

RELEASE NOTES FOR VERSION 39.65

Database version = 39.65 format = 411

parser version 1.13, X11 UI version 1.17, SD UI version 4.10

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Version 39.65 changes

Handling of the **paranoid** concept was improved.

The handling of things like **orbitboard** was improved.

The behavior of **touch tone** was changed again. The leads always go to right hands.

Version 39.64 changes

The mechanism for raising warnings and errors when people are required to move an excessive distance was made more powerful.

Due to a report of a crash, apparently in floating-point code, when using Sdttty on a Unix operating system and compiler, the last vestiges of floating-point code were removed. This did not affect users of Windows.

A bug in **snag** was fixed.

Version 39.63 changes

The program will only print “outer pairs” when that designation will make sense. Otherwise it will print “others”.

Handling of unsymmetrical **2x1 as couples** or **3x1 as couples** was improved.

Various improvements were made in the handling of complex fractions, as in **rims trade <anything>**.

A bug in **fractional stable** was fixed.

Version 39.62 changes

A very simple error in a simple and popular A2 call was fixed,

Fractionalization of **diamond chain thru** was improved.

Version 39.61 changes

An improper use of the C++ language in the source code was fixed. This did not affect the Windows release.

A few minor improvements.

Version 39.60 changes

The ability to do fractional star turns was improved.

The obsolete **divided C/L/W** concepts weere removed.

Miscellaneous improvements and bug fixes.

Version 39.59 changes

A bug in the resolver that made it sometimes fail to find resolves was fixed.

Version 39.58 changes

The **rectify** concept is more powerful and robust.

New state-of-the-art anti-virus checkers have given the Sd distribution some false positive alerts. Accordingly, the mechanism for preparing new releases has changed. This has a consequence for you, the person downloading the program. It will ask you for the location in which to place the program. Unless you are doing something extremely unusual, type "C:\sd". That's the location where it has traditionally been stored.

There are no actual viruses in the distribution, and never have been.

Direct Postscript files (.ps) are no longer distributed. Use the .pdf files.

Version 39.57 changes

New concept: **rectify**. This needs more work.

Version 39.56 changes

Address a few intriguing issues; fix a few bugs.

Version 39.55 changes

Fix an operating system issue.

Version 39.54 changes

Handling of **1/2 hinge** from thars was improved.

zoom is now legal in T-boned boxes.

Some cases of **3x1** were improved.

Version 39.53 changes

Some bugs with **fractal**, exemplified by **fractal <ATC> reaction but <ANYTHING>**, were fixed.

Some missing cases of **rolling ripple** were implemented.

Version 39.52 changes

The program can do better with fractionalization of calls that involve **O circulate**.

Version 39.51 changes

The program can do better with **counter rotate** 1/8.

It is not legal to do a **trade** with a phantom, unless some concept has been given that legitimizes phantoms.

A bug in **1/2 centers trade** was fixed.

The program can do better with **coordinate to a diamond** in T-bone setups.

Version 39.50 changes

Handling of **3x2 acey deucey** was improved.

Plain **chisel thru but <anything>** is disallowed.

Version 39.49 changes

Collisions that happen in the center on a **motivate**, such as from a starting Double Pass Thru, are marked as “improper”. The program will still do them.

Version 39.48 changes

The program does a better job of picking out triangles in diamonds.

Version 39.47 changes

New concepts: **Z-SOME**, **Z’s ARE SOLID**, **Z-SOME <N>/4 SOLID**, **Z’s ARE SOLID <N>/4 Z-SOME**.

New calls: **ends go as you are**, **[cross] run away**, **ends go as you are**, **[cross] chuck-a-luck**, **ends work as couples**, **interlocked little**, **push open the gate but <anything>**.

Some cases of **1/2 circulate** from T-bone setups were improved.

Some cases of some people tandem in a **grand swing thru** were improved.

Version 39.46 changes

magic pass to the center is supported.

change lanes allows the centers to step to a miniwave at the start of the call.

Version 39.45 changes

The behavior of **touch tone** was changed. It goes to the same handedness as the original waves.

Version 39.44 changes

A few minor fixes.

Version 39.43 changes

Two new calls/concepts were introduced, **catch it <N>** and **lines it thru**. These sorts of things are sometimes known as *supercalls*. They are calls that take a subordinate call, and embed that into their own action. There are actually quite a number of supercalls, like **tally ho but <anything>** or **chain reaction but <anything>**. They are sort of like mathematical functions taking an argument. As such, they are also concepts. And as concepts, they can

be preceded by metaconcepts, saying, for example, which parts of the subordinate call are to be acted on and which are to be performed normally.

Sd requires that the subcalls of supercalls be placed in square brackets, as in **tally ho but [2/3 recycle]**. This is to avoid potential ambiguity. You can also type the literal word **<anything>**, and then type the subcall (without brackets) on the next line.

Proper parsing of metaconcepts and supercalls, by humans and by computers, requires that the words be presented in an unambiguous order: metaconcept, concept/supercall, call. For ordinary concepts, this is obvious, as in

initially tandem 1/4 thru

This also works for nearly all supercalls, as in

first 1/2 motivate but [contour the line]

The two existing supercalls **catch <anything> <N>** and **lines <anything> thru** violate this principle, in that the subcall is not at the end. These two new supercalls, **catch it <N>** and **lines it thru** are intended to correct that problem. The “it” construction puts the word “it” where the inserted call would be, and moves the actual subject call to the end. For example, **first 1/2 catch it 3 [contour the line]**.

There is another concept that uses an “it” construction: **checkpoint it by it** as in **checkpoint it by it hinge the lock**. It can only take one subject call, and uses that call in both of the places that **checkpoint** would. It can be preceded by metaconcepts in the usual way, as in **initially checkpoint it by it hinge the lock**, meaning **checkpoint hinge by hinge**, followed by plain **lockit**. Do not put the subject call in brackets; it is simply a call shown after a concept.

Version 39.42 changes

The selector **leaders** may be used, identical to **leads**.

The build mechanism for Sd has been revamped over the last few months. It is now built with 3 identical toolchains, running on 3 identical Windows 10 computers, each with 2 compilers. Windows XP and Linux are no longer used.

Version 39.41 changes

In accordance with a recent list change from Callerlab, **grand drop <direction>** was moved to C2.

Handling of things involving arm-turning some fraction right or left, as in **swing thru**, were improved.

Version 39.40 changes

An error in **3x1 lockit** was fixed. The removal of empty spaces at the end of the call is done separately for each subformation.

The **<N> steps at a time** calls may be fractionalized.

An obscure and ill-advised suggested call was removed

Handling of missing people may have been improved.

Version 39.39 changes

Some call levels were changed in accordance with recent Callerlab list changes:

triple scoot was moved from A2 to Plus.

split dixie sashay has been at C1 for years, and is staying that way.

The **central concept** was moved from C3 to C3A.

A few extremely obscure user requests were implemented.

Version 39.38 changes

A small improvement was made in the handling of 1/4-tag formations in two-couple mode.

No one can roll after **roll right to a wave**.

Version 39.37 changes

A small improvement was made in the handling of 1/2 **<anyone> trade**.

Version 39.36 changes

A small improvement was made in the handling of 1x2 or 2x1 formations within 2x4 formations.

Version 39.35 changes

The “Solomon Rule” is not absolute. There are cases of offset reinstatement the King Solomon might not approve of. For example, from 2x6 parallelogram facing lines, **parallelogram touch**, going to a tidal wave, has been generally accepted for quite some time. However, things like **Z Pass The Ocean** from facing Z’s (as in 1/2 **E.R.A.** from appropriate facing lines) is illegal.

