editing Tab - Default Value

9. Next, configure the **Timestamp Format** settings.

For detailed instructions, refer to the the Setting the Timestamp Format 100 section.

# To delete a Place:

1. Select the **Delete** button for the place you want to delete.

The **Delete Place on Map** dialog opens.



Delete Place on Map Dialog

2. Select the Delete Place button.

The place is deleted from the scene.

# Setting the Timestamp Format

This section provides instructions for configuring the format for the date and time displayed in a scene.

#### To set the Timestamp Format:

- 1. In the **Timestamp Format** section, configure the format for the time as follows:
  - a. In the first column, use the drop-down to select whether to display no year, numeric, or 2-digit format for the year.
  - b. In the second column, use the drop-down to select whether to display no month, numeric, 2-digit, long, short, or narrow format for the month.
  - c. In the third column, use the drop-down to select whether to display no day, numeric, or 2-digit format for the day.
  - d. In the fourth column, use the drop-down to select whether to display no hour, numeric, or 2-digit format for the hour.
  - e. In the fifth column, use the drop-down to select whether to display no minute, numeric, or 2-digit format for the minute.
  - f. In the sixth column, use the drop-down to select whether to display no second, numeric, or 2-digit format for the second.
  - g. In the seventh column, use the drop-down to select either the 24 hour or 12 hour format for the time.
- 2. Select the Timestamp checkbox to enable the timestamp.
- 3. Next, you will need to configure the **Custom Texts** settings. Proceed to the Adding Custom Texts and section.

# **Adding Custom Texts**

This section provides instructions for adding **Custom Texts** to a scene.

#### To add Custom Texts to a scene:

1. From the **Copy Options**, select the **Copy Option** you want to auto-fill text entered from the first field to subsequent fields.

The options are:

**No Copy** — Does not copy text to subsequent fields.

**Next Only** – Copies text to the next field only.

**Blanks Only** – Copies text into blank fields only.

**All** — Copies text from the first field to all subsequent fields.

- 2. Select the **Text** checkbox to enable text and enter text into the available timeslots.
- 3. In the **Heading** field, enter the text you want for a heading.
- 4. In the **Subheading** field, enter the text you want for a subheading.
- 5. When you have finished adding text to the scene, select the Send Scene to Engine button.

The **Data Editing** settings are saved to your project.

6. Next, you will need to add **Data Layers** and **World Geographic Layers** to the scene. Proceed to the Map Layers 102 section.

#### Map Layers

The **Map Layers** tab provides the essential tools for enhancing your scene with various data overlays. In the **Forecast 3D World** scene, you have access to **Forecast**, **Advisory**, and **World Geographic** layers.

Each time a new layer is selected, it will appear as a row in the **Map Layers** tool. This row allows you to configure the layer's properties, such as the data source, data cycle, and other relevant settings, giving you full control over the visualization of the map layers.



Map Layers Tab

# To add a Map Layer:

- 1. In the Map Layers tool, select the Add Layer button.
- 2. From the drop-down, select the layers you want and click out of the drop-down list.

 $\star$  The layers displayed in the list correspond to those that have been activated in the Local Server.

The layer selections appear in the Map Layer tab.



Map Layers Tab - Data Layers and Geographic Layers

- 3. In the **Data Layers** section, configure the properties for each layer as follows:
  - a. From the **Region** drop-down, select the overlay domain you want.
  - b. From the **Source** drop-down, select the data source you want to retrieve data from.
  - c. From the **Cycle** drop-down, select the data cycle you want.
  - d. From the **Style** drop-down, select the style you want to use.
  - e. In the **Opacity** field, enter or select the opacity you want for the style.

- f. Use the 🚳 Land Mask button to hide the view of the ocean on the map.
- g. Use the **Layer Preview** button to enable/disable the layer preview on the map.
- 4. In the **Advisory Layers** section, configure the properties for each layer as follows:
  - a. From the **Region** drop-down, select the domain that you want.
  - b. From the **Style** drop-down, select the style(s) you want.
  - c. From the Filters drop-down, select the Hazard Types and Awareness Levels you want filtered.
  - d. In the **Opacity** field, enter or select the opacity you want for the style.
  - e. Use the **D** Layer Blending toggle to choose how overlapping advisories are displayed.

★ When enabled, advisories with different warning levels blend together, potentially creating intermediate colors. When disabled, the most severe advisory is displayed on top, ensuring that lower-severity warnings do not visually interfere.

- f. Use the **Layer Preview** button to enable/disable the layer preview on the map.
- 5. In the **World Geographic** section, configure the properties for each layer as follows:
  - a. Select the **Color** field, and use the color picker to select the color you want to apply to the style.
  - b. Drag and drop the color selector to the color you want to use.

Alternatively, you can use the **Eyedropper** tool to select a color from another source displayed on your screen or manually enter the **RGB** values.

- c. In the **Opacity** field, enter or select the opacity you want to use.
- d. Use the **Layer Preview** button to enable/disable the layer preview on the map.

Animations Drawing To		Map Layers					
+ Add Layer							
Data Layers							
Parameter	Region	Source	Cycle	Style	Opacity		
Cloud Cover	Overlay1	<ul> <li>Global Forecast System</li> </ul>	× 2024-02-02 - 12:00:0I	<ul> <li>Cloud Coverage</li> </ul>	· 100.0	¢} Ø	1
Mean Sea Level Pressure	Overlay2	<ul> <li>Global Forecast System</li> </ul>	× 2024-02-02 - 12:00:0I	~ 4 mb ~	100.0	¶2 ⊘	1
World Geographic							
Layer		Color	Opacity				
World Country Borders			100			0	

Map Layers Tab - Data and World Geographic Layers

6. Select the Send Scene to Engine button to save the settings to the scene.

# To delete a Map Layer:

- Select the Delete button for the Map Layer you want to delete.
   The Map Layer is deleted.
- 2. Select the Send Scene to Engine button to save the modification to the scene.

# **Drawing Tools**

Use the **Drawing Tools** tab to add graphics objects to your scene. A few **Graphics Objects** have been provided to help make creating your scene easier. However, you can use your own **Graphics Objects** if they have been uploaded to the **Graphics Objects** section in Story Creator.

For instructions on how to upload your own graphics to the Story Creator, see Graphics Objects 148.

# To add a Graphics Object to a scene:

• In the **Drawing Tools** tab, click-and-drag the **Graphics Object** you want onto the globe.

Once you have added graphics objects to your scene, you can position or delete the object using the **Graphics Objects** tool in the **Animations** Tab. For information about positioning and deleting graphics objects, see Graphics Objects 112 in the Animation 106 section.

# Animations

Use the **Animations** tab to add visual effects to your weather story.

The Animations tab contains four animation tools:

Pauses 105

Map Controls 106

Futurecast 111

Graphic Objects 112

If you haven't already done so, you will need to configure the **Data Editing** and **Map Layers** settings prior to working with the animation tools.

For instructions on configuring **Data Editing** settings, see Data Editing settings, and for instructions on configuring the **Map Layers** settings, see Map Layers settings.

#### Pauses

The **Pauses** tool allows you to add pause points to the map animation. Adding a pause point to the timeline pauses the animation at the current timecode until you advance the scene.

#### To add a Pause:

1. In the **Pauses** track, right-click and select **+Add Keyframe**.

Alternatively, you can use the **Pauses** tool and select the **+Add** button.

End Date/Time	2024-10-19 12:00 AM	Latest Duration 1	: 01	Animations			
	1	i de la		+ Timeline	Loop End Pause Start/Duration: 201/36	Passes	
			and the second second				
			Tilt				
			1 Constant				
			2				
φ		I4 <> > > > > > > > > > > > > > > > > > >	200 U				
0 10 21			175 185 196 206 216 227 237				
2002							
Map Controls							
Graphics Objects							
	Set Default Camera	Go to Default Camera	🚖 Camera View Favorites 🔹				

Animations - Pauses

- 2. A **Pause** keyframe appears in the **Pauses** tool and a blue diamond appears in the **Pauses** track, indicating the position of the keyframe on the timeline.
- 3. In the **Pauses** track, slide the blue diamond to the position on the timeline you want.

The color of the diamond changes from blue to white, indicating the position has been saved.

- 4. Repeat Steps 1 3 to add additional **Pause** keyframes.
- 5. When you are done adding **Pauses**, you can preview the scene using the timeline playback controls to run the animation. For more information about previewing the key frame animations, see To preview keyframe animations [113].

The **Pauses** are automatically saved.

# To delete a pause:

1. In the **Pauses** track, right-click on the diamond for the **Pause** you want to delete and select **Delete Keyframe**.

Alternatively, you can use the **Pauses** tool and select the **Delete** button.

The **Delete Keyframe** dialog appears.

2. Select **Delete**.

The **Pause** keyframe is deleted from the timeline.

# To edit a Keyframe from the timeline:

1. In the **Pauses** track, right-click on the diamond for the **Pause** keyframe you want to edit and select **Edit Keyframe**.

The Edit Keyframe window appears.

- 2. Use the **Keyframe** field to adjust the timeline position of the keyframe.
- 3. When you have finished modifying the position of the keyframe, select **Edit**.

The **Edit Keyframe** window closes and the modifications are saved.

# Map Controls

The **Map Controls** tool allows you to add pan and zoom transitions to a 3D World scene.

When working with the **Map Controls** tool, you select the positions you want on the globe and add keyframes to determine the order in which they are panned and zoomed in/out to.

#### To add Map Controls:

- 1. In the scene preview board, use the following controls to set the position of the globe to the location you want:
  - Hold the left mouse button down and drag to rotate the globe.
  - Use the **Tilt** slider to move the globe up and down.
  - Use the scroll wheel on your mouse to zoom in or out.

Additionally, if you move the globe to a different position, you can select the **Go to Default Camera** button to return to the default camera position.

3. In the Map Controls track, right-click and select + Add Keyframe.

Alternatively, In the **Map Controls** tool, you can select the **+ Add** button to add a keyframe to the timeline.



Animations - Map Controls

The keyframe controls appear in the **Map Controls** tool and a blue diamond appears in the **Map Control** track, indicating the position of the keyframe along the timeline.

Additionally, if you need to make adjustments to the position of the keyframe, you can use the keyframe controls to adjust the position.

The keyframe control options are:

- Zoom
- Tilt
- Latitude
- Longitude
- 4. In the keyframe controls, use the **Transition** drop-down to select the transition style between keyframes.

The options are:

- **Ease In/Out** To transition slowly between keyframes.
- Linear To transition with a constant speed between keyframes.
- 5. In the **Map Controls** track, click-and-drag the blue diamond to adjust its position along the timeline.

The color of the diamond changes to white, indicating the modifications have been saved to the keyframe.

 Position the globe to the next position you want, and repeat steps 3-5 to add and configure additional keyframes.

Additionally, you can re-arrange the position the diamonds on the track to change the order in which the keyframes are panned and zoomed in/out to on the globe.

7. When you have finished adding and configuring the keyframes, you can preview the scene using the timeline playback controls to run the animation. For information about previewing the keyframe animations, see To preview keyframe animations [113].

The keyframes are automatically saved.

# To delete a Map Control keyframe:

1. In the **Map Controls** track, right-click on the diamond for the keyframe you want to delete and select **Delete Keyframe**.

Alternatively, in the **Map Control** tool, select the **Delete** button for the keyframe you want to delete.

The **Delete Keyframe** dialog appears.

2. Select Delete.

The keyframe is deleted from the timeline.

# To edit a Keyframe from the timeline:

- Right-click on the diamond for the keyframe you want to edit and select Edit Keyframe. The Edit Keyframe window appears.
- 2. Use the **Keyframe** fields to adjust the timeline position of the keyframe.
- 3. When you have finished modifying the position of the keyframe, select **Edit**.

The **Edit Keyframe** window closes and the modifications are saved.

#### **Camera View Favorites**

The **Camera View Favorites** feature allows users to save and reuse predefined camera views for animations. By saving commonly used camera views, this feature enhances the efficiency of working with animations, particularly when setting up keyframe positions for dynamic map transitions. Administrators can create station-wide favorites to ensure consistency across teams, while individual users can create personal favorites for their own use.



Camera View Favorites

#### To add a new camera view to your favorites:

- 1. Position, tilt, and zoom the map to set the desired view, then select the **Camera View Favorites** button located at the bottom of the timeline.
- 2. In the menu, select the **+Add New** button.

The Add New window opens.

- 3. In the **Name** field, enter a name for the camera view.
- 4. Select the **Available to Everyone** checkbox if you want to make the camera view available to all users (Administrative users only).

When this option is enabled, a people icon appears next to the camera view in the list, indicating that it is station-wide.

5. Select **Save & Apply** to save the camera view and apply it to the current keyframe position.

The **Add New** window closes and the new camera view is saved.

Alternatively, you can select **Save** to save the camera view without applying it to the current keyframe position and return to the list of **Camera View Favorites**.

# To modify an existing Camera View Favorite:

- 1. Select the Camera View Favorites button to open the menu.
- 2. Locate the camera view you want to modify and select the **Modify** button next to it.

The **Modify Favorite** window opens.

- 3. Edit the following settings as needed:
  - Name: Update the name of the camera view.
  - **Available to Everyone**: Enable or disable this setting to control whether the camera view is stationwide or personal (Administrative users only).
- 4. Select **Save** to apply the changes and return to the list of favorites.

# To delete a Camera View Favorite:

- 1. Select the Camera View Favorites button to open the menu.
- 2. Find the camera view you want to delete and select the **Delete** button next to it.

The **Delete Favorite** dialog opens.

3. Select **Delete** to confirm the action.

The Camera View Favorite is removed from the list.

#### **Futurecast**

The **Futurecast** tool allows you to position **Futurecast** keyframes to show a specific weather variable transitioning over different points in time.

#### To position a Futurecast keyframe:

1. In the **Animations** tool, select **Futurecast**.



Animations Tab - Futurecast

- Select the Search button for the Futurecast keyframe you want to position along the timeline.
   The color of the diamond changes from white to blue, indicating it can be repositioned along the timeline.
- In the Futurecast track on the timeline, slide the blue diamond along the track to the position you want.
   The color of the diamond changes to white, indicating the modifications have been saved to the project.
- Repeat steps 2-3 to position any additional Futurecast keyframes along the timeline. The keyframes are automatically saved.

# To edit a Futurecast Keyframe from the timeline:

- Right-click on the diamond for the keyframe you want to edit and select Edit Keyframe.
   The Edit Keyframe window appears.
- 2. Use the **Keyframe** field to adjust the timeline position of the keyframe.
- When you have finished modifying the position of the keyframe, select Edit.
   The Edit Keyframe window closes and the modifications are saved.

# **Graphics Objects**

The **Graphics Objects** tool allows you to set the position, scale, and opacity of **Graphics Objects** in a scene.

#### To set the position, scale, and opacity of a Graphics Object:

On the map, you will create a keyframe path that the **Graphics Objects** will move along when the scene is played out.

Each new keyframe you add corresponds to a different position on the map.

1. In the **Graphics Objects** tool, select the **Search** button for the **Graphics Object** you want to configure.

The keyframe appears as a blue diamond in the **Graphics Objects** track.



Animations - Graphics Objects

If you haven't already added **Graphics Objects** to your scene, you can do so in the **Drawing Tools** tab. For more information on how to add **Graphics Objects** to a scene, see **Drawing Tools** 104.

2. On the map, drag the animated object to the position you want.

Additionally, you can use the **Latitude** and **Longitude** fields to adjust the position on the globe.

- 3. In the **Scale** field enter or select the scale you want for the animated object.
- 4. In the **Opacity** field enter or select the opacity you want for the animated object.
- 5. In the **Graphics Objects** track, select the blue diamond and drag it to the position on the timeline you want.

The color of the diamond changes from blue to white, indicating the modifications have been saved to the animated object keyframe.

6. In the **Graphics Object** track, right-click and select **+Add Keyframe** to add an additional keyframe.

Alternatively, you can select the **+ Add** button in the **Graphics Object** tool to add an additional keyframe.

A new blue diamond appears on the **Graphics Objects** track and a second keyframe appears in the **Graphics Object** tool.

If you need to delete the keyframe, right-click on the diamond in the track and select **Delete Keyframe**.

Alternatively, in the **Graphics Objects** tool, you can select the **Delete** button for the keyframe you want to delete.

7. Repeat **Steps 2-5** to configure the position of the animated object to the next location you want on the map.

Additionally, you can re-arrange the position of the diamonds on the track to change the order of the **Graphics Object's** movements on the map.

★ If you want to set a **Graphics Objects** to a fixed position, do not configure any additional keyframes for that **Graphics Object**.

8. When you have finished adding and configuring the **Graphics Objects**, you can use the timeline controls to preview the animations. For information about previewing the animations, see To preview animations animations.

The modifications are automatically saved to the scene.

# To delete a Graphics Object from a scene:

1. In the **Graphics Objects** tool, select the **Delete** button for the graphics object you want to delete.

The **Delete Track Element** dialog opens.

2. Select Delete.

The **Graphics Object** is deleted from the scene.

# **To preview Animations:**

• Use the timeline playback controls to run the animation as follows:

Use the **Play** button to play the animation.

- Use the **III** Pause button to pause the animation.
- Use the **Back** button to return to the start of the timeline.
- Use the **D** Forward button to skip forward to the end of the timeline.
- Use the **Previous Keyframe** button to skip to the previous keyframe.
- Use the **Next Keyframe** button to skip to the next keyframe.

# Observations 3D World Scene

The **Observations 3D World Scene** is intended for users creating animations using current or historical weather imagery.

You can customize and edit the **Observations 3D World Scene** using the **Data Editing**, **Map Layers**, **Animations**, and **Drawing Tools** tabs, as shown below:



#### Observations 3D World Scene

#### Definitions

**Data Editing**—use this tab to add places of interests, timestamps, custom texts, and edit the scene's data (such as the values that visualize the weather variables for the region and the data source).

For information about configuring the data editing settings, see Data Editing .

**Map Layers**—use this tab to access the tools for adding map layers for current and forecasted weather variables.

For information about configuring the map layer settings, see Map Layers 102.

**Animations**—use this tab to add visual effects to your weather story.

For information about adding and managing animations, see Animations 105.

**Drawing Tools**—use this tab to add graphics objects to your scene.

For information about using the drawing tools, see Drawing Tools 104.

#### Workflow

The **Data Editing** settings should be configured first, followed by configuring the **Map Layer** settings prior to working with the **Animations** and **Drawing Tools**.

At anytime after configuring the **Data Editing** and **Map Layer** settings, you can return to your scene and work with the **Animations** and **Drawing Tools**, without having to reconfigure the **Data Editing** and **Map Layers**.



3D World Scene - Workflow

# Data Editing

In the **Data Editing** tab, you can add places of interests and edit the scene's data. The options available to edit will change depending on the scene's metadata.

The following topics are covered in this section:

Configuring the Parameters for Receiving Data 115

Adding and Configuring Places of Interest 116

Setting the Timestamp Format 118

Adding Custom Texts 118

#### **Configuring the Parameters for Receiving Data (Observations 3D World)**

The first step is to set the end date, time and duration for receiving data. The **End Date** and **Time**, and **Duration** settings are located above the scene preview board, as seen below:



Data Editing Tab - End Date/Time and Duration Settings

#### To configure the End Date, Time, and Duration settings:

- 1. From the **End Date** calendar, select the end date for retrieving data.
- 2. From the **Time** drop-down, select the **Clock** icon and set the end time for retrieving data.

Alternatively, you can use the **Latest** checkbox to display the most recent data for each of the weather parameters selected in the **Data Editing** and **Map Layers**. Once enabled, you will no longer be able to specify a range in the **End Date** or **Time** fields. When you publish the rundown, it processes all observational scenes in the story that have the **Latest** checkbox selected. It retrieves the newest available data at the moment you press the **Publish Rundown** button, updates those scenes in the story and XPression, and then completes the publishing process.

3. In the **Duration** fields, enter or select the time in hours and minutes for the data duration.

Additionally, you can set the value to 0hr 0min with **Latest** checked, which will load the most recent image from the server.

4. Next, add and configure the places of interest settings. Proceed to the Adding and Configuring Places 1161 section.

# **Adding and Configuring Places of Interest**

This is where you add and configure the settings for the places of interests and their associated weather variables.

Each row in this section allows you to select the data source you want for the corresponding place of interest.

Below each row are the weather variables and their default values, grouped by timeslot. The default values can be edited to display the value you prefer in the scene. Once you edit a value, you can recover the default value if needed.



Data Editing Tab - Places Section

This section contains the following procedures:

To add and configure a Place of Interest: 116

To delete a Place: 117

#### To add and configure a Place of Interest:

1. Select the **Places** button.

The Add Place to Map window opens, presenting two tabs: Single and Group.

