

# 9.3.6 Glossary of all terms and abbreviations used in Spectre Cloud

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9.3.6 reference

This glossary defines every term, abbreviation, and acronym used throughout Spectre Cloud and this wiki. Entries are organised alphabetically. Where a term has a dedicated wiki page covering it in depth, a cross-reference is provided. Use this page as a quick reference during fittings, when training new staff, or when a term appears in a spec sheet or setting that needs clarification.

### A

#### **Add Pitch Thumb**

An optional setting within the Oval Calculator that includes the thumb's pitch values in the finger oval calculation. When enabled, the combined pitch geometry of the full grip — fingers and thumb — influences the oval output. See sections 5.6.3 and 5.6.4.

#### **Arsenal**

The per-bowler ball inventory system in Spectre Cloud. Each Arsenal entry represents one physical ball and links to all spec sheets ever created for that ball. See section 7.1.1.

### **Arsenal Plus**

An optional plugin ( [\\$5 USD/month](#) ) that adds bowlingdatabase.com integration, barcode scanning, suggested layouts, layout conversion, and 3D layout rendering to the Arsenal. See Book 07.

### **Auto-Suggestion**

Spectre Cloud's system for generating recommended pitch, span, and oval cut values based on the measurements entered on a spec sheet and IBPSIA-standard fitting guidelines. See section 9.1.4.

### **Axis Rotation**

The angle of the bowler's axis of rotation relative to the target line at the moment of release. Expressed in degrees. Influences ball motion and is used as an input for layout suggestions in Arsenal Plus.

### **Axis Tilt**

The angle of the bowler's axis of rotation relative to the horizontal at the moment of release. Expressed in degrees. A higher tilt produces a more angular backend motion; lower tilt produces a smoother, earlier roll. Used as an input for layout suggestions in Arsenal Plus.

## B

### **Balance Hole**

A non-gripping hole drilled into a bowling ball to adjust its static weight balance. Not a thumb grip hole — noted as such in the spec sheet thumb section when present. Regulations governing balance holes vary by governing body and era; confirm current rules with the relevant association before drilling.

### **Barcode Scanning**

An Arsenal Plus feature that scans the barcode on a ball's box or surface to look up its specifications in the bowlingdatabase.com integration, pre-filling the Arsenal entry automatically. See section 7.2.3.

### **Book**

The top-level organisational unit of this wiki. The Spectre Cloud Manual contains nine books covering Getting Started, Settings, Bowlers, Spec Sheets, Oval Calculator, Drilling Your First Ball, Arsenal, Account and Business, and Tips, Troubleshooting and Reference.

### **BowlDevs**

The development company behind Spectre Cloud. Founded by Mark (Wichita State University Computer Science graduate) and Luis (competitive bowler based in Montreal). Website:

[bowldevs.com](#).

### **Bowler Plus**

An optional plugin ( [\\$5 USD/month](#) ) that adds full address storage, client consent signatures, and a hand photograph gallery to bowler profiles. See Book 03.

### **bowlingdatabase.com**

A third-party database of bowling ball specifications. Integrated into Spectre Cloud via Arsenal Plus to provide core specifications (RG, differential, MB differential, coverstock) for use in layout suggestions and 3D rendering.

### **Bridge**

The distance between the edges of the two finger holes (middle and ring) on a drilled bowling ball. Calculated automatically by Spectre Cloud from the hole sizes and span values on the spec sheet. See section 9.2.5.



### **CENTER method**

An Oval Calculator method that anchors pitch at the geometric centre of the oval hole rather than its leading edge. Appropriate for small ovals, low to zero pitch, and legacy record continuity. See section 5.6.2.

### **CG (Centre of Gravity)**

The point on a bowling ball's surface directly above its internal centre of mass. Used as a reference point in some layout systems, particularly 2LS. The CG is marked on the ball by the manufacturer.

### **CLT (Compensating Lateral Tilt)**

A fitting standard that maps the bowler's lateral finger approach angle to the appropriate lateral pitch value for the finger holes. See section 9.3.2.