Putting an offset back along the opposite axis is legal, even though it doesn’t follow the definition of an offset concept, as long as such a concept is not invoked. For example, from 2x6 parallelogram waves, **Lockit** is legal. (But **Parallelogram Lockit** is not, since it violates the **parallelogram** concept.

Similarly, from the Z's that could be obtained with **1/2 Press Ahead** from waves, **Tandem 1/4 Right** is legal.

The “call frequency” mechanism was removed. It was a bad idea from the start. Callers have to use their own judgement about how to use the lists effectively.

Version 39.34 changes

The program can handle many triangles.

The program has a better understanding of why **Z axle** behaves the way it does and why some other similar calls must behave differently.

Version 39.33 changes

The **offset column/line/wave** concepts have their same meaning as before; they operate on a single distorted 1x4 setup within a 2x4, as in the trailers of 2-faced lines. Two new concepts have been added: **offset 1x4**, which is like the preceding ones but is indifferent to facing direction, and **offset box**, which uses the same geometry, realized as a distorted 2x2 box. All of these terms are singular. Don't say things like **offset line of 4**.

Also, **offset box** legal in a 2x3, meaning the same thing as **Z**.

Version 39.32 changes

The call **counter rotate** has been revamped. The program can now do unsymmetrical colliding counter rotates of more than 1/4 without stopping and taking right hands partway through.

The program has a better understanding of what **<anyone> counter rotate** and **<anyone> do your part counter rotate** mean.

No instances of material in the multi-megabyte library of existing tests are affected by this change.

Users should be aware that, in two-couple mode, the automatic reduction of the result to a compact 4-person formation occurs only at the end of a complete call. If one does an **ECHO <concept> <call>**, after the first **<concept> <call>**, outboard phantoms are not removed if this intermediate result has 8 people. The final **<call>** will be done in that 8-person formation even if it could have been reduced. So, for example, from the 2x4 setup after **1/2 press ahead** from a single wave, the first part of **ECHO PHANTOM WAVES turn the key** leaves a 2x4 in which only the center 4 spots are occupied. The outer 4 empty spots are not removed, because the **ECHO** operation isn't finished. The final **turn the key** will be done in that full 2x4 of waves, so the **trade** will take those people to the outside.

Version 39.31 changes

IMPORTANT!!!! The program is compiled for 64 bits.

Improved the handling of colliding **counter rotate** in unsymmetrical 1x8 formations.

Fixed the bug in **piecewise generous soft touch 1/4**.

Version 39.30 changes

IMPORTANT!!!! The program is compiled for 64 bits.

New concepts: `near triangle`, `far triangle`

In an unsymmetrical tidal line with the 4 ends all facing the same way, `counter rotate` will have those 4 people collide and take right hands. The result will be off-center. The `recenter` operation can bring them back.

From a plain 2x2, during two-couple calling, the concepts `triple boxes working together/apart/clockwise/counterclockwise` are ambiguous and illegal, because Sd doesn't know where to place the other two boxes. You must use `forward/back/left/right`.

Version 39.29 changes

There are many new **phantom** and **assume** concepts. These are almost always the same.

PHANTOM EIGHT CHAIN, ASSUME EIGHT CHAIN

PHANTOM TRADE BY, ASSUME TRADE BY

PHANTOM DPT, ASSUME DPT

PHANTOM CDPT, ASSUME CDPT

PHANTOM FACING LINES, ASSUME FACING LINES

PHANTOM BACK-TO-BACK LINES, ASSUME BACK-TO-BACK LINES

PHANTOM TWO-FACED LINES, ASSUME TWO-FACED LINES

PHANTOM ONE-FACED LINES, ASSUME ONE-FACED LINES

PHANTOM INVERTED LINES, ASSUME INVERTED LINES

PHANTOM TIDAL LINE, ASSUME TIDAL LINE

PHANTOM TIDAL WAVE, ASSUME TIDAL WAVE

PHANTOM TIDAL TWO-FACED-LINE, ASSUME TIDAL TWO-FACED-LINE

PHANTOM HOURGLASS, ASSUME HOURGLASS

PHANTOM GALAXY, ASSUME GALAXY

PHANTOM TIDAL WAVE, ASSUME TIDAL WAVE

PHANTOM TIDAL LINE, ASSUME TIDAL LINE

PHANTOM TIDAL COLUMN, ASSUME TIDAL COLUMN

PHANTOM SPLIT SQUARE THRU SETUP, ASSUME SPLIT SQUARE THRU SETUP

PHANTOM LIFT-OFF SETUP, ASSUME LIFT-OFF SETUP

PHANTOM I SETUP, ASSUME I SETUP

PHANTOM TIDAL TWO-FACED-LINE, ASSUME TIDAL TWO-FACED-LINE

PHANTOM GENERAL 1/4 TAGS, ASSUME GENERAL 1/4 TAGS

PHANTOM 1/4 TAGS, ASSUME 1/4 TAGS

PHANTOM 3/4 TAGS, ASSUME 3/4 TAGS

PHANTOM 1/4 LINES, ASSUME 1/4 LINES

PHANTOM 3/4 LINES, ASSUME 3/4 LINES

The **GENERAL 1/4 TAGS** designation allows any line-like thing in the center, and any couples or miniwaves on the outside. The others require a couple looking in or a couple looking out for 1/4 or 3/4 respectively.

There is a subtle point here. **PHANTOM 1/4 TAGS**, like **SPLIT PHANTOM 1/4 TAGS** and **INTERLOCKED PHANTOM 1/4 TAGS**, is a recognized C3 concept, and is very general. The only thing it requires is that the outsides be couples facing in, and that the centers be any kind of line. **ASSUME 1/4 TAGS**, makes the additional requirement that the centers be a wave. The **3/4 TAGS** operations are similar. By contrast, the **1/4 LINES** and **3/4 LINES** operations require 2-faced lines in the middle.

A “lift-off setup” is the 2x4 obtained by having the heads/sides pass thru from a squared set, staying in the center. It is named after a C3 call.

These should generally only be needed in two-couple calling. They are all mainstream.

Version 39.28 changes

An improper application of **ramble** was removed. The centers’ first part is not simply a **single wheel**.

Fixed the issue that the proper definition of **phantom waves**, called from parallel waves (that is, just the center two waves occupied) is *illegal* if the call is something like **split recycle**, sending each 2x4 pair of parallel waves into a 1x8. The outer pair of waves has to go to an outer 1x8, split in a way that violates the Solomon rule. Even if the outer formation is empty. But, in two-couple calling, it is now legal if the outer pair of waves is empty. In that case, the strict definition of **phantom waves** is no longer enforced, and it can become effectively an **assume waves**.

Version 39.27 changes

New concepts: **1x6 matrix**, **1x8 matrix**. These are intended to be used in two-couple calling. When there are 8 people in the square, it shouldn’t be necessary to expand to a 1x6 or 1x8.

New concepts, all at C1: **phantom diamonds**, **phantom diamonds**, **phantom diamond spots**, **phantom 1/4 tags**, **phantom 3/4 tags**, **phantom 1/4 lines**, **phantom 3/4 lines**, **phantom general 1/4 tags**. These have been around all along at C4, as actual concepts (along with things like **split phantom diamonds** and **interlocked phantom diamonds**). They are equivalent to the **assume** commands introduced in version 39.15.

