RELEASE NOTES FOR SD VERSION 34.5

Database version = 34.5 format = 181
X11 UI version 1.17, SDTTY UI version 1.12, SD UI version 4.10

Version 34.5 changes

New concepts: `twin phantom point-to-point diamonds` and `twin phantom point-to-point diamond spots`.

New concept: `offset split phantom boxes`.

New concept: `parallelogram triple boxes`.

As usual, we do not take a position on the tastefulness of various new concepts or their applications.

New concepts: `center tidal C/L/W`. These may be useful for things like `own the <anyone>, center tidal wave grand swing thru by 3x1 triangle circulate`.

The program can now do a better job of having people coming to the same spot after fractional `exchange the triangles`.

The program now does a better job of telling when the outsides can circulate or half circulate.

New calls: `flip back, to a wave` and `<ATC> back to a wave, to a wave`. The program will insert commas as shown, to make the meaning clear. We do not take a position on whether `flip back to a wave` is ambiguous, or what it means.

Version 34.4 changes

New concepts: `twin phantom point-to-point diamonds` and `twin phantom point-to-point diamond spots`.

New concept: `common spot point-to-point diamonds`. This is done from the setup that would be obtained after certain fractional exchanges from point-to-point diamonds. Note that `switch to a diamond` and `diamond circulate` never produce this setup – the Callerlab C1 definitions specifically state that the colliding people center themselves.

The program can now handle parallelogram diamonds. That is, from parallelogram waves, you can do `switch to a diamond`.

New concept: `parallelogram diamonds`. This is used no matter what the facing directions are.

The program can now handle "nonisotropic triangles". For example, from columns, ignore the last person and have the other 6 1/2 press ahead.

The program can now do `counter rotate` in triangles correctly. For example, from point-to-point diamonds, `outside triangles counter rotate` will do the right thing.

The program can now do `convert the triangle` from tandem-based triangles.

The program has an improved ability to go to arbitrarily occupied stars as the result of phantom calls.

Version 34.31 changes

A serious defect in processing menu clicks in `Sd` version 34.3 was fixed. It did not affect `Sdtty`.

Version 34.3 changes

Improved the "crazy offset C/L/W" concept. It can handle shape-changers, under reasonable circumstances, up to a point. The program can also do "crazy diaagonal boxes".

The program can handle "equalizing" cases of '`transfer and <anything>`', '`busy <anything>`', and '`open up and <anything>`', as per the article by Linda Kendall in the December, 2000 issue of Zip Coder.

New concepts: staggered C/L/W of 3. Use this with "ignore".

New concepts: bent C/L/W/B (plural), from suitable formations.

New concepts: <anyone> in your double bent C/L/W.

We allow "mini-grand" getouts, if the "toggle minigrand getouts" command has been given, or the command-line switch "-minigrand_getouts" was given, or the command "minigrand_getouts " appeared in the initialization file. When this has been done, the resolver will include such getouts in its search. A "mini-grand" is "right and left grand, but on the third hand, promenade home." We do not take a position on the tastefulness of these getouts.

The "funny" concept is handled better internally, giving greater power in the database language.

Fixed a bug in jay walk "around the corner" in C1 phantom setups. For example, after Heads Spin the Top, Extend, Girls Hinge, one can now do Heads Jay Walk in a completely natural way.

Fixed a bug in phantom 1/2 circulate. We thank the contributors to the "challenge-sd" mailing list for raising this issue.

Version 34.21 changes

A serious defect in version 34.2 was fixed.

In the final transcript file, the sequence number no longer has a "#" character in front of it. Some post-processing text formatters are confused by the presence of this character.

Version 34.2 changes

The call and concept lists have been updated to reflect the recent changes to the C3B list.

```
Dropped:    shove off
            kick by
            in style
            revert

Added:      track <N>
            cross extend
            change lanes
            various split phantom diamonds and 1/4 tags, so all
                 split phantom formations are now legal at C3B
            chase the <N/4> tag
            <ATC> (chain thru) (and scatter) (cross) nuclear reaction
```

The program now recognizes that the legality of some calls in some formations depends on the level. For example, the facing version of recycle is legal only at A2 and above, and split recycle is legal only at C1 and above.