### **Clone**

A Spectre Cloud function that creates an exact copy of an existing spec sheet attached to the same bowler. All field values are duplicated; the clone is independent from the source. See section 9.1.2.

### **Conventional grip**

A grip style in which the fingers are inserted to the second knuckle. Produces a more secure but less expressive release than fingertip. Selected as a grip type on the spec sheet.

### **Coverstock**

The outer shell of a bowling ball. The coverstock material (reactive resin, urethane, plastic) and surface finish determine how the ball interacts with the lane. Relevant to layout decisions and surface maintenance notes in the Arsenal.

### **Cut to Cut (C)**

A span type in which the span is measured from the near edge of the thumb hole to the near edge of the finger hole. One of three span types supported by Spectre Cloud alongside Full Span and Oval. See section 6.1.2.



### **Differential**

A measure of a bowling ball core's track flare potential. Total differential is the difference between the ball's maximum and minimum RG values. MB differential measures the asymmetric mass bias influence. Higher differential generally produces more flare potential.

### **Drilling Angle**

The rotation of the ball in the drilling jig that determines where the mass bias marker ends up relative to the VAL after drilling. Most significant for asymmetric core balls. Entered in the layout section of the spec sheet. See section 7.1.6.



### **EDGE method**

An Oval Calculator method that anchors pitch at the leading edge of the oval hole — the point closest to the bowler's palm. Produces a delivered pitch closer to the specified pitch value than the CENTER method, particularly for larger ovals and higher forward pitch. See section 5.6.1.



### **Fingertip grip**

A grip style in which the fingers are inserted to the first knuckle only. Produces more leverage and hook potential than conventional grip. The most common grip type for league and competitive bowlers. Selected as a grip type on the spec sheet.

### **Flare Potential**

The degree to which a bowling ball's track migrates across the ball surface during a game. Determined by core differential and layout. Higher flare generates more surface contact with fresh coverstock on each shot.

### **Flip V/H**

A Spectre Cloud setting that swaps the Vertical and Horizontal axis labels on oval cut outputs to match a drill press whose axis convention is the reverse of Spectre Cloud's default. A labelling correction only — does not affect calculations. See sections 5.7.1 and 5.7.2.

### **Forward pitch**

Pitch in which the bottom of the hole tilts toward the bowler's palm. Expressed as a positive value in Spectre Cloud. The primary pitch variable for fingertip and conventional fits. See section 9.3.1.

### **Full Span (F)**

A span type in which the span is measured from the back edge of the thumb hole to the back edge of the finger hole. The most commonly used span type for fingertip and conventional fits in North America. See section 6.1.2.



### **Grip Centre**

The midpoint of the grip — the point equidistant between the two finger holes and the thumb hole. Used as a reference point for some layout measurements and as the span anchor for two-handed bowlers. See section 9.2.6.

### **Grip type**

The classification of how deeply the fingers are inserted into the ball. Spectre Cloud supports Conventional, Fingertip, and Semi-fingertip. Grip type controls which measurement fields are active and which auto-suggestions are generated on the spec sheet.



### **Hole Depth**

The depth, in inches, to which a finger or thumb hole is drilled — measured from the ball surface to the bottom of the hole along the drill axis. Recorded on the spec sheet for each hole. See section 7.1.3.

### **Horizontal (H)**

One of the two axes used to express directional oval cut values in Spectre Cloud. Which physical direction H represents depends on your drill press orientation and the Flip V/H setting. See sections 5.7.1 and 5.7.2.



### **IBPSIA**

International Bowling Pro Shop and Instructors Association. The professional body that establishes fitting and drilling standards for pro shop operators. Spectre Cloud's auto-suggestion system is based on IBPSIA-standard guidelines.

### **Insert OD**

The outer diameter of a finger insert — the dimension used to determine the hole size to drill. See section 9.3.4.



### **Job Board**

An optional plugin ( \$15 USD/month ) that provides a workshop to-do list and service history per ball for pro shops that manage a ball service queue. See Book 08.