- 2. Choose one of the following options:
  - Select the **Single** tab to add one or more individual locations.
  - Select the **Group** tab to add a group of locations.
- 3. Enter the name of the place in the **Place** field for the **Single** tab or select a group from the **Groups** dropdown for the **Groups** tab.

If the place of interest you entered does not appear in the results, ensure that it has been configured in the Local Server.

**\*** Note: Points are user-defined locations extracting data from models. Stations are official datasets associated with a physical observation station from a local meteorological agency.

- 4. From the results, select the place or groups you want.
- 5. From the **Template** drop-down, select the XPression template you want to use.
- 6. Select **Add and Close** to return to the **Editor**.

Alternatively, you can select Add, to add additional places and then select Close to return to the Editor.

The place and its configuration options are displayed in the **Data Editing** tab.

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Subheader_Text Custom Header	Ø

Data Editing - Place and Configuration Options

- 7. Configure the **Places** settings for each place of interest as follows:
  - Confirm the place of interest is correct and select the data source you want to retrieve data from.
- 8. Next, configure the **Timestamp Format** settings. Proceed to the Setting the Timestamp Format section.

# To delete a Place:

1. Select the **Delete** button for the place you want to delete.

The **Delete Place on Map** dialog opens.



Delete Place on Map Dialog

2. Select the Delete Place button.

The place is deleted from the scene.

# Setting the Timestamp Format

This section provides instructions for configuring the format for the date and time displayed in a scene.

#### To set the Timestamp Format:

- 1. In the **Timestamp Format** section, configure the format for the time as follows:
  - a. In the first column, use the drop-down to select whether to display no year, numeric, or 2-digit format for the year.
  - b. In the second column, use the drop-down to select whether to display no month, numeric, 2-digit, long, short, or narrow format for the month.
  - c. In the third column, use the drop-down to select whether to display no day, numeric, or 2-digit format for the day.
  - d. In the fourth column, use the drop-down to select whether to display no hour, numeric, or 2-digit format for the hour.
  - e. In the fifth column, use the drop-down to select whether to display no minute, numeric, or 2-digit format for the minute.
  - f. In the sixth column, use the drop-down to select whether to display no second, numeric, or 2-digit format for the second.
  - g. In the seventh column, use the drop-down to select either the 24 hour or 12 hour format for the time.
- 2. Select the **Timestamp** checkbox to enable the **Timestamp**.
- 3. Next, configure the **Custom Texts** settings. Proceed to the Adding Custom Texts 118 section.

#### Adding Custom Texts

This section provides instructions for adding **Custom Texts** to a scene.

#### To add Custom Texts to a scene:

1. From the **Copy Options**, select the desired option to auto-fill text entered from the first field to subsequent fields.

The options are:

**No Copy** — Does not copy text to subsequent fields.

**Next Only** — Copies text to the next field only.

**Blanks Only** – Copies text into blank fields only.

**All** — Copies text from the first field to all subsequent fields.

2. Select the **Text** checkbox to enable text.

The fields to the right of the **Text** checkbox allow you to add text labels with the Date and Time timestamps, such as "Today", "Monday", etc. When left blank, these fields include the reference date and time.

Additionally, you can hover over a field to view the reference date and time.

Enter the desired text in the fields to the right of the Text checkbox, then press the Tab key to autofill the subsequent cells.

- 4. In the **Heading** field, enter the text you want for a heading.
- 5. In the **Subheading** field, enter the text you want for a subheading.
- 6. When you have finished adding text to the scene, select the Send Scene to Engine button.

The **Data Editing** settings are saved to your project.

7. Next, you will need to add **Data Layers** and **World Geographic Layers** to the scene. Proceed to the Map Layers 102 section.

# Map Layers

The **Map Layers** tab provides the essential tools for enhancing your scene with various data overlays. In the **Observations 3D World** scene, you have access to **Observations**, **Advisory**, **Satellite**, and **World Geographic** layers.

Each time a new layer is selected, it will appear as a row in the **Map Layers** tool. This row allows you to configure the layer's properties, such as the data source, data cycle, and other relevant settings, giving you full control over the visualization of the map layers.





#### To add a Map Layer:

- 1. In the **Map Layers** tool, select the **Add Layer** button.
- 2. From the drop-down, select layers you want and click out of the drop-down list.

 $\star$  The layers displayed in the list correspond to those that have been activated in the Local Server.

The layer selections appear in the **Map Layer** tab.



Map Layers Tab - Data Layers and Geographic Layers

- 3. In the **Data Layers** section, configure the properties for each layer as follows:
  - a. From the **Region** drop-down, select the overlay domain you want.
  - b. From the **Source** drop-down, select the data source you want to retrieve data from.
  - c. From the **Style** drop-down, select the style you want to use.
  - d. In the **Opacity** field, enter or select the opacity you want for the style.
  - e. Use the 🚳 Land Mask button to hide the view of the ocean on the map.
  - f. Use the **Layer Preview** button to enable/disable the layer preview on the map.

- 4. In the **Advisory Layers** section, configure the properties for each layer as follows:
  - a. From the **Region** drop-down, select the domain that you want.
  - b. From the **Style** drop-down, select the styles you want.
  - c. From the Filters drop-down, select the Hazard Types and Awareness Levels you want filtered.
  - d. In the **Opacity** field, enter or select the opacity you want for the style.
  - e. Use the **D** Layer Blending toggle to choose how overlapping advisories are displayed.

When enabled, advisories with different warning levels blend together, potentially creating intermediate colors. When disabled, the most severe advisory is displayed on top, ensuring that lower-severity warnings do not visually interfere.

- 5. In the **World Geographic** section, configure the properties for each layer as follows:
  - a. Select the **Color** field, and use the color picker to select the color you want for the style.
  - b. Drag and drop the color selector to the color you want to use.

Alternatively, you can use the Eyedropper tool to select a color from another source displayed on your screen or manually enter the RGB values.

- c. In the **Opacity** field, enter or select the opacity you want to use.
- d. Use the **Layer Preview** button to enable/disable the layer preview on the map.



Map Layers Tab - Data and World Geographic Layers

6. Select the Send Scene to Engine button to save the settings to the scene.

# To delete a Map Layer:

1. Select the **Delete** button for the **Map Layer** you want to delete.

The Map Layer is deleted.

2. Select the Send Scene to Engine button to save the modification to the scene.

# **Drawing Tools**

Use the **Drawing Tools** tab to add graphics objects to your scene. A few **Graphics Objects** have been provided to help make creating your scene easier. However, you can use your own **Graphics Objects** if they have been uploaded to the **Graphics Objects** section in Story Creator.

For instructions on how to upload your own graphics to the Story Creator, see Graphics Objects 148.

# To add a Graphics Object to a scene:

• In the **Drawing Tools** tab, click-and-drag the **Graphics Object** you want onto the globe.

Once you have added graphics objects to your scene, you can position or delete the object using the **Graphics Objects** tool in the **Animations** Tab. For information about positioning and deleting graphics objects, see Graphics Objects 112 in the Animation 106 section.

# Animations

Use the **Animations** tab to add visual effects to your weather story.

The **Animations** tab contains several animation tools:

Loop 123

Speed Controls 124

Pauses 125

Map Controls 126

Futurecast 130

Graphic Objects 131

If you haven't already done so, you will need to configure the **Data Editing** and **Map Layers** settings prior to working with the animation tools.

For instructions on configuring **Data Editing** settings, see Data Editing settings, and for instructions on configuring the **Map Layers** settings, see Map Layers settings.

#### Loop

The Loop feature offers two playback options:

**Loop toggled on** (default) - Loop is enabled, allowing the animation to automatically restart from the beginning until the meteorologist advances to the next scene. A brief, one-second pause is built in at the end of each loop, giving viewers a moment to absorb the "latest" frame before the animation starts over.

**Loop toggled off** - Loop is disabled, and the animation plays through just once without repeating.



Loop Toggle

# To enable/disable the Loop feature:

• Select the **Loop** button to toggle on/off the **Loop** feature.

#### **Speed Controls**

The speed control features allows users to adjust the pace of an animation. When building an observation animation from scratch, users need to enter the desired data duration in hours/minutes. The system then automatically calculates the animation's timing, but users can override this using the **Default Duration** feature. This feature allows for adjustments to the clip's default timing by modifying the number of frames or switching to a clock format to display time in minutes and seconds.

For further customization, users can also adjust the animation speed using the **Tortoise-Hare** slider, speeding it up or slowing it down as needed. A slider, featuring a **Tortoise** icon on one end and a **Hare** icon on the other, is used to control the speed. Sliding the control towards the **Hare** increases the speed, while moving it towards the **Tortoise** slows the animation down, offering a simple and intuitive way to adjust the playback speed.



Speed Controls

#### To use the Default Duration feature:

1. Select the **Default Duration** button.

The **Default Duration** window appears.





2. In the fields, enter or select the minutes, seconds, and milliseconds for the duration.

Alternatively, you can select the **Clock** icon to switch to the frames-per-second setting and specify the duration in frames.

3. Select Save.

The **Default Duration** settings are saved.

# To use the Tortoise-Hare slider:

• Click and drag the slider towards the **Hare** to increase the speed, or towards the **Tortoise** to decrease the speed of the animation.
#### Pauses

The **Pauses** tool allows you to add pause points to the map animation. Adding a pause point to the timeline pauses the animation at the current timecode until you advance the scene.

Additionally, pause points can be used to halt the **Loop** feature at a specific moment during a live broadcast, allowing the user to explain specific details or events in the presentation more thoroughly.

#### To add a Pause:

1. In the **Pauses** tool, select the **+Add** button.

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🖶 Set Default Camera 🛛 📢	♦ Go to Default Camera 🔶 🛧 Camera View Favorites *				

Animations - Pauses Tool

A **Pause** keyframe appears in the **Pauses** tool and a blue diamond appears in the **Pauses** track, indicating the position of the keyframe on the timeline.

2. In the **Pauses** track, slide the blue diamond to the position on the timeline you want.

The color of the diamond changes from blue to white, indicating the position has been saved.

- 3. Repeat Steps 1 3 to add additional **Pause** keyframes.
- 4. When you are done adding **Pauses**, you can preview the scene using the timeline playback controls to run the animation. For more information about previewing the key frame animations, see To preview keyframe animations [132].

The **Pauses** are automatically saved.

#### To delete a pause:

1. In the **Pauses** track, right-click on the diamond for the **Pause** you want to delete and select **Delete Keyframe**.

Alternatively, you can use the **Pauses** tool and select the **Delete** button.

The **Delete Keyframe** dialog appears.

2. Select Delete.

The **Pause** keyframe is deleted from the timeline.

### To edit a Keyframe from the timeline:

1. In the **Pauses** track, right-click on the diamond for the **Pause** keyframe you want to edit and select **Edit Keyframe**.

The Edit Keyframe window appears.

- 2. Use the **Keyframe** field to adjust the timeline position of the keyframe.
- 3. When you have finished modifying the position of the keyframe, select **Edit**.

The **Edit Keyframe** window closes and the modifications are saved.

# **Map Controls**

The **Map Controls** tool allows you to add pan and zoom transitions to a 3D World scene.

When working with the **Map Controls** tool, you select the positions you want on the globe and add keyframes to determine the order in which they are panned and zoomed in/out to.

# To add Map Controls:

- 1. In the scene preview board, use the following controls to set the position of the globe to the location you want:
  - Hold the left mouse button down and drag to rotate the globe.
  - Use the **Tilt** slider to move the globe up and down.
  - Use the scroll wheel on your mouse to zoom in or out.

A keyframe appears in the **Map Controls** tool and a blue diamond appears in the **Map Controls** track on the timeline.

3. In the **Map Controls** track, slide the blue diamond to the position on the timeline you want.

The color of the diamond changes from blue to white, indicating the position has been saved.

4. In the Map Controls track, right-click and select + Add Keyframe.

Alternatively, In the **Map Controls** tool, you can select the **\* Add** button to add a keyframe to the timeline.



Animations - Map Controls

The keyframe controls appear in the **Map Controls** tool and a blue diamond appears in the **Map Control** track, indicating the position of the keyframe along the timeline.

Additionally, if you need to make adjustments to the position of the keyframe, you can use the keyframe controls to adjust the position.

The keyframe control options are:

- Zoom
- Tilt
- Latitude
- Longitude
- 5. In the keyframe controls, use the Transition drop-down to select the transition style between keyframes.

The options are:

- **Ease In/Out** To transition slowly between keyframes.
- **Linear** To transition with a constant speed between keyframes.
- 6. In the **Map Controls** track, click-and-drag the blue diamond to adjust its position along the timeline.

The color of the diamond changes to white, indicating the modifications have been saved to the keyframe.

 Position the globe to the next position you want, and repeat steps 3-5 to add and configure additional keyframes.

Additionally, you can re-arrange the position the diamonds on the track to change the order in which the keyframes are panned and zoomed in/out to on the globe.

8. When you have finished adding and configuring the keyframes, you can preview the scene using the timeline playback controls to run the animation. For information about previewing the keyframe animations, see To preview keyframe animations [132].

The keyframes are automatically saved.

### To delete a Map Control keyframe:

1. In the **Map Controls** track, right-click on the diamond for the keyframe you want to delete and select **Delete Keyframe**.

Alternatively, in the **Map Control** tool, select the **Delete** button for the keyframe you want to delete.

The **Delete Keyframe** dialog appears.

2. Select Delete.

The keyframe is deleted from the timeline.

### To edit a Keyframe from the timeline:

1. Right-click on the diamond for the keyframe you want to edit and select Edit Keyframe.

The Edit Keyframe window appears.

- 2. Use the **Keyframe** fields to adjust the timeline position of the keyframe.
- 3. When you have finished modifying the position of the keyframe, select **Edit**.

The **Edit Keyframe** window closes and the modifications are saved.

#### **Camera View Favorites**

The **Camera View Favorites** feature allows users to save and reuse predefined camera views for animations. By saving commonly used camera views, this feature enhances the efficiency of working with animations, particularly when setting up keyframe positions for dynamic map transitions. Administrators can create station-wide favorites to ensure consistency across teams, while individual users can create personal favorites for their own use.



Camera View Favorites

### To add a new camera view to your favorites:

- 1. Position, tilt, and zoom the map to set the desired view, then select the **Camera View Favorites** button located at the bottom of the timeline.
- 2. In the menu, select the + Add New button.

The Add New window opens.

- 3. In the **Name** field, enter a name for the camera view.
- 4. Select the **Available to Everyone** checkbox if you want to make the camera view available to all users (Administrative users only).

When this option is enabled, a people icon appears next to the camera view in the list, indicating that it is station-wide.

5. Select **Save & Apply** to save the camera view and apply it to the current keyframe position.

The **Add New** window closes and the new camera view is saved.

Alternatively, you can select **Save** to save the camera view without applying it to the current keyframe position and return to the list of **Camera View Favorites**.

# To modify an existing Camera View Favorite:

- 1. Select the **Camera View Favorites** button to open the menu.
- 2. Locate the camera view you want to modify and select the **Modify** button next to it.

The **Modify Favorite** window opens.

- 3. Edit the following settings as needed:
  - Name: Update the name of the camera view.
  - **Available to Everyone**: Enable or disable this setting to control whether the camera view is stationwide or personal (Administrative users only).
- 4. Select **Save** to apply the changes and return to the list of favorites.

# To delete a Camera View Favorite:

- 1. Select the Camera View Favorites button to open the menu.
- 2. Find the camera view you want to delete and select the **Delete** button next to it.

The **Delete Favorite** dialog opens.

3. Select **Delete** to confirm the action.

The **Camera View Favorite** is removed from the list.

### **Futurecast**

The **Futurecast** tool allows you to position **Futurecast** keyframes to show a specific weather variable transitioning over different points in time.

#### To position a Futurecast keyframe:

1. In the Animations tool, select Futurecast.

End Service         2226/3/19         12 00 AM         It setter         Duration         1         2         01	Adventations Drawing Tools Data Editing Map Layers Pases Map Controls  Map Controls  Tuneline
	Timestamp Graphics Coljects
C         I         4 ↔ I ↔ I         0*         <	

Animations Tab - Futurecast

- Select the Search button for the Futurecast keyframe you want to position along the timeline.
   The color of the diamond changes from white to blue, indicating it can be repositioned along the timeline.
- In the Futurecast track on the timeline, slide the blue diamond along the track to the position you want.
   The color of the diamond changes to white, indicating the modifications have been saved to the project.
- Repeat steps 2-3 to position any additional Futurecast keyframes along the timeline.
   The keyframes are automatically saved.

### To edit a Futurecast Keyframe from the timeline:

- Right-click on the diamond for the keyframe you want to edit and select Edit Keyframe. The Edit Keyframe window appears.
- 2. Use the **Keyframe** field to adjust the timeline position of the keyframe.
- 3. When you have finished modifying the position of the keyframe, select Edit.

The **Edit Keyframe** window closes and the modifications are saved.

# **Graphics Objects**

The **Graphics Objects** tool allows you to set the position, scale, and opacity of **Graphics Objects** in a scene.

#### To set the position, scale, and opacity of a Graphics Object:

On the map, you will create a keyframe path that the **Graphics Objects** will move along when the scene is played out.

Each new keyframe you add corresponds to a different position on the map.

1. In the **Graphics Objects** tool, select the **Search** button for the **Graphics Object** you want to configure.



The keyframe appears as a blue diamond in the **Graphics Objects** track.

Animations - Graphics Objects

If you haven't already added **Graphics Objects** to your scene, you can do so in the **Drawing Tools** tab. For more information on how to add **Graphics Objects** to a scene, see **Drawing Tools** 104.

2. On the map, drag the animated object to the position you want.

Additionally, you can use the **Latitude** and **Longitude** fields to adjust the position on the globe.

- 3. In the **Scale** field enter or select the scale you want for the animated object.
- 4. In the **Opacity** field enter or select the opacity you want for the animated object.
- 5. In the **Graphics Objects** track, select the blue diamond and drag it to the position on the timeline you want.

The color of the diamond changes from blue to white, indicating the modifications have been saved to the animated object keyframe.

6. In the **Graphics Object** track, right-click and select **+Add Keyframe** to add an additional keyframe.

Alternatively, you can select the **+ Add** button in the **Graphics Object** tool to add an additional keyframe.

A new blue diamond appears on the **Graphics Objects** track and a second keyframe appears in the **Graphics Object** tool.

If you need to delete the keyframe, right-click on the diamond in the track and select **Delete Keyframe**.

Alternatively, in the **Graphics Objects** tool, you can select the **Delete** button for the keyframe you want to delete.

7. Repeat **Steps 2-5** to configure the position of the animated object to the next location you want on the map.

Additionally, you can re-arrange the position of the diamonds on the track to change the order of the **Graphics Object's** movements on the map.

★ If you want to set a **Graphics Objects** to a fixed position, do not configure any additional keyframes for that **Graphics Object**.

8. When you have finished adding and configuring the **Graphics Objects**, you can use the timeline controls to preview the animations. For information about previewing the animations, see To preview animations [132].

The modifications are automatically saved to the scene.

# To delete a Graphics Object from a scene:

1. In the **Graphics Objects** tool, select the **Delete** button for the graphics object you want to delete.

The Delete Track Element dialog opens.

2. Select Delete.

The Graphics Object is deleted from the scene.

### To preview Animations:

• Use the timeline playback controls to run the animation as follows:

Use the **Play** button to play the animation.

- Use the **III Pause** button to pause the animation.
- Use the **II Back** button to return to the start of the timeline.
- Use the **D** Forward button to skip forward to the end of the timeline.
- Use the **Previous Keyframe** button to skip to the previous keyframe.
- Use the **Next Keyframe** button to skip to the next keyframe.

# Current Conditions Scene

The **Editor** contains one tab for customizing the **Current Conditions** scene as seen below:



Scene Configuration Panel - Current Conditions Scene

In the **Data Editing** tab, you can add places of interests and edit the scene's data.

### To configure a Current Conditions Scene:

- 1. Select the **Use unit symbol** check-box if you want to enable the unit symbol in the scene.
- 2. Select the **Places** button.

The Add Place window opens.

3. In the **Place** field, enter the name of the place you want to add.

A list of places containing that name will appear.

If the place of interest you entered is not appearing in the results, ensure that it has been configured in the Local Server.

- 4. From the results, select the place you want.
- 5. Select Add and Close to return to the Editor.

The place and its configuration options are displayed in the **Data Editing** tab.

- 6. Configure the **Places** settings as follows:
  - a. In the first field, confirm the place of interest is correct.
  - b. In the second field, use the drop-down to select the data source you want to retrieve data from.
- 7. Below the first row are the weather variables and their default values.

You can override the default value as follows:

- Select the field next to the weather variable you want to change and enter a new value.
- 8. When you have finished configuring the settings, select the Send Scene to Engine button.