Version 39.26 changes

In addition to using various **assume** commands, it is now possible to use the **phantom lines**, **phantom waves**, or **phantom columns** concepts. So, instead of **assume eight chain rotary spin**, one could say **phantom columns rotary spin**. These concepts have been moved from C3 to C1. You can use them below that by issuing the **toggle concept levels** command.

Version 39.25 changes

The **anchor** <anyone> concept has been improved to be more capable with calls that have complex quirks in their definitions.

The **scatter** modifier, as in **scatter follow to a diamond** or **scatter reach out**, had been changed to an actual “concept” a few releases ago. This was to facilitate things like **echo scatter motivate** (A similar thing was done for several other modifiers, like **in roll** and **bias**.) The level of **scatter** had been set to C3A. Unfortunately, that made **scatter scoot** not legal at C1. That has been fixed.

Version 39.24 changes

BEWARE: in 2-couple calling, **extend** from a wave, without an **assume** specifying a 1/4 tag, will default to the bogus “step thru” operation that some callers consider to be an appropriate application of this call. You should use **assume 1/4 tags** or **assume right 1/4 tags** or **assume left 1/4 tags**, as the case may be.

In two-couple calling, the display of a 2x2 box was tightened up a bit.

And the usual other improvements for two-couple calling.

Version 39.23 changes

All **assume** commands are now legal at all levels. So, in two-couple Mainstream, from back-to-back couples, you can say things like **assume eight chain touch 1/4** or **assume back-to-back lines wheel and deal**.

Two new assumptions: **Assume galaxy** can place phantom points around a 2x2 box. **Assume hourglass** can place the phantom diamond spots on a 2x4 setup occupied by the ends.

And the usual other improvements for two-couple calling.

Version 39.22 changes

Many issues relating to two-couple writing, in a variety of areas, were resolved.

Version 39.21 changes

A number of improvements to two-couple writing were made. Many of them involve unsymmetrical setups and the **near** <N> and **far** <N> designators.

There are also assumptions for 1/4 and 3/4 tags.

Version 39.20 changes

A number of improvements to two-couple writing were made, including fixing the **1/4 the alter** bug, the **dixie grand** bug, the **fan the gate** bug, and the **counteract** bug,

To start a sequence with something like **heads split square chain thru** or **heads spin the pulley**, give the **assume split square thru setup** command before the first call.

Version 39.19 changes

A serious bug was fixed. The test procedure now involves several hours of stress testing, with multiple compilers and operating systems.

Version 39.18 changes

It is now possible to resolve in two-couple writing. Only at-home getouts are found.

A serious bug was fixed.

Version 39.17 changes

Many more improvements to two-couple writing.

New calls: **single circle left/right <N>/4**.

When writing two-couple material, it is legal to say things like **central sets in motion** or **central plan ahead**. These would not be legal when writing ordinary material, because the people don't stay in the center. But with two couples, there are no other people to interfere. At the end of these calls, the dancers are compressed to a compact formation.

These are intended for two-couple writing, but may be used anywhere, from facing people. You will have to figure out the words you want to use; this may depend on the context.

Version 39.16 changes

More improvements to two-couple writing.

New calls: **circle 4 left/right <N>/4**.

These are intended for two-couple writing, but may be used anywhere, from facing couples. You will have to figure out the words you want to use; this may depend on the context.

Version 39.15C changes

More improvements to two-couple writing. The goal is to make it almost never necessary to type the word **phantom** to the computer (unless you are using the C1 **phantom** concept, of course.) You should be able to get what you want by using the various **assume** operators. What you say to the dancers is a different matter.

New assumptions: **assume 1/4 box**, **assume right 1/4 box**, **assume left 1/4 box**, **assume 3/4 box**, **assume right 3/4 box**, **assume left 3/4 box**.

Version 39.15B changes

A minor bug was fixed. It had been discovered in the two-couple version, but it applied in general.

Remember that, when calling two-couple material, you should not need to type the word **phantom** to the computer. The **assume** concept, naming the setup that the dancers should mentally form, should do the trick. But you very well may need to say the word **phantom** to the dancers when calling.

Version 39.15A changes

There is a rudimentary ability to write 2-couple material. This is initiated by giving the starting setup **two couples only**.

The exact words you need to use when calling this material is not universally agreed upon. In Sd, you should not need to say **phantom**. Use the **assume** command instead. For example, from two couples back-to-back, you can say **assume eight chain rotary spin**. From a 4-person wave, you can say **assume tidal line relay the shadow** or **assume 1/4 tags chain reaction**.

Whenever you have an 8-person setup, you can issue 8-person calls, without saying the word **phantom**, and the calls will take on their full 8-person meaning. When the setup goes back down to 4 people, the calls become natural 4-person calls again.

Do not attempt to use the **resolve** or **reconcile** commands. You should be able to work out at-home getouts. Sd will announce when you have an at-home position.

This version is experimental.

Version 39.15 changes

A number of bug fixes.

A number of formerly ad-hoc attributes were changed into actual heritable modifiers. This make it possible to do things like **echo bias circulate** or **reverse echo scatter reach out**.

Version 39.14 changes

A few bug fixes.

Version 39.13 changes

It can now do things like **swing and circle 9/16**.

Various other improvements, mostly to the usual suspects: **tally ho**, **swing the fractions**, and **remake**.

This may be the last version of the program that can run on 32-bit hardware or a 32-bit operating system. Future versions may require a 64-bit system. We believe that all modern computers can handle 64-bit software. The last 32-bit version will be saved.

Version 39.12 changes

A few few bugs were fixed, most notably involving the **recenter** operation.

Version 39.11 changes

A few few bugs were fixed, most notably involving the re-evaluation of what things like **near 4** mean when doing a **two calls in succession** operation.

Version 39.10 changes

The “nonstandard” version of **little more** was removed. This had been put in 20 years ago, in version 32.9, in response to the belief, by some, that **little more** had two parts for the ends: 1/4 Right and Counter Rotate, and two parts for the centers: Step & Fold and Circulate. That was wrong then and it is wrong now. The call has two parts: **little** (centers Step & Fold while the ends do two subparts) and then centers Circulate while the ends do nothing.)

The warning "Using 'crazy' on decomposed tandem-like operation." has been removed. It dates from a time when that kind of intricacy was not generally accepted usage. It is now commonplace.

The general notion that **but** replaces the last thing that the centers do has been moved down from C3B down to C3A.

In addition to the wording **<anyone> PREFERRED FOR TRADE, CHECKERBOARD/BOX/DIAMOND** the program now allows **PREFER THE <anyone> FOR THE TRADE, CHECKERBOARD/BOX/DIAMOND**.

Version 39.09 changes

The calls database has been updated to reflect the recent changes to the call lists.

The program has a better understanding of the subtleties of **courtesy turn**.

The call **tag the line 0/4** allows everyone to roll.

And the usual improvements to the recognition and handling of triangles.

Version 39.08 changes

Many improvements were made in the recognition and handling of triangles.

The call **courtesy turn** can now handle some uncommon applications.

Version 39.07 changes

A number of bugs were fixed, and improvements made. Many of these improvements involve unsymmetrical identification of people, as in **near 5**.

Note that there are no designators for things like **the 3 on the caller's left**, though one can designate the line, column, or box on the caller's left or right. The designators like **leftmost 3** do not select people based on their position in the room. They are intended to select the leftmost or rightmost N people in a line of 4 all facing the same way, as in **leftmost 3 here comes the judge** from back-to-back lines.

