

## CIS SQL Field Configuration Manual

This guide provides detailed information for configuring fields within the CIS Software SQL-based environment. It includes field properties, data types, and control types, along with usage guidance and practical examples.

### 1. Field Configuration Options

The table below outlines each available field option when creating or editing fields in CIS:

Field Option	Required	Description	Example
Field Name	Yes	Internal name of the field used in the database. Must be unique and follow naming conventions (e.g., no spaces or special characters).	inspection_date
Save Field in Table?	No	If checked, this field is persisted in the SQL database. If unchecked, it's used temporarily for UI logic only.	Unchecked for a temporary calculation field
Include In Export List?	No	Determines if this field will be included in export functions like CSV or Excel outputs.	Checked for 'part_number' to appear in export
Caption	Yes	Human-readable label shown on the UI form. This is what users see.	Inspection Date
Required	No	Makes the field mandatory before submission. Cannot be left blank.	Required for 'employee_id'
Is Unique?	No	Prevents duplicate entries in the field across records. Ideal for IDs or codes.	Unique for 'serial_number'
Active Flag	No	If unchecked, the field is hidden but retained in the form for possible reactivation.	Uncheck to temporarily disable a deprecated field

Field Option	Required	Description	Example
Control Type	Yes	Defines how the field appears on the UI (dropdown, text box, date picker, etc.).	DropDownList
Data Type	Yes	Determines how data is stored in SQL (e.g., text, int, date).	varchar for names, int for age
Max Length	No	Limits the number of characters or digits a user can input (only for text-based fields).	255 for 'comments'
Validation String	No	Regular expression or rule for validating the field's input.	^\d{5}\$ for a 5-digit postal code
Mask String	No	Display formatting pattern that guides user input, commonly used for phone numbers or dates.	(999) 000-0000
Width	No	Specifies the width of the field in the form layout, usually in pixels.	200
Grid Align	No	Sets alignment of field content within grids: None, Left, Center, Right.	Right for numeric values
Wrap Grid Cell Data?	No	Toggles text wrapping within grid cells. Useful for multi-line text.	No for single-line addresses
Grid Format	No	Applies formatting rules for displaying values in the grid (e.g., currency, date).	\$\$,##0.00
Attributes	No	Allows adding HTML/JavaScript event handlers like onclick or onchange for custom behavior.	onclick: return validate_form()

Field Option	Required	Description	Example
Priority	No	Determines order in which fields appear in the UI or processing logic. Lower numbers appear first.	1 for primary fields
Help Tooltip	No	Text shown when hovering over a help icon beside the field to guide the user.	Enter full legal name including middle name
Default Value	No	Pre-fills the field with a default value when the form loads.	Pending for 'status'
Event Name	No	Identifier for custom front-end logic tied to this field.	onUserTypeChange
Function Name	No	Back-end or JavaScript function name triggered by events.	calculateTax
Footer Template	No	Defines how the footer displays aggregated data (sum, average, etc.).	Sum: {{value}}

## 2. Data Types

Each field in the CIS system must have a data type that defines how the data is stored in the SQL database. Below are detailed descriptions of key data types:

### bigint

Description: Stores very large whole numbers. Ideal for IDs or Unix timestamps.

When to Use: Use for system-generated IDs, timestamps, or ERP reference numbers.

Example: incident\_id = 982374509812345789

### varchar(n)

Description: Stores variable-length text up to n characters. Saves space over fixed-length char.

When to Use: User-entered fields like names, codes, or short descriptions.

Example: employee\_name = 'Sandra McAllister'

### 3. Data Types - Full Reference

#### Button

Description: UI button to trigger an action or event.

When to Use: Used for form buttons like Submit, Approve.

Example: Button labeled 'Save' triggers saveForm()

#### Cancel

Description: Cancels the current form or action.

When to Use: Use for cancel or back buttons.

Example: Cancel button returns to main menu

#### date

Description: Stores only the date (no time).

When to Use: For simple date input like birthdate or due date.

Example: 2025-12-15

#### datetime

Description: Stores both date and time.

When to Use: Timestamp fields or log events.

Example: 2025-12-15 14:30:00

#### decimal

Description: Precise decimal numbers.

When to Use: Monetary fields or scientific values.

Example: 199.99

#### Delete

Description: System action type for deletions.

When to Use: Internal logic to mark field for deletion.

Example: Delete record button

#### Edit

Description: System action type for editing.

When to Use: Used in dynamic UI for update functionality.

Example: Edit link in grid

### Insert

Description: Insert record logic.

When to Use: Backend logic to add new entries.

Example: Insert new user

### bigint

Description: Large integer type.

When to Use: Large unique IDs, timestamps.