The **Data Editing** configurations are saved to your project.

# To change the Place of Interest:

1. In the **Data Editing** tab, select the **Places** button.

The **Add Place** window opens.

2. In the **Place** field, enter the name of the place you want to add.

A list of places containing that name will appear.

If the place of interest you entered is not appearing in the results, ensure that it has been configured in the Local Server.

3. From the results, select the place you want.

### 4. Select **Add and Close** to return to the **Editor**.

The place and its configuration options are displayed in the **Data Editing** tab.

# Daily Forecast Scene

The **Editor** contains one tab for customizing a **Daily Forecast** scene as seen below:



Scene Configuration Panel - Daily Forecast Scene

In the **Data Editing** tab, you can add places of interests and edit the scene's data.

### To configure a Daily Forecast scene:

- 1. In the **Data Editing** tab, use the **Use unit symbol** check-box if you want to enable the unit symbol in the scene.
- 2. Select the **Places** button.

The Add Place window opens.

3. In the **Place** field, enter the name of the place you want to add.

A list of places containing that name will appear.

If the place of interest you entered is not appearing in the results, ensure that it has been configured in the Local Server.

- 4. From the results, select the place you want.
- 5. Select Add and Close to return to the Editor.

The place and its configuration options are displayed in the **Data Editing** tab.

- 6. Configure the **Places** settings as follows:
  - a. In the first field, confirm the place of interest is correct.
  - b. In the second field, use the drop-down to select the data source you want to retrieve data from.
  - c. In the third field, use the drop-down to select the the data cycle you want.
- 7. Below the first row are the weather variables and their default values, grouped by day.

You can override the default value as follows:

• Select the field next to the weather variable you want to change and enter a new value.

Additionally, if want to recover the default value, double-click the column to the right of the value you want to recover. The default value will appear in the value field.



Default Value Recovery

8. When you have finished configuring the settings, select the Send Scene to Engine button.

The **Data Editing** configurations are saved to your project.

# To change the Place of Interest:

1. In the **Data Editing** tab, select the **Places** button.

The **Add Place** window opens.

2. In the **Place** field, enter the name of the place you want to add.

A list of places containing that name will appear.

If the place of interest you entered is not appearing in the results, ensure that it has been configured in the Local Server.

3. From the results, select the place you want.

# 4. Select **Add and Close** to return to the **Editor**.

The place and its configuration options are displayed in the **Data Editing** tab.

# Headlines Scene

The **Editor** contains one tab for customizing the **Headlines** scene as seen below:

Story Name: JF_Test Story 3	er 1					🌔 Edit Mode 🧧 Neversent	Send Scene to Engine	Engine Preview	B-Export	🕈 Publish Rundown
+ New Scene			HEADING ROSS	Data Editing						
			SUBHEADING		Custom Text					•
20World_Base5			155	SUBHEADING						
-		SOME TEXT HERE	455		Custom Text					•
		HEADING			Custom Text					
3DWorld_Base10		INFORMATION 2 LIN	IES		Custom Text					
3 LOCATION					Custom Text					•
		HEADING	155		Custom Text					
Media with Timestamp2		INFORMATION 2 LIN	100		Custom Text					
4					Custom Text					
And Annual Control of										
HEADUNES 3 LINE6	😴 Update Preview	Export Video	Delete Story Item							

Headlines Scene

The **Headlines** scene is designed to convey key concepts quickly and clearly during story presentations using simple text headlines, allowing users to emphasize important information in an easily digestible format.

Users can choose between two **Headlines** scene layout options: **Headlines 3 Line** or **Headlines 4 Line**, depending on the amount of content needed to present. Each headline box consists of two components:

**Heading** (Heading, Subheading, H1, H2, etc.) – typically used to display a date, time, or contextual reference.

**Body Text** (T1, T2, etc.) – where the main headline statement is entered.

### To configure a Headlines Scene:

- 1. In the **HEADING** and **SUBHEADING** fields, enter the text you want.
- 2. In the **H1** field, enter the text you want for the Heading 1.
- 3. In the **T1** field, enter the text you want for the body text.
- 4. Repeat steps 2 and 3 if you want additional **Heading/Body** text boxes.
- 5. Use the Show/Hide button to toggle the visibility of the header and body text boxes in the scene.
- 6. Select the Send Scene to Engine button.

The Headings and Body text will be assigned to the weather project running in your graphics engine and shown in the preview panel.

### Next Hours Scene

The **Editor** contains one tab for customizing the **Next Hours** scene as seen below:



Next Hours Scene

Use the **Next Hours** scene to display an hourly forecast, which can be designed into various formats and layouts including hourly and multi-hourly (e.g. 3-hour steps) graphic presentations. Each valid forecast hour is displayed, and allows users to edit all parameters of interest and timestamps. Users can also customize the heading and toggle its visibility on or off within the scene.

#### To configure the Next Hours scene:

- 1. Configure the parameters for when you want to start receiving data as follows:
  - a. From the **Start Date** calendar, select the date you want to start retrieving data.
  - b. From the **Timeslot** drop-down, select the time you want to start retrieving data.



Start Date and Timeslot

**Note**: The default duration is fixed to five hours in this example based on its XPression scene design and cannot be modified in Story Creator. Alternate hourly durations are possible by creating additional base scene designs in XPression.

2. In the **Data Editing** tab, select the **Use unit symbol** checkbox if you want the unit symbol to be displayed in the scene.

# 3. Select the **+ Place** button.

The Add Place window opens.

4. In the **Place** field, enter the place name, and select it from the results.

If the place you entered does not appear in the results, ensure that it has been configured in the Local Server.

**\*** Note: Points are user-defined locations extracting data from models. Stations are official datasets associated with a physical observation station from a local meteorological agency.

5. Select Add and Close to return to the Editor.

The place and its configuration options are displayed in the **Data Editing** tab.

- 6. Configure the **Place** settings as follows:
  - a. Confirm the place of interest is correct and select the data source you want to retrieve data from.
  - b. From the second drop-down, select the data cycle you want.
- 7. Below the place of interest are the weather variables and their default values, grouped by timeslot.
  - Select the field next to the weather variable you want to change and enter a new value.

Additionally, you can recover the default value by double-clicking the column to the right of the value and the default value will reappear.



Default Value

- 8. Configure the **Timestamp Format** settings for the year, month, day, hour, minute, second, and 24-hour or 12-hour format for the time.
- 9. In the **HEADING** field, enter a heading and use the Show/Hide button to show/hide the heading in the scene.
- 10.Select the Send Scene to Engine button.

The settings are saved to your project and shown in the preview panel.

# View Scene Information

When you select a scene, Story Creator interacts with your graphics engine to retrieve the scene's information and makes it available for you to view.

### To view scene information:

1. In the **Stories** panel, select a story.

The story opens in the **Editor**.

2. In the left panel, right-click a scene.

The options menu appears.



**Options Menu - Scene Information** 

3. From the options menu, select **Information**.

The **Information** window appears.



Scene Information Window

4. Select **OK** to close the window.

# **Duplicating Scenes**

If you want to create an exact copy of an existing scene, you can duplicate the scene. You do not have to recreate the modifications from the original scene as the duplicate will contain the exact modifications you made to the original scene.

### To duplicate a scene:

- 1. In the **Editor**, right-click on the scene you want to copy.
- 2. From the options menu, select **Duplicate**.

The scene is duplicated and is added to the left panel.



### Duplicate Scene

- 3. Make any alterations to the scene such as date and timeslot, map layers, animations, etc.
- 4. Select the Send Scene to Engine button.

The duplicated scene is saved to the project.

# Sharing Scenes

A **Shared Scene** is a common scene that can be added to multiple stories, allowing users to configure or edit it once, with updates automatically reflected in all other stories where the scene is used. This eliminates the need to manually update the same scene across different stories. When a shared scene is edited in one user's editor, the changes are instantly applied to every other story that includes that scene.

Additionally, a shared scene only needs to be sent to the engine once, covering all the stories that utilize it. Even if a story's rundown has already been published, the shared scene will seamlessly update across all relevant stories.

#### To share a scene:

1. In the **Editor**, right-click on the scene you want to share.

An options menu appears.



Make Shared Option

2. From the options menu, select **Make Shared**.

The scene is now shareable, and a **Link** icon appears on the scene thumbnail to indicate its shareable status.



Shared Scene

#### To remove the shared option on a scene:

1. In the **Editor**, right-click on the scene you want to remove the shared option from.

An options menu appears.

2. From the options menu, select Make Unshared.

The shared option is removed, and the shared icon no longer appears on the scene thumbnail.

Any Stories that previously included this now unshared scene will still retain it, and any changes made to the scene will continue to apply across those stories. However, the scene will no longer appear in the **+ New Scene > Shared Scenes Only** category, meaning you can no longer add it as a shared scene to any new stories.

# To view/add shared scenes:

- In the left panel, select the + New Scene button to view or add a shared scene to your story. The scene menu opens.
- 2. Select the **Shared scenes only** tab.

The available shared scenes are displayed in the scene menu.

3. Select a scene to add it to your story.

The scene has been added to your story and now appears in the left panel.

# **Previewing Scenes**

Use the **Engine Preview** button to preview scenes in your story.





# To preview a scene:

1. In the **Editor**, select the **Engine Preview** button.

The **NDI Source** dialog appears.



### NDI Source Dialog

- 2. From the **NDI Source** drop-down, select the output source you are using.
- 3. Select Connect.

The **Engine Preview** window opens.



Engine Preview Window

- 4. Select the **Play** button to play the preview.
- 5. Use the **Forward** and **Backward** buttons to move through the scenes in your story.
- 6. Select **Close** to close the **Engine Preview** window.

# Publish Rundown

When you have finished creating your story in the Story Creator, the final step is to **Publish Rundown**. **Publish Rundown** creates the entire sequence of your story in your graphics engine and makes it ready for playout.

★ For Observation 3D World scenes, when the rundown is published, all observational scenes in the story with the **Latest** checkbox selected are automatically re-processed. The system retrieves the newest available data at the time the **Publish Rundown** button is pressed, updates those scenes in both the story and XPression, and completes the publishing process.



Editor - Publish Rundown

### To Publish Rundown:

• In the Editor, Select the Publish Rundown button.

The story will be published in your graphics engine.

# **Exporting Videos**

Once you have customized the scenes in your story, you have the option of exporting the scenes as a video file for future use (such as posting a video to a social media platform).

**Timportant**: Scenes must be sent to the engine before they are exported as videos.

### To export a single scene in a story:

1. In the **Editor**, right-click on the scene you want to export and select **Export Video** from the options menu.

The **Export Video** window opens.

Export Video			
File Format	Low Resolution MP4 (H.264)		
— Target Engine Folder: d:V			
	Select All		
	20250212112307_1826		
		Export	Cancel

Story Creator - Export Video Window

- 2. From the **File Format** drop-down, select a file format.
- 3. In the field next to the scene thumbnail, enter a title for the video.

 $\star$  A default name based on the date and time (e.g., 20250212112307\_1826) is automatically generated for your convenience.

4. Select Export.

Once the export file is ready, the video will also save to both the **XPression Plugin** folder on the host engine machine and your Local PC as a ZIP file. For the Local PC, the web browser will download the ZIP file to the default folder where your web browser saves downloaded files (e.g., the user's Downloads folder on Windows)—see browser "Download" settings.

**Note:** Default browser settings may block the download, requiring the user to select a **Keep** button on Chrome, for example.

# To export all scenes in a story:

1. In the **Editor**, select **Export**.



Editor - Export

The **Export Videos** window opens.

- 2. From the **File Format** drop-down, select a file format.
- 3. Use the **Select All** checkbox to select or clear all scene checkboxes; when cleared, manually select the scenes to export.
- 4. In the fields next to each scene thumbnail, enter a title for each scene.

 $\star$  A default name based on the date and time (e.g., 20250212112307\_1826) is automatically generated for your convenience.

5. Select **Export**.

Once the export file is ready, the videos will also save to both the **XPression Plugin** folder on the host engine machine and your Local PC as a ZIP file. For the Local PC, the web browser will download the ZIP file to the default folder where your web browser saves downloaded files (e.g., the user's Downloads folder on Windows)—see browser "Download" settings.

**Note:** Default browser settings may block the download, requiring the user to select a **Keep** button on Chrome, for example.

# **Graphics Objects**

In the **Graphics Objects** section, you can upload, modify, or delete graphic objects (such as icons and videos) that can be displayed on top of scenes within a story.

A few **Graphics Objects** have been provided to help make creating stories easier. If you have your own graphics objects and videos that you want to use, you can upload those to the **Graphics Objects** section.

The following topics are discussed in this section:

Icons 149

Videos 151

# Icons

This section provides the instructions for adding, modifying, and deleting an **Icon**.

- $\star$  The following image file formats are supported:
  - PNG
  - JPG
  - PSD
  - TIFF

# To add a new Icon:

1. In the Graphics Objects section, select the Icons tab.



Graphics Objects Section - Icon Tab

2. Select the + New Icon button.

The **New Icon** dialog will appear.



New Icon Dialog

- 3. In the **Name** field, enter the name for the icon.
- 4. Select Browse.

The File Explorer opens.

- 5. Navigate to the image you want to upload and select **Open**.
- 6. Select Create.

The image is added to the **Icons** list.

# To modify an Icon:

- 1. In the **Graphics Objects** section, select the **Icons** tab.
- 2. Select the **Modify** button next to the icon you want to modify.

The **Modify Icon** window appears.

	Browse
Modify	Cancel
	Modify

Modify Icon Window

The following modifications can be made:

- Enter a new name
- Upload a new icon
- 3. When you have modified the **Icon**, select the **Modify** button.

The modifications are saved.

# To delete an Icon:

1. In the **Icons** tab, select the **Delete** button next to the icon you want to delete.

The **Confirmation** dialog will appear.

2. Select the **Delete** button.

The icon will be deleted from the **Icons** list.

# To search for an Icon:

• In the Search field, enter the name of the Icon and press Enter.

The **Icon** will be displayed in the **Icons** list.

# Videos

This section provides the instructions for adding, modifying, and deleting a **Video**.

- ★ The following video file formats are supported:
  - AVI files (XPVC codec for XPression)

# To add a video:

1. In the **Graphics Objects** section, select the **Videos** tab.

Raiden		Editor Story Browser	Graphics Objects	Configuration		<b>4</b> ¢ − 2
Graphics	Objects					
lcons Vi	deos					
				٩	, Search	+ New Video
Name		Format	Width	Height		
Scattered Sł	nowers	AVI	450	450		2

Graphics Objects Section - Videos Tab

2. Select the + New Video button

The New Video window will appear.

New Video	
Name	
Choose video	Browse
Create	Cancel

New Video Window

- 3. In the **Name** field, enter the name for the video.
- 4. Select Browse.

The File Explorer opens.

- 5. Navigate to the video you want to upload and select **Open**.
- 6. Select Create.

The video is added to the **Videos** list.

# To modify a video:

- 1. In the Graphics Objects section, select the Videos tab.
- Select the **Modify** button next to the video you want to modify.
   The following modifications can be made:
  - Enter a new name
  - Upload a new video
- 3. When you have modified the video, select the **Modify** button.

The modifications are saved.

# To delete a video:

- 1. In the **Videos** tab, select the **Delete** button next to the video you want to delete. The **Confirmation** window will appear.
- 2. Select the **Delete** button.

The video will be deleted from the **Icons** tab.

# To search for a video:

• In the **Search** field, enter the name of the video and press **Enter**.

The video will be displayed in the **Icon** list.

# Configuration

In the **Configuration** section, you can view and set the properties related to the **Story Creator** configuration.

- The directory locations and server location details are stored in the **config.sc** JSON file, which is located in D:\StoryCreator.
- Saving the properties in each tab will override the **config.sc** JSON file and reload the information in the system.
- Administrative privileges are required to make changes to the **Configuration** section.

Use this panel to access the **Configuration** tabs.



Story Creator - Configuration

The **Configuration** panel contains the following tabs:

General বিহনী Data Visualization বিচ্চী Logging বিচ্চী NDI বিচী Engine বিচ্চী Maintenance বিজী

# General

Use the **General** tab to access and configure the **Data Directory** settings, which is where graphics objects and thumbnails are stored.



General Configuration - Directories

# To configure the Data Directory:

- 1. In the **Data Directory** field, enter the path to the location where you want to store **Graphics Objects**. The default directory is D:\StoryCreator
- 2. Select the **Save** button.

# Data Visualization

In the **Data Visualization** section, you can configure the **Default Language** preference for your region.



Configuration - Data Visualization

# To configure the Default Language preference:

1. From the **Default language** drop-down, select the language you want to use.

The options are:

- English Default
- Español
- Français
- 2. From the **Time zone** drop-down, select the time zone that you want to use.
- 3. If you want to enable the **Time zone** preference, select the **Show time zone** checkbox.
- 4. When you have finished configuring the settings, select **Save**.

# Logging

In the **Logging** section, you can access and configure the settings to track error reporting and related data.

General	Data Visualization	Logging	NDI	Engine				
	Log Level	INFO			~			
	Log File	D:\Stor	:\StoryCreator\logs\sc.log					
	File name pattern	'.'уууу-І	∵yyyy-MM-dd-HH					
	Log pattern	%d{yyy	%d{yyyy-MM-dd HH:mm:ss} [%p] - %c{2}: %m%n					
Maximu	m number of days to keen files	5	5					
	keep mes							
					Save			

Configuration - Logging

# To configure the logging settings:

1. From the Log Level dropdown, select the log level you want to use.

Your options are:

- INFO
- ERROR
- DEBUG
- WARNING
- TRACE
- 2. In the Log File field, enter the path for the Log File.

The default location is D:\StoryCreator\logs\sc.log

- In the File Name Pattern field, enter the pattern you want to define the format of file name extensions.
   For example: \_yyyy-MM-dd-HH'.log' results in a file name extension \_2024-02-15-13.log
- 4. In the **Log pattern** field, enter the log pattern you want to format your logging information.

For example: %d{yyyy-MM-ddHH:mm:ss}[%p]-%c{2}:%m%n

- 5. In the **Maximum Number of Days to Keep Files** field, enter or select the number of days you want to keep files.
- 6. When you have configured the settings, select **Save**.

# NDI

Use the **Network Device Interface (NDI)** tab to configure the **NDI Source** settings. The **NDI** enables the Story Creator to preview video rendered in your graphics engine (such as XPression or Voyager).

Story Creator Syste	tory Creator System Configuration					
General Data Visualizat	tion Logging NDI Engine					
+ Add NDI Source						
NDI Source		×				
	Enable Disable					
Engine	XPression	~				
Name	Output					
Frame Rate	29.97					
Search Timeout (milliseconds)	5000					
	🖉 Retry					
Retry Timeout	10000					
	Save					

Configuration - NDI

#### To add an NDI Source:

1. In the NDI tab, select the +Add NDI Source button to add a new NDI Source.

A new **NDI Source** section will appear.

- 2. Select **Enable** to enable **NDI Source**.
- 3. From the **Engine** drop-down, select the engine you are using (Voyager or XPression).
- 4. In the **Name** field, enter the name of the output engine.
- 5. In the **Frame Rate** field, enter or select the frame rate you want displayed.

The default frame rate of 29.97 is recommended.

- 6. In the **Search Timeout (milliseconds)** field, enter or select the amount of time (in milliseconds) the **NDI** waits for a response from the selected engine to create a network connection.
- 7. Select the **Retry** box to automatically retry creating a network connection to the selected engine after an initial timeout.
- 8. In the **Retry Timeout** field, enter or select the time interval (in milliseconds) between attempts to connect to the selected engine.
- 9. Select **Save**.

# To delete an NDI Source:

• In the NDI tab, select the **X Delete** button, next to the NDI Source you want to delete.

The NDI Source will be deleted from the NDI Tab.

# Engine

Use the **Engines** tab to configure the **Engine** settings. In the **Engines** tab, you can add multiple engines for Story Creator to interact with (such as XPression and Voyager). Once Story Creator has been configured to communicate with a graphics engine, it can then retrieve a list of scenes, data, and thumbnails from the weather project running in the graphics engine.