The manner in which concepts like '`yoyo`' and '`twisted`' are handled was reworked. Things like '`interlace finally yoyo swing thru with yoyo mix`' will now work properly.

The usual several dozen other improvements were made in the program's power and flexibility. For example, it now recognizes about 100 formations and about 150 resolves.

Two new Windows shortcuts were created, called "SD plain" and "SDTTY plain". You can, as usual, copy these to the start menu and/or desktop.

These shortcuts run the respective programs with no color or special graphics of any kind. When "SDTTY plain" is used, it is possible to copy text and diagrams into the Windows clipboard, from which it can be pasted into email messages or other documents. To do this, right-click the icon at the left of the window title bar. This will bring up the system menu. Choose "Edit" and "Mark".

It is now possible to specify the initial sequence number that is printed at the top of each card. This can even be done when not using a session from the initialization file. In `Sdtty`, give the command-line argument "-sequence_num" followed by the number. In `Sd`, it can be done this way, or it can be specified in the startup screen. If a sequence number is specified when using a session, that number permanantly overrides the number in the initialization file.

The documentation is now available at all times when running `Sd`. Typing "help manual", from either `Sdtty` or `Sd`, will bring up the manual under the default Web browser.

We thank a famous C4 caller for providing a wealth of new, creative, and different research material.

Version 34.0 changes

A major redesign of the internal workings has been completed. The database can now provide multiple definitions for a call. As a result, all of the former "(parts)" or "(matrix)" calls, and others like them, have been removed. In particular, the following calls have been removed:

```
recycle (parts)
cross cycle (parts)
scoot and weave (parts)
<anyone> tie (parts)
invert the column (parts)
couple up (parts)
hocus pocus (parts)
countershake (matrix)
sashay thru (matrix)
mini busy (matrix)
walk the plank (matrix)
recoil (matrix)
easy does it (matrix)
beaus advance to a column (matrix)
belles advance to a column (matrix)
<anyone> run the wheel (matrix)
bridge the gap (dpt)
grand chain 8 (centers and ends)
cover up (centers and ends)
percolate (centers and ends)
perk up (centers and ends)
```

Wherever you would have used those calls in the past, just use the plain call. For example, the call `recycle` can do the facing-couples version, or the split version, the fractionalizable wave version, or the 3x3 version.

The calls '`twist the line`' and '`twist and <anything>`' have been improved to handle the front-to-back "space invader" property. For example, when called from a tidal wave, '`twist the line`' goes to Z's. You can also call, from an as-couples 2-faced line, things like '`twist and [pass and roll your neighbor]`'.

In light of Miscrosoft's inability to make its email software adhere to the most basic common-sense principles of safety, the security on the computer from which versions of `Sd` are uploaded has been tightened. The computer on which `Sd` is developed has never had any email or internet connections, nor any Microsoft mail software. The computer from which `Sd` is uploaded to the web previously had Microsoft Outlook installed, but not used. In light of recent events, Microsoft Outlook and the "Visual Basic Script" mechanism have now been removed completely. (These programs are all Trademarks of Microsoft Corporation, Redmond, Washington.)

Version 33.15 changes

The function key control-F11 has been set to perform the '`standardize`' operation.

The Sd Windows menu has been reorganized. (That's the menu across the top of the screen, that you probably don't use.) The various types of search commands are now popups under the 'Command' menu. The actual Sd call menu is not changed.

Some obscure cases of color choice in Sdtty on Windows were improved.

The programs have been tested on a pre-release version of Windows 2000.

The program can now do calls in magic (and magic interlocked) in point and out point triangles. We thank Bill Haynes for bringing this to our attention.

The level for '<ATC> chain thru reactivate' has been lowered to C3. We thank Neil Heather for bringing this to our attention.

The 'distorted <CLW>' concepts can operate in 2x6, 2x8, and similar matrices. The real people are identified and made into a virtual 2x4.

Calls and concepts were moved on and off the C3A list in accordance with a recent vote of the Callerlab challenge committee. The calls 'rolling ripple' and 'shove off' were moved to C3. The name 'single checkmate' was added. The concepts 'finally' and 'reverse crazy' were added.