### **Knuckle size**

The diameter at the widest part of the finger knuckle. Entered on the spec sheet to confirm the hole can accommodate the finger at its widest point. Distinct from hole size, which is the finished diameter the finger seats in.



### **Lateral pitch**

Pitch applied in the left or right direction relative to the grip centre, correcting for the bowler's natural lateral approach angle. Determined using the CLT chart. See section 9.3.2.

### **Layout**

The geometric placement of the ball's pin and mass bias relative to the bowler's PAP. Determines ball motion characteristics. Recorded on the spec sheet using VLS, 2LS, PAL, or manual entry. See section 6.1.5.

### **Layout conversion**

An Arsenal Plus feature that converts a layout recorded in one system (e.g., VLS) into the equivalent values in another system (e.g., PAL) without modifying the original record. See section 7.2.4.



### **Mass Bias (MB)**

The preferred spin axis marker on an asymmetric bowling ball core — the point of highest mass concentration. Its position relative to the VAL line influences ball motion, particularly for high-differential asymmetric balls. See section 7.1.6.

### **MB Differential**

The difference in RG between the ball's intermediate and minimum axis values. Indicates the strength of the asymmetric mass bias influence. A higher MB differential produces stronger, more predictable asymmetric motion characteristics.



### **NONE mode**

An Oval Cut Direction setting in which Spectre Cloud does not generate directional oval labels. The fitter enters a single oval cut size manually, without F/B or L/R axis labelling.

Appropriate for non-directional presses and experienced fitters who prefer manual oval determination. See sections 5.5.1–5.5.3.



### **OD (Outer Diameter)**

The outside diameter of an insert — used to determine the hole size to drill. See section 9.3.4.

### **Oval (O)**

As a span type: a span measured to the centre of the oval cut on the finger hole. As a hole type: a finger or thumb hole that is elongated along one axis rather than perfectly round. See sections 5.5.1–5.5.3 and 6.1.2.

### **Oval Calculator**

The Spectre Cloud module that calculates oval cut sizes, angles, and directional values from the pitch and span values on a spec sheet. Configurable by method (EDGE/CENTER), degree increment, cut direction, and Flip V/H. See Book 05.

### **Oval Cut Direction**

A Settings option that controls whether oval cut outputs include directional axis labels — NONE, Forward/Back (F/B), or Left/Right (L/R). See sections 5.5.1–5.5.3.

### **Oval Degree Increment**

A Settings option that controls the angular resolution of oval cut output — either 1° or 5°. See section 5.6.6.



### **PAL (Positive Axis Point Layout)**

A layout system in which all measurements — pin distance, pin angle, and MB angle — are expressed relative to the bowler's PAP. See section 6.1.5.

### **PAP (Positive Axis Point)**

The point on the bowling ball surface that represents the bowler's axis of rotation at the moment of release. The primary reference point for all layout measurements. See sections 7.1.5 and 7.1.6.

### **Pin**

The top weight marker on a bowling ball — the lightest point on the weight block axis. Its position relative to the PAP determines flare potential. Shown on the 3D layout rendering in Arsenal Plus.

### **Pin to PAP distance**

The straight-line distance from the ball's pin to the bowler's PAP. The primary driver of flare potential and overall ball motion strength. See section 7.1.6.

### **Pitch**

The angle at which a finger or thumb hole is drilled relative to the ball surface. Expressed in inches of forward, reverse, or lateral offset. See sections 9.3.1 and 9.3.2.

### **Plugin**

An optional add-on to the core Spectre Cloud subscription that unlocks additional features. Current plugins: Bowler Plus, Arsenal Plus, and Job Board. See Book 08.

### **Pro shop**

A retail and service establishment specialising in bowling ball drilling, fitting, and equipment. The primary user of Spectre Cloud.

## R

### **Referral code**

A unique code associated with each Spectre Cloud account that can be shared with other pro shops. When a new shop signs up using the code, both parties receive a billing benefit. See section 8.1.5.

### **Reverse pitch**

Pitch in which the bottom of the hole tilts away from the bowler's palm. Expressed as a negative value in Spectre Cloud. Used for bowlers who grip tightly or whose thumb tends to hang through the release.