			Editor	Story Browser Graph	hics Objects Configuration			4 ¢ · 2
Story Crea	tor System Configurati	on						
General I	Data Visualization Logging	NDI Engine						
Туре	Description	\$ Host	¢ Port	Dataling Source	‡ API Key	SSL ‡	Last Project Backup	
XPression	XPression Engine	localhost	8086	Dataling			12/6/2023, 8:59:40 AM	<b>2</b>
Showing 1 to 1	of 1 rows							

Configuration - Engine

# To add a new story engine:

1. In the **Story Engines** section, select **+New Engine**.

						Configuration			A 0 - 2
Story Creator	r System Configuration								
General Data	Visualization Logging NDI	Engine							
+									
Туре	Description	♦ Host ♦	Port	Dataling Source	e	¢ API Key	SSL (	Last Project Backup	
XPression	XPression Engine	localhost	8086	Datalinq				12/6/2023, 8:59:40 AM	<b>8</b>
Showing 1 to 1 of 1	I rows								

Engine Tab- Add New Engine

The <b>New Engine</b> dialog appears.
New Engine
Туре
XPression ~
Description
Host
Port
Datalinq Source
■ SSI
Create Cancel

Engines Section - New Engine Dialog

2. From the **Type** drop-down, select the graphics engine you would like to connect to.

Your options are:

- **XPression** (default)
- **Voyager** (this will be supported with future versions)
- 3. In the **Description** field, enter the name of your graphics engine.

- 4. In the **Host** field, enter the name of the endpoint for the plugins.
  - For an XPression engine, enter the URL address of the XPression plugin.
  - For a Voyager engine, enter the location of the Voyager machine.
- 5. In the **Port** field, enter the port number of your engine, which can be extracted from the plugin.
- 6. In the **DataLing Source** field, enter the name of your Raiden DataLing server source.
- 7. In the **API Key** field, enter the API key from your Raiden DataLing server source.
- 8. Use the **SSL checkbox** to configure the SSL setting.
  - Select the checkbox to enable the SSL protocol.
  - Clear the checkbox to disable SSL protocol.
  - $\star$  SSL is not supported with the current release.
- 9. Select the **Create** button and the settings will be saved.

### To modify a story engine:

- 1. Select the **Edit** button to the right of the engine you want to modify.
- 2. The **Modify Engine** dialog appears, showing the settings that can be modified.
- 3. The following settings can be modified:
  - Type
  - Description
  - Host
  - Port
  - DataLing Source
  - API Key
  - SSL Check box
- 4. Select **Modify** to save the modifications.

# To delete a story engine:

1. Select the **Delete** button to the right of the engine you want to delete.

The **Confirmation** dialog will appear.

2. Select the **Delete** button to delete the engine

The engine is deleted.

 $\star$  Warning: Once the story engine is deleted, all stories and templates associated with the engine will become inaccessible via the Story Editor.

# Maintenance

The **Maintenance tab** allows you to configure the Story Creator cleanup process, which is set to run automatically by default. This process is designed to keep your graphics project and Story Creator efficient by removing content that hasn't been used or modified in a long time. You can specify the number of days in the **Maintenance** tab to define how long content must remain unused before it is deleted. Stories, scenes, and their corresponding materials will be deleted, with the exception of **Story Templates** and **Shared Scenes** in use by active stories. Even with the **Automatic** option enabled, stories can still be deleted manually at any time.

If you prefer to manage and delete stories manually in the Story Creator browser, you can disable the automatic cleanup process.

Story Creator System Configuration		
General Data Visualization Logging NDI Engine Maintenance		
Story Cleanup		
	Automatic Disable	
Delete Content Last "Modified By"	30	Days, or Greater
Run Story Cleanup Process 🛈	Daily	
Runtime Hour	02:00 AM	
		Sive

Maintenance Tab

### To configure the Story Creator cleanup process:

- 1. In the **Delete Content Last "Modified By"** field, enter or select the number of days that content must remain unused before it is deleted.
- 2. From the **Run Story Cleanup Process** drop-down, select whether you want the cleanup process to occur **Monthly** or **Daily** as follows:
  - a. To schedule the cleanup process to run monthly, select **Monthly** from the drop-down menu, then select the **Calendar** icon to choose the specific day(s) of the month for the cleanup to occur.
  - b. To schedule the cleanup process for specific days, select **Daily** from the drop-down menu, then select the **Calendar** icon to select the specific day(s) of the week for the cleanup process to run.
- 3. Select the Runtime Hour field.

The field turns white and a **Clock** icon appears.

- 4. Select the **Clock** icon to expand the time settings and set the Runtime hour.
- 5. Select Save.

The cleanup settings are saved and set to run automatically by default.

### To disable the cleanup process:

• In the Maintenance tab, select the Disable button.

The cleanup process is disabled.
# Raiden and XPression – Setup

When creating a Raiden project in XPression, you will need to consider whether you will create a project using Story Creator or DataLing to apply XPression metadata. XPression metadata allows Raiden generated data and graphics to be applied to scenes and objects within your XPression project.

With Story Creator, several base scenes have been provided to make setting up your weather project in XPression easier. The base scenes have XPression metadata applied and are ready to use in Story Creator. You can also copy the provided base scenes, modify them, and save them for future use in XPression.

With DataLinq, you can apply Raiden data and graphics directly to your custom XPression project without using Story Creator.

Raiden supports the following workflows:

- Raiden for XPression using Story Creator [183]
- Raiden for XPression using DataLing 188

The following topics are covered in this section:

Requirements 162

XPression Setup 163

Preparing an XPression project for <%PRODUCT\_NAME% 168>

# Requirements

Ensure that your system meets the following requirements:

# **XPression software requirements:**

- XPression Studio (or BlueBox) 11.5 build 5823 64bit
- XPression DataLing 11.5 build 5823 or higher

# XPression hardware requirements:

• Minimum 32GB RAM

# **XPression Setup**

Before you begin building your weather project in XPression, you will need to configure certain XPression preferences and hardware settings.

Once you have configured the following settings, you will then need to prepare your XPression project for use with Raiden 168.

- Configuring XPression Preferences
- Configuring Hardware Settings

# **Configuring XPression Preferences**

Configure the Hardware Renderer, Texture & Image Cache, and Video Engine preferences.

#### To configure the Hardware Renderer preferences:

1. In XPression, go to **Edit**, and select **Preferences**.

The **Preferences** window opens.

Editor	Hardware Renderer
Hardware Renderer	Adapter: NVIDIA RTX A5500 Laptop GPU (#0)
Viewports	<none></none>
Path Persistence	Anti Alias: NVIDIA RTX A5500 Laptop GPU (#0)
Import	Coll Optim Software Emulation Mode (use for debug purposes only
Folders	
Texture & Image Cache	Optimize NVIDIA settings on startup
On Disk Cache	
Sequencer	
Sequencer (cont.)	
MOS Settings	
XML Take Item List	
Fonts	
Remote Server	
CII	
RossTalk	
Video Engine	
ClipStore	
OpenMAM	
As Run Log	
Advanced	
Localization	
Log Level	

XPression Preferences - Hardware Renderer

- 2. From the list, select Hardware Renderer.
- 3. In the **Hardware Renderer** section, use the **Adapter** drop-down and select the NVIDIA adapter that corresponds to the adapter in your XPression machine.
- 4. Select OK.

The **Preferences** window closes and the **Hardware Renderer Adapter** is set to the selected NVIDIA adapter.

#### To configure the Texture and Image Cache preferences:

1. In XPression, go to **Edit**, and select **Preferences**.

The **Preferences** window opens.

2. From the list, select **Texture & Image Cache**.

3. In the **Texture & Image Cache** section, select the **Limit allocated memory pool to** checkbox, and adjust the amount to **16384 MB**.

Preferences	
Editor	Texture & Image Cache
Hardware Renderer	Limit allocated memory pool to: 16384 - MB
Viewports	
Path Persistence	2048 • JItems
Import	<ul> <li>Start caching on project load</li> </ul>
Folders	✓ Reload textures when file's last modified time has changed
Texture & Image Cache	
On Disk Cache	XMP Metadata
Sequencer (cont.)	Parse XMP metadata from image files (slows down image loading)
MOS Settings	PNG JPG PSD TIFF
XML Take Item List	
Fonts	Alpha Channel Interpretation
Remote Server	PNG: Unshaped / Straight 👻
СП	TIFE: <autodetect></autodetect>
RossTalk	
Video Engine	TGA: <autodetect></autodetect>
ClipStore	PSD: Unshaped / Straight 🔹
OpenMAM	
As Run Log	
Advanced	
Localization	
Log Level	
Help	QK <u>C</u> ancel

XPression Preferences - Texture and Image Cache Setting

4. Select **OK**.

The **Preferences** window closes and the allocated memory pool is set to **16384 MB**.

# To configure the Video Engine preferences:

1. In XPression, go to **Edit**, and select **Preferences**.

The **Preferences** window opens.

2. From the list, select **Video Engine**.

Preferences									
Editor	- Maximum Cad	he Size Per Video	Client						
Hardware Renderer	Cache Clip	Cache Clips on GPU instead of Host Memory							
Viewports	Size: 50	▲ MB							
Path Persistence									
Import	Video Decode	r Engine CPU Aff	inity ———						
Folders	Core 1	Core 9	Core 17	🗹 Core					
Texture & Image Cache	Core 2	Core 10	Core 18	🗹 Core					
On Disk Cache	Core 3	Core 11	Core 19	🗹 Core					
Sequencer	Core 4	Core 12	Core 20	Core					
MOS Settings	Core 5	Core 13	Core 21	Core					
XML Take Item List	Core 6	Core 14	Core 22	Core					
Fonts	Core 7	Core 15	Core 23	Core					
Remote Server	Core 8	Core 16	Core 24	Core					
СП									
RossTalk	- Record Settin	gs —							
Video Engine	Input Cache	Size: 45	Frames						
ClipStore									
OpenMAM									
As Run Log									
Advanced									
Localization									
Log Level									
Help				ОК	Cancel				

XPression Preferences - Video Engine

- 3. In the Maximum Cache Size Per Video Client section, select the Cache Clips on GPU instead of Host Memory checkbox.
- 4. Select OK.

The **Preferences** window closes and the **Maximum Cache Size** is set to **Cache Clips on GPU instead of Host Memory**.

# Configuring Hardware Settings

Next, configure the Input/Output and GPI/Tally Boards settings.

# To configure the Input/Output settings:

1. In XPression, go to **Edit**, and select **Hardware Setup**.

The Hardware Setup window opens.

- 2. Select the **Inputs/Outputs** tab, and add your production output as follows:
  - a. Select Add.

The Add New FrameBuffer Board window opens.

b. From the **Brand** drop-down, select the brand of your I/O card (such as Matrox).



Virtual Output - Add New FrameBuffer Board

- c. Select **OK** and the **Add New FrameBuffer Board** closes.
- 3. Next, add and configure the NDI NewTek Output as follows:
  - a. Select Add.

The Add New FrameBuffer Board window opens.

- b. From the Brand drop-down, Select NewTek Network Device Interface.
- c. Select **OK**.

The Newtek Device Interface - FrameBuffer Setup window opens.

lewtek Device Interface - Framebuffer Setup	×
Settings	
Output Name: XPN Output	
Input Name Contains: Input	
Output	
Fill Only	
Use GPU Color Space Conversion	
Input	
Use GPU Color Space Conversion	
Fill Only (Ignore incoming alpha channel)	

Newtek Device Interface - FrameBuffer Setup Window

d. In the **Output Name** field, enter **XPN Output**.

 $\star$  The **Output Name** needs to match the NDI source name in the **config.da** JSON file.



config.da JSON file - NDI Source Name

- e. Select OK and the Newtek Device Interface Framebuffer Setup window closes.
- 4. Select the NDI Output, and in the Output Options section, select the Exclude from Tessera checkbox.
- 5. Select Close.

The Hardware Setup window closes and the Input/Output settings are saved.

6. Next, configure the **GPI/Tally** settings.

# To configure the GPI/Tally settings:

1. In XPression go to Edit, and select Hardware Setup.

The Hardware Setup window opens.

2. Select the GPI/Tally Boards tab.



Hardware Setup - GPI/Tally Board Tab

3. Select Add.

The Add New GPI Board dialog opens.

4. From the **Brand** drop-down, select **Smart GPI/RossTalk**.



Hardware Setup - Add New GPI Board

5. Select OK.

The Smart GPI/RossTalk Setup window opens.

	Timecode 1/0	Preview & Monitor	GP1/T	Ay Boards Camera Tracking	Server Channels	
kr. Brand	Type Inp	uts Outputs	State	Last Result		
	Smart GP	/ RossTalk Setup	_		×	
	- Sector					
	Chalo	Evabled		Mode: O Serial R5232		
		0.000		@ TCP		
				C up		
		Dente Comment 1	_	The set of		
		Para Comport 1	-	1 107 Parts 1788		
	58	drate: 9600	_	Outgoing Network Sette	ngs	
	Da	ta Bits: 8		Hostname:		
		Paritys None		TCP Port: 7758	••	
	51	sp Bits: 1				
	Flow C	ontrok Hardware		]		
					Gance	
Add						

Smart GPI/RossTalk Setup

- 6. In the **Settings** section, configure the settings as follows:
  - a. From the **State** drop-down, select **Enabled**.
  - b. From the **Mode** options, select **TCP**.
- 7. In the **Incoming Network Settings** section, set the **TCP Port** to the communication port that receives the GPI signals for your system. A default port is automatically entered here (**7788**), but can be changed if it is already in use.
- 8. In the Outgoing Network Settings, set the TCP Port to 7788.
- 9. Select **OK** and the **Smart GPI/RossTalk Setup** window closes.
- 10.Select Close.

The Hardware Setup window closes and the GPI/Tally Boards settings are saved.

# Preparing an XPression Project for Raiden

Once you have XPression set up, the next step is preparing an XPression project to work with Raiden using your own custom region meshes. This process involves three parts: downloading your custom meshes from the Local Server, importing these meshes into your XPression project, and configuring the material video and texture shaders to display them correctly.

For users working with a Tessera system, additional guidance is provided to configure source and destination mappings. This section is independent of the earlier steps and applies only to Tessera setups.

The following topics are discussed in the chapter:

Downloading Custom Region Meshes

Importing Custom Region Meshes into XPression 1701

Configuring Material Video and Texture Shaders

Tessera System Setup for Tab Raiden

# Downloading Custom Region Meshes

To use your own custom region meshes in an XPression project, you must first download them from the Local Server. These meshes provide the framework for adding region-specific overlays and effects.

Each downloaded ZIP file includes not only the .obj file for the region but also a high-resolution landmask file ([ID OF THE REGION]\_high\_landmask.png). Both files are required for setting up the Material Video and Texture Shaders and should be saved in their designated folders to ensure smooth configuration. This section explains how to locate, download, and prepare these files so they are ready for use in the next steps.

# To download a custom region mesh from the Local Server:

- 1. In the Local Server, go to the Areas of Interest section and select the Regions tab.
- 2. Select the **A Download** button for the **Region** you want to import.
- 3. The "poi\_[ID OF THE REGION].zip" file is downloaded to your system.

Stations Show Lave ID Name Data Sources Time Zone 11 🛃 🗹 World 🔎 🛃 🗹 📋 Brandor America/Regina Atlantic/Revkiavik 10 🛃 🗹 🧻 39 Iceland E Coast US America/New\_York 1 🛃 🗹 📋 10 🛃 🗹 🗊 Florida America/New\_York

This file contains the static content for the specific **Region** you chose.

Local Server - Region Download

4. Navigate to the location on your system where your downloads are stored.

5. Extract the **.zip** file and locate the **.obj** file for the **Region** you downloaded.

For example:

A 3D Mesh .obj file called "[ID OF THE REGION]\_"obj3d.obj".

📕 🕨 poi 12	
	12_dem.png
	12_high_boundary.png
	12_high_boundary.tga
	12_high_labels.png
	12_high_labels.tga
	12_high_landmask.png
	12_high_landmask.tga
	12_high_mask.png
	📄 12_high_mask.tga
	12_low_boundary.png
	12_low_labels.png
	12_low_landmask.png
	12_low_mask.png
	12_mosaic.png
	12_mosaic_landmask.png
	12_mosaic_mask.png
L	🖻 12_obj3d.obj
	12_tile.png

# Example .obj File

- 6. Save the **.obj** file in the Raiden XPression project folder, subfolder **Models**.
- 7. Extract the high-resolution landmask file ([ID OF THE REGION]\_high\_landmask.png) from the .zip file and save it in the **Image** subfolder within the XPression project folder on the local drive.
- 8. Next, you will need to import the custom region mesh into your XPression project. Proceed to the To import a Custom Region Mesh into your XPression project a procedure.

# Importing Custom Region Mesh into your XPression project

Once your custom region meshes are downloaded, the next step is to import them into your XPression project. This process involves adding the **.obj** files as objects, organizing them into the appropriate group, and applying necessary transformations.

**Note:** Only two overlays are required for this setup.

## To import Custom Region Mesh into your XPression project:

- 1. In your XPression project, go to the **Object Library**, expand **Mesh Objects**, and select **3D Model**.
- 2. From the **File Explorer**, select the **.obj** file that you downloaded from the Local Server, and select **Open**.



File Explorer - .obj File

The File Explorer window closes and the XPression Model Importer window opens.

3. In the **XPression Model Importer**, select **Import**.

The **.obj** file is imported as an **Object** into the project and appears in the **Object Manager**, at the end of the **Objects** tree.

4. Rename the **Object** to a name with no spaces or special characters.

For example:

"Ottawa\_Data\_Layers"

Object Manager					о <b>џ</b>	$\times$
✿ ♣ � ✿ ♥ 📴 🚥	- N   Q					
Object		CEP KGD	Alpha	X-Pos	Y-Pos	
Base_Scenes			100.0			
- 💋 DirLight1	0		100.0	960.00	360.00	
- Ab Text1	0		100.0	172.80	908.00	
+ Ottawa_Data_Layers			100.0	960.00	540.00	

*Object Manager - Renamed Object* 

5. Select the **Object**, and drag-and-drop it into the **CustomDataLayer** group.

Object	0	MCEP SKGD	Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot		
- Overlay2	0		0.0	0.00	0.00	771.00	0.00 📥		
Overlay3			0.0	0.00	0.00	771.00	0.00		
🗢 🐹 CustomDataLayer	0		100.0						
🗄 🔣 Ottawa_Data_Layers	0		100.0	0.00	0.00	0.00	0.00		
CountryBorders	9	D	100.0	0.00	0.00	0.00	0.00		
CountryBorders_Low	3	a	0.0						
	·I∎I —								

CustomDataLayer Group - Ottawa\_Data\_Layers

- 6. In the **Object Inspector**, select the **Transform** tab and set the **Object's** position as follows:
  - a. Set **Pivot** to:
    - X: 0
    - Y: 0
    - Z: 0
  - b. Set **Position** to:
    - X: 0
    - Y: 0
    - Z: 771
  - c. Set **Rotation** to:
    - X: 0
    - Y: 180
    - Z: 0
  - d. Set **Scale** to:
    - X: 495
    - Y: 495
    - Z: 495

Group	Transform	Rend	lering Continuous Anim.	Tem	plate Links Metadata
Position           X:         0.000           Y:         0.000           7:         771,000	Rotation           X:         0.000           Y:         180.000           7:         0.000		Scale           X:         1.000           Y:         1.000	:	Pivot           X:         0.000           Y:         0.000           7:         0.000
Step Size           ● 1.0           ○ 0.1           ○ 0.01	Rotation Order:		Nor	ne I	Center X Y Z

**Object Manager - Object Transform Settings** 

7. In the **Object Manager**, expand the **Object** to reveal **MeshNode1** and rename it.

Object	C SKGD	Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot
- Overlay2	💿 🗳 🗗	0.0	0.00	0.00	771.00	0.00 📥
Overlay3	<b>a</b>	0.0	0.00	0.00	771.00	0.00
CustomDataLayer	3	100.0				
🗄 🔣 Ottawa_Data_Layers	3	100.0	0.00	0.00	0.00	0.00
MeshNode 1		100.0	0.00	0.00	0.00	0.00
CountryBorders	Meta Data	100.0	0.00	0.00	0.00	0.00 💌
A D	l∎ I					

#### MeshNode1

It is recommended to rename **MeshNode1** to a name that corresponds to the **Object**.

For example, Ottawa\_Data\_Layers could have the following corresponding MeshNode1 name:

"Ottawa\_Overlay\_1"

Object Manager						;	×
	्						
Object		Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot	
CustomDataLayer		100.0					Ä
🗄 📑 Ottawa_Data_Layers	<b>D</b>	100.0	0.00	0.00	0.00	0.00	
Cttawa_Overlay_1	3	100.0	0.00	0.00	0.00	0.00	

MeshNode 1 Renamed

- 8. Select the **Metadata** tab and add the following Raiden metadata attributes to the **MeshNode 1**.
  - raiden\_type: map\_overlay
  - raiden\_data\_type: current\_forecast\_value
  - raiden\_poi: [ID OF THE REGION]
  - **raiden\_name**: Human readable name for the **Overlay**, which can have spaces. For example, "Ottawa Overlay 1".
  - **raiden\_category**: Human readable name for the category to be displayed in Story creator. For example, "Ottawa Overlay".