In the setup obtained after **1/2 circulate** from parallel waves, one can designate the **center diamond** and the **outside diamond**. In the setup obtained after **1/2 acey deucey** from parallel waves, one can additionally designate the **middle (intermediate) diamond**.

Version 39.06 changes

A bug was fixed in the handling of **counter rotate** from the “checkpoint spots” of point-to-point diamonds or a spindle.

stretch 3x1 triangle circulate works properly from 3x1 triangles with the center 6 in columns. Six people do the stretch.

Ability to **roll** after **<anyone> u-turn back** was improved.

Sd can now handle the malfunctions that occur when saving the backup version of ‘**sd.ini**’ while using Windows Vista. We thank Microsoft for making this interesting.

Version 39.05 changes

An inadvertently introduced bug in **stretch** was repaired.

Version 39.04 changes

Many bug fixes, especially relating to complex interactions of meta-concepts and supercalls, such as **finally catch [tandem swing thru] 3**.

An enormous backlog of improvements, mostly minor.

Version 39.03 changes

There are new triangle designators, at C1. They are not generally recognized as being part of C1. They are used in a 2x4. An example might be **end girls are the apex of tandem-based [or wave-based] triangles reshape the triangle**. The two people in that 2x2 box who are not directly in front of or behind the designated apex constitute the base. The triangle is effectively a right triangle. Work to those spots.

Cycle and wheel was fixed so that it can't be called from facing couples, with everyone doing a facing recycle.

Better handling of tricky cases of the **release** concept.

Better handling of tricky cases of **triple trade**.

Better handling of tricky cases of **kick off**.

New call: **leap frog <N>**. Pass over that many spots.

Version 39.02 changes

A bug in **own the anyone**, that can cause incorrect results in certain cases, was fixed.

The program can apply the modifiers **generous** and **stingy** to **squeeze**.

The "centers work in tandem, ends as couples" and "centers work as couples, ends in tandem" warnings have been removed. This used to be a noteworthy application of **siamese**, but is no longer.

New (C4) call: **fly the coop**. Typically from a 1x8 tidal line, the center 2 do a grand cross run to the other far end. Then everyone trade, then the new center 2 do another grand cross run, then everyone trade. This call has 4 parts. The setup can be smaller than 8 people, and the people lateral to the very centers don't have to be in a line. The very centers simply cross run around whoever is there, and they all move in. So, for example, this action would take point-to-point diamonds to a "rigger".

New concepts: **M/N of**, **middle M/N of**, and **last M/N of**. These call for the execution of (only) the appropriate section of the call. The use of the word "of" is intended to disambiguate these from the C4 meta-concepts **first M/N <concept>** and **last M/N <concept>**, which direct the application of the concept to just the indicated part of the call, while doing the whole call.

M/N of is the same as the existing concept **M/N**, and is included for completeness. **Last M/N of** is the same as the existing concept **do the last M/N**. **Middle M/N of** is new.

New concept: **big block diamonds**. This is similar to **big block**; the points of the diamonds are essentially the ends of big block lines; the centers of the diamonds are on the appropriate other big block spots of the 4x4. But disambiguating this can be tricky. The people in the very corners of the setup are diamond points, and the other people use that information to deduce where the rest of the diamonds are.

New concepts: **center 2x4** and **center 2x6**, from 2x8, 2x10 or 2x12. Examples: **center 2x6 triple boxes bingo** or **center 2x6 12 matrix circulate**.

New triangle designators: **beau point triangles** and **belle point triangles**. These are analogous to **in point triangles** and **out point triangles**, but are used when all the points

are facing in or all are facing out. If you are a point and the rest of the diamond is to your right, you are the beau-point apex. If the rest of the diamond is to your left, you are the belle-point apex.

The program has a much better ability to deal with the decades-old problem known as the "diamond to 1/4 tag adjustment". That is, it is much better at getting into and out of **twin phantom 1/4 tags** and **twin phantom diamonds**, that is, a 2x2 array of diamonds or single 1/4 tags.

Version 39.01 changes

There has been a major redesign of the way triangle concepts are done internally. This should have essentially no visible effect on program behavior.

In the past, things like **in point triangles** were *concepts*, so that **in point triangles circulate** was an application of the concept **in point triangles** to the call **circulate**. Now the triangle designators are *selectors*, the same as **centers**, **heads**, or **girls**. There is a concept "<ANYONE>", which has a selector fill in for the <ANYONE> and has those people do the call. So, when you type **centers trade** you are invoking the concept <ANYONE> on the call **trade**, with the selector **centers** filled in for the <ANYONE>. Now, when you type **in point triangles circulate**, you are effectively doing an <ANYONE> **circulate** with **in point triangles** filled in as the selector.

There is also a concept <ANYONE> (**while the others**) which takes two calls and has the selected people do the first call while the others do the second call. So you can type

```
centers (while the others)
trade
circulate
```

You literally type the "(**while**"; then you can press <enter> and Sd will fill in the rest. The two calls have to be entered on separate lines; concepts that take two calls require this. This will come out as

```
CENTERS trade WHILE THE ENDS circulate.
```

Sd will fill in the other selector if it can. Because of this, you can type

```
outside triangles (while the others)
circulate
hinge
```

which will come out as

```
OUTSIDE TRIANGLES circulate WHILE THE CENTER 2 hinge
```

Other changes:

No one can roll after **transfer the column**.

The program can do **any hand remake** in a thar.

Further improvements to <anyone> **trade**.

Improvements to <anyone> **ripple**.

Improvements to **load the boat**.

Improvements to **linear cycle**.

The program can do **sweep 1/8**.

Version 38.93 changes

A serious bug was fixed, that could cause the program to crash.

The handling of triangles within "323" setups was improved.

The calls **allemande left**, **allemande thar**, **go right and left and form a star**, and **shoot the star** were added. These do not handle any tricky cases, and it is not the goal of the program to assist with writing material of this type.

The ability to do **<anyone> trade** was improved in some setups.

Version 38.92 changes

The **randomize couple colors** command may only be given at the start of a sequence, that is, just before the **heads starts**, or whatever, command. You can't change the colors of the icons in the middle of a sequence. As a reminder, random couple coloring is enabled with the **-hide_couple_numbers** switch at startup.

New meta-concept: **randomize between**. This is followed by two concepts (or compound concepts like **phantom tandem** or **parallelogram split phantom lines**), followed by more text (which might involve still more concepts). The parts of the subject call will be performed alternately with the first concept and the second one. You do not need to press **<enter>** between concepts. Do not type any special punctuation or "and"; just type the concepts, as in

randomize between cross concentric as couples flip back

The program will figure out the concept groups and put in the necessary delimiters for you, as in

RANDOMIZE BETWEEN CROSS CONCENTRIC AND AS COUPLES, flip back

If you don't agree with where Sd thinks the concept boundaries are, don't call it.

Another meta-concept: **triple randomize among**. This takes three concepts and cycles through them in sequence over the parts of the call.

New concepts: **paranoid** and **<anyone> are paranoid**. The designated people (or everyone) turns back at the conclusion of the call. If a designator such as **centers** is used, it is evaluated after the call.

Version 38.91 changes

It can now do **ends promenade N/4** (in the sense of **heads promenade halfway, come into the middle and ...**) when in a "rigger", 1/8, or 1x8-with-centers-lockit setup.

A bug was fixed in **cast back**.

It can handle fractions given to **echo** constructions. For example, **do the last 3/4, echo <concept>** means do the last half of the call with the concept, then the full call without it.

Version 38.90 changes

Improved ability to get out of thars, the importance of which is increased with the addition of **flip the galaxy** and **cut the galaxy** at C1.