The definition of 'split swap' was changed, in accordance with a decision by the Callerlab challenge committee, to allow everyone to roll.

The program recognizes more Dixie Grand getouts.

The call 'hinge by' was improved. It is unforunate that this versatile call is not recognized below C4.

New concepts: 'as couples in point-to-point diamonds', 'as couples in a tall 6', 'as couples in a tidal line', and 'as couples in a tidal column'. These may also be used with tandem, twosome, etc. We thank various C4 callers for bring these, and many other things, to our attention.

A few extremely embarrassing bugs were fixed. We thank Rob French and Shinichi Mochizuki for pointing these out.

Internal implementation note: The program now uses modern C++ exceptions rather than the archaic setjmp/longjmp mechanism.

Version 33.0 changes

The call previously known as just 'mixed up' has been changed to 'mixed up square thru'.

New concept: 'offset column/line/wave' (singular). This is done in a 2x4 which is occupied as a single offset 1x4. This is typically done in split phantom boxes or split phantom column/line/wave.

New concept: 'columns/lines/waves of 3'. This doesn't work in all setups.

The program can do shapechangers in phantom offset columns/lines/waves, such as 'phantom offset columns walk out to a wave' in a 4x4 occupied as columns far apart.

The program can do nonuniform shapechangers in a greater number of setups, such as 'centers pass the ocean' in a butterfly, or 'center 1x4 lockit' or 'center 1x4 recycle' in offset waves.

And the program recognizes more getouts, of course.

Version 32.95 changes

The program has been tested successfully for year 2000 compliance.

When `Sd` is installed for Windows 95/98/NT, two new shortcut icons are made available, called "SD nocheckers" and "SD couple". The first runs `Sd` in such a way that the display looks like the default color scheme for `Sdtty`. The second runs `Sd` with the "color_by_couple" color scheme. You can copy these icons to the desktop or start menu in the usual way.

`Sd` (but not `Sdtty`) can now print the sequence file. At the end of a session, it will ask whether you want to print the file. The files are still written to disk in the usual way, and you can print them later. See the manual for further details.

New concept: '`fast`'. This applies to '`<ATC> back to a wave`', '`<ATC> reaction`', and similar things. It directs the *first* people on the tagging call to do the trade, rather than the last people.

New concept: '`drag the <anyone>`'. Ths designated people, rather than doing their part of the call, simply stay rigidly attached to their current partner.

New concepts: '`[fractional] [reverse] crazy offset C/L/W`'. Use these in a 4x4 matrix occupied as "stairsteps".

`Sd` now attempts to adhere to the convention that "but" modifiers refer to whatever is last done by the centers. This is already commonly recognized for calls such as '`chain reaction`' and '`tally ho`'. `Sd` now applies it to calls like '`load the boat`' and '`square the bases`' (replace the final centers' '`pass thru`') and '`percolate`' (replace the final centers' cross).

This convention does not apply universally. There are a number of existing uses in which the "but" call is done by everyone, or is not just the very last thing: '`spin the pulley`', '`line to line`', '`lift off`', '`cast an anchor`', etc. `Sd` of course preserves those cases.

The "but" ending modifiers can be used in the usual way with calls that also have an "anything" starting modifier. For example, you can type '`[swap around] the boat but [swap around]`'.

I do not know how widely accepted this usage is, or is likely to become, with dancers and callers.

The program can now do '`yoyo scoot chain thru to a wave`' from T-boned boxes (as after '`split circulate and roll`').

The program can now do calls like '`swing the fractions`' from more setups, such as 2x1 diamonds.

The interaction between '`shifty`' and other concepts was improved. One can now say, for example '`finally tandem shifty tap the beaus`' or '`initially tandem shifty tap the beaus`'.

Added '`spin the windmill`' variants that allow you to change the number of circulates for the ends. That is, you can say things like '`spin the windmill, outsides left and go 3 positions`'. You can also do '`spin the windmill, outsides <anything>`' or '`<anything> the windmill, outsides <anything>`', in which the final '`<anything>`' replaces both the turning direction and the circulates.