Object Manager	□ ¶ ×	Object I	Dbject Inspector - Ottawa_Overlay_1 - Model 3D Object							
쇼 � � � 🕆 🕆 🐘			Lighting Continuous A		n. Template Links		Effects		Metadata	
Object		Element	ts & Attribute	es	Data	a				
CustomDataLayer		-*	metadata							
Ottawa Data Lavers		-	🕑 raiden_t	type	map	p_overlay				
		-	🕤 raiden_o	data_type	curi	rent_forecast_value				
		-	🕤 raiden_	poi	1					
CountryBorders		-	🗧 raiden_r	name	Ott	awa Overlay 1				
CountryBorders_Low	0		🕤 raiden_o	category	Ott	awa Overlay				

<%PRODUCT\_NAME%> Metadata Attributes

9. In the **Object Manager**, select the **MeshNode1**, create a copy, and update the "raiden\_name" metadata attribute for the copied **MeshNode1** (MeshNode1\_2).

Object Manager								o 4	×
� � � � ₿ ®   H   <sup>Q</sup>									
Object		B KGD	Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot	Y-Rot	:
- Overlay2	۲		0.0	0.00	0.00	771.00	0.00	89.97	
Overlay3	3	M D	0.0	0.00	0.00	771.00	0.00	89.97	
🕂 🔣 CustomDataLayer	3		100.0						
🗄 📑 Ottawa_Data_Layers	٢		100.0	0.00	0.00	771.00	0.00	180.00	
- 🐼 Ottawa_Overlay_1	۲	Ð	100.0	0.00	0.00	0.00	0.00	0.00	
- 🐼 Ottawa_Overlay_2	۲	D	100.0	0.00	0.00	0.00	0.00	0.00	T

Two Overlays

**Note**: Only two overlays are required for this setup. Ensure that the raiden\_name metadata attribute for each overlay is updated to reflect its corresponding name (e.g., "Ottawa Overlay 1" and "Ottawa Overlay 2")

For example:

The corresponding **raiden\_name** metadata attribute for *Ottawa\_Overlay\_2* should be updated to *Ottawa Overlay 2*.

Object Manager	Manager 🛛 🗠								×	Object Inspector - Ottawa_Overlay_2 - Model 3D Object			
<b>☆ ⊕ ∳ ∳ 18 18 14 1 ≪</b> 1										Model 3D	Transform	Rendering	
Object		MCEP	Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot	Y-Rot		Elements & Attributes		Data	
- Overlay2	0		0.0	0.00	0.00	771.00	0.00	89.97		🖃 🚸 metadata			
Overlay3	0		0.0	0.00	0.00	771.00	0.00	89.97		— 🕤 raiden_typ	æ	map_overlay	
CustomDataLayer	3		100.0							- 🕑 raiden_da	ta_type	current_forecast_valu	
Gttawa_Data_Layers	0		100.0	0.00	0.00	771.00	0.00	180.00		- 7 raiden po		1 Ottown Owerlaw 2	
- 🐼 Ottawa_Overlay_1	3		100.0	0.00	0.00	0.00	0.00	0.00		raiden_na	tegory	Ottawa Overlay 2	
- 🐼 Ottawa_Overlay_2	3		100.0	0.00	0.00	0.00	0.00	0.00	-				

Updated Metadata Attribute

10.Select File and Save, and then proceed to configure the material video and texture shader settings 173.

 $\star$ You will need to repeat this procedure for each custom region mesh you want to use in your project.

# Configuring Material Video and Texture Shaders

After importing and saving your custom region meshes, the next step is to configure the material video and texture shader settings and apply the materials to each custom region mesh layer. This step ensures that your custom region meshes are fully integrated and ready for use in your XPression project.

This section provides two methods for setting up the material video and texture shader settings:

• To duplicate an existing material from the world domain (recommended)

This method simplifies the process and is recommended for most users.

• To configure the Material Video and Texture Shader Settings from scratch

Use this method if you decide to delete the world domain and work exclusively with regions, or if the world domain setup encounters issues and requires rebuilding. These instructions describe how to reestablish the configuration in such cases.

# To duplicate an existing material from the world domain (recommended method):

- 1. In your XPression project, open the **Material Manager**.
- 2. In the **Filter** field, enter "world" to retrieve the existing world overlays.
- 3. Right-click on an overlay and from the option menu, select **Duplicate**.

The duplicated overlay now appears in the list of world overlays in the Material Manager.

- 4. Right-click on the new overlay and select **Rename** from the options menu.
- 5. Rename the overlay to correspond with the region you are setting up.
- 6. Right-click on the new overlay and select **Edit** from the options menu.

The Material Editor opens.

- 7. In the Material Editor, select Texture.
- 8. Update the **Filename** as follows:
  - a. In the **Texture File** section, ensure the **Filename** is set to the corresponding land mask file of the custom region you are setting up.

★ The corresponding land mask file is the high-resolution landmask file ([ID OF THE REGION] \_high\_landmask.png) that was previously extracted and saved in the **Image** subfolder within the XPression project folder.



Material Editor - Texture File Settings

b. Select **OK**.

The Material Editor closes and the material and texture shaders have been configured.

- 9. Apply the materials to the respective overlay meshes as follows:
  - a. In the **Object Manager**, select the mesh to which you want to apply the material, and in the **Object Inspector**, select the **Materials Tab**.



*Object Inspector - Materials Tab* 

b. In the **Materials** tab, under the **Face** section, select the desired **Face**.



Materials Tab - Face Section

c. In the **Materials** tab, from the selection of materials, right-click the new material you want to apply and from the options menu, select **Apply**.



Materials - Options Menu

Alternatively, you can double-click the new material to apply it to the mesh.

The material is applied to the first mesh.

- d. In the **Object Manager**, select the second overlay.
- e. In the **Object Inspector**, select the **Materials** tab.
- Right-click on the new material and select **Duplicate** from the options menu.
   The material is duplicated.
- g. Double-click the duplicated material to apply it to the second overlay.
- 10. Save the project.

The changes are saved and can now be detected by the Story Creator.

# To configure the Material Video and Texture Shaders from scratch:

1. In your XPression project, in the **Material Manager**, right-click the **Material Folders** tree and expand the **Add New** options.



Material Manager - Add New Options

2. From the **Add New** options, select **Material**.

The Material Editor opens.

3. In Material Editor, in the Base Color section, set the Diffuse and Emissive Channels to white.



Material Editor - Base Color Settings

- 4. Add a **Video** shader to the current layer and configure the settings as follows:
  - a. Right-click on Layer 1, expand the Add Shader options from the menu, and select Video.
  - b. In the Video section, set the Source Mode to Unshaped Video Source.
  - c. In the **Run Mode** section, set the **Mode** to **Loop**, and disable **Auto Start** and **Free Running**.



Material Editor - Source and Run Mode Settings

- 5. Next, add a **Texture** shader to the current layer and configure the settings as follows:
  - a. Right-click on Layer 1, expand the Add Shader options from the menu, and select Texture.

The **Texture** shader appears below the **Video** shader in the layer stack.

b. Ensure that the **Texture** shader checkbox is not selected.

**★** The **Texture** shader is only required for landmasks and should be disabled by default. The Story Creator will automatically enable the **Texture** shader when it is needed.

c. In the **Texture File** section, ensure the **Filename** is set to the corresponding land mask file of the custom region you are setting up.

**Note:** The corresponding land mask file is the high-resolution landmask file ([ID OF THE REGION] \_high\_landmask.png) that was previously extracted and saved in the **Image** subfolder within the XPression project folder.

Material Editor									
Preview	Name: Material2714	Dimensions: 192 ct Alpha Duration: -	0 x 1080						
A	Texture	File							
1 AL	Filename: PN_PROJECT\Images\Geographi	ic_Layers\World),39_high_l	andma:						
	DataLinq: <disabled></disabled>		]						
Cube Sphere	Color Space: sRGB								
	Bit Depth: 0 bit								
🗹 👄 Layer 1	Color Profile: <undefined></undefined>								
Video		RGB	Alpha						
C. C. C. C.	Color Blending								
	Alpha Blen	ding							
	Texture Coon	dinates							
	Texture Ma	pping							
	riip riapp Texture Filt	ering							
	Texture The	cring							
		QK	Cancel						

Material Editor - Texture File Settings

6. Select OK.

The Material Editor closes and the Material and Texture Shaders have been configured.

**Important:** For this setup, only two overlays are required. Ensure that each overlay has the material applied to it.

- 7. Apply the materials to the respective overlay meshes as follows:
  - a. In the **Object Manager**, select the mesh to which you want to apply the material, and in the **Object Inspector**, select the **Materials** tab.



**Object Inspector - Materials Tab** 

b. In the **Materials** tab, under the **Face** section, select the desired **Face**.



Materials Tab - Face Section

c. In the **Materials** tab, from the selection of materials, right-click the new material you want to apply and from the options menu, select **Apply**.



Materials - Options Menu

Alternatively, you can double-click the new material to apply it to the mesh.

The material is applied to the mesh.

- 8. Repeat the process and apply the second material to the second overlay.
- 9. Once both overlays have their materials applied, save the project.

The changes are saved and can now be detected by the Story Creator.

# Tessera System Setup for Raiden

**TIMPORTANT**: If you are not running a Tessera system, skip this section.

If you are running a Tessera system, ensure that the **Source** and **Destination Mappings** have been configured.

If the **Source** and **Destination Mappings** have not been configured in your Tessera system, you will need to create a new mapping, and configure the **Source Template** for all **Regions**.

#### To configure Source and Destination Mappings and the Tessera Source Template:

- 1. First you will need to configure the **Tessera** settings as follows:
  - a. Open your XPression project.
  - b. Go to Edit and from the Tessera drop-down, select Settings.



Edit Menu - Tessera Settings

The Tessera Settings window opens.

essera Settings	×
- General	
Mode: Single Engine	
- Tessera NET	
NET ID: 1	
Primary Clock Flode ID: 1 (output node acting as	
Backup Clock ( lode ID) 2 ()	
- Output Node	
Engine ID: 1	
Region Map Selection	
○ Use Global Region Map	
Broadcast Wode: Broadcast IP 🗸	
IP Address: Resileve	
Port: 7575	
Cancel Cancel	

Tessera Settings

c. From the **Mode** drop-down, select **Single Engine** and select **OK** to close the window.

The Tessera Settings window closes.

- 2. Next, you will need to configure the **Source** and **Destination Region Layouts** as follows:
  - a. In the Edit menu, go to Tessera and from the Tessera drop-down, select Region Mapping.
     The XPression Tessera Region Mapper window opens.
  - b. In the **Source Region Layouts** panel, right-click in the **Thumbnails** tab and select **Add Source**.
  - c. In the **Destination Region Layouts** panel, right-click in the **Thumbnails** tab and select **Add Destination**.
  - d. In the Region Editor section, select Add.

The **New Region** window opens.

rce Region Layouts	Cestination Region Layout Settings	Destination Region Layouts
humbnails List	D	Thumbnails List
rce 1	Name: Destination 1	Destination 1
	Description:	
	Output Ninda	
	Selected Node Information	
	Node: Congle engine > Location: Local Engine	
	Channel: <none>  Net ID: <any> Host Address: localhost</any></none>	
	Output Resolution	
	Standard: 1920x1080   Horizontal: 1920   Horizontal: 1920   Horizontal: 1920   Horizontal: 1080   Horizontal	
	Background: Opacity: 50%	
	New Region	
	Region Size:	
	Width: 1920 • Height: 1080 •	
	QK Cancel	
	Add Zoom: To Fit 💌	
	Statistics / 0 TV Visitin 10 TV (fame)	
	The second secon	

XPression Tessera Region Mapper - New Region Settings

- e. Set the Width of the Region Size to 1920 and select OK.
- f. In the Source Region Layouts, go to the Thumbnails tab and select Source 1.
- g. In the **Source To Destination Mapping** section, select **Source 1** and from the drop-down, select the **Region 1**.



XPression Tessera Region Mapper - Source To Destination Mapping Settings

h. Select **OK** and the **XPression Tessera Region Mapper** window closes.

The **XPression Tessera Region Mapper** closes and the **Source** and **Destination Mappings** have been configured

- 3. Next, set the **Tessera Source Template** for all of the **Regions** in your XPression project as follows:
  - a. In the **Object Inspector**, select the **Tessera** tab.
  - b. From the **Source Template** drop-down, select **Source 1**.
- 4. Next you will need to configure the **Output Options** as follows:
  - a. In the Edit menu, go to Hardware Options and select the Inputs/Outputs tab.
  - b. In the **Output Options** section, select the **Exclude from Tessera** checkbox.
  - c. Select Close.

The Hardware Setup window closes and the Source Template for the Region is configured.

# Raiden for XPression–Using Story Creator

XPression metadata enables Story Creator to recognize which XPression objects can be used, the purpose of each object, and the context of each scene.

The provided base scenes are predefined with XPression metadata and are ready to use in Story Creator. However, you can make modifications to adapt a base scene to your specific needs.

You will need to add metadata to the following:

- Each scene that you want to control from the Story Creator.
- Each object that you want the Story Creator to apply content to.

The metadata may vary depending on the specific scene type. The most common scene and object metadata are described below:

# Scene Metadata

raiden\_is\_base: The flag to indicate if the scene is to be used as a base scene or not.

- 1 Is base scene.
- None or **0** Is not base scene, but a story based on a template scene.

raiden\_type: The code to differentiate the purpose of scenes.

- "full\_screen\_texture" Simple image or video scene.
- "forecast\_3dworld" Main 3D World scene for any mapping requirements.
- "forecast\_single\_poi\_days" Scene to display daily forecast information for a single place of interest, for instance, next 3 days forecast for Ottawa (based on the "raiden\_days" metadata value).
- "forecast\_multi\_poi\_days"
- "forecast\_multi\_poi\_day\_summary"
- "current\_conditions\_multi\_poi" Scene to display current observations for multiple places of interest (based on the raiden\_pois metadata array).
- "summary\_single\_poi" Add to display current observations as well as next day(s) forecast for a single place of interest.

raiden\_pois: A comma separated list of the default places of interest's IDs to include:

- [1] Between brackets
- [] Can be empty

★ For the 3D World Scene, the **raiden\_pois** should be set to [] empty by default as the Story Creator will automatically populate the place of interest's ID.

raiden\_days: number of days data that the scene would cover.

For example:

- 3 Indicates a 3-day forecast
- 5 Indicates a 5-day forecast

#### raiden\_use\_unit\_symbol:

• 1 or 0 - to display the unit symbol by default, e.g.: 1

raiden\_region: ID of the specific region this scene is related to.

For example:

1 -Indicates the whole world.

 $\star$  For the 3D World Scene, the default region ID for **raiden\_region** is set to **1**, as the region covers the whole world.

# **Object Metadata**

raiden\_type: code to differentiate the purpose of the object.

• "map\_overlay" — object used to display a map overlay.

raiden\_data\_type: code to specify the type of content that the object supports.

"current\_forecast\_value"

**raiden\_variable**: code to specify the variable type that the object supports.

- TMP Temperature
- VGRD Wind Direction
- PRMSL Mean Sea Level Pressure

raiden\_poi: ID of the place of interest related to the object.

For example:

• 1 — Indicated the whole world.

# Applying Metadata to a Scene

You can adapt any of the provided base scenes to your specific needs by modifying the pre-defined metadata.

 $\star$  Metadata must to be applied to base scenes that you want to control from the Story Creator.

In the **Object Manager**, select the base scene and go to the **Metadata** tab. The **Metadata** tab contains two sections, **Elements & Attributes** and **Data**.

Object Manager 🛛 🗘 :							Object Inspector - Media - Scene Obj	bject Inspector - Media - Scene Object						
	- I 📲 🔍						Roll / Crawl Rendering	Take Item	Tessera	Effects	Metadata	4 Þ		
Object	00	MCEP	Alpha	X-Pos	Y-Pos		Elements & Attributes	Data						
Media		D	100.0				😑 🤺 metadata					Ê.		
- 📝 DirLight1	3		100.0	960.00	360.00		- 🗊 raiden_type	full_screen_texture						
Background1			100.0	960.00	540.00		raiden_is_base	1 Colleman Made						
							- U raiden_name	Fullscreen Media						
												-		
ব					Þ	Ľ	<ul> <li>Image: A state of the state of</li></ul>							

#### Metadata Tab

The **Element & Attributes** section displays the metadata types applied to the scene. You can select each type and in the **Data** section you assign metadata codes to specify which metadata type to use.

The following procedure provides an example of how to add metadata to a scene.

## To add metadata to a scene:

- 1. In the Elements & Attributes section, select raiden\_type.
- 2. In the **Data** field, enter the scene metadata code to specify the purpose of the scene.

The raiden\_type code options are:

- "full\_screen\_texture"
- "forecast\_3dworld"
- "forecast\_single\_poi\_days"
- "forecast\_multi\_poi\_days"
- "forecast\_multi\_poi\_day\_summary"
- "current\_conditions\_multi\_poi"
- "summary\_single\_poi"
- 3. In the **Data** field, enter the scene metadata code you want for the the base scene. This code lets the Story Creator know that the scene can be used as a base scene or not.

## The raiden\_base\_template code options are:

- 1
- None or 0
- 4. In the **Element & Attributes** panel, select raiden\_poi.
- 5. In the **Data** field, enter the point of interest ID you want for the the scene.

The **raiden\_poi** code is delineated by comma separated list of default places of interest to include:

- Between bracket [1]
- Can be empty []
- $\star$  The raiden\_poi metadata can be set in Story Creator and is optional for you to set in XPression.
- 6. In the **Element & Attributes** panel, select raiden\_days.
- 7. In the **Data** field, enter the scene metadata code you want for the number of days you want the scene to cover.

Examples of raiden\_days code use:

- 3 Indicates a 3-day forecast.
- 5 Indicates a 5-day forecast.
- 8. From the File menu, select Save.

The scene metadata has been updated and saved to the project.

# Applying Metadata to an Object

Once you have applied metadata at the scene level, you can apply metadata to objects.

The following procedure provides an example of how to add metadata to an object.

# To apply metadata to an Object:

- 1. Select an **Object** and go to the **Metadata** tab.
- 2. The **Elements & Attributes** section displays the metadata that has been applied to the **Object**.

	Group	Transform	Rendering	Continuous Anim.	Template Links	Hetadata	
elem	ents & Attribute	5	Data				
	🗄 metadata						A
	- 🖯 raiden_	type	map_overlay				
	- 🕤 raiden_	data_type	"current_forecast_va	lue"			
	- G raiden_	variable	TMP				

Elements & Attributes - Data Code Examples

- 3. In the **Elements & Attributes** section, select **raiden\_data\_type**.
- 4. In the **Data** field, enter the metadata code to specify the type of content the **Object** supports such as:
  - "current\_forecast\_value"
- 5. In the **Elements & Attributes** section, select raiden\_type.
- 6. In the **Data** field, enter the metadata code that specifies the purpose of the object such as:
  - map\_overlay
- 7. In the **Elements & Attributes** section, select **raiden\_variable**.
- 8. In the **Data** field, enter the metadata code to specify the variable type that the **Object** supports.

Refer to Appendix A: Metadata Descriptions 210 to find the metadata codes and their corresponding details.

9. From the **File** menu, select **Save**.

The **Object** metadata has been updated and saved to the project.

# Managing Font and Color Updates for Text Objects

When working on a project with multiple scenes and Points of Interest (POIs), individually changing the text color across numerous text objects can be time-consuming and error-prone. To streamline this process and maintain consistency, editing the Font Material ensures that the desired changes are automatically applied to all associated text objects, rather than applying a material directly to the face of each object.

# To edit the font and color for all text objects across a project:

- 1. In the **Object Inspector**, select the **Scene Fonts** tab.
- 2. Select Edit Material.

bject Manager 0 9	Object Inspector - Text1 - Text Object	0 # ×
9 * 9 * E F * S	Scene Foats Transform Tabs & Options Data Source Rendering Materials Texture Coords Lighting Continuous Anim. Template Links Effects	
Reject Dictand Apha X40s Y40s Z40s X40t Y40t Z40t	X- 20 30 Face: And + Feets Used	
Scene 1 100.0	Size: 62 ** Style: Regular * New Ab	
📝 DirLight1 🐼 100.0 960.00 360.00 200.00 0.00 0.00 0.00	Render Wedder 100% • Sant: • Addy Addy	
Ab Text1 20.0 172.80 916.00 0.00 0.00 0.00 0.00	Stroke Weight: 016 1+ Sel Capit 016 1+ Sl Stock	
Ab Text2 2 100.0 873.80 546.00 0.00 0.00 0.00 0.00	Nean Name: Font1	
Ab Text3 3 100.0 191.80 221.00 0.00 0.00 0.00 0.00	Shadow Used for only this scene Coptons + AD	
	Edit Material Font Face Spacing Options 1 Options 2 1 Forts 42	

Scene Fonts Tab - Edit Material Button

## The Material Editor opens.



## Material Editor

- 3. In the **Material Editor**, adjust the color settings as desired.
- 4. Select **OK** when you have finished adjusting the color settings.