Allow **ripple** in 3-person lines.

Fixed **pass in** and **pass out** so that they really turn toward or away from the center of the set or the center of the explicitly named subformation.

Fixed misleading/incorrect information in transcript file after concepts like **center 2/outer 6**.

The **stretch** concept takes a 4-person call, with preference for a 2x2 splitting, same as **central** or **crazy**. This means that, for example, from waves, **stretch counter rotate** will do a **stretch split counter rotate**.

The call **double cross** has been moved to A1, in accordance with a recent change from Callerlab.

When it sees a **promenade** getout from 2-faced lines, in addition to indicating that getout as before, it can also display it as a "circulate, bend the line" getout, as in **promenade (3/8 promenade, or couples circulate 1-1/2, bend the line, you're home)**. You may find this helpful, or you may find it annoying. It is an option, and it is off by default. You may put the switch "-bend_line_home_getouts" in the invocation of the program, or the line "bend_line_home_getouts" in the "[Options]" section of your 'sd.ini' initialization file. You can also switch this on or off at any time with the **toggle bend line home getouts** command.

New concept: **<anyone> paranoid**.

Ability to handle unsymmetrical **chain reaction** was improved.

Version 38.89 changes

Moved **triple cross** to the A1 program, as per the decision of Callerlab.

Moved **flip the galaxy** and **cut the galaxy** to the C1 program, as per the decision of Callerlab.

Version 38.88 changes

Further improvements to crossfire.

Improvements to percolate.

Improved ability to use WORK and ARE interchangeably in things like INSIDE TRIANGLES WORK THREESOME or INSIDE TRIANGLES ARE THREESOME.

Version 38.87 changes

Changed the levels of some calls in accordance with the Callerlab Triennial review.

Fixed the behavior of **crossfire**. Those who traded step ahead. Those who cross folded do not.

Fixed the allowable starting positions for **plan ahead**.

Fixed a bug in fractionalization of **mini busy**.

Fixed a bug in **CRAZY**.

Fixed a bug in **cast off 1/8** and **cast off 3/8** with a designator.

Version 38.86 changes

The handling of **right roll to a wave** and **latch on** was changed, in accordance with the definitions. **latch on**, and **leads latch on** (they're the same thing), are legal when the two people are facing. **right roll to a wave**, and **leads right roll to a wave** (they're the same thing), require that at least one person be a lead.

Improved **swing chain thru**.

Improved the handling of the meta-concepts **FIRST M/N <concept>**, **MIDDLE M/N <concept>**, **LAST M/N <concept>**, and **HALFWAY <concept>**.

These may be used with concepts that manipulate the parts of the subject: **REVERSE ORDER**, **M/N**, and **DO THE LAST M/N**.

When the latter concepts are used with a meta-concept that picks out a specific part, as in **INITIALLY REVERSE ORDER settle back**, it picks out the first part and applies the concept to the parts of that picked-out part. That is, it does the **reset** in reverse order: **hinge, 1/2 zoom, hinge, 1/2 zoom**.

But when they are used with a meta-concept that selects a *range*, of the target call, the indicated concept acts directly on that range, not on any particular subcall. So **HALFWAY 1/2 reset** does **1/2 zoom, 1/2 zoom, hinge**. **FIRST 3/5 REVERSE ORDER, swing the fractions** does turns of **3/4, 1/2, 1/4, 1/2, and 1/4**.

Version 38.85 changes

Fixed obscure case of **jay walk** (or **jay <anycall>**). In some cases, this call can be very complex. An example is **boys jay walk** from a normal starting DPT.

Made improvements to **swing-o-late, alter and circulate, counter**.

Version 38.84 changes

Fixed a number of minor problems, relating to

3x3 counter rotate, swing and circle, dixie diamond, 1/2 U-turn back, Z axle, couple up, tally ho, (scatter) scoot to a wave, hocus pocus with the outsides going an odd number of quarters, **lead beaus** etc., **checkerboard** going into and out of phantom formations, very

long resolve diagnostics, very long inserted comments, **left touch 1/4** in offset lines, unsymmetrical **near 3** etc., [those facing pass thru] and **circle 1/4**, [stretched wave 2/3 recycle] **er's coordinate**, **delight/dilemma**, **wheel and <anything>**

The call **swing and circle 1/4** has 2 parts. The first is **swing** in the wave. The second is **slip** in the wave while the outer 6 do what needs to be done. For **<anything> and circle 1/4** there are also 2 parts. The first is **<anything>**. The second is just the outer 6 do what needs to be done.

The calls **swing and circle N/4** and **<anything> and circle N/4**, for values of N greater than 1, have N parts, each of which has 2 sub-parts.

Version 38.83 changes

Fixed a number of minor problems.

Version 38.82 changes

In accordance with a vote of the Callerlab Advanced Committee, **triple cross** has been moved from C1 to A2. As of this writing, it is not yet on the official A2 list. You should workshop it before calling it.

Improved handling of unsymmetrical setups.

Improved tricky cases of once removed 3x1 triangles in a 2x6.

Fixed bug in **clover and** and **wheel and**.

In accordance with the Callerlab Applications Review Committee, it is legal to call **crossfire** from a wave. The result is a 2x4, because colliding people always spread outward from the center. Be warned: "The definition allows for this application; however, the ending position is extremely unusual and the Committee cautions its use."

Version 38.81 changes

This version was withdrawn because of a bug.

Version 38.80 changes

Fix to bounce and 1/2 circulate.

Version 38.79 changes

Better handling of setups on a 45 degree angle, and the fractional calls that get into and out of such setups. This handles the 45 degree things that were called in the competition at the 2015 National Square Dance Convention, and the logical consequences of them. Such manipulations will be marked "controversial". If you don't agree with these, you are welcome not to use them.

A new command-line switch has been added, to facilitate running on operating systems in which one does not have control over the program's current directory. The output files are normally written to the current directory. This can be changed with the "-output_prefix <directory>" switch when invoking Sd or Sdttty. The given directory argument will be prepended to the transcript filename (e.g. 01mar15_c2.txt). The given directory argument should be a fully qualified pathname, followed by the appropriate separator character: "/" or "\". So an argument of "-output_prefix /home/wba/sd/" will cause the transcript file to be "/home/wba/sd/01mar15_c2.txt".

The command "change output prefix" may be given while the program is running, having the same effect.

This switch may also be put in the "[options]" section of the initialization file, "sd.ini", without the leading hyphen.

Version 38.78 changes

Can handle difficult fractions leading to 45-degree setups, as in 5/8 left swing thru or 3/4 left swing the fractions.

Version 38.77 changes

Improved ability to handle squeeze.

Fix reverse dixie style in a left-handed 1/4-tag.

Version 38.76 changes

Revamped the way Z's are handled. Sd can now correctly do things like Z counter rotate and Z axle regardless of the Z's orientation.

Made checkmate the column legal in an 8-chain setup.

Version 38.75 changes

The bug in Z counter rotate was fixed. That is, it applies the actual Z concept. To rotate the Z rigidly as a 2x3, use EACH Z counter rotate. Z names a concept. EACH Z names a formation.

Improved the jay concept to allow 3x4 matrix positions.

Version 38.74 changes

Improved the stretch concept and the blocks concept.

Version 38.73 changes

Fixed bug in lift off.

Version 38.72 changes

Moved **triple boxes working together**, and similar concepts, from C4A to C3.