The program can handle parallelograms, and parallelogram split phantom setups, when the amount of offset is 25% or 75%.

Fixed bug in fractional '`eight chain N`' (centers came to wrong hand.) Fixed bug in '`triple star thru`'. I thank Dave Clay for bringing the last two items to my attention.

One can now do, for example, '`sandwich eight chain 3 with cross concentric zip the top`'.

Improved the ability to recognize triangles. For example, from a suitable rigger or "dog-bone", you can say things like '`tandem-based triangles are solid swing thru`', in addition to naming the inside or outside triangles.

The usual dozens of other improvements were made.

The database compiler now recognizes C++ style comments.

I thank the organizers of the 1999 National Advanced and Challenge Convention for producing tapes. I thank various C4 callers for pointing out how important 75% offset parallelograms, T-boned yoyo scoot chain thru to a wave, common spot hourglasses, crazy offsets, complex interactions of meta-concepts, and so on, are in modern C4 calling.

Version 32.9 changes

The installation program was improved. If a previous version of `Sd` is found in the folder '`C:\Sd`', you are asked whether to save that version, and you are allowed to choose the folder in which to place the saved copy.

The program was migrated from C to C++. Not because of any liking for "object-oriented programming", but because C++ is, in a great many ways, a better language than C.

The programs now use Dynamically Linked Libraries (DLLs) on Windows 95/98/NT.

The '`little more`' fractionalization issue was addressed. New calls, '`little more (nonstandard)`' and '`little more, ends face <direction> (nonstandard)`' were added. The first part of these calls has the ends quarter right (or a specified direction) while the centers step and fold. In the second part, the ends counter rotate while the ends circulate. Callers are reminded that this nonstandard usage is not correct according to the Callerlab C2 definitions, the Big Five, the Ceder Chest, and the Ben Rubright Pocket Reference.

The "everyone disconnected" concept was improved. It is now possible to do "everyone disconnected mini busy" from a suitable 2x6 or 2x8.

The calls '`finish advance to a column`', '`beaus advance to a column`', and '`belles advance to a column`' have versions with the suffix '`(matrix)`', as in '`beaus advance to a column (matrix)`'. Use these versions when modifiers such as '`3x3`' are desired. These versions are not fully fractionalizable. The normal versions are fully fractionalizable, as before. You do not need these versions with the '`single`' modifier.

The program can see a few more resolves than before.

A number of rather useless warning messages were removed.

A careless bug in the handling of `<anyone> work <meta-concept> <concept>` was fixed. It is now possible, for example, to do `centers work initially tandem, nice and easy`.

The program can see 3x1 triangles in a larger variety of setups than before. In suitably occupied 4x6, 3x8, or 2x12 matrices, it can see a 1x4 or 2x2 virtual setup of 3x1 triangles. Only 2 of those triangles are occupied, of course.

A rather serious bug involving complex interactions of meta-concepts with modifiers like `cross` or `reflected`, and calls that use such modifiers in their definitions, was fixed. It is surprising that this bug was never revealed by any of the hundreds of tips at C4 conventions and weekends that the program is routinely "trained" on.

Fixed a bug in '`roll`' after certain calls such as `remake`. I thank Andy Shore for bringing this to my attention.

Fixed a bug in menu operation in the presence of partly typed-in calls to Sd. I thank Uwe Themann for bringing this to my attention.

Fixed a bug in multi-part calls in which an early part is defined as-couples and a later part is a space-invader.

Fixed a difficult problem with concepts like `piecewise`, `twisted`, and `yoyo`. It is now possible to do things like '`piecewise yoyo swing thru`' correctly.

Fixed a bug in '`finally cover up but [chisel thru]`'.

The usual dozens of minor changes and improvements were made.

In `Sd`, the confirmation popup that appears when you attempt to exit the program while a sequence is in progress no longer has "OK" set as the default button. This will prevent accidental deletion of a sequence through careless typing of ⟨alt-F4⟩ and ⟨ENTER⟩. You must either explicitly click on "OK" or type ⟨TAB⟩ to select that button and then press ⟨ENTER⟩.

We thank the callers at a C4 weekend earlier this year for allowing taping.