The Material Editor closes, and the updated settings are applied to all associated text objects.

# Raiden for XPression–Using DataLinq

To apply Raiden data to your custom XPression project, without using the Story Creator, you will need to use the Raiden DataLing Server. The Raiden DataLing Server allows you to connect to data from the Local Server and make the data available to XPression.

First, you will need to add and configure the Raiden DataLinq source to the XPression DataLinq Server. Once you have the Raiden DataLinq source enabled, then you can apply the data directly to your XPression Project.

Before getting started, you will need to have the XPression DataLinq Server installed on your network. If you do not have the XPression DataLinq Server, please contact Ross Video at the numbers listed in the section Getting Help  $4^{\circ}$  for assistance.

The Raiden DataLinq Server provides the list of Places of Interest (POI) through DataLinq, exposing queries as dynamic JSON DataLinq Sources.

## HTTP Ports:

- Default HTTP port: 8083
- Default HTTPS (SSL) port: 8483

# Adding the Raiden DataLing Source

The Raiden DataLing Source plugin enables direct access to the DataLing Server.

## To add and configure the Raiden DataLinq source to the XPression DataLinq Server:

1. Use one of the following methods to start the **XPression DataLing Server**:

- Double-click the **XPression DataLing Server** icon on the desktop.
- Use the Start menu to select All Programs > XPression > XPression DataLing Server.

The **XPression DataLing Server** window opens.

File	Wir	ndows				
۲.	ataL	ing Sources				
L D	#	Name	Description	Туре	Source	
	<u>A</u> dd	New Configure	Browse Delete			
	_			_		

XPression DataLing Server Window

2. Select Add New.

The Add DataLing Source dialog opens.

- 3. From the list of DataLing Sources, select Raiden DataLing Source.
- 4. Select OK.

5. The Raiden DataLing Configuration window opens.

🔳 Raiden DataLii	nq - Configuratio	n			>	<
Host Settings —						
IP or HostName:				Port: 84	83 🗕 🚽	
API Key:						
Protocol:	⊕ HTTPs ○ HTT	Р				
Observa	tion Interval: 15		🛨 Minut	tes		
Fore	cast Interval: 60		🛨 Minut	tes		
Timeout if data no	t received in: 250	0	▲ → Millise	econds		
– Data Settings –						
Number Format:	Default	-	Temperature:	Default		
Decimal Digits:	Default	-	Language:	Default	•	
Date Format:	Default	-	Wind:	Default	•	
Time Format:	Default	•				
Data Options						
Wrap Indices						
				<u>o</u> k	<u>C</u> ancel	

Raiden DataLing - Configuration Window

- 6. Configure the **Raiden DataLinq** source as follows:
  - a. In the IP or HostName field, enter the IP address or host name of your Raiden DataLing server.
  - b. In the **Port** field, enter or select the port number of your Raiden DataLing server.
  - c. In the API Key field, enter the API key for the Raiden DataLinq server.
  - d. In the **Observation Interval** field, enter the intervals (5 minutes or higher) at which observation data should be retrieved.
  - e. In the **Forecast Interval** field, enter the intervals (30 minutes or higher) at which forecast data should be retrieved.
  - f. In the **Timeout if data not received in field**, enter the amount of time (2500 milliseconds recommended) to wait before timing out.
  - g. In the **Data Settings** section, configure the following preferences for the Raiden DataLinq source:

 $\star$  The default option is the value configured in the Data Aggregator server.

- Number Format
- Decimal Digits
- Date Format
- Time Format
- Temperature
- Language
- Wind

h. **Wrap Indices** check box - select this check box to wrap the indices above the record count within record count limits. This check box should be selected when using looping queries.

★ When Wrap Indices is enabled, an index greater than the number of records in the source wraps around to zero when index reaches the record count. For example: a data source holds 5 records and a field selection with the value of 8 is issued, the DataLing field with idex 3 (8-5=3).

7. Select OK.

The **Raiden DataLinq Configuration** dialog closes and the **Raiden DataLinq Source** is added to the list of DataLinq sources in the XPression DataLinq Server.

# Verifying XPression DataLinq is Receiving Raiden Data

Next, you will need to verify that XPression DataLing Server is receiving data from the Raiden DataLing source.

## To verify XPression DataLing is receiving data from the Raiden DataLing source:

1. In XPression DataLing Server, select the Raiden DataLing Source and select Browse.

XPn	ession DataLing 5	Server [port: 8888] - v11.1 bu	ild 5785 beta			$\times$
e Wi	indows					
DataLi	ing Sources					
#	Name	Description	Type	Source		
1	Raiden DataLing	1	Raiden DataLing Sou	10.64.181.177:8083		
2	Raiden		RSS / HTTP DataLing	http://10.64.181.177:8083/DataLing/%table%		
Add	New Config	ure Browse	<u>D</u> elete			

XPression DataLing - Raiden DataLing Source

The **Browse DataLinq** window opens.

📓 Brow	vse DataLing			-		$\times$
- Selection	1					
Column:						
Row:						
URL:	http://10.64.181.177:8083/DataL	ing/Forecast/Daily				
Table:	Forecast Daily					
	Observations					
Data	Forecast Daily					
	Forecast Houriy		]			
10 0						
	🗉 🦂 poi					
	- sy sunset	8:16 PM				
		23880				
		0				
	- sy sunrise	6:38 AM				
	sunset_seconds	72960				
	–⊰¦s id	44				
	- Ingitude	-6.254654				
	- Sy name	Dublin				
	- I atitude	53.35014				
	- imezone_offset	+01:00				
	current_conditions_datase	0				
	= 🔆 poi					
	- is sunset	8:39 PM				
	sunrise_seconds	21720				
	- sty forecast_dataset	0				
	- sunrise	6:02 AM				
		74340				-
•	][•]	•				
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Refre	sh			<u>O</u> K	Car	icel

Browse DataLing Window - Raiden Source Data

Raiden DataLinq data is displayed.

2. From the **Table** drop-down, select the data you want to view.

The options are:

#### Observations

**Forecast Daily** 

## **Forecast Hourly**

The selected data will be displayed.

3. Select **OK** and close the **XPression DataLing Server** window.

The **XPression DataLing Server** window will be minimized to the task bar.

# Connecting XPression to the Raiden DataLinq Source

Once you have added the Raiden DataLing source, you will need to enable it in XPression and then set-up the Raiden DataLing User Controls

#### To enable Raiden DataLing source in XPression:

1. In XPression, go to Project and select DataLing Manager.

The XPression DataLing Manager dialog opens.

Add Echanic Selecterin
Add Edw Deleve
Add Delete Delete
Add Delere Delere
Add Eait [geletz]
ailable DataLing Sources
The second
Name Type Last Change Server Name

XPression DataLing Manager Dialog

- 2. Select Add.
- 3. The DataLing Server Properties dialog opens.

Server Propertie	s
Name:	LingServer1
Host Address:	localhost
Port:	8888
	<u>O</u> K <u>C</u> ancel

XPression DataLing Server Dialog

- 4. In the **Name** field, enter a name for the new DataLing server connection.
- 5. In the **Host Address** field, enter the IP address of the computer running your XPression DataLing server.

**★** Enter localhost when the DataLing server is running on the same computer as XPression.

6. In the **Port** field, enter or select the port number used to communicate with the computer running the XPression DataLing server.

The default port number is **8888**.

7. Select OK.

The **Raiden DataLinq** server connection is added to the **DataLinq Servers** section of the **XPression DataLinq Manager** dialog.

The DataLinq sources that are made available by the Raiden DataLinq connection are listed in the **Available DataLinq Sources** section.

taking servers					
D Name	Host Address	Port	Sources	Status	Last Result
1 LingServer1	localhost	8888	1	Connected.	
A00	Dasce				
vailable DataLing Source	25				
D Name	Type	Last C	Change	Server Name	
1 DataLing1	Raiden DataLing Source			LingServer1	

XPression DataLing Manager - Available Sources

# Setting Up User Input Controls

The Raiden DataLing server provides the list of Places of Interest (POI) through CSV endpoints:

- List of Stations in CSV format: /DataLing/Stations/CSV
- List of Places of Interest in CSV format: /DataLing/Pois/CSV

You can add table-based data sources to your XPression DataLing Server as an RSS / HTTP DataLing Source.

- Format: Text
- Update Interval (ms): Set to 0, if Station or Places of Interest are not regularly added.
- RSS Encoding: UTF-8
- **Delimiter**: Comma (,)
- Text File has Header Row: Enabled

RSS / HTTP Datal	.inq - Configuration		>
Settings	HTTP Config	Default URL Macros	OAuth2 Settings
URL Settings			
URL: http://	:8083/DataLing/Stat	tions/CSV	
The URL ma	ay contain %macroname% mac	ros but cannot include %table%	6 or %datalingkeys%.
Format: 🔿 XML	○ JSON ③ Text ○ Auton	natic (HTTP Content-Type)	
Update Interval (ms)	): 0 🔹 🔹 (0 to disabl	le)	
_ Mode			
⊙ Static URL (refr	eshed asynchronously, best pe	rformance)	
🗌 Use Ta	bles Presets		
O Dynamic URL - R	efresh On Demand (Allows UF	L to be dynamic based on Data	Ling keys and table field)
	Cache Results for: 10000	ns ns	
Timacuit if	data not received in: 2500		
Data Options			
RSS Encoding: UTF-	-8 🔻	Wrap Indices Sav	e all data to disk (for diagnostics)
XSLT Filename:			
_ Text Format			
Delimiter: Co	mma (,)	Escape quotes in text	using: ④ Two quotation signs ( Backslash prefix
New Line: No	ne	Text File has Heade	er Row
Text quotation: No	rmal quotation mark (")	Strip blank lines from	m file

RSS / HTTP DataLing - Configuration

Once you have configured the XPression DataLinq server as an RSS/HTTP DataLinq Source, you can then use the **User Control** in XPression as a parameter for your DataLinq requests.

## To use the User Control in XPression as a parameter for DataLing requests:

- 1. In XPression, add a text object to your scene. This text object will be used as your **User Control**.
- 2. In the **Object Inspector**, select the **Data Source** tab.
- 3. In the **Select Data Source** section, select the following settings:
  - Static Text
  - Enable User Input Controls
  - From the Type drop down, select the Combobox (Drop Down) option.

- 4. In the **User Control** section, configure the settings as follows:
  - a. From the Input Source options, select DataLinq.
  - b. From the DataLinq drop-down, select the Raiden Places of Interest Table Data Source.
  - c. Select Browse.
  - d. The **select DataLing Field** window opens.
  - e. Select the **Name** column.
  - f. Select OK.

Object Manager								0 û ×	Object Inspector - POI_UserControl - Text Object									
									Transform Tabs & Options Data Source Rendering Materials Texture Coords Lighting Continuous Anim									
Object	0	SKGD	Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot	Y-Rot	Select Data Source User Control									
Scene 1			100.0						Static Text     O DataLing     O Widget									
- 🔀 DirLight1	3		100.0	960.00	360.00	200.00	0.00	0.00	Dataling: (RaidenPOI									
- Ab POI_UserControl	3		100.0	172.80	916.00	0.00	0.00	0.00	Column: 2									
Ab SelectedPOI_ID	3		100.0	172.80	833.00	0.00	0.00	0.00	Type: Combobox (Drop Down) V									
- Ab POI_Name	3		100.0	614.80	691.00	0.00	0.00	0.00	Allow custom values Assign Columns									
- Ab POI_CurrentTemperature	3		100.0	614.80	607.00	0.00	0.00	0.00										

**Object Inspector Settings** 

5. Add a text object to store the selected Place of Interest ID.



Selected Place of Interest ID

6. Assign the **ID Column** to the text object to be used for storing the selected **Place of Interest ID**.



**Object Inspector - Assign Columns** 

Additionally, you can hide both text objects by deselecting the **Visibility** button.

- Ab POI_UserControl	P	100.0
- Ab SelectedPOI_ID		100.0

Object Visibility - Text Object

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🕹 🗢 🔶 😫 🔋 📲 🔍 -									Scene Fonts	Transform	Tabs & Options	Data Source	Rendering	N	Materials	Texture Coords	Lighting	Continuous Anim.	Template Links
bject		Alpha	X-Pos	Y-Pos	Z-Pos	X-Rot	Y-Rot	E P	emplate Links					Publi	ished Object	Order			
Ab Label_WindSpeed	0	100.0	100.00	700.00	0.00	0.00	0.00	12	Publish Object			Update 1	ake Item Data			Color:	-	Unpublish All Objects	
Ab Label Direction		100.0	100.00	600.00	0.00	0.00	0.00		ID Type	Published	Eescription			ID	Object Name	e		As Ri	in
AD cabe_brecourt	<u> </u>	100.0	100.00	000.00	0.00	0.00	0.00		) Text	<b>V</b>				1	Station_1_U	ser_Input_Control		2	
2 <b>2 3</b> 5 <b>4</b> 0 1 3 <u>-</u> 1	۲	100.0	0.00	0.00	0.00	0.00	0.00	1	l Position					2	Station_1_St	elected_Id		2	j ( <b>&gt;</b> )
Ab station_1_User_Input_Control	2	.00.0	100.00	883.00	0.00	0.00	0.00	2	Rotation										
Ab Station_1_Selected_Id	2	00.0	100.00	883.00	0.00	0.00	0.00	3	Scale										
Ab Station 1 Name	æ	100.0	600.00	900.00	0.00	0.00	0.00	4	Pivot										
AD Subori_1_renc	2	100.0	000100	200.00	0.00	0.00	0.00	5	5 Visibility										
Ab Station_1_Current_Temperature	9	100.0	600.00	800.00	0.00	0.00	0.00												
- Ab Station_1_Wind_Speed	<b>@</b>	100.0	600.00	700.00	0.00	0.00	0.00	Ê I											
1	▶ Î d Î																		

7. In the Template Links tab, ensure the User Input Control and the Selected ID is set to **Published**.

Template Links - Publish Setting

Additionally, you can hide the User Input Control and the Selected ID by deselecting the Substitution.



Object Visibility - User Input Control and Selected ID

8. Use the selected **Place of Interest ID** anywhere in your DataLinq queries, surrounding its name with the "@" character.

## For example:

The "SelectedPOI\_ID" text object would be entered as "@SelectedPOI\_ID@".

Set DataLing Properties		2
DataLing:       RaidenCurrent <ul> <li>Image: Image: Image</li></ul>	Browse	Supported Macros in Column, Row, Table: %datalingkey% @TextObject@ @TextObject.Column@
		QK <u>C</u> ancel

Place of Interest ID - Example

You can now use the selected **Place of Interest ID** anywhere in your DataLinq queries.

÷.
# Raiden and XPression Maintenance

Managing the application update is a manual process and is required for maintaining Raiden's performance and compatibility with XPression.

Raiden must be updated with each XPression update.

# Raiden Application Update Process

The manual update process includes updating the following for each Raiden project in XPression:

Global Scripts 197

Base Scene Scripts 198

Keyboard/GPI Mapping Scripts

3D World and Pushpin Template Scenes 201

#### To update the Global Scripts:

1. In your XPression project, go to **Edit**, select **Scripting** and from the **Scripting** drop-down, select **Global Methods**.

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		Keyboard / GPI M	apping								.S		6
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The Global Script Methods Editor opens.

- 2. Navigate to the **XPressionPlugin>XPN>VB** folder.
- 3. Copy the scripting from the **VB** folder and return to the **Global Script Methods Editor**.
- 4. Delete the scripting in the **Global Script Methods Editor**.
- 5. Paste the scripting from the **XPN.Globals.vb** folder into the **Global Script Methods Editor**.
- 6. Select the **Compile current script (F7)** button.

The Global Scripts have been updated.

7. Next, update the Base Scene Scripts.

## To update the Base Scene Scripts:

- 1. In your XPression project, right-click on the **3D World Scene**.
- 2. From the menu, select Edit Script Events.

## The Script Editor opens.

- 3. Update the **OnBeforeOnline** scripting as follows:
  - a. In the **Events** section, select **OnBeforeOnline**.
  - b. Navigate to the **XPN>VB** folder and open the **XPN.Scene.OnBeforeOnline.vb** file.
  - c. Copy the scripting from the file and return to the **Script Editor**.
  - d. Delete the **OnBeforeOnline** scripting.
  - e. Paste the scripting from the **XPN.Scene.OnbeforeOnline.vb** file in **OnBeforeOnline** tab.
- 4. Next, update the **OnRender** scripting as follows:
  - a. Navigate to the **XPN>VB** folder and open the **XPN.Scene.OnRender.vb** file.
  - b. Copy the contents of the file and return to the Script Editor.
  - c. Delete the contents of the **OnRenderer** tab.
  - d. Paste the scripting form **XPN.Scene.OnRender.vb** file into the **OnRenderer** tab.
- 5. Select the **Compile current script (F7)** button.
- 6. The **3D World** scene scripts have been updated.
- 7. Repeat this procedure for the **3D World Timestamp** scene.
- 8. Next, update the **Keyboard/GPI Mapping** scripts.

# To update Keyboard/GPI Mapping scripts:

- 1. In your XPression project, go to Edit and select Keyboard/GPI Mapping.
- 2. The Keyboard/GPI Mapping window opens.



Keyboard/GPI Mapping Window

- 3. Update the **Project Shortcuts GPI** scripting as follows:
  - a. In the **GPI** column, use the **GPI** fields to enter or select **5001** in the first **GPI** field and **5002** in the second **GPI** field.
  - $\star$  The **GPI** defaults are **5001** and **5002**, and can be changed if they are already in use.

2 👽 🗘 🗘 🛛 👷 🖉 🖉 🖓 🔛 Current Reyboard Ma	p: <a>voerauit&gt;</a>	• ere ine	<detault> keyboard map cannot be edited.</detault>			
Function	Quickmenu Key	Direct Access Shortcut	GPI		Filter:	
Project Shortcuts (stored in the current active proj				<b>A</b>	Available Global Functions	
- Quick Menu					Functions	
- Play TakeItem 5001			Smart GPI / RossTalk - GPI:5001		Group	
Play Next TakeItem			Smart GPI / RossTalk - GPI:5002		+ File Menu	
Global Shortcuts (can be executed from anywhere)				_	+ Edit Menu	
- Quick Menu		F11			+ Windows Menu	
+ Clear Channels	с	Custom Key: Clear Channel			+ Project Menu	
+ Fonts	F				+ Animation Menu	
+ Materials	м	CTRL+SHIFT+M			+ Display Menu	
+ Primitives	P	Custom Key: Primitives			+ Tools Menu	
+ Sequencer	s				+ Channel Functions	
+ Object	0	Custom Key: Set Transform			+ Lavout	
+ Custom Keyboard					+ Primitives	
+ Server Channels					+ Sequence	
Local Shortcuts (requires component to have focus)					+ Scripting	
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41				► ▼	+ Decord Cleat	
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Indude In Quick Menu 🗹						
Quick Key:						

Keyboard/GPI Mapping Window - Play TakeItem 5001

b. In the Script Action Options section, select Edit Script Action.

The Script Editor - Script Shortcut window opens.

- c. Delete the scripting.
- d. Navigate to the **XPN>VB** folder and open the **XPN.Mapping.NEXT.vb** file.
- e. Copy the script from the file and return to the Script Editor Script Shortcut window.
- f. Paste the copied script from the **XPN.Mapping.NEXT.vb** file into the **Script Editor**.
- g. Select the 🐚 Compile Current Script (F7) button.

The script has been updated.

- 4. Next, update the **Play Next TakeItem** script as follows:
  - a. In the Project Shortcuts section, select Play Next TakeItem.