New concepts: Now that there is support for recognizable last parts of calls, these concepts have been added: **skip the last part**, **use for the last part**. An example of the second of these is **use recycle for the last part: swing the fractions**. To do this, enter the concept **use for the last part**, and follow the prompts.

Fixed bug in **crazy** identification in a Dunlap Hourglass.

Fixed bug in **once removed** with colliding calls.

Lift off is now supported if the couple facing out have pressed ahead to squared-set spots.

Fixed complex cases of **remake**.

Fixed bug in **FRACTAL spin chain the line**.

Version 38.71 changes

Fixed embarrassing bug involving disappearance of the #2 boy.

Improved ability to **jay walk** and **U-turn back**.

Improved ability to handle parts. The program now knows about calls (like **relay the deucey**) that have a recognizable first part and a recognizable last part, but no usable fractionalization in between.

Version 38.70 changes

The call **do the centers part of load the boat** is now recognized as a call in its own right, at Plus. No other **do the centers part of ...** calls are planned, because the capacity for abuse is too high. If you really want such a thing, toggle concept levels and use the **central** concept

New tagging ending: **<ATC> er's motion**. Tag all the way through; first go left, next go right, as in the end of **sets in motion**.

The **mimic** concept was improved.

There is more support for unsymmetrical couples and siamese operations.

Version 38.69 changes

Minor tweak.

Version 38.68 changes

The roll behavior after things like **wheel the ocean** is correct.

The parser was changed to address the **6x2 acey deucey** problem. The call appears as such in the menu, but typing, for example, **echo 6x2 acey deucey** will get the correct result.

Version 38.67 changes

Several more ... **but** <anything> endings were added to calls that finish with the centers casting off 3/4.

The **1/2 drift apart** failure was fixed.

The **centers work 2/3, all 8 recycle** failure was fixed.

The calls **zig** and **zag** were added. These have the leads turn in the designated direction while the trailers do nothing. They are legal from 3/4 tag formations, applying only to the outsides.

Version 38.66 changes

6x2 acey deucey and **3x2 acey deucey** are now treated as instances of the "6x2" and "3x2" concepts. **3x2 reshape** and **3x2 convert** are still calls in their own right.

Fixed identification of **beaus**, **belles**, **leads**, and **trailers** in 1/4 tags or diamonds. This applies only to the centers by themselves, and the outsides by themselves. So, for example, and a normal 1/4 tag, there are 6 beaus and 2 belles, but there are no leads or trailers.

4x4 load the boat (and 3x3, 3x1, and 1x3) are implemented. We apologize for not having implemented this beautiful and fun call earlier.

vertical [anything] now fractionalizes properly.

The **split phantom lines 3x1 as couple split swap** bug, and others of its ilk, were fixed.

Version 38.65 changes

Some **generous** and **stingy** improvements were made.

The handling of **melded** was improved.

More singing call getouts are recognized.

Version 38.64 changes

Moved call levels to adhere to the rule that C4A is those things on Richard Tuck's teach order up through week 4, and anything higher is c4.

Various minor fixes were made to such things as **scatter circulate**, **locker's choice**, **swing along**, **stretch travel thru**.

Version 38.63 changes

Fixed the behavior of **mimic** with **counter rotate**.

Fixed **generous** and **stingy** with **follow thru**.

Made the **mimic** concept properly enforce the ambiguity rules. If an application is ambiguous without the **of lines** or **of columns** designation, it is illegal.

Version 38.62 changes

The just-completed changes to the C3 list were incorporated.

Many, but not all, calls on the "c3x" program were moved to c4a or c4. The general rule was that things on Richard Tuck's teach order up through week 4 were c4a, and anything higher was c4.

There is a startup switch "-no_c3x" that, when used with an invocation of c4a or higher, rejects c3x calls, even though such calls are nominally considered lower than c4a.

The misbehavior of the **mimic** concepts in combination with the **couples/tandem** concepts was fixed.

The **triple lines step and slide** bug was fixed.

Various problems with **detour**, and counter rotate in general, when the centers are in a "Z", were fixed.

The problem with some 2x2 calls in Z's, with the "Z" concept, was fixed.

Version 38.61 changes

New concepts: **offset triple lines/waves/columns**, done from a 4x4. These may be used with **standard**. These also support **working left/right/forward/backward/clockwise/counterclockwise**, the first two of which can be used with **standard**.

Also: **offset triple boxes**, done from a 2x8. This also supports **working left/right/forward/backward/together/apart/clockwise/counterclockwise**.

Also: **fifthly**. (**initially** through **fourthly** were already supported.)

The **parallelogram triple boxes** concept is deprecated. Do not use it.

Version 38.60 changes

A failure to read command-line arguments correctly in Sd, leading to such things as wrong icon colors, was fixed. Sdttty was not affected.

Ability to handle things like **team up**, with phantom directions dictated by **assume** commands, was improved.

Version 38.59 changes

The **melded as couples** and **melded tandem**, along with the twosome variants of same, are now supported. The phantom versions of these, as in **melded phantom as couples**, have been supported for some time.

A bug involving very problematical cases of **finally snag the ends** was fixed.

Version 38.58 changes

Many **generous** and **stingy** call variants were added.

The source files were improved further for robustness with a variety of compilers and operating systems.

Version 38.57 changes

The call **top it off** has been removed.

A bug in fractional stable **coordinate** was fixed.

The program is better able to handle space-invading calls like **loop** in general 1/4 tag setups.

Various minor improvements were made, including **generous** and **stingy** in certain chopped-up versions of **perk up** and **pass and roll**.

The source files were made more robust for use with a variety of compilers and operating systems.

Version 38.56 changes

The **finally twice rims trade back** bug was fixed.

The bug in bits and pieces in the presence of phantoms was fixed.

A **cast back** leading to an hourglass works properly.

Version 38.55 changes

A serious bug was introduced in version 38.52. This fixes it.

New calls: **in point triangle circulate**, **out point triangle circulate**, **in point triangle chain thru**, **out point triangle chain thru**

Version 38.54 changes

The **melded phantom** concepts now support the **twosome**, **fractional twosome**, and **twosome fractional solid** forms.

Version 38.53 changes

There is (possibly incomplete) support for the **melded phantom as couples** and **melded phantom tandem** concepts.

Version 38.52 changes

Sd does a better job with distorted boxes in butterflies and O's.

Sd can handle "diagonal lines/waves/columns" in a butterfly.

The call **separate** is now handled much more closely to the Callerlab definition.

The **as couples roll** bug was fixed.

The **wave of 6 grand swing thru** bug, after **3/4 motivate**, was fixed.

Version 38.51 changes

Fixed bugs in **3x3 rotate**.

Minor improvements in handling of weird calls with triangles.

Version 38.50 changes

New call: **top it off**, listed as Plus. From a tidal wave, all trade, center 6 arm turn 3/4 while the outer 2 counter rotate to become ends of center line, while outside person facing out does a U-turn back. You must workshop this call before using it. Whether it will get adopted as a legitimate call is unknown.

The call **wheel and spread** is now flagged as "controversial". There's actually no such call.

The roll direction for the belle in **cross and turn** is now dependent on roll direction.

Improved ability to do <ANYONE> trade.

Improved ability to roll after **Swing the Fractions**.

Slightly improved ability to do things at a 45 degree angle.

Scoot and Ramble has 2 parts. **Ramble** also has 2 parts.

Improved ability to do **Crazy Z's**.

Improved ability to do triangles.

New designators: **line/column/box on the caller's left/right**, analogous to **near line**, etc.

