

4.0 Data Validation

The majority of the data elements exchanged via IRWIN go through a validation process before being passed to other systems. These validation rules ensure the data is in an approved format and available for consumption by the other systems. These go hand in hand with the source system submit/update requirements noted in the data element pages. In other words, the data validation rules ensure the data is being spoken in the same language and adheres to data standards.

Most of the extended systems display the validation error message exactly as it is written in the code. It is important to note that these were originally written with the developer in mind so that they could easily troubleshoot any potential issues. Ambiguous messages have become more user friendly, and this section should help break them down and explain possible resolutions.

4.1 Validation Rules

- **CadRequired:** Field is required by CAD system.
- **Domain:** Value must be a value in a database domain.
- **Enum:** Value must be a value in a comma-delimited list of values.
- **FieldValuesAddToEquals:** All four FireStrategy*Percent field values must add up to 100.
- **Firecode:** Cannot edit an issued FireCode or request a FireCode more than once.
- **InactiveCondition:** Field has a condition in which IsValid is required to be FALSE.
- **IncidentFields:** Must be a valid Incident Field.
- **IrwinIdExists:** An IrwinID field must be a valid IrwinID in IRWIN.
- **MatchPOOState:** The first 2 characters of the given value match the POOState field.
- **MaxDate:** Value cannot exceed a certain date.
- **Maximum:** Value cannot exceed a certain value (this applies to number fields).
- **MaxLength:** Value's character length cannot exceed length of the string field.
- **MinDate:** Value cannot be less than a certain date.
- **Minimum:** Value cannot be less than a certain value (this applies to number fields).
- **MinLength:** Value's character length cannot be less than the length of the string field.
- **NotNullable:** Checks for "null", 'null', or #.
- **NotNullNoConflict:** This is only used on the ConflictParentIrwinId field. If it is not null, InConflict must be false.
- **Required:** Value is required.
- **ResourceFields:** Must be a valid Resource field.
- **StartsWithStateCode:** The first 2 characters of the given value must be a valid state code.
- **Type:** Value must be of the type defined for the data element.

4.2 Validation Errors

In the following errors {{PARAMETER_NAME}} represents the data element where the error is occurring and {{PARAMETER_VALUE}} represents the specific piece of data. Examples of {{DOMAIN_VALUES}} can be found in the Source System Submit/Update Requirements. They might look like a bunch of gibberish, but the Resolution section should help explain some of the details.

- **CadRequired**
 - {{PARAMETER_NAME}}: a value is required by CAD systems.
- **Domain**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be an accepted value {{DOMAIN_VALUES}}.
- **Enum**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be a valid value {{DOMAIN_VALUES}}.
- **FieldValuesAddToEquals**

- {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} does not add up to 100 with fields {{PARAMETER_PEERS}}.
- **FireCode**
 - FireCode cannot be changed once it is set.
- **FireCodeRequested**
 - If FireCode is not null, a new FireCode cannot be requested.
- **InactiveCondition**
 - {{PARAMETER_NAME}}: If value is not NULL, IsValid must be FALSE.
- **IrwinIdExists**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be an existing IrwinID.
- **MatchPOOState**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must begin with Incident's POOState Code ({{REFERENCE_VALUE}}).
- **MaxDate**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must precede {{HUMANIZED_MAX_UNITS}} from now ({{MAX_VALUE}}).
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must precede {{HUMANIZED_MAX_UNITS}} after {{REFERENCE_NAME}} {{MAX_VALUE}}.
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must precede {{REFERENCE_NAME}} {{MAX_VALUE}}.
- **Maximum:**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must not exceed {{MAXIMUM_VALUE}}.
- **MaxLength**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must not exceed {{MAXIMUM_VALUE}} characters.
- **MinDate**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must succeed 2 years ago ({{MIN_VALUE}}).
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must succeed {{HUMANIZED_REFERENCE_UNITS}} before {{REFERENCE_NAME}} {{MIN_VALUE}}.
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must succeed {{REFERENCE_NAME}} {{MIN_VALUE}}.
- **Minimum**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must exceed {{MINIMUM_VALUE}}.
- **MinLength**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must exceed {{MINIMUM_VALUE}} characters.
- **NotNullable**
 - {{PARAMETER_NAME}}: value is not nullable.
- **NotNullNoConflict**
 - {{PARAMETER_NAME}}: when value is not NULL ({{PARAMETER_VALUE}}), InConflict must be FALSE (REFERENCE_VALUE).
- **Required**
 - {{PARAMETER_NAME}}: a value is required.
- **ResourceFields**
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- **StartsWithStateCode**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must begin with a valid state code.
- **Type**
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be type string.
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be type integer.
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be type float.
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be type Boolean [true, false].
 - {{PARAMETER_NAME}}: value {{PARAMETER_VALUE}} must be type datetime (YYYY-MM-ddTHH:mm:ssZ).