🕼 😌 💠 🗳 🎁 🚦 🔤 🖂 🖂 Current Keyboard f	1ap:	• 🔁 The	<default> keyboard map cannot be edited.</default>		
Function	Quickmenu Key	Direct Access Shortcut	GPI		Filter:
Project Shortcuts (stored in the current active pro	<b></b>			<b>A</b>	Available Global Functions
- Quick Menu					Functions
Play TakeItem 5001			Smart GPI / RossTalk - GPI:5001		Group
Play Next TakeItem			Smart GPI / RossTalk - GPI:5002		+ File Menu
lobal Shortcuts (can be executed from anywhere					+ Edit Menu
Quick Menu		F11			+ Windows Menu
+ Clear Channels	С	Custom Key: Clear Channel			+ Project Menu
+ Fonts	F				+ Animation Menu
+ Materials	м	CTRL+SHIFT+M			+ Display Menu
+ Primitives	P	Custom Key: Primitives			+ Tools Menu
+ Sequencer	S				+ Channel Functions
+ Object	0	Custom Key: Set Transform			+ Lavout
+ Custom Keyboard					+ Primitives
+ Server Channels					+ Sequence
ocal Shortcuts (requires component to have focu	5)				+ Scripting
Clip Browser					+ Hardware (GPI / Rosstalk)
Main Menu					+ Engine Replication
Material Manager					+ Tessera
Object Manager					+ Server Channels
d					* Record Client
Shortcut Details	- Script Acti	on Options			Description
Function: Script Action	Edit Sc	ript Action			
Name: Play Next TakeItem					
Shortcut: Set					
Include In Quick Menu 🗹					
Quick Key:					

Keyboard/GPI Mapping Window - Play Next TakeItem

b. In the Script Action Options section, select Edit Script Action.

The Script Editor - Script Shortcut window opens.

- c. Delete the scripting.
- d. Navigate to the **XPN>VB** folder and open the **XPN.Mapping.FOCUS.vb** file.
- e. Copy the script from the file and return to the Script Editor Script Shortcut window.
- f. Paste the copied script from the **XPN.Mapping.FOCUS.vb** file into the **Script Editor**.
- g. Select the 脑 Compile Current Script (F7) button.

The script has been updated.

5. Select **OK** to close the **Keyboard/GPI Mapping** window.

The Keyboard/GPI Mapping scripts have been updated.

6. Next, update the **3D World** and **Pushpin Template** scenes in your project.

# To update the 3D World and Pushpin Template scenes:

You will need to update the **3D World, 3D World Timestamp**, and **Pushpin** base scenes. To update these scenes in your project, you need to first delete these scenes, and then import them back into your project.

The procedure below provides instructions for updating the **PushPin**, **3D World**, and **3D World Timestamp** base scenes.

Additionally, you can use this procedure to restore lost or accidentally deleted scenes.

- 1. In your project, delete the **Pushpin** base scene (or **3D World**) scenes.
- 2. Next, import the **Pushpin** base scene (or **3D World**) scenes as follows:
  - a. From the File menu, select the Import drop-down and select From Project / File.

The Import From Project window opens.

- b. From the File menu, select Open.
- c. Select the Pushpin Templates.xpe file (or the 3D World Scenes.xpe file) and select Open.



Pushpin Templates.xpe File

The files are opened in the **Import From Project** window.

d. Select **Next** to accept the default selected options.



Import From Project - Pushpin Templates

e. Select **Next** to accept the default settings.

11E									 
Import Information									
Scenes: 4	Models:	0 (implicit)	Global Lists:	0	Charles Anima				
2 (implicit)	Ponts:	3 (implicit)	Audio Cips:	0 (implicit)	Stagger Anims:	0 (implicit)	widgets:	0 (mplicit)	
Options -									
		2	Use existing fonts v	where possible					
Maintain folder structur	e when importi	ng resources							
Resources to be Imported									
Source File						Destinat	ion		
ruv-rectangle-red.png						D: Raide	n_XPN\Image	s/ruv-rectangle-red.png	
wind_arrow.png						D: Raide	n_XPN/Image	s\wind_arrow.png	
arialbd.ttf						D: Raide	n_XPN/Fonts	arialbd.ttf	
RealTextPro-Book.ttf						D: Raide	n_XPN/Fonts	RealTextPro-Book.ttf	

Import From Project - File Settings

f. Select **Import** to import the scenes into the project.



Import From Project - Import

- g. Select Close.
- 3. Save your project.

The base scenes have been imported into your project.

# To recover lost or deleted scenes in your project:

• To restore lost or deleted scenes in your project, follow **Steps 2** - **3** of the To update 3D World and Pushpin Template scenes 201 procedure.

# XPression Plugin - Export Codec Presets

XPression plugin export codec presets allow users to define export settings for video files, including storage locations, codec types, and bitrate configurations.

# **General Configuration**

The export configuration in the **config.json** file includes settings for defining where exported files are stored and whether they are shared over a network.

# **JSON Export Configuration:**

```
"export": {
    "localPath": "d:\\Raiden\\XPN_Plugin\\export",
    "shared": false,
    "networkPath": "\\\\RAIDEN-XPN\\raiden\\export",
    ...
```

Each element must include:

- **localPath**: Specifies the local folder where the exported files are generated and stored.
- **shared**: Set to **false** by default. Determines if the local path is shared as a network-shared folder.
- **networkPath**: Defines the network shared folder if the local path is shared across the network.

# **Presets Configuration**

The **presets** section defines codec types, unique identifiers, and bitrate settings for MP4 files. These presets allow users to configure export settings for different video formats, ensuring compatibility with various playback and editing workflows.

## **JSON Preset Configuration:**

```
. . .
   "preset": [
      {
        "id": 1,
        "name": "Low Resolution MP4 (H.264)",
"codec": "MP4_H264_VIDEO",
         "bitrate": 5000000
      },
      {
         "id": 2,
"name": "High Resolution MP4 (H.265)",
"codec": "MP4_H265_VIDEO",
         "bitrate": 5000000
      },
      {
         "id": 3,
         "name": "Large Broadcasting Media Exchange DNxHR (MXF)",
"codec": "MXF_DNXHR444_VIDEO",
"bitrate": 0
      },
      {
         "id": 4,
"name": "Smaller Broadcasting Standard XPression AVI",
         "codec": "XPVC_VIDEO",
         "bitrate": 0
      }
    1
```

Each element must include:

- **id**: A unique integer value to identify the preset.
- **name**: A human-readable, descriptive name for the preset.
- **codec**: A codec type defined from the following supported formats:

Codec Type	Description
XPVC_VIDEO	XPression Video Codec AVI Files
MP4_H264_VIDEO	MP4 video file with H.264 Codec
MP4_H265_VIDEO	MP4 video file with H.265 Codec
WEBM_VP9_VIDEO	WebM video file with VP9 Codec
WEBM_VP8_VIDEO	WebM video file with VP8 Codec
MXF_DNXHR444_VIDEO	MXF video file with DNxHR Codec

# • **bitrate** (for MP4 files only):

Each MP4 preset must include a bitrate integer value, which defines the maximum bitrate and quality for the generated video file. This setting applies only to MP4 (H.264 or H.265) video files, while other formats can retain the default value of 0, as it is ignored.

Example using a 4-second, 55.3MB, XPVC 1920x1080 AVI source file:

# > Lower bitrate values produce lower-quality, smaller output files:

Example: A bitrate of 100000 (100,000, ~100kb) generates a low-quality MP4 video.

Example output: 341KB, 686kbps.

# > Higher bitrate values produce higher-quality, larger output files:

Example: A bitrate of 5000000 (5,000,000) generates a high-quality MP4 video.

Example output: 2.38MB, 4.991kbps.

# Voyager Plugin

This section outlines the manual installation process for the Raiden plugins in Voyager and is intended for advanced Voyager users. For additional information about Voyager, please refer to the *Voyager User Guide*.

The Raiden integration is divided into three separate plugins, each with a specific function, and these must be installed manually by copying the Raiden plugin folders to **Voyager/Engine/Plugins/Raiden**.

The three plugins are as follows:

- **RaidenCore**: This is the essential plugin required for any Raiden functionality within Voyager. It manages Raiden's licensing and provides core services, enabling other modules to access Raiden data.
- **RaidenDataLinq**: This plugin enables the integration of DataLinq data from Raiden into Voyager, streamlining data utilization.
- **RaidenUDS**: This plugin enables the connection between Raiden and the Ultra Dynamic Sky (UDS) plugin, allowing users to visualize weather simulations such as rain and snow based on Raiden's data. Please be aware that Ultra Dynamic Sky is a third-party plugin and is not included with the Raiden plugin. What is provided with the Raiden plugin is the middleware integration necessary to connect Raiden with UDS. The UDS plugin must be obtained separately and manually installed with leverage its capabilities for weather visualization in Voyager.

The following procedures are covered in this section:

To manually install the Raiden Plugins for Voyager 207

To enable the Raiden plugins in Voyager 207

To manually install the Ultra Dynamic Sky (UDS) plugin 2081

To enable the Ultra Dynamic Sky plugin content in Voyager 208

## To manually install the Raiden Plugins for Voyager:

- 1. Copy the Raiden plugin folders to **Voyager/Engine/Plugins/Raiden**.
- 2. In the **RaidenCore** folder, navigate to the **Config** folder and open the **BaseRaidenCore** configuration file.
- 3. Add the URL of your Local Server to the **BaseRaidenCore** configuration file.



BaseRaidenCore Configuration File - Local Server URL

The Raiden plugin files are now installed.

4. Next, in Voyager, go to the **Ross Raiden** plugin and enable the Raiden plugins.

# To enable the Ross Raiden plugins in Voyager:

1. From the Edit menu, select Plugins.



Edit Menu - Plugins

The Plugins Browser opens.

2. From the list, select **Ross Raiden**.

3. Select the checkboxes for each of the Raiden plugins to enable them.



Ross Raiden Plugins Enabled

4. The Raiden plugins are now enabled in Voyager.

# To manually install the Ultra Dynamic Sky (UDS) plugin:

• Copy the **UltraDynamicSky** folder to **Voyager/Engine/Plugins/Raiden/RaidenUDS/Content**. The Ultra Dynamic Sky third-party plugin has been installed.

# To use the Ultra Dynamic Sky plugin content in Voyager:

- 1. Enable the UDS plugin content as follows:
  - a. In Voyager, open the **Settings** menu from the **Content Browser** tab.
  - b. Enable the following options:
    - Show Engine Content

# Show Plugin Content



Content Browser - Settings

- 2. Access the plugin content as follows:
  - a. In the **Content Browser**, navigate to the **Engine** folder.
  - b. In the **Engine** folder, select the **Plugin** folder.



Content Browser - Plugins Folder

- 3. Locate the **Ultra Dynamic Sky** plugin content as follows:
  - Inside the **Plugins** folder, go to the **Raiden for Ultra Dynamic Sky Plugin Content** folder, and select the **UltraDynamicSky** folder.
- 4. Add the UDS assets to your scene as follows:
  - a. In the UltraDynamicSky folder, select Blueprints.
  - b. In the **Blueprints** folder, drag the **UltraDynamic\_Sky** and **Ultra\_Dynamic\_Weather** assets onto your scene.

You now have the two required elements for using UDS in your scene.

# Appendix A: Metadata Descriptions

# RAIDEN DATA DEFINITIONS

For Raiden specific data, use the following tables as a reference for Weather Variable IDs.

# VARIABLE ID

NAME	ID	CODE
911 Telephone Outage Emergency	20	NWS_911_TELEPHONE_OUTAGE_EMERGENCY
Accumulated Precipitation (1 Hour)	183	APCP_1H
Accumulated Precipitation (12 Hour)	186	APCP_12H
Accumulated Precipitation (120 Hour)	191	APCP_120H
Accumulated Precipitation (24 Hour)	187	APCP_24H
Accumulated Precipitation (3 Hour)	184	APCP_3H
Accumulated Precipitation (48 Hour)	188	APCP_48H
Accumulated Precipitation (6 Hour)	185	APCP_6H
Accumulated Precipitation (72 Hour)	189	APCP_72H
Accumulated Precipitation (96 Hour)	190	APCP_96H
Accumulated Rainfall	149	ACCUM_RAINFALL
Administrative Message	21	NWS_ADMINISTRATIVE_MESSAGE
Air Quality Alert	22	NWS_AIR_QUALITY_ALERT
Air Stagnation Advisory	23	NWS_AIR_STAGNATION_ADVISORY
Arroyo And Small Stream Flood Advisory	24	NWS_ARROYO_AND_SMALL_STREAM_FLOOD_ADVISOR Y
Ashfall Advisory	25	NWS_ASHFALL_ADVISORY
Ashfall Warning	26	NWS_ASHFALL_WARNING
Atmospheric Pressure	13	ATM_PRESSURE
Avalanche Advisory	27	NWS_AVALANCHE_ADVISORY
Avalanche Warning	28	NWS_AVALANCHE_WARNING
Avalanche Watch	29	NWS_AVALANCHE_WATCH
Avalanches	163	AVALANCHES_ALERT
Beach Hazards Statement	30	NWS_BEACH_HAZARDS_STATEMENT
Blizzard Warning	31	NWS_BLIZZARD_WARNING
Blizzard Watch	32	NWS_BLIZZARD_WATCH
Blowing Dust Advisory	33	NWS_BLOWING_DUST_ADVISORY
Blowing Dust Warning	34	NWS_BLOWING_DUST_WARNING
Brisk Wind Advisory	35	NWS_BRISK_WIND_ADVISORY
Categorial Freezing Rain	9	CFRZR

NAME	ID	CODE
Categorical Ice Pellets	10	CICEP
Categorical Precipitation	180	СРСР
Categorical Rain	8	CRAIN
Categorical Snow	11	CSNOW
Categorical Storm	15	STRM_CAT
Chance of Precipitation	19	APCP2
Child Abduction Emergency	36	NWS_CHILD_ABDUCTION_EMERGENCY
Civil Danger Warning	37	NWS_CIVIL_DANGER_WARNING
Civil Emergency Message	38	NWS_CIVIL_EMERGENCY_MESSAGE
Cloud Cover	6	TCDC
Cloud Cover @1000mb	217	TCDC_1000
Cloud Cover @100mb	197	TCDC_100
Cloud Cover @150mb	198	TCDC_150
Cloud Cover @200mb	199	TCDC_200
Cloud Cover @250mb	200	TCDC_250
Cloud Cover @300mb	201	TCDC_300
Cloud Cover @350mb	202	TCDC_350
Cloud Cover @400mb	203	TCDC_400
Cloud Cover @450mb	204	TCDC_450
Cloud Cover @500mb	205	TCDC_500
Cloud Cover @50mb	196	TCDC_50
Cloud Cover @550mb	206	TCDC_550
Cloud Cover @600mb	207	TCDC_600
Cloud Cover @650mb	208	TCDC_650
Cloud Cover @700mb	209	TCDC_700
Cloud Cover @750mb	210	TCDC_750
Cloud Cover @800mb	211	TCDC_800
Cloud Cover @850mb	212	TCDC_850
Cloud Cover @900mb	213	TCDC_900
Cloud Cover @925mb	214	TCDC_925
Cloud Cover @950mb	215	TCDC_950
Cloud Cover @975mb	216	TCDC_975
Coastal Event	161	COASTAL_EVENT_ALERT
Coastal Flood Advisory	39	NWS_COASTAL_FLOOD_ADVISORY
Coastal Flood Statement	40	NWS_COASTAL_FLOOD_STATEMENT
Coastal Flood Warning	41	NWS_COASTAL_FLOOD_WARNING

NAME	ID	CODE
Coastal Flood Watch	42	NWS_COASTAL_FLOOD_WATCH
Convective Available Potential Energy	177	CAPE
Convective Precipitation Rate	178	CPRAT
Dense Fog Advisory	43	NWS_DENSE_FOG_ADVISORY
Dense Smoke Advisory	44	NWS_DENSE_SMOKE_ADVISORY
Dew Point	14	DEW_POINT
Dust Advisory	45	NWS_DUST_ADVISORY
Dust Storm Warning	46	NWS_DUST_STORM_WARNING
Earthquake Warning	47	NWS_EARTHQUAKE_WARNING
Evacuation Immediate	48	NWS_EVACUATION_IMMEDIATE
Excessive Heat Warning	49	NWS_EXCESSIVE_HEAT_WARNING
Excessive Heat Watch	50	NWS_EXCESSIVE_HEAT_WATCH
Extreme Cold Warning	51	NWS_EXTREME_COLD_WARNING
Extreme Cold Watch	52	NWS_EXTREME_COLD_WATCH
Extreme Fire Danger	53	NWS_EXTREME_FIRE_DANGER
Extreme Wind Warning	54	NWS_EXTREME_WIND_WARNING
Fire Warning	55	NWS_FIRE_WARNING
Fire Weather Watch	56	NWS_FIRE_WEATHER_WATCH
Flash Flood Statement	57	NWS_FLASH_FLOOD_STATEMENT
Flash Flood Warning	58	NWS_FLASH_FLOOD_WARNING
Flash Flood Watch	59	NWS_FLASH_FLOOD_WATCH
Flood Advisory	60	NWS_FLOOD_ADVISORY
Flood Statement	61	NWS_FLOOD_STATEMENT
Flood Warning	62	NWS_FLOOD_WARNING
Flood Watch	63	NWS_FLOOD_WATCH
Flooding	165	FLOODING_ALERT
Fog	158	FOG_ALERT
Forest Fire	162	FOREST_FIRE_ALERT
Freeze Warning	64	NWS_FREEZE_WARNING
Freeze Watch	65	NWS_FREEZE_WATCH
Freezing Fog Advisory	66	NWS_FREEZING_FOG_ADVISORY
Freezing Rain Advisory	67	NWS_FREEZING_RAIN_ADVISORY
Freezing Spray Advisory	68	NWS_FREEZING_SPRAY_ADVISORY
Frost Advisory	69	NWS_FROST_ADVISORY
Gale Warning	70	NWS_GALE_WARNING
Gale Watch	71	NWS_GALE_WATCH

NAME	ID	CODE
Hard Freeze Warning	72	NWS_HARD_FREEZE_WARNING
Hard Freeze Watch	73	NWS_HARD_FREEZE_WATCH
Hazardous Materials Warning	74	NWS_HAZARDOUS_MATERIALS_WARNING
Hazardous Seas Warning	75	NWS_HAZARDOUS_SEAS_WARNING
Hazardous Seas Watch	76	NWS_HAZARDOUS_SEAS_WATCH
Hazardous Weather Outlook	77	NWS_HAZARDOUS_WEATHER_OUTLOOK
Heat Advisory	78	NWS_HEAT_ADVISORY
Heavy Freezing Spray Warning	79	NWS_HEAVY_FREEZING_SPRAY_WARNING
Heavy Freezing Spray Watch	80	NWS_HEAVY_FREEZING_SPRAY_WATCH
High Cloud Cover	167	HCDC
High Surf Advisory	81	NWS_HIGH_SURF_ADVISORY
High Surf Warning	82	NWS_HIGH_SURF_WARNING
High Temperature	159	HIGH_TEMPERATURE_ALERT
High Wind Warning	83	NWS_HIGH_WIND_WARNING
High Wind Watch	84	NWS_HIGH_WIND_WATCH
Highest Wind Gust	151	GUST_MAX
Highest Wind Speed	150	WIND_U_MAX
Hurricane Force Wind Warning	85	NWS_HURRICANE_FORCE_WIND_WARNING
Hurricane Force Wind Watch	86	NWS_HURRICANE_FORCE_WIND_WATCH
Hurricane Local Statement	87	NWS_HURRICANE_LOCAL_STATEMENT
Hurricane Warning	88	NWS_HURRICANE_WARNING
Hurricane Watch	89	NWS_HURRICANE_WATCH
Hydrologic Advisory	90	NWS_HYDROLOGIC_ADVISORY
Hydrologic Outlook	91	NWS_HYDROLOGIC_OUTLOOK
Ice Storm Warning	92	NWS_ICE_STORM_WARNING
Lake Effect Snow Advisory	93	NWS_LAKE_EFFECT_SNOW_ADVISORY
Lake Effect Snow Warning	94	NWS_LAKE_EFFECT_SNOW_WARNING
Lake Effect Snow Watch	95	NWS_LAKE_EFFECT_SNOW_WATCH
Lake Wind Advisory	96	NWS_LAKE_WIND_ADVISORY
Lakeshore Flood Advisory	97	NWS_LAKESHORE_FLOOD_ADVISORY
Lakeshore Flood Statement	98	NWS_LAKESHORE_FLOOD_STATEMENT
Lakeshore Flood Warning	99	NWS_LAKESHORE_FLOOD_WARNING
Lakeshore Flood Watch	100	NWS_LAKESHORE_FLOOD_WATCH
Law Enforcement Warning	101	NWS_LAW_ENFORCEMENT_WARNING
Lifted Index	176	LFTX
Local Area Emergency	102	NWS_LOCAL_AREA_EMERGENCY