From a "star promenade", **press ahead** and **1/2 press ahead** both go to a "C1 phantom" setup. The result is the same whether or not "1/2" is used.

Improvements in the ability to do **dixie grand** from various arrangements of alamo rings or "O" spots.

If writing an abridgement file at C4, calls at C4A will be listed also. That is, the students will be assumed to know C3X, but not C4A. C4A calls will have to be deleted from the abridgement file, same as C4 calls. This may not be the final correct solution to this problem.

There were the usual other minor improvements.

Version 38.49 changes

The action of the people who spread to become ends of lines on **relay the shadow** is a **hinge**. It is not an arm turn, nor a cast off 1/4. Furthermore, it is not legal to apply **fractal** to it if the people are not in a miniwave. The Callerlab definition describes it as a **single hinge**, but Sd relaxes that to a **hinge**. The antique definition of this call is quite different, of course.

Sd has a slightly improved ability to do things on a 45 degree angle.

There were a few other minor improvements to execute certain calls more accurately.

Version 38.48 changes

This release fixes a few bugs. You might recognize yours. Specifically:

The **1/2 exchange the diamonds** bug from unusual facing directions.

The **parallelogram shape-changer** bug from 2x5 or 2x7 matrices.

The **magic hocus-pocus** bug.

The **galaxy quick change** bug.

The **own the <anyone>, follow to a diamond by trail off** bug.

The **ends are tandem, grand swing thru** bug.

Version 38.47 changes

Modifying the "swing/slip" of **swing and circle <N/4>** by giving the **allow modifications** command is no longer supported. Simply enter it with the subcall in square brackets, as in **[switch to a diamond] and circle 1/4**.

Sd has a better understanding of the parts of **swing and circle 1/4**. The second half has the outer six circulate while the center two finish the swing thru.

Sd can better handle complex cases of fractions, parts, and meta-concepts, such as **7/10 fourthly tandem swing the fractions**.

Version 38.46 changes

The **<anyone> in your staggered wave** (or line, column, or box) concept is allowed, at C2, in the center phantom lines spots of a stagger formation, even though it is only allowed at c3a in a general 2x4.

Sd can handle once-removed 3x1 triangles better in the 3x6 obtained by doing a **once removed 1/2 here comes the judge** from a suitable tidal line. This includes **once removed reverse cut the 3x1 triangle**.

Sd correctly identifies the two parts of **circle by**.

Sd's handling of mixed fractions and parts concepts was improved, as in **do the last 3/4 4/5 fourthly 1/2 swing the fractions**.

Sd's interpretation of **center column of 6** has been loosened to reflect common usage. Strictly speaking, and column of N is a 1xN formation, so, for example, the setup obtained

after **touch 1/4** from facing lines is two columns, just as the setup prior to the **touch 1/4** was two lines. Hence, **center column of 6** normally refers to a 1x6 column, as in **center column of 6, girls are tandem, pass and roll**. However, it is common to use this phrase when referring to the 2x3 obtained after, for example, **1/2 circulate** or **invert the column 1/4** from normal columns. Sd now accepts that terminology.

The interpretation of certain oddly oriented triangles has been tightened. This would occur on, for example, **ends are tandem reshape the triangle** from waves. Formerly, the triangles overlapped somewhat, and left a nice-looking, albeit incorrect, result. Now the result isn't as nice, but the triangles do not overlap.

Version 38.45 changes

A number of bugs were fixed. These include the **generous/stingy scatter follow to a diamond** bug and the **finally centers 2/3 cross cycle** bug.

A wider variety of facing directions are allowed for **ends bend**.

Version 38.44 changes

A number of bugs were fixed. These include the "release" bug, the "phantom clean sweep" bug, the "phantom single scoot and trade" bug, and the "tandem twosome turnstyle" bug.

Version 38.43 changes

A number of bugs were fixed. These include the "diamond siamese breakdown" bug and the "phantom long trip" bug. Sd handles **stingy** and **generous** better.

Version 38.42 changes

The call **<anyone> run 1-1/2** has been removed. That particular call, entered that way, did not re-evaluate the **<anyone>**, which is inconsistent with the way re-evaluation is done in multiple calls. To make matters worse, the call **1-1/2 <anyone> run**, entered that way because of Sd's convention that concepts always come first, would automatically be turned into **<anyone> run 1-1/2** in the transcript, since that is the more natural way to call it. Hence the transcript would be ambiguous—one couldn't tell from looking at the transcript which interpretation was intended.

If you really want the same person to do both the **run** and the **1/2 run**, use a designator that doesn't change, such as **girls** or **sides**.

A bug in **bent boxes** was fixed.

It now does a better job with unesthetic cases of **exchange the boxes 1/2** from lines.

It can better handle **1/2 circulate** from T-boned 2x3 setups.

It can handle perverse coordinates better.

It is believed that it will work better with Osamu Kawamura's program "SDReader". (See http://ww52.tiki.ne.jp/~o_kawamura/index.html.) That is, after a note about

the setup being 45 degrees off from the picture, the next line should not get swallowed. We thank Osamu, and Alf Berg, for bringing this to our attention.

Numerous other problems were fixed.

Version 38.41 changes

Two new calls, both at mainstream: **step to a wave** is the same as **touch**. **U-turn back in roll direction** does what it says. The call **U-turn back** turns toward partner where possible, even if the roll direction is the other way. We do not know just how to interpret the phrase "unless the body flow dictates otherwise" in the Callerlab definition—it seems to suggest that it might not always be the same as the last turning direction (that is, the roll direction), so we allow the user to choose which call to use.

New concept: **roundtrip**, at C3X. This is most easily explained by example: **swing the fractions** is the same as **roundtrip remake**. The **roundtrip** of a call is the call followed by the reverse order of the call without its last part. The **roundtrip** of an N-part call has 2N-1 parts.

The **tandem U-turn back** bug was fixed.

Version 38.40 changes

The calls **square the bases**, **new centers to a wave** and **percolate, <anyone> to a wave** were moved from C2 to C1.

There is better handling of the **all 8** concept.

The **stingy**, **generous** and **fractal** concepts were improved.

The handling of **percolate** and **perk up** in the presence of phantoms was improved.

The **touch by** bug was fixed.

The **3x2 acey deucey** bug was fixed.

The **2x6 matrix grand swing thru** bug was fixed.

The **side boys run in a dog-bone** bug was fixed.

Version 38.39 changes

Many more improvements were made to the **stingy** and **generous** concepts.

Version 38.38 changes

The ability to do the **stingy** and **generous** concepts has been further improved.

It is not legal to apply more than one of **stingy**, **generous**, **yoyo**, or **fractal** to the same action. But things like **finally stingy generous 1/4 thru** are legal, because the concepts apply to different parts.

Version 38.37 changes

The ability to do the **stingy** and **generous** concepts has been much improved.

There are several new concepts to facilitate designating certain people to work together as couples or tandems, or couples or tandems of 3:

- the (couples/tandems) are solid**
- the (couples of 3/tandems of 3) are solid**
- the (couples/tandems) are solid N/4 twosome**
- the (couples of 3/tandems of 3) are solid N/4 threesome**
- the (couples/tandems) are twosome**
- the (couples of 3/tandems of 3) are threesome**
- the (couples/tandems) are twosome N/4 solid**
- the (couples of 3/tandems of 3) are threesome N/4 solid**

These are used when it is possible to determine who are selected based on facing directions. For example, in a quarter box (**heads touch 1/4**) setup, one can do **the tandems of 3 are solid, pass the ocean**. Who comprise the tandems of 3 can be determined from facing directions.

