

# The ePIC Collaboration Database requirements

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# Background

- ePIC needs to keep a reliable record of its members and their (changing) affiliation/institutions, over an extended period of time
- The “Phone Book” moniker implies keeping just the basic contact information such as e-mail addresses, in reality most organizations want/need extra functionality on top of that
- Hence, the “Collaboration DB” and “Phone Book” are often used interchangeably

# Experience

- There is no “industry standard” for such system in HEP/NP
- Functionality of existing solutions varies quite a bit
- Typically each experiment chooses a solution that is already supported at the host lab (e.g. ATLAS, DUNE etc), often tightly coupled to the local expertise and infrastructure
- This is also the case at BNL, where sPHENIX, STAR and EICUG are all using versions of the same Web application (with some tweaks) developed by D.Arhipkin, who is now working for SDCC

# Working assumptions

- For expediency, we will use an adaptation of the existing “Phone Book” application developed by, and supported by SDCC
- From experience we know that the basic functionality i.e. records of membership, contact info and affiliation, search etc are already included in the existing app
- We have been assured that there is a lot of flexibility in how objects are described in the database, meaning that new functionality can be added w/o reformatting the schemas and/or a lot of extra work
- The question of funding for this activity is still open but we are certain to get reminders from SDCC going forward

# The requirements

- Draft Google Doc:  
[https://docs.google.com/document/d/1XZshtxlu3eEdZHESdP\\_zLa6XqtCIE668czDeqUt345E/edit?usp=sharing](https://docs.google.com/document/d/1XZshtxlu3eEdZHESdP_zLa6XqtCIE668czDeqUt345E/edit?usp=sharing)
- With Markus' amendments (mostly general comments):  
[https://docs.google.com/document/d/1\\_LkRxbT1PEcHuIJO7WTY2tPYzJgVnh0UPsk5nsbgHqs/edit?usp=sharing](https://docs.google.com/document/d/1_LkRxbT1PEcHuIJO7WTY2tPYzJgVnh0UPsk5nsbgHqs/edit?usp=sharing)
- The goal of writing this document is to provide concrete requirements to SDCC, and this is a necessary condition for this work to be done
- The original version is shorter which is good IMHO

# What's there and what is not

- The existing “Phone Book” has enough functionality to get us started, e.g. keep track of members’ affiliation with their home institutions
- Export to CSV is implemented in the Web interface
- Other instances of the app (in sPHENIX and EICUG) have the notion of the “IB”, which will need to be translated into the CC in case of ePIC
- Among other new requirements that we put forth, two are on top:
  - Author list support — this does not imply that the application determines that automatically, it will only keep and trace the author list membership vs time; open question – do we want to use the Phone Book for the MGS record keeping? Other memberships/statuses?
  - Working Group membership – this looks like it will require some implementation work

# Customization

- We would like to have the ability to add custom attributes at will (which also covers the previous two examples)
- Having foreign keys added to the DB would greatly expand its usefulness
- We are told that this can be done with modest effort

# CLI and data export

- The CLI is assumed to exist but documentation is missing
- Can be very useful in automation of certain tasks, integration etc
- Data extraction from the DB can happen either in the Web UI or CLI, example
  - create a CSV file with membership list according to some criteria
- How important is it? The CLI is currently in the requirements, should we keep it there?



# “Nice to have”

- Would be nice to be able to upload, organically, predefined information into the Phone Book app, cf. bulk refresh of the author list etc
- Can be very useful in automation of certain tasks, integration etc
- Data import can happen either in the Web UI or CLI
- Perhaps should reserve this for a later update request
- True, proper deletion from the DB is currently impossible, all you can do is to declare a member “inactive”. This is a problem when a clerical error happens.

# Definitive data

- Do we want to rely on the Phone Book as the definitive record of “everything”, or do we keep an external, managed set of files to reconcile the Phone Book with?
- The latter, while seems redundant, would be a great tool for possible future migration to a different platform, disaster recovery etc, and provides ways to check the data for consistency (e.g. by checking against the CSV files)
- As a strawman example, we could keep appropriately formatted files on GitHub, for members and institutions, possibly in a private repo, and check the live version of the Phone Book against this definitive data
- This would certainly provide a convenient starting point to populate the DB

# auth/auth (not addressed in the requirements)

- Currently the existing Phone Books are 100% public, and admin access is protected by a PIN (local to the system, no SSO etc)
- Do we want the ePIC Phone Book to be public?
- Access auth/auth for admins etc. Is this the BNL SSO, Comanage, what is it?

# Summary

- Perhaps the best strategy is to start with basic requirements, and then create an iteration in a few months
- This would also mitigate the uncertainty in the available effort for this project