NAME	ID	CODE
Longwave Infrared	192	LWI
Low Cloud Cover	168	LCDC
Low Temperature	160	LOW_TEMPERATURE_ALERT
Low Water Advisory	103	NWS_LOW_WATER_ADVISORY
Marine Weather Statement	104	NWS_MARINE_WEATHER_STATEMENT
Maximum Temperature	2	ТМАХ
Mean Sea Level Pressure	147	PRMSL
Medium Cloud Cover	169	MCDC
Minimum Temperature	3	TMIN
Nuclear Power Plant Warning	105	NWS_NUCLEAR_POWER_PLANT_WARNING
Precipitation Rate	179	PRATE
Radiological Hazard Warning	106	NWS_RADIOLOGICAL_HAZARD_WARNING
Rain	164	RAIN_ALERT
Rain Flood	166	RAIN_FLOOD_ALERT
Red Flag Warning	107	NWS_RED_FLAG_WARNING
Relative Humidity	12	REL_HUM
Rip Current Statement	108	NWS_RIP_CURRENT_STATEMENT
Severe Thunderstorm Warning	109	NWS_SEVERE_THUNDERSTORM_WARNING
Severe Thunderstorm Watch	110	NWS_SEVERE_THUNDERSTORM_WATCH
Severe Weather Statement	111	NWS_SEVERE_WEATHER_STATEMENT
Shelter In Place Warning	112	NWS_SHELTER_IN_PLACE_WARNING
Short Term Forecast	113	NWS_SHORT_TERM_FORECAST
Shortwave Infrared	195	SWI
Small Craft Advisory	114	NWS_SMALL_CRAFT_ADVISORY
Small Craft Advisory For Hazardous Seas	115	NWS_SMALL_CRAFT_ADVISORY_FOR_HAZARDOUS_SEA S
Small Craft Advisory For Rough Bar	116	NWS_SMALL_CRAFT_ADVISORY_FOR_ROUGH_BAR
Small Craft Advisory For Winds	117	NWS_SMALL_CRAFT_ADVISORY_FOR_WINDS
Small Stream Flood Advisory	118	NWS_SMALL_STREAM_FLOOD_ADVISORY
Snow Squall Warning	119	NWS_SNOW_SQUALL_WARNING
Snow or Ice	156	SNOW_OR_ICE_ALERT
Snowfall	170	SNOWFALL
Snowfall Rate	182	SRATE
Special Marine Warning	120	NWS_SPECIAL_MARINE_WARNING
Special Weather Statement	121	NWS_SPECIAL_WEATHER_STATEMENT
Storm Hail	17	STRM_HAIL
Storm Surge Warning	122	NWS_STORM_SURGE_WARNING

NAME	ID	CODE
Storm Surge Watch	123	NWS_STORM_SURGE_WATCH
Storm Warning	124	NWS_STORM_WARNING
Storm Watch	125	NWS_STORM_WATCH
Storm Wind	16	STRM_WIND
Temperature	1	ТМР
Temperature @850mb	181	TMP_850
Thunderstorm	157	THUNDERSTORM_ALERT
Timestamp	175	TIMESTAMP
Tornado	18	STRM_TORNADO
Tornado Warning	126	NWS_TORNADO_WARNING
Tornado Watch	127	NWS_TORNADO_WATCH
Total Precipitation	171	APCP
Total Solid Precipitation	174	ASPCP
Tropical Depression Local Statement	128	NWS_TROPICAL_DEPRESSION_LOCAL_STATEMENT
Tropical Storm Local Statement	129	NWS_TROPICAL_STORM_LOCAL_STATEMENT
Tropical Storm Warning	130	NWS_TROPICAL_STORM_WARNING
Tropical Storm Watch	131	NWS_TROPICAL_STORM_WATCH
Tsunami Advisory	132	NWS_TSUNAMI_ADVISORY
Tsunami Warning	133	NWS_TSUNAMI_WARNING
Tsunami Watch	134	NWS_TSUNAMI_WATCH
Typhoon Local Statement	135	NWS_TYPHOON_LOCAL_STATEMENT
Typhoon Warning	136	NWS_TYPHOON_WARNING
Typhoon Watch	137	NWS_TYPHOON_WATCH
Urban And Small Stream Flood Advisory	138	NWS_URBAN_AND_SMALL_STREAM_FLOOD_ADVISORY
Visibility	152	VIS
Visible	193	VISR
Volcano Warning	139	NWS_VOLCANO_WARNING
Water Vapor	194	WV
Weather Code	148	WEATHER_CODE
Weather Description	154	WEATHER_DESC
Weather Icon	153	WEATHER_ICON
Wind	155	WIND_ALERT
Wind Advisory	140	NWS_WIND_ADVISORY
Wind Chill Advisory	141	NWS_WIND_CHILL_ADVISORY
Wind Chill Warning	142	NWS_WIND_CHILL_WARNING
Wind Chill Watch	143	NWS_WIND_CHILL_WATCH

NAME	ID	CODE
Wind Direction	5	VGRD
Wind Gust	7	GUST
Wind Gust Direction	173	VGUST
Wind Gust Speed	172	UGUST
Wind Speed	4	UGRD
Winter Storm Warning	144	NWS_WINTER_STORM_WARNING
Winter Storm Watch	145	NWS_WINTER_STORM_WATCH
Winter Weather Advisory	146	NWS_WINTER_WEATHER_ADVISORY

# **CURRENT OBSERVATION DATA SOURCES**

NAME	ID	COVERAGE
Direccion Meterologica de Chile	5	Chile (Stations only)
Global Surface Observations (METARs)	7	Global
Icelandic Met Office (Vedur)	6	Iceland (Stations only)
National Weather Service Stations	3	North America Stations
RTMA Alaska	1	North Pole / Alaska
RTMA Conus Rapid Update	2	North America Regions
Satellite Imagery - Global Mosaic (NOAA)	8	Global

# FORECAST OBSERVATION DATA SOURCES

NAME	ID	COVERAGE
Alaska High Resolution Ensemble Forecast	5	North Pole / Alaska
Alaska High Resolution Window	4	North Pole / Alaska
ECMWF Iceland High Resolution	14	Iceland
ECMWF Public Open Data	12	Whole world
GFS Global Forecast System	1	Whole world
Hawaii High Resolution Ensemble Forecast	7	Hawaii
Hawaii High Resolution Window	6	Hawaii
Icelandic Met Office IGIS	15	Iceland and Greenland area
NCEP Short-Range Ensemble Forecast	11	North America
Puerto Rico High Resolution Ensemble Forecast	9	Puerto Rico
Puerto Rico High Resolution Window	8	Puerto Rico

NAME	ID	COVERAGE
USA High Resolution Ensemble Forecast	3	North America
USA High Resolution Window	2	North America
USA Storm Prediction Center	10	North America
Vedur/IMO Station Forecasts	13	Iceland (Stations only)

**Important:** Not every variable will have a value for a specific place of interest for a certain Data Source. For example, only Chilean Cities will have data for the Chilean Meterologic Datasource.

# Appendix B: Wind Particle Sizing

The following table outlines the recommended wind particle sizing settings based on region size. It includes descriptions of each region size and the corresponding size settings for stroke, velocity, and density. These recommendations are designed to optimize performance and visual accuracy while minimizing storage impact on the system.

Recommended Wind Particle Size Settings by Region Size

Region Size	Description	Size Setting
	US DMA, small country, or a small region of a country.	Isobars Stroke Size: 2
		Wind Particles Stroke Size: 2
		• Wind Particles Velocity Scale: 0.002-0.003
Small Region		• Wind Particles Density: 1000
Region of a large country, n	Region of a large country, medium	Isobars Stroke Size: 1
28	country, or ocean basin.	Wind Particles Stroke Size: 1
		• Wind Particles Velocity Scale: 0.008
Medium Region		Wind Particles Density: 3000-4000
· · · · · · · · · · · · · · · · · · ·	Region of a large country, continent, or ocean.	Isobars Stroke Size: 1
continent,		Wind Particles Stroke Size: 1
		Wind Particles Velocity Scale: 0.01
Large Region		Wind Particles Density: 6000-7000
The full world.	Isobars Stroke Size: 1	
		Wind Particles Stroke Size: 1
		Wind Particles Velocity Scale: 0.02
Full World		Wind Particles Density: 5000
		★ Wind particles density values above 5000 are available, but they will place a heavy demand on storage resources on your local server.

# Appendix C: Raiden Licensing

This section provides an overview of the process for installing and activating the Raiden product key license(s).

# Prerequisites

Before beginning the licensing process, ensure you have the following:

• Raiden product key license(s) - provided by Ross Video.

If you do not have the product key license(s), contact Ross Technical Support [4] for assistance.

• Ross Platform Manager (RPM)

Ensure the Ross Platform Manager (RPM) is installed and running on your local network.

• XPression License Tool

Ensure the XPression License Tool is installed on each Raiden server.

**\star Note:** This section does not provide instructions for how to use the Ross Platform Manager (RPM) or the XPression License Tool.

For detailed instructions on using RPM, refer to the *RPM User Guide*. For information on using the XPression License Tool, consult the XPression License Tool and Software Maintenance document.

# Installing the Raiden Product Key License

This section explains the process for installing and activating the product key license for the Raiden system.

#### To install the Raiden product key license:

- 1. Use the Ross Platform Manager (RPM) to add and activate the Raiden product key license provided by Ross Video.
- 2. Once the Raiden product key license has been activated, install it on each Raiden server using the XPression License Tool.

The servers include:

- Raiden Data Aggregator Server
- Raiden Local Server
- Raiden Story Creator Server
- Raiden DataLing Server

Upon completing the licensing process, all Raiden servers will be fully activated and operational.

# Appendix D: Raiden User Rights Management

This appendix outlines the process for configuring user rights for Raiden using the Ross Platform Manager (RPM).

This section does not provide instructions on how to use RPM. For instructions on adding roles and creating user accounts in RPM, refer to the *RPM User Guide*.

## To set up and configure Raiden user rights in Ross Platform Manager (RPM):

- 1. In RPM, create the following Raiden-specific roles:
  - Data Aggregator Administrator
  - Data Aggregator User
  - Local Server Administrator
  - Local Server User
  - Story Creator Administrator
  - Story Creator User

**Important:** Ensure that the roles are entered exactly as listed above, including capitalization, as they are case sensitive.

- 2. Create user accounts as follows:
  - a. Add a user account for each individual who needs access to Raiden.
  - b. Ensure accurate user details are entered during account creation.
- 3. For each user account, assign one or more of the Raiden-specific roles created in step 1 and ensure the following:
  - a. Enable each user account by marking it as **Active**.
  - b. Enable API access for each user.
- 4. Verify that all users have the appropriate roles and settings applied.

Once the user rights configuration is complete, users will have the appropriate roles and access levels required to use the Raiden application.

# Appendix E: Third Party Licenses

This product may use one or more software components subject to the following licenses.

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Software licenses used are described in the table below:

NAME	VERSION	LICENSE
adobe.xmp		
xmpcore	6.1.11	BSD 3-Clause License 231
apache.commons		
commons-math3	3.6.1	Apache Software License, Version 2.0 224
commons-collections4	4.4	
commons-lang3	3.12.0	
commons-text	1.10.0	
apache.pdfbox		
xmpbox	2.0.25	Apache Software License, Version 2.0 224
commons-codec		
commons-codec	1.15	Apache Software License, Version 2.0 224
commons-io		
commons-io	2.18	Apache Software License, Version 2.0 224
commons-logging		
commons-logging	1.2	Apache Software License, Version 2.0 224
commons-net		
commons-net	3.9.0	Apache Software License, Version 2.0 224
de.micromata.jak		
JavaAPIforKml	2.2.1-SNAPSHOT	BSD 3-Clause License 232
eclipse.ecf		
ch.ethz.iks.slp	1.4.1	Eclipse Public License, Version 1.0 243
eclipse.jetty		
apache-jsp	11.0.24	Eclipse Public License - Version 2.0 246
		Apache Software License, Version 2.0 224
jetty-annotations	11.0.24	
jetty-http	11.0.24	
jetty-security	11.0.24	
jetty-server	11.0.24	
jetty-servlet	11.0.24	

NAME	VERSION	LICENSE
jetty-webapp	11.0.24	
websocket-jetty-server	11.0.24	Eclipse Public License - Version 2.0 246
		Apache Software License, Version 2.0 [224]
edu.ucar		
cdm-core	5.6.0	BSD 3-Clause License 233
grib	5.6.0	
netcdf4	5.6.0	
fasterxml.uuid		
java-uuid-generator	4.0.1	Apache Software License, Version 2.0 224
FFmpeg		This software uses libraries from the FFmpeg project under the LGPLv2.1.
geotools		
gt-coverage	32.0	Lesser General Public License (LGPL) Version 3.0 24th
gt-epsg-extension	32.0	
gt-epsg-wkt	32.0	
gt-geojson	32.0	
gt-geotiff	32.0	
gt-grid	32.0	
gt-process	32.0	
gt-process-feature	32.0	
gt-referencing	32.0	
gt-render	32.0	
gt-shapefile	32.0	
gt-swing	32.0	
gt-xml	32.0	
gt-epsg-hsql	32.0	Lesser General Public License (LGPL) Version 3.0 [24ମ
		EPSG database distribution license
		BSD License for HSQL 235
gt-xsd-kml	32.0	Lesser General Public License (LGPL) Version 3.0 वि
github.cosinekitty		
astronomy	v2.1.17	MIT License
github.oshi		
oshi-core	5.7.0	MIT License 258
github.seancfoley		
ipaddress	5.3.3	Apache Software License, Version 2.0 [224]

NAME	VERSION	LICENSE
google.code.gson		
gson	2.10.1	Apache Software License, Version 2.0 224
io.lettuce		
lettuce-core	6.5.0.RELEASE	MIT License 258
it.sauronsoftware		
junique	1.0.4	GNU Lesser General Public License, version 2.1 236
javatuples		
javatuples	1.2	Apache Software License, Version 2.0 224
locationtech.jts		
jts-core	1.18.1	Eclipse Public License, Version 2.0 246
		Eclipse Distribution License, Version 1.0 [243]
luckycatlabs		
SunriseSunsetCalculator	1.2	Apache Software License, Version 2.0 224
net.sf.jsi		
jsi	1.1.0-SNAPSHOT	GNU Lesser General Public License, version 2.1 2361
openpnp		
opencv	4.9.0-0	BSD License 227
postgresql		
postgresql	42.7.4	BSD-2-Clause 229
shredzone.commons		
commons-suncalc	3.1	Apache Software License, Version 2.0 224
slf4j		
slf4j-api	2.0.16	MIT License 253
slf4j-reload4j	2.0.16	
snmp4j		
snmp4j	3.7.0	Apache Software License, Version 2.0 224
snmp4j-agent	3.7.0	
software.amazon.awssdk		
s3	2.23.14	Apache Software License, Version 2.0 224
twelvemonkeys.imageio		
imageio-tga	3.8.1	BSD 3 Clause License 234
imageio-tiff	3.8.1	
zaxxer		
HikariCP	5.0.1	Apache Software License, Version 2.0 224

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Version 2.0, January 2004

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AS GIVEN IN EPSG DATASET || PERMITTED CHANGE FOR VENDORS/USERS TO ADOPT | |-||-| Change of ellipsoid defining parameters. ||| | 1a | Ellipsoid parameters a and b. | a and 1/f; a and f; a and e; a and e2. | | 1b | Ellipsoid parameters a and 1/f. | a and b; a and f; a and e; a and e2. | | Change of projection method || | 2a | Lambert Conic Conformal (1 SP) method with projection parameters and kO. | Lambert Conic Conformal (2 SP) method with projection parameters and | | 2b | Lambert Conic Conformal (2 SP) method with projection and | Lambert Conic Conformal (1 SP) method with projection parameters and kO. | 3 | Mercator (variant A) method with projection parameters and kO. | Mercator (variant B) method with projection parameter | 3b | Mercator (variant B) method with projection parameter | Mercator (variant A) method with projection parameters and kO. | | 4a | Hotine Oblique Mercator (variant A) method with projection parameters FE and FN. | Hotine Oblique Mercator (variant B) method with projection parameters EC and NC. | | 4b | Hotine Oblique Mercator (variant B) method with projection parameters EC and NC. | Hotine Oblique Mercator (variant A) method with projection parameters FE and FN. | | 5a | Polar Stereographic (Variant A) method with projection parameters and kO. | Polar Stereographic (Variant B) method with projection parameter | | 5b | Polar Stereographic (Variant B) method with projection parameter | Polar Stereographic (Variant A) method with projection parameters and kO. | | 5c | Polar Stereographic (Variant A) method with projection parameters kO, FE and FN. | Polar Stereographic (Variant C) method with projection parameters EF and NF. | | 5d | Polar Stereographic (Variant C) method with projection parameters EF and NF. | Polar Stereographic (Variant A) method with projection parameters kO, FE and FN. | | 5e | Polar Stereographic (Variant B) method with projection parameter FE and FN. | Polar Stereographic (Variant 199 C) method with projection parameters EF and NF. | | 5f | Polar Stereographic (Variant C) method with projection parameters EF and NF. | Polar Stereographic (Variant B) method with projection parameter FE and FN. | | Change of transformation method | | | | 6a | Position Vector 7parameter transformation method parameters RX RY and RZ. | Coordinate Frame transformation method with signs of position vector parameters RX RY and RZ reversed. | | 6b | Coordinate Frame transformation method parameters RX RY and RZ. | Position Vector 7-parameter transformation method with signs of coordinate frame parameters RX RY and RZ reversed. | | 7 | Concatenated transformation using geocentric methods (Geocentric translations, Position Vector 7-parameter transformation, Coordinate Frame rotation). | Equivalent single geocentric transformation in which for each parameter the parameter values of the component steps have been summed. | | Change of units ||| | 8 | NTv2 method grid file filename. | NTv2 method grid file relative storage path with file name including removal (if necessary) of "special characters" [spaces, parentheses, etc] which are replaced by underscore characters. | | 9 | Parameter value. | Convert unit to another, for example from microradian to arc-second, using conversion factors obtained from the EPSG dataset Unit table.

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# **Glossary of Terms**

#### A

**Areas of Interest** – Geographic location on a map that represents either a point, region, or station.

**Attribute** — Non-spatial data that describes geographic information (such as the name, length, and depth of a river).

**Attribution Text** — Copyright text for basemap layer or data which credits the basemap layer or data service.

#### В

**Basemap** — The foundation of a map on which layers of geographic information are overlaid.

**Basemap Layer** – Map layers that display geographic features on a basemap.

#### D

**Data Aggregator Server** — A component of the Raiden application that retrieves and processes raw weather data from sources such as the National Centers for Environmental Prediction (NCEP), Global Forecast System (GFS), the Storm Prediction Center, the USA High Resolution Window and others.

**Dataling**<sup>M</sup> – A server that enables XPression and Voyager to import dynamic data from external sources and make it available for use in live templates.

**Digital Elevation Models (DEMs)** — Files that use either Shuttle Radar Topography Mission 1 (SRTM1) or Shuttle Radar Topography Mission 3 (SRTM3) radar observations to provide digital representations of surface elevations on a map.

#### F

**Forecast** – A prediction of atmospheric conditions for a particular point in time.

**Frame rate** — The measurement or frequency at which images appear on screen, also known as Frames Per Second (FPS).

#### Κ

**Key frames** – The anchor points that define when transitions between animations begin and end.

#### L

**Local Server** — A component of the Raiden application that calls the Data Aggregator Server for data specific to a region or point of interest and then outputs that data to various graphical endpoints.

#### Μ

 ${\bf Metadata}-{\rm The}\ {\rm up}-{\rm to}-{\rm date}\ {\rm forecast}\ {\rm and}\ {\rm current}\ {\rm observation}\ {\rm data}\ {\rm for}\ {\rm the}\ {\rm places}\ {\rm of}\ {\rm interest}\ {\rm in}\ {\rm the}\ {\rm Local}\ {\rm Server}.$ 

#### Ν

**Network Device Interface (NDI)** — A network protocol that enables video to be delivered over a network in real time.

#### ο

Observations — The atmospheric conditions (such as temperature, precipitation, and cloud cover) at a particular point in time.

#### Ρ

**Pause point** — anchor points in a video timeline that temporarily stop the video playout.

**Point** — A geographic location of interest on a map defined by a specific longitude and latitude coordinate (such as a city).

#### R

**Region** — A broad geographic location of interest on a map defined by specific boundaries.

**Ross Platform Manager (RPM) Server** — A web based application that supports common administrative functions (such as licenses and user access) for Ross products.

#### S

**Server** — A computer component that stores, organizes, and processes data upon request.

**Station** – A point of interest based on an official weather station.

**Shapefile** — A Geographic Information System (GIS) vector format that contains the spatial and attribute components of features displayed on a map.

**Shuttle Radar Topography Mission (SRTM)** — A database of radar observations that provide digital representations of surface elevations on a map.

**Story** – An organized collection of scenes used to make a graphics sequence.

**Story Creator** — A weather story creation platform that requests data from the Local Server and interacts with either XPression or Voyager, enabling users to create weather stories from scratch or from templates.

#### Т

**Template** — A saved story, used as a baseline so that the story does not have to be recreated each time it is used.

# Raiden



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