### **RG (Radius of Gyration)**

A measure of how the mass of a bowling ball is distributed relative to its axis of rotation. Lower RG produces an earlier, smoother roll; higher RG produces a later, more angular motion. Available as a ball specification in Arsenal Plus.

## S

### **Semi-fingertip grip**

A grip style in which the fingers are inserted between the first and second knuckle. A compromise between conventional and fingertip. Selected as a grip type on the spec sheet.

### **Slug**

A pre-drilled thumb insert installed into the thumb hole to provide a consistent, replaceable grip surface with a specific pitch bore. The slug's outer diameter is entered as the thumb hole size on the spec sheet; the slug's bore angle is entered as the thumb pitch.

### **Span**

The distance between the thumb hole and a finger hole, measured according to the selected span type (Full Span, Cut to Cut, or Oval). Entered on the spec sheet for middle and ring fingers independently.

### **Spec sheet**

The primary drilling record in Spectre Cloud. Contains all measurements, pitch values, span values, oval cuts, layout, and notes for one ball belonging to one bowler. See Book 04.

### **Suggested Layouts**

An Arsenal Plus feature that generates data-driven layout recommendations based on the bowler's PAP, axis data, and the ball's core specifications. See section 7.1.5.



### **3D Layout view**

An Arsenal Plus feature that renders a rotatable three-dimensional model of the bowling ball showing pin, MB, PAP, VAL line, and hole positions based on the spec sheet's layout values. See sections 7.2.1-7.2.3.

### **2LS (Two-Layout System)**

A layout system that uses pin buffer distance and CG placement as its two primary measurements. A streamlined alternative to VLS. See section 6.1.5.



### **VAL (Vertical Axis Line)**

The line running through the bowler's PAP from the top to the bottom of the ball, dividing it into front and back halves. The reference line from which the VAL angle is measured. Displayed on the 3D layout rendering.

### **VAL Angle**

The angle between the bowler's VAL and the line from the PAP to the pin. Controls the shape and timing of the breakpoint — lower angles produce smoother, more arcing motion; higher angles produce sharper, more angular motion. See section 7.1.6.

### **Vertical (V)**

One of the two axes used to express directional oval cut values in Spectre Cloud. Which physical direction V represents depends on the drill press orientation and the Flip V/H setting. See sections 5.7.1 and 5.7.2.

### **VLS (Val Siebert Layout System)**

A widely used layout system defining a drilling using three measurements from the PAP: pin distance, VAL angle, and mass bias distance. Based on IBPSIA curriculum. See section 6.1.5.



### **Weight block**

The internal core of a bowling ball. Its shape, density distribution, and orientation after drilling determine the ball's motion characteristics. The pin and MB markers on the ball surface indicate the weight block's axis positions.

☐ **Note:** This glossary covers terms as used in Spectre Cloud and this wiki. Some terms — particularly layout and fitting terms — have slightly different definitions in other educational contexts or fitting systems. Where Spectre Cloud's usage differs from an alternative convention, the definition above reflects how the term is used within this platform specifically.

## Related Sections

- 9.3.1 — Pitch suggestion chart (flexibility vs. forward pitch)
- 9.3.2 — CLT chart (lateral tilt angle vs. lateral pitch)
- 9.3.3 — 5/16 rule ring finger span distance chart
- 9.3.4 — Insert OD chart — standard insert sizes by brand
- 9.3.5 — Oval cut chart for manual (NONE mode) calculations
- 9.1.1 — Recommended Settings configuration for a new pro shop

☐ **Tip:** When training a new staff member, have them read this glossary before their first fitting session — not to memorise it, but to build familiarity with the vocabulary. A driller who knows what PAP, VAL, CLT, and EDGE mean before they encounter those terms on a spec sheet or in a fitting conversation starts from a much stronger position than one encountering them for the first time at the press. Return visits to the glossary during training reinforce terms as they are encountered in practice, which is far more effective than a single read-through.

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Revision #2

Created 11 May 2026 16:05:18 by Admin

Updated 2 June 2026 22:17:14 by Art