Example: 9223372036854775807

### int

Description: Standard integer value.

When to Use: Whole number values like count or age.

Example: 23

### long

Description: Extended-range integer.

When to Use: Larger than int but smaller than bigint.

Example: 2147483648

### Select

Description: Used in dropdowns or choices.

When to Use: Selection lists.

Example: Country: Canada

### text

Description: Unbounded long text.

When to Use: Detailed instructions or comments.

Example: Long procedure notes

### Update

Description: System-level type for updating data.

When to Use: Used internally for update tracking.

Example: Update status

### **varchar**

Description: Variable length character data.

When to Use: Short to medium string values.

Example: Product code

### **Encrypted**

Description: Secured string field.

When to Use: Password or secret keys.

Example: Encrypted password

### **Phone\Fax**

Description: Phone or fax number.

When to Use: Contact details with formatting.

Example: (613) 555-1234

### **Email**

Description: Email address.

When to Use: User contact fields.

Example: user@example.com

### **Currency**

Description: Formatted currency field.

When to Use: Prices, costs, or financials.

Example: \$1,299.00

### **SSN**

Description: Social Security Number (US format).

When to Use: Employee tax IDs (USA only).

Example: 123-45-6789

### **URL**

Description: Website or hyperlink.

When to Use: External resource links.

Example: <https://example.com>

### **nText**

Description: Unicode long text.

When to Use: Multilingual large text fields.

Example: 描述或注释

### **nVarchar**

Description: Unicode variable-length text.

When to Use: Multilingual short-medium strings.

Example: Müller

## **4. Control Types - Full Reference**

### **ActionButton**

Description: Clickable button that triggers a defined action or function.

When to Use: Save, Submit, or special commands.

Example: Submit button

### **ASPHidden**

Description: Stores a hidden value in the page form.

When to Use: Metadata tracking or background ID storage.

Example: Session ID

### **ASPUpload**

Description: ASP.NET file upload control.

When to Use: Upload document or image.

Example: Upload file field

### **ASPCalendar**

Description: ASP.NET date picker control.

When to Use: User-friendly calendar input.

Example: Select deadline

### **AutoCompleteFilter**

Description: Auto-suggest single-select.

When to Use: Search boxes with suggestions.

Example: Search City

### **AutoCompleteFilterMultipleSelect**

Description: Auto-suggest multi-select.

When to Use: Tagging, skills selection.

Example: Select categories

### **Captcha**

Description: Security image validation.

When to Use: Form submissions.

Example: I am not a robot

### **CheckBox**

Description: Single checkbox (true/false).

When to Use: Flags and boolean toggles.

Example: Is Active?

### **CheckBoxList**

Description: Multiple checkbox options.

When to Use: Select many options.

Example: Symptoms checklist

### **DateControl**

Description: Date picker with UI.

When to Use: Pick start/end dates.

Example: Start Date

### **DivCheckBoxList**

Description: Styled checkbox group in div container.

When to Use: Custom styled multi-checks.

Example: Topic selection

### **DoPostBackLink**

Description: Triggers form submission via link.

When to Use: UI links for actions.

Example: Submit via link



### DropDownList

Description: Single-selection dropdown list.

When to Use: Status, type, category selectors.

Example: Country: Canada

### ListBox

Description: Scrollable list box.

When to Use: Multi-selection with more visibility.

Example: Select files

### CascadingDropDown

Description: Dropdown with parent-child dependencies.

When to Use: Location or hierarchical options.

Example: Country > State > City

### Color Picker

Description: UI tool to pick color value.

When to Use: Theming, tagging, or design fields.

Example: #FF0000

### HTMLEditor

Description: Rich text editor.

When to Use: Formatted content entry.

Example: Styled SOPs

### ImageButton

Description: Button with image/icon.

When to Use: In-grid or graphical UI.

Example: Edit icon

### LinkButton

Description: Hyperlink acting as a button.

When to Use: Navigation or redirect.

Example: Go to Details

### Literal

Description: Displays static HTML/text.

When to Use: Notes, read-only labels.

Example: Version: 1.0

### Label

Description: Plain label text.

When to Use: Field headers or descriptions.

Example: Part Description

### Password

Description: Masked password field.

When to Use: Login or secure entry.

Example: ●●●●●

### RadioButtonList

Description: Single-choice list using radio buttons.

When to Use: Choose one from small list.

Example: Satisfaction: Low / Medium / High

### TextArea

Description: Multi-line text box.

When to Use: Comments, notes, explanations.

Example: Write detailed feedback

### TextBox

Description: Single-line input box.

When to Use: Short text input.

Example: Enter name

### UpDown

Description: Numeric up/down control.

When to Use: Adjust quantities easily.

Example: Quantity: 3