4.3 Validation and Errors by Specific Data Element

Table 1. IRWIN Validation Rules and Error Messaging

IRWIN Data Element	IRWIN Validation	IRWIN Validation Failure Possible Errors
ContainmentDateTime	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 1 year	Error: Invalid Date/Time format Error: Invalid Date/Time
ControlDateTime	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 1 year	Error: Invalid Date/Time format Error: Invalid Date/Time
DailyAcres	Must be greater than zero.	Error: Acres must be >0
DiscoveryAcres	Must be not null on Submit by CAD. Must be greater than zero.	Error: Required CAD Field Missing Error: Acres must be >0
DispatchCenterID	Must be not null on Submit by a CAD. Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Required Field Missing
FireCause	If not null, cannot be changed.	Error: Value cannot be edited.
FireCode	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value
FireCodeRequested	Must be not null on Submit or Update. Default on Submit is false. Valid values are true or false. Cannot be requested if not null.	Error: Required Field Missing Error: Not a Valid Value
FireDiscoveryDateTime	Must be not null on Submit. Must be valid date/time format. On Submit:...	Error: Required Field Missing Error: Invalid Date/Time Format Error: Invalid Date/Time
FireOutDateTime	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 2 years	Error: Required Field Missing Error: Invalid Date/Time Format Error: Invalid Date/Time
FireStrategy*Percent	Must total 100	Error: Must total 100 Error: Values total more than 100
IncidentName	Must be not null on Submit. Length must be >= 2 alpha-numeric characters.	Error: Required Field Missing Error: Must be at least 2 characters
IncidentTypeCategory	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value
IncidentTypeKind	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value
InitialLatitude	Must be not null on Submit by CAD. Must be a valid latitude. Must be a valid lat/long combination.	Error: Required CAD Field Missing Error: Invalid Latitude Error: Invalid Lat/Long
InitialLongitude	Must be not null on Submit by CAD. Must be a valid longitude. Must be a valid lat/long combination.	Error: Required CAD Field Missing Error: Invalid Longitude Error: Invalid Lat/Long
isComplex	Must be null, true or false. isComplex and ComplexIRWINParentID must form a valid combination: TRUE/NULL – is a complex FALSE/NotNULL – is a participant in complex of given IRWIN ID FALSE/NULL – is not a participant in a complex NULL/NULL – is not a participant in a complex.	Error: Not a Valid Value Error: Not a valid combination with ComplexIRWINParentID
isFSAssisted	Must be null, true or false.	Error: Not a Valid Value
isMultiJurisdictional	Must be null, true or false.	Error: Not a Valid Value
isReimbursable	Must be null, true or false.	Error: Not a Valid Value
isTrespass	Must be null, true or false.	Error: Not a Valid Value
LocalIncidentIdentifier	Must be not null on Submit. Must meet min/max length requirements. Maximum Length 10. Minimum Length 6.	Error: Required Field Missing Error: Data Element Length

IRWIN Data Element	IRWIN Validation	IRWIN Validation Failure Possible Errors
POOJurisdictionalUnit	Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Data Element Length Error: Invalid State Code Error: POOState must be consistent
POOLatitude	Must be not null on Submit. Must be a valid latitude. Must be a valid lat/long combination.	Error: Required Field Missing Error: Invalid Latitude Error: Invalid Lat/Long
POOLongitude	Must be not null on Submit. Must be a valid longitude. Must be a valid lat/long combination.	Error: Required Field Missing Error: Invalid Longitude Error: Invalid Lat/Long
POOProtectingUnit	Must be not null on Submit. Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Required Field Missing Error: Data Element Length Error: Invalid State Code
UniqueFireIdentifier	The UniqueFireIdentifier (UFI) is populated by IRWIN by concatenating the year from the FireDiscoveryDateTime, the POOProtectingUnit, and the LocalIncidentIdentifier. If IRWIN finds the UFI is not unique to IRWIN, the incident record will be rejected.	Error: UniqueFireIdentifier already exists

4.4 Resolution

Table 2. IRWIN Error Resolution by Data Element

IRWIN Data Element	Error Resolution
ContainmentDateTime	Enter the containment date and time no earlier than the discovery date and time. The containment date and time cannot be more than one year older than the discovery date. The seconds, which are not visible to the user, can cause this error to appear.
ControlDateTime	Enter the containment date and time no earlier than the discovery date and time. The control date and time cannot be more than one year older than the discovery date. The seconds, which are not visible to the user, can cause this error to appear.
DailyAcres	Populate the daily acres with a value other than zero.
DiscoveryAcres	Populate the discovery acres with a value other than zero.
DispatchCenterID	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or unit id.
FireCause	Choose a value, even if it changes, this has to be populated.
FireCode	Do not attempt to edit an issued FireCode.
FireCodeRequested	This element has a default value, which means if a user gets an error there is something wrong with the field at the database level and a developer needs to be involved. If a user has already requested a FireCode and attempts to request again, this error will occur – do not select more than once.
FireDiscoveryDateTime	Enter the discovery date and time if this error occurs.
FireOutDateTime	Enter the out date and time no earlier than the discovery date and time. The out date and time cannot be more than two years older than the discovery date. The seconds, which are not visible to the user, can cause this error to appear.
FireStrategy*Percent	Ensure that all four values equal 100. IRWIN will automatically add zeroes in fields left empty.
IncidentName	Enter a fire name using at least two characters.
IncidentTypeCategory	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
IncidentTypeKind	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
InitialLatitude	Enter a valid latitude.
InitialLongitude	Enter a valid longitude.
isComplex	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
isFSAssisted	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
isMultiJurisdictional	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.

IRWIN Data Element	Error Resolution
isReimbursable	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
isTrespass	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or value being passed.
LocalIncidentIdentifier	Enter the Local Incident Identifier, making sure to use no less than 6 characters and no more than 10.
POOJurisdictionalUnit	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or unit id being passed.
POOLatitude	Enter a valid latitude.
POOLongitude	Enter a valid longitude.
POOProtectingUnit	If an error is received on this data element, it is necessary to resolve at the developer level. This would indicate an issue with the data mapping and/or unit id being passed.
UniqueFireIdentifier	Double check existing incidents to ensure the correct record is being created.