These are equivalent to the existing designator "**some**", as in **some are tandems of 3, pass the ocean**. This designator can be used to select people, that might otherwise be difficult to name, by using their facing directions.

When people can't be identified by their facing directions, it is also possible to use the designators **first 1**, **first 2**, or **first 3**, from columns, or **last N**, or, from lines, **leftmost N** or **rightmost N**.

Version 38.36 changes

The program is much better at doing things that turn people by 45 degrees.

The program is more careful about **<anyone> *work* tandem** vs. **<anyone> *are* tandem** (and as couples, siamese, etc.) The word "are" is almost always what you want. It combines the indicated people from their couple or tandem into a single virtual person, changes the virtual setup to a smaller setup in response to that, and does the call.

In contrast to that, **<anyone> work <concept> <call>** is done as though it were **<anyone> do your part, <concept> <call>, while the others just do the <call>**.

The program will automatically do **<anyone> work tandem** as though it were **<anyone> are tandem**, except in the small number of cases in which that won't work.

Version 38.35 changes

The call **kickoff** was brought into compliance with the current Callerlab definition. The non-designees only partner tag if an active person is kicking into their spot.

The **stingy** and **generous** concepts were improved.

Version 38.33 changes

The program can handle many more unsymmetrical things, such as, from columns, **near 4 follow to a diamond, near 3 reshape the triangle while the others funny circulate**.

The result of a **cross by** from parallel waves is now a center wave between two miniwaves, in accordance with the Callerlab definitions. The program still allows multiple **cross by**'s (and multiple **slip the clutch**'s) after doing this, which Callerlab does not.

The call **kickoff** was modified to be consistent with the current Callerlab definition. One only does the partner tag if an active person is coming to one's spot.

The **overlapped siamese** concept was improved. See the section for version 37.81.

Version 38.32 changes

It is now possible to say, from any squared-set or alamo spots (not just at the start of a sequence), things like:

<anyone> promenade halfway, come in to the middle and <anything>
 <anyone> promenade halfway, while the others <anything>
 <anyone> promenade <N/4>, come in to the middle and <anything>
 <anyone> promenade <N/4>, while the others <anything>
 <anyone> [reverse] [single] rotate <N/4> while the others <anything>
 <anyone> bring us together

However the people were designated, they must be at head or side positions. It may be necessary to issue the **adjust alamo to other pairing** call to set this up.

It is now possible to modify (with "allow modifications") the first **cast off 3/4** of **motivate** and **relay the top**. You can also use the "but" convention to modify the last **cast off 3/4**.

A number of bugs were fixed and minor improvements made.

Version 38.31 changes

The designator **intermediate diamond** has been changed to **middle (intermediate) diamond**. The word "intermediate" in parentheses is there to prevent any possible ambiguity on the written sequence. Below about C3A, you don't need to type the "(intermediate)". Just type "middle" followed by <enter> or <tab>, and command completion will finish it for you. The three designators for the diamonds formed by a **1/2 acey deucey** are **center diamond**, **middle (intermediate) diamond**, and **outside diamond**.

New (unsymmetrical) direction: **the music**, meaning toward the caller.

New (unsymmetrical) designators: **near 2, near 6, far 2, far 6**. Sd already recognizes **near 4** and **far 4**.

The ability to do hard cases of **touch by** was improved.

New call: **separate, around <N>, into the middle for a <anything>**.

Some calls have had their levels changed. **double cross** has been moved to C2. **double play** and the **scoot nuclear reaction** variants have been moved to C3.

Version 38.3 changes

In accordance with the new Callerlab lists, **with the flow** has been moved from C2 to C1, and **interlocked triangles** have been moved from C1 to C2.

New concepts: **stingy**, and **generous**. These decrease by 1, or increase by 1, respectively, the first arm-turn cast appearing in the call.

The program has the ability to issue warnings on "overflow", that is, turning with the same hand on consecutive calls. *The test is extremely sensitive.* It can be triggered by any amount of turning at the end of one call and at the beginning, even if the total amount is only $1/4 + 1/4$. It can be triggered by **swing thru** followed by **acey deucey**. It is disabled by default. You may turn it on with the "toggle overflow warning" command while the program is running, or by placing the "-warn_on_overflow" switch in the command-line startup (for example, in a startup icon) or in the "[Options]" section of the "sd.ini" file.

Version 38.2 changes

The handling of $1/2$ **ripoff** is slightly different. When done from a left-handed box, the people sliding over stay in the center, facing each other directly. The people doing the $1/2$ zoom become points of the generalized diamond.

The concepts like **parallelogram triple boxes** and **offset lines split phantom lines** were changed. The offset percentage is measured at the beginning, before placing phantoms. The offset is removed, phantoms are placed, and the call is done. Phantoms are stripped from the result at that point, if possible, and then the offset, as a percent of the result of the stripping, is applied.

The **3x0**, **0x3**, **4x0**, and **0x4** concepts are supported.

The call **dixie style to a wave** can be done from a single file starting double pass thru (4x1) setup, without saying **single file**. Be aware that, from an 8-person starting double pass thru (Heads Star Thru) formation, this might be considered ambiguous by actual dancers, because of the possibility that only the centers are supposed to do it. Of course, if you just want the centers to do it, say so.

Version 38.1 changes

There is a new option at startup: "-hide_couple_numbers", intended for practice at sight-resolving from the colors of the 4 couples. When this option is used, the couple numbers are not shown in the diagrams. Only the genders are shown (with "B" and "G" or the appropriately shaped icon) and the colors. Furthermore, the colors of the four couples may be set randomly with the "randomize couple colors" command, to simulate the start of a new tip. This gives one practice at memorizing the primary and secondary couples based only on their color, and resolving based only on that information. The startup icon "SD hidecouple" has been created for this. This may be copied to the desktop or start menu.

The manner in which dancers pass each other during circulates from T-boned lines has been refined. Any original end will pass outside of any original center, and, if the call is $1/2$ circulate, they will take hands accordingly. Previously, an end facing in and a center

facing out were considered to be on the same path, so that they would pass right shoulders and take right hands if the call was 1/2 circulate. I thank David Heffron for bringing this issue to my attention.

The **concentric Z's** concept should be used in preference to the concepts **concentric** and **Z**.

The **crazy Z's** concept has been added. It may be used instead of the concept combination **crazy** and **Z**, though it is not necessary.

There is a better handling of calls like **relay the top** and **motivate** if the first cast off 3/4 is done by phantoms. It assumes that the formation is waves at that point.

There are two new concepts: **intermediate diamond** and **outside diamond**. They are to be used from a "3x1 diamond" setup (after 1/2 acey deucey from waves), and they identify various diamonds. One can also use **center diamond**.

A bug in **phantom columns own <anyone>** was fixed. You know who you are.

Version 38.02 changes

The handling if **1/2 make magic** was improved.

The handling of **1/4 in** and **1/4 out** was improved.

The handling if **interlocked triangles** was improved.

Version 38.01 changes

The handling of **slant <anything> and <anything>** was improved.

The program can handle **1/2 make magic**.

A bug was fixed in **mark time**.

Version 38.0 changes

The handling of **slant <anything> and <anything>** is more powerful, and follows the current Callerlab definition more closely. The people doing the second call do not simply move forward and do the call in their triple line. They do their part of the call in an 8-person setup that includes the phantoms behind them. They then reassemble around the centers as best they can. An example of this different treatment may be seen in calls like **slant pass the ocean and link up**. The call may be expressed with either "and" or "by".