Version 32.81 changes

A bug was fixed in the definition of '`little more`'. This is a two-part call. The first part is just a '`little`', which has the centers step and fold while the ends both 1/4 right and counter rotate. The second part has the centers circulate while the ends do nothing. While people might prefer a different apportioning of the centers' and ends' parts for various reasons, this is the way it is defined in the Callerlab C2 definitions, the Ceder Chest, and the Ben Rubright Pocket Reference.

This release contains `Sd` as well as `Sdtty` for Windows. The installation procedure has been radically revised to be more user-friendly, particularly with respect to placing shortcut icons in the appropriate places.

As a consequence of this, the programs are always installed to the folder '`C:\Sd`'.

There are many more options to control the appearance of the dancer display in `Sdtty` or the transcript window of `Sd`. They are:

```
pastel_color
bold_color
reverse_video
normal_video
color_by_couple
color_by_corner
no_checkers
```

See the manual for details.

The resolver was redesigned. It now makes a much more serious attempt to find short resolves, even if they contain concepts. At C2 and above, it also attempts to show resolves with short promenade distances before those with long distances.

Because of this, it silently defers many "low quality" resolves early in the search, saving them for later. It may report failure several times before finding a resolve. Just keep typing "find another" (or pressing function key ⟨F12⟩). It is simply rejecting the resolves that you would have rejected explicitly. If it can't find what it considers really good resolves, it will go back to the ones that it threw away and show them to you.

Version 32.67 changes

A bug that caused a failure in tip #8 in the C4 hall at the 1999 National Advanced and Challenge Convention was fixed. We apologize for any inconvenience that this may have caused.

A bug that caused certain types of 3x1 and 1x3 calls to fail to "compress" was fixed.

When an unresolved sequence is written out, a final picture is drawn, whether the "keep picture" command had been given or not.

The call "hocus pocus (fractions)" has been changed to "hocus pocus (parts)". Sorry, but it makes it consistent with all other similar calls.

The syntax of the names of "accelerator" keys in the initialization file has been relaxed. You can use either "m" (for meta) or "a" (for alt) to mean the same thing. This modifier key is called meta on some keyboards and alt on others. It's the same thing. Also, you may put hyphens into the key name, and put it in upper or lower case. The command value (the rest of the line) must be in lower case. Also, if a key is both meta/alt and control, you may list them in either order.

Hence

```
C-M-B     phantom boxes
C-A-B     phantom boxes
M-C-B     phantom boxes
A-C-B     phantom boxes
```

mean the same thing.

Version 32.65 changes

There were no profound changes in the "dancing" behavior of the program, but there were, as usual, numerous minor changes. Most of the significant changes were in the internal organization, to prepare for the upcoming release of `Sd` for Windows.

The menus were reordered to put `<anything>`, `<anyone>`, and similar things at the end rather than the beginning. The menu (that is, what you see when you type a question mark to `Sdtty`, or what you see on the screen in `Sd`) should look a lot more sensible now.

The “deleteword” function has been moved from “cv” to “cw”. Sorry. This was done to make accelerator keys more in line with Windows conventions.

If you have an “[Accelerators]” section in your initialization file, you will need the lines

```
cu      deleteline
cw      deleteword
f8      quoteanything
```

to get the default behavior. This file “sample3.ini” has been modified to contain this. When in doubt, refer to that file. You should copy the new bindings from that file if you have your own initialization file with an “[Accelerators]” section. You can, of course, bind keys any way that you want.

I recommend not binding anything to Alt-F4, Alt-F, the up/down arrow keys, or the page up/page down keys. Alt-F4 is generally used to exit from programs, and Alt-F is an accelerator used to bring down the “file” menu without using the mouse. The up/down arrow keys and page up/down keys (“e6”, “e8”, “e1” and “e2” in the sd.ini file) will scroll the menu.

I also recommend not binding anything to the left or right cursor keys, or the “home” or “end” keys when in normal calling operation, since they facilitate editing of the input text. When in startup or resolve (search) mode, binding these keys is not a problem, since input usually does not come from type-in. For example, in resolve mode, right arrow means find another resolve, which is probably more useful than anything one could do in the type-in window.

If you do not have an initialization file, or it does not have an “[Accelerators]” section, you do not need to do anything.

The compiler used for development and manufacture of `Sd` and `Sdtty` was upgraded to Microsoft Visual C++ version 6. This proved to be a mistake. Version 6 has an optimizer bug that causes it to fail to generate the exit code for a loop in the resolver. Compilers that generate incorrect code are not acceptable, so Visual C++ version 6 was removed and version 5 was reinstalled. Microsoft has been informed of the bug, as have all of my colleagues in the software development field. Until this bug is fixed, I recommend that software developers refrain from using version 6.

Version 32.6 changes

The last few versions wrote out their transcript files in "Unix" format, with just line-feeds separating lines. This has now been corrected to "Windows" format, with carriage-return line-feed sequences. Most file-handling software is impervious to the difference, but some is not. We apologize for any unprintable cards that may have been generated.

The program can use a different color scheme when displaying the dancers on the computer screen. If the line “color_by_couple” is given in the “[Options]” section of the initialization file, each of the four couples will be displayed in a different color. You can of course turn the colors off completely with the line “no_color”.

The programmable keys have been made more general. The behavior of control-U, to mean “delete the input line”, is now programmable. Also, function key ⟨F8⟩, meaning to

insert the literal text `<anything>`, is programmable. (Note: You almost never need the latter function.)

The programmable key control-V has been added, meaning to delete the last word.

If you have an "[Accelerators]" section in your initialization file, you will need to add the lines

```
cu      deleteline
cv      deleteword
f8      quoteanything
```

to get this behavior. This file "sample3.ini" has been modified to contain these 3 lines. You should copy the new bindings from that file if you have your own initialization file with an "[Accelerators]" section. You can, of course, bind other keys to the `deleteline`, `deleteword`, and `quoteanything` commands.

If you do not have an initialization file, or it does not have an "[Accelerators]" section, you do not need to do anything.

The program recognizes a few more resolves.

New concept: '`leading triangle`'. In this concept, the apex of the triangle steps forward to become the lead of a 2x2 box. As with all calls and concepts, we do not take a position for or against the use of this concept.

The spelling of the concepts '`couples of three`', '`tandems of four`', and so on, were changed to use the digits '`3`' or '`4`' instead of spelling the numbers out. The only places where numbers continue to be spelled out is in words like '`twosome`' or '`threesome`'.

There is a fractionalizable version of '`invert the column`', called '`invert the column (parts)`'. Use this if you want to use concepts like '`sandwich`', '`random`', or '`interrupt`'. If you only need to do some fraction (say 3/4) of an '`invert the column`', just use call '`invert the column 3/4`'. The latter call is better able to handle concepts like '`single`' or '`3x3`'.

The program now expects dancers to work together more closely during '`snag the <anyone>`' or '`<anyone> work <concept>`'. Specifically, it requires that it would have been legal for everyone to begin the call normally. Previously, the two groups of dancers ignored each other so completely that things like '`snag the ends, cross and wheel`' were considered legal in waves—each group of people worked in their own imagined 2-faced lines.

An error in '`roll`' after '`mini chase`' has been fixed.

An error in the definition of '`dixie diamond`', '`dixie sashay`', '`dixie derby`', and '`dixie spin`' was fixed. These calls now have just two parts. The first of those is a '`dixie style to a wave`', which in turn has two parts—'`belles/centers pull by`' and '`left touch 1/4`'.

The interpretation of things like '`initially twice`' or '`random twice`' has been changed again. The "emerging consensus" of the preceding version was a figment of my imagination. '`Initially twice mix`' has two parts. The first of these is '`centers cross run`', done twice. The philosophical point here is that "parts don't subdivide". If a concept effectively goes inside a call, to apply just to a certain part or parts, the overall number of parts is not changed. '`Mix`' is a two part call, even if a concept is applied to one of its parts. This is true even if that concept is '`twice`'.

An obscure bug was fixed in deeply nested (3 or more levels) meta-concepts. It is now possible to call, for example, '`initially initially echo tandem settle back`' or '`finally finally reverse echo busy [hot foot